

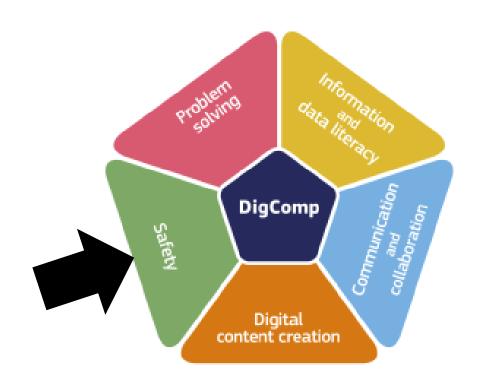
MICROCREDENTIALS FOR SAFETY COMPETENCE 4.1:
PROTECTING DEVICES





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# FOUNDATION LEVEL (Level 1 and Level 2)



Identification of the learner	Any Citizen
Title and code of the micro-credential	Essentials of Digital Security Code: MC 4.1.A.1
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	FOUNDATION
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs 4.1.1 and 4.1.3):

#### Secure Digital Practice

- Recognize the importance of using unique passwords for different online accounts to enhance security.
- Identify common signs of phishing attempts and learn how to avoid falling victim to such scams.

#### Description

The "Essentials of Digital Security" Micro Credential is an initial program meticulously designed to provide learners with an in-depth understanding and practical skills in digital security. Endorsed by cybersecurity professionals worldwide, this course is committed to teaching essential measures for preserving the integrity of one's digital identity and assets, from unique password use to phishing detection and avoidance.

The program begins with an emphasis on password security, a critical yet often overlooked component of digital security. Learners will grasp the essence of creating strong, unique passwords for each of their online accounts, which reduces the risk of multiple accounts being compromised if one is breached. The course offers hands-on exercises to design passwords that balance memorability and complexity, leveraging best practices such as the use of password managers and multi-factor authentication for an extra layer of security.

From password security, the course transitions into the realm of phishing detection and evasion. The learners are introduced to the concept of phishing — deceptive attempts to obtain sensitive information by pretending to be a trustworthy entity. They are taught to identify common phishing tactics, such as fraudulent emails, messages, or websites. The course provides a safe, simulated environment where learners can practice recognizing and responding to phishing attempts, thus reinforcing their learning experience.

Moreover, the course covers additional aspects of digital security, including understanding the risks of unsecured networks, importance of regularly updating software to patch security vulnerabilities, and the use of encryption to secure data transmission. It also emphasizes safe browsing habits, like verifying the security certificates of websites and avoiding downloads from unverified sources.

The program culminates with real-world scenarios where learners can apply the concepts they've learned, providing a practical measure of their comprehension and readiness. The assessments are designed to emulate the digital threats that learners may encounter in their daily lives, helping them understand how to react appropriately and safeguard their digital security.

On successful completion, learners are awarded the "Essentials of Digital Security" Micro Credential, a recognition of their competence in protecting their digital identity and assets. Whether you're a professional looking to bolster your digital security skills or an individual wishing to enhance your personal online safety, this program provides a fundamental knowledge base and set of tools for bolstering digital security.

This Micro Credential aligns with the EU's commitment to strengthening citizens' digital skills and awareness of online safety and is endorsed as a compact, specific, and meaningful learning achievement demonstrating mastery in essential aspects of digital security.

#### Questions

#### Unique Passwords for Online Accounts

- 1. Explain the potential consequences of using the same password for multiple online accounts.
- 2. How does using unique passwords for each account enhance security?
- 3. What are some best practices for creating a strong, unique password?
- 4. Discuss the role of password managers in maintaining unique passwords. Are they effective?

#### Vigilance and Awareness of Surroundings

- 5. Describe a situation where lack of awareness of your surroundings could compromise your personal safety or the security of your digital devices.
- 6. How could vigilant behavior have prevented this?
- 7. Can you explain some strategies to increase situational awareness, particularly in public spaces?
- 8. What technologies are available to help maintain awareness and personal safety?

#### **Phishing Attempts and Scams**

- 9. Describe three common indicators of a phishing attempt.
- 10. Explain how to respond if you suspect you have received a phishing message or email.
- 11. What steps should you take if you've fallen victim to a phishing attack?
- 12. Discuss the role of two-factor authentication (2FA) in protecting against phishing.

#### **General Security Measures**

13. How can general education on cyber security best practices enhance both personal and collective digital safety?

# Basic Cybersecurity and Personal Safety Awareness (MC 4.1.A.2)

Identification of the learner	Any Citizen	
Title and code of the micro-credential	Basic Cybersecurity and Personal Safety Awareness Code: MC 4.1.A.2	
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA http://dsw.projectsgallery.eu	
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>	
Date of issuing	Nov 2023	
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs	
Level of the learning experience leading to the micro-credential	FOUNDATION	
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%	
Form of participation in the learning activity	Online Asynchronous	
Type of quality assurance used to underpin the micro-credential	Peer Review	

Learning Outcomes (ref. LOs 4.1.2 and 4.1.4):

#### Digital Vigilance

1. Recognize suspicious emails, messages, or websites that might try to deceive you into revealing personal information or login credentials.

#### **Environmental Awareness**

2. Foster an attitude of vigilance and awareness of your surroundings.

#### Description

The "Basic Cybersecurity and Personal Safety Awareness" Micro Credential is an innovative program that integrates digital security training with personal safety awareness. This distinctive course, designed by cybersecurity experts and personal safety advocates, aims to imbue learners with a comprehensive understanding of both digital threats and real-world security issues.

In the cybersecurity realm, the program provides a comprehensive introduction to the landscape of digital threats. The course helps learners to discern potential cyber threats such as suspicious emails, deceptive messages, and malicious websites. Participants will explore different types of malware, phishing scams, and social engineering attacks, learning to identify telltale signs of such threats and how to react appropriately. The program also delves into safe browsing habits, secure communication practices, and responsible use of social media and online platforms, equipping learners with the necessary knowledge to navigate the digital world securely.

On the personal safety front, the course fosters an acute sense of awareness of one's surroundings. This involves training in situational awareness techniques that are crucial for personal security in various environments, whether it's in public spaces, at work, or even at home. The course offers practical advice on how to identify and avoid potentially dangerous situations, as well as techniques to de-escalate situations and protect oneself when faced with a threat. The program underlines the connection between digital security and personal safety, demonstrating how improving online habits can reduce real-world vulnerabilities.

The final part of the program includes a series of practical exercises and real-world scenarios where learners can apply their newfound cybersecurity and personal safety knowledge. These assessments, carefully designed to mimic real-world situations, provide learners with a hands-on opportunity to test their skills and reinforce their learning.

Upon successful completion of the course, learners will earn the "Cybersecurity and Personal Safety Awareness" Micro Credential. This accomplishment signifies their proficiency in identifying and mitigating potential digital threats, as well as their enhanced understanding of personal safety principles and practices.

The "Basic Cybersecurity and Personal Safety Awareness" Micro Credential program adopts a learner-centric approach, adjusting the pace of the course to suit the needs of each learner and ensuring that everyone, regardless of their level of technical expertise, can follow along and extract maximum value from the course.

In the cybersecurity segment of the course, the program provides a deep dive into various kinds of online

threats. For instance, learners get an in-depth understanding of malware – its forms, how it operates, and the potential damage it can inflict. They also learn about phishing attacks, which trick users into revealing sensitive information, and how to detect and avoid falling for such scams. The course also familiarizes learners with the concept of social engineering attacks, which exploit human psychology to gain unauthorized access to data or systems. The course places a particular emphasis on practical knowledge and adopts a hands-on approach, with learners practicing their skills in simulated environments.

In parallel with the cybersecurity training, the program provides learners with vital personal safety training. This includes situational awareness – being conscious of one's environment and identifying potential threats. The course presents various real-life scenarios to help learners understand potential dangers and how to avoid or handle such situations. There's an emphasis on fostering a general attitude of vigilance and taking proactive steps to ensure personal safety.

The course is punctuated with assessments to ensure learners understand and can apply the concepts they've learned. These assessments mimic real-world situations, helping to prepare learners for the kind of threats they may face in their day-to-day lives, both online and offline.

Beyond equipping learners with critical cybersecurity and personal safety skills, the program also seeks to instill a culture of continuous learning. The digital threat landscape is ever-evolving, and new personal safety challenges emerge regularly. As such, the course encourages learners to stay updated on the latest developments in both fields, ensuring their skills remain relevant in the face of new threats.

In other words, the "Cybersecurity and Personal Safety Awareness" Micro Credential is not just about theoretical knowledge; it's about instilling a mindset of vigilance, both online and offline. It caters to anyone who wishes to improve their digital security stance and personal safety awareness, including professionals, students, and everyday Internet users.

In conclusion, the "Basic Cybersecurity and Personal Safety Awareness" Micro Credential program is a holistic learning journey that empowers learners with essential skills for navigating the modern, interconnected world. Whether you're a cybersecurity professional looking to enhance your personal safety skills, or an individual looking to bolster your understanding of digital threats and personal safety, this program provides the knowledge and tools necessary to improve your security posture both online and offline.

This Micro Credential aligns with the European Union's commitment to strengthening digital competencies and promoting personal safety among its citizens. It provides a certified testament of the learner's initial mastery in these vital areas of safety and security.

#### Questions

#### Digital Vigilance

- 1. What are three common characteristics of a suspicious email or message that may be attempting to deceive you into revealing personal information or login credentials? How would you handle such a situation?
- 2. What are some additional red flags to look for in potentially fraudulent messages or websites?
- 3. Describe the role of firewalls and antivirus software in enhancing digital vigilance.
- 4. How important is it to update your software regularly for maintaining digital security?
- 5. Explain how multi-factor authentication can serve as an added layer of protection against unauthorized access to your accounts.

#### **Environmental Awareness**

- 6. Describe a situation where being aware of your surroundings could potentially prevent a security breach or personal safety risk.
- 7. What steps can be taken to improve environmental awareness?
- 8. How do perceive security issues in order to contribute to a safer environment?
- 9. In the absence of technology, what basic practices can you follow to ensure you are aware of your surroundings?
- 10. What are some environmental cues that may indicate a potential safety risk?

#### Combination of Both

- 11. Imagine you receive an email on your phone while at a busy coffee shop, asking you to immediately validate your login credentials for your bank account. What actions would you take in this scenario, considering both digital vigilance and environmental awareness?
- 12. How would your response differ if you received the same suspicious email while in a private setting?
- 13. What are some of the potential risks of accessing personal accounts over public Wi-Fi? How can these risks be mitigated?

#### **General Questions**

- 14. How can organizations play a role in educating individuals about both digital vigilance and environmental awareness?
- 15. What are the benefits of combining digital vigilance and environmental awareness in a comprehensive security strategy?

# Digital Security and Privacy Essentials (MC 4.1.A.3)

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Identification of the learner	Any Citizen
Title of the micro-credential	Digital Security and Privacy Essentials Code: MC 4.1.A.3
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	FOUNDATION
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.5, 4.1.6 and 4.1.7): Device Security

1. Apply the skill of securing your device when it's unattended.

#### **Network Security**

2. Describe the significance of securing your home network with strong passwords and encryption protocols.

#### Public Wi-Fi Safety

3. Identify the risks associated with using public Wi-Fi networks.

#### Description

The "Digital Security and Privacy Essential" Micro Credential is an intensively designed program endorsed by the European Commission, targeted at empowering learners with a holistic understanding of digital security measures and privacy principles. This comprehensive program is structured around three primary pillars of digital security and privacy - physical device security, home network safety, and secure usage of public Wi-Fi networks.

The journey of this micro credential begins with a focus on physical device security. A blend of theory and practice, this segment enables learners to master the skills necessary to secure unattended devices, and to familiarize themselves with an array of locking mechanisms, biometric systems, and other device-specific security features. It highlights that the foundation of device security is largely rooted in practical precautions and practices, which can effectively thwart unauthorized physical access.

The course subsequently steers learners towards the realm of home network security. In this section, learners navigate the intricate aspects of setting up and managing a secure home network. The learners delve into concepts such as the implementation of robust, unique passwords and the usage of cutting-edge encryption protocols. This module offers learners a practical, hands-on experience, equipping them with invaluable knowledge that they can apply to secure their home networks in their everyday lives.

The third cornerstone of the course is centered around the potential security risks posed by public Wi-Fi networks. Despite their wide-spread usage and convenience, public Wi-Fi networks present significant security challenges. In this module, learners will gain insights into these risks and understand how data can be intercepted or manipulated when using such networks. To equip learners with defenses against these potential threats, they are guided through various strategies for safe usage, including the utilization of VPNs (Virtual Private Networks), the verification of network authenticity, and the avoidance of sensitive activities while connected to public Wi-Fi.

The final stage of the program offers learners the opportunity to put their skills to the test in practical, real-world scenarios. They are assessed based on their ability to apply the knowledge and skills acquired to effectively secure digital devices and networks, providing them with a concrete measure of their learning and progress.

Upon the successful completion of the program, learners are conferred with the "Digital Security and Privacy Essential" Micro Credential. This prestigious recognition serves as a testament to their comprehensive understanding of digital security and privacy, and their ability to deploy this knowledge to secure their digital landscape.

In conclusion, the "Digital Security and Privacy Essential" Micro Credential goes beyond mere theoretical knowledge. It equips learners with practical, applicable skills in digital security and privacy. It caters to a wide audience, ranging from professionals looking to augment their understanding of digital security to everyday users aiming to bolster the security of their digital environment. This Micro Credential is in line with the European Union's initiatives to enhance digital literacy and security among its citizens, providing a validated achievement that testifies to a competence in digital security and privacy.

#### Questions

#### **Device Security:**

1. Imagine you need to leave your laptop unattended in a public library for a few minutes. What steps would you take to secure your device during this time?

#### **Network Security:**

2. Explain why it's important to secure your home network with strong passwords and encryption protocols. Can you outline the process of setting up such security measures on a home router?

#### Public Wi-Fi Safety:

3. What are some potential risks of using public Wi-Fi networks, and how can you mitigate these risks to safely use these networks?

#### A combination of all:

4. Suppose you're working from a coffee shop using their public Wi-Fi network. Discuss the steps you would take to ensure both your device and data security in this scenario.

# Digital Privacy and Cybersecurity Management (MC 4.1.A.4)

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Identification of the learner	Any Citizen
Title and code of the micro-credential	Digital Privacy and Cybersecurity Management Code: MC 4.1.A.4
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	FOUNDATION
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs 4.1.8, 4.1.9 and 4.1.10):

#### **Privacy Settings**

1. Describe how reviewing and adjusting privacy settings can help control the information shared on devices and online accounts.

#### Cybersecurity Awareness

2. Enumerate the potential threats posed by digital risks and the importance of staying informed about cybersecurity best practices.

#### **Device Loss Management**

3. Outline the steps to take if a device is lost or stolen to safeguard personal data and privacy.

#### Description

The "Digital Privacy and Cybersecurity Management" Micro Credential is an intensive, multifaceted program. It is designed to cultivate advanced proficiency in preserving digital privacy and combatting the full range of cybersecurity threats. This European Commission-recognized course maps out a comprehensive curriculum in four critical areas: device and online account privacy settings mastery, potential digital threats comprehension, staying updated on cybersecurity best practices, and devising strategies to safeguard personal data and privacy in cases of device loss or theft.

The course kicks off with an exploration of privacy settings, providing learners with an exhaustive understanding of how these settings can be fine-tuned on devices and online accounts to suit their needs. By exploring real-world scenarios, learners will gain hands-on experience in managing these settings, emphasizing the need for periodic review and alteration to effectively deter unauthorized data access and enhance privacy protection.

From there, the course takes a deep dive into the world of digital threats. This section exposes learners to a wide variety of cybersecurity risks — from phishing schemes to sophisticated malware attacks to increasingly prevalent social engineering tactics. The objective is not only to recognize these threats but to understand their mechanics and devise effective countermeasures. Case studies of significant historical cybersecurity breaches provide contextual understanding and offer valuable lessons in threat mitigation.

The third module focuses on keeping learners up to speed with the latest in cybersecurity best practices. Recognizing the rapidly evolving nature of the digital landscape, this segment arms learners with the most current, effective strategies to minimize digital vulnerability. They'll not only learn about these practices but also understand how and when to implement them effectively, ensuring their digital environments remain secure.

The final portion of the course addresses the strategies to maintain personal data security and privacy during instances of device loss or theft. Providing a practical guide to using features like device tracking, remote locking, and data erasure, learners will be equipped to respond swiftly and effectively when faced with such situations.

Upon course completion, learners are subject to a comprehensive evaluation designed to test their understanding of the material covered and their ability to apply this knowledge in practical, real-world

situations. Successful completion of this evaluation rewards learners with a recognized Micro Credential, validating their newly acquired expertise in digital privacy and cybersecurity management in line with European Commission standards.

In essence, the "Digital Privacy and Cybersecurity Management" Micro Credential delivers a holistic education in digital privacy and security. With its blend of theoretical knowledge and hands-on applications, the course is suited for a diverse range of learners — professionals, students, and everyday digital device users. Its ultimate goal is to empower participants with the tools and knowledge necessary to navigate the digital world confidently and securely. This aligns with the European Union's commitment to fostering digital literacy and skills among its citizens, offering learners a certified achievement that validates their proficiency in digital privacy and cybersecurity management.

#### Questions

#### **Privacy Settings:**

1. Can you discuss the importance of regularly reviewing and adjusting privacy settings on devices and online accounts? Please provide examples of the types of information you can control through these settings.

#### Cybersecurity Awareness:

2. What are some common digital threats one might encounter? How can staying informed about cybersecurity best practices help mitigate these threats?

#### **Device Loss Management:**

3. In case of a lost or stolen device, what steps should you take to ensure your personal data and privacy are protected? Please outline the process for both an Android and iOS device.

#### A combination of all:

4. Imagine you've lost your smartphone, which contains several social media and email accounts. Describe how your prior understanding of privacy settings and cybersecurity best practices can assist you in this situation, and what immediate actions you would take to protect your data and privacy.

# Principles of Secure Device Use and Digital Collaboration (MC 4.1.A.5)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Digital Privacy and Cybersecurity Management Code: MC 4.1.A.5
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	FOUNDATION
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro- credential	Peer Review

Learning Outcomes (ref. LOs 4.1.11, 4.1.12 and 4.1.13):

#### **Network Services Management**

1. Recognize the importance of turning off unnecessary network services and background programs on your devices to reduce potential attack surfaces.

#### **Physical Device Security**

2. Be mindful of physical device security, especially in public places, to prevent theft and unauthorized access.

#### Safe Digital Collaboration

3. Apply safe screen sharing practices during virtual meetings or remote collaborations to protect sensitive information from unauthorized access or exposure.

#### Description

The "Principles of Secure Device Use and Digital Collaboration" Micro Credential is an in-depth course designed to empower learners with key skills for maintaining secure device usage and promoting safety during digital collaboration. The course tackles the crucial topics of managing network services on devices, ensuring physical device security, especially in public settings, and employing safe practices during screen sharing and virtual collaboration to prevent unauthorized access to sensitive information.

The course begins by addressing the critical aspect of managing network services on devices. Learners will delve into the importance of turning off unnecessary network services and background programs on their devices. These measures reduce potential attack surfaces and enhance the overall security of the devices. In this module, learners will gain insight into how network services function and why minimizing them is integral to maintaining a secure device.

Next, the course shifts focus to physical device security. This module recognizes that despite the predominance of digital threats, physical security remains an essential component of overall device safety. Here, learners will explore strategies to keep devices safe in public places, understanding that preventing theft and unauthorized physical access is as important as protecting against virtual intrusions.

The final part of the course concentrates on safe digital collaboration. As remote work and virtual collaborations become increasingly common, understanding how to protect sensitive information during these interactions is crucial. Learners will gain skills to apply safe screen sharing practices during virtual meetings or remote collaborations. They will understand how to ensure that only the necessary information is displayed, and how to prevent unauthorized access or exposure of sensitive data.

Interspersed with practical exercises and scenario-based learning, this course ensures that the skills taught are relevant and applicable in real-world settings. Participants will get the opportunity to work through hypothetical situations that reinforce the lessons and solidify their understanding.

The Micro Credential concludes with an assessment to certify learners' comprehension of the course content. Successful learners will gain a Micro Credential that attests to their proficiency in secure device usage and safe digital collaboration, a certification recognized in line with the European Commission's standards.

Overall, the "Principles of Secure Device Use and Digital Collaboration" Micro Credential offers a comprehensive, practical, and actionable set of skills that equip learners to navigate the digital landscape confidently and securely. It is an invaluable resource for remote workers, digital nomads, students, and anyone who frequently collaborates or communicates digitally.

In line with the European Union's initiatives to enhance digital literacy and security among its citizens, this Micro Credential provides a validated proof of learners' proficiency in securely using their devices and participating in digital collaboration with an emphasis on privacy and security.

#### Questions

#### For Network Services Management:

1. Why is it important to turn off unnecessary network services and background programs on your devices? How does this practice contribute to reducing potential attack surfaces?

#### For Physical Device Security:

2. Describe some best practices for ensuring physical security of your devices, particularly in public places. What steps would you take to prevent unauthorized access or theft?

#### For Safe Digital Collaboration:

3. What are some of the best practices for ensuring data privacy and security during screen sharing in virtual meetings or remote collaborations?

#### For a combination of all:

4. Suppose you are working in a public place and have to participate in a virtual meeting where you need to share your screen. Describe the steps you would take to secure your device, manage network services, and ensure safe digital collaboration.

## Online Privacy and Child Safety in the Digital World (MC 4.1.A.6)

Identification of the learner	Any Citizen	
Title and code of the micro-credential	Online Privacy and Child Safety in the Digital World Code: MC 4.1.A.6	
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>	
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>	
Date of issuing	Nov 2023	
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs	
Level of the learning experience leading to the micro-credential	FOUNDATION	
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%	
Form of participation in the learning activity	Online Asynchronous	
Type of quality assurance used to underpin the micro-credential	Peer Review	

Learning Outcomes (ref. LOs 4.1.14 and 4.1.15):

#### Social Media Privacy

1. Know the importance of regularly reviewing and removing your personal information stored in social media databases to protect your digital content's privacy.

#### Child Online Safety

2. Implement parental controls and filtering software to protect children from inappropriate content and online risks.

#### Description

The "Online Privacy and Child Safety in the Digital World" Micro Credential is a specialized program that addresses two pivotal aspects of digital safety - maintaining online privacy and safeguarding children from digital threats. This program encourages responsible digital citizenship by emphasizing the need to effectively manage personal information on social media, and the use of parental controls and filtering software to create a safer online environment for children.

Starting with a deep dive into online privacy, the first module addresses the crucial aspect of managing personal information on social media. Participants will gain a robust understanding of privacy settings on different social media platforms and how to optimize them to safeguard their personal information. They will learn the importance of regularly reviewing and removing personal information stored in social media databases, and how these measures protect their digital content's privacy.

The course then transitions to the topic of child safety in the digital world. Recognizing the proliferation of digital technology in children's lives, the module explores the potential threats children may face online and how adults can mitigate these threats. It provides comprehensive instruction on implementing parental controls and filtering software, offering participants practical strategies to shield children from inappropriate content and online risks.

The course blends theoretical instruction with practical exercises, ensuring participants not only understand the concepts but can also apply them effectively. Real-world case studies and scenario-based activities will provide an immersive learning experience, enabling learners to better contextualize their learning.

The program concludes with an assessment that validates learners' understanding of the course material, resulting in a Micro Credential upon successful completion. This achievement can be shared with employers or professional networks, providing evidence of the learner's competency in managing online privacy and implementing measures to ensure child safety online.

The "Online Privacy and Child Safety in the Digital World" Micro Credential aligns with the European Commission's prime objectives of promoting digital literacy and safe internet usage. It serves as a valuable resource for parents, educators, and anyone interested in creating a safer online environment for themselves and children, a critical need in our increasingly digital world.

This Micro Credential is consistent with the European Union's commitment to strengthening digital competencies and promoting online safety among its citizens, particularly concerning privacy and child protection. It provides learners with a certified competence of their understanding and proficiency in online privacy management and child online safety.

#### Questions

#### For Social Media Privacy:

- 1. Explain why it is important to regularly review and remove personal information stored in social media databases. How does this practice protect your digital content's privacy?
- 2. What are some of the steps you would take to protect your privacy on social media platforms? Please provide specific examples related to privacy settings and the removal of personal information.

#### For Child Online Safety:

- 3. Discuss the role of parental controls and filtering software in protecting children from inappropriate content and online risks. Can you provide an example of a situation where these tools would be useful?
- 4. How would you approach setting up parental controls on a device that will be used by a child? What factors would you consider?

#### For a combination of both:

5. Imagine you are setting up a social media account for a child under your supervision. How would you ensure that the child's privacy is protected and that they are shielded from inappropriate content and online risks?

# Digital Behavior and Device Security (MC 4.1.A.7)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Digital Behavior and Device Security  Code: MC 4.1.A.7
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA http://dsw.projectsgallery.eu
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	FOUNDATION
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.16 and 4.1.17):

#### **Secure Downloading Practices**

1. Understand the risks associated with downloading programs or apps from unofficial or third-party sources.

#### **Device Integrity**

2. Avoid using jailbroken or rooted devices, as these methods can bypass security measures and compromise the safety of your data.

#### Description

The "Safe Digital Behavior and Device Security" Micro Credential is a comprehensive program intended to educate learners about potential cyber threats and how to navigate the digital landscape safely. The course emphasizes the risks involved in downloading software from unofficial sources and the security implications of using jailbroken or rooted devices. It offers practical guidelines on adopting safe digital behaviors and securing devices, addressing key aspects of cybersecurity in today's technologically driven world.

The program begins by educating learners about the dangers associated with downloading software or apps from unofficial or third-party sources. This segment provides insight into how unofficial sources can often host malware, spyware, or other harmful programs disguised as legitimate software. Participants will learn how to identify safe sources for downloads and the importance of keeping their software updated through official channels.

The next segment of the course focuses on the potential security risks of jailbroken or rooted devices. Learners will delve into how these methods, while granting users greater control over their devices, can bypass security measures and potentially expose them to malicious software. The segment emphasizes the importance of understanding the trade-off between the enhanced control and the increased security risks that come with jailbreaking or rooting devices.

In addition to these key topics, the course also offers an overview of general safe digital behavior. Participants will be educated on safe browsing habits, password security, recognizing phishing attempts, and maintaining device security. This section will also highlight the importance of being mindful of physical device security, especially in public places, to prevent theft and unauthorized access.

The course culminates with practical exercises designed to put the learned theory into action, enabling learners to apply their new knowledge in real-world contexts. Participants will have the opportunity to engage in interactive tasks that simulate common cyber threats, and they'll learn how to respond to these situations effectively.

Upon completion of this Micro Credential, learners will be equipped with a robust understanding of safe digital behavior and device security. They will be able to make informed decisions about downloading software, managing their devices, and navigating the digital world securely. This course aligns with the European Union's focus on promoting digital literacy and internet safety, making it a valuable resource for individuals and professionals alike in the digital age.

In accordance with the European Union's commitment to promoting digital literacy and security, this Micro Credential provides a certified achievement that verifies a learner's understanding and mastery in safe digital behavior and device security.

#### Questions

#### For Secure Downloading Practices:

- 1. What is the main danger of downloading software or apps from unofficial or third-party sources?
- 2. How can unofficial sources disguise harmful programs?
- 3. What skills are needed regarding the identification of safe download sources?
- 4. Why is it important to keep software updated through official channels?
- 5. Can you list any specific types of harmful programs that might be hosted on unofficial sources?

#### For Device Integrity:

- 6. What are the potential security risks associated with jailbreaking or rooting devices?
- 7. How do jailbreaking and rooting provide users with greater control over their devices?
- 8. In what ways can jailbreaking or rooting bypass security measures?
- 9. What type of malicious software could users potentially be exposed to by jailbreaking or rooting their devices?
- 10. Why is it important for users to understand the trade-off between enhanced control and increased security risks when considering jailbreaking or rooting their devices?

#### For the combination of both

- 11. What are the key components of safe digital behavior?
- 12. How does the program suggest maintaining password security?
- 13. What tips does the program provide for recognizing phishing attempts?
- 14. Besides digital precautions, what does the program emphasize about physical device security?
- 15. Why is it particularly important to be mindful of device security in public places?

# Secure Device Management and Data Protection (MC 4.1.A.8)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Secure Device Management and Data Protection  Code: MC 4.1.A.8
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	FOUNDATION
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs 4.1.18, 4.1.19 and 4.1.20):

#### **Device Disposal**

1. Know the importance of securely erasing and disposing of old devices to prevent your data from being recovered by others.

#### **Data Encryption**

2. Use encryption to protect sensitive data on your devices, especially for data stored on mobile devices and removable mass storage.

#### **Data Breach Awareness**

3. Understand the risks associated with transmitting or storing personal information on devices and the potential for data breaches.

#### Description

The "Secure Device Management and Data Protection" Micro Credential is an immersive program that guides learners through the key concepts and practical applications of securely managing digital devices and safeguarding sensitive data. It covers an array of critical topics such as understanding the importance of securely disposing of old devices, applying encryption to protect sensitive data, and becoming aware of the potential risks of data breaches when transmitting or storing personal information on devices.

The course begins by exploring the concept of device management. It provides in- depth coverage of best practices for securely erasing and disposing of old devices to prevent sensitive data from being recovered by unauthorized individuals.

Learners will understand how to effectively remove data from devices, both manually and using various software tools. They'll also learn about secure disposal methods, like device recycling and destruction programs, to ensure old devices don't become a security risk.

The second module delves into the realm of data protection. The principles and application of encryption to protect sensitive data on devices, particularly mobile devices and removable mass storage, are extensively discussed. Learners will gain an understanding of various encryption methods, how to apply them, and their importance in a layered security approach.

Lastly, the course addresses the risks of data breaches when storing and transmitting personal information on devices. Participants will be exposed to real- world scenarios of data breaches, their causes, and consequences. They will learn about methods to prevent data breaches, such as secure communication protocols, secure storage solutions, and best practices for sharing personal information. This module will also touch upon legal and ethical considerations related to data breaches.

This Micro Credential uses an interactive learning approach, combining theory with practical exercises. Learners will have the opportunity to engage with the material through hands-on activities, quizzes, and case studies. By

the end of this course, participants will have the knowledge and skills to manage their devices securely and implement robust data protection measures.

In alignment with the European Union's focus on digital literacy and security, the "Secure Device Management and Data Protection" Micro Credential offers valuable insights and skills for anyone concerned about their digital security in today's connected world. It empowers learners to confidently manage their devices and protect their sensitive data from potential threats, which is increasingly important in our digital age.

#### Questions

#### For Device Disposal:

- 1. Why is it crucial to securely erase and dispose of old devices? Explain what could happen if this step is neglected.
- 2. Describe the steps you would take to securely erase and dispose of an old laptop. What precautions would you take to ensure that no data can be recovered?"

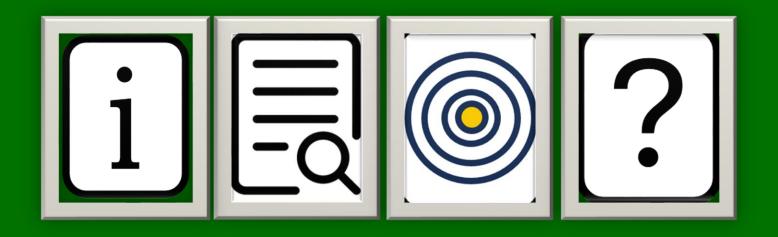
#### For Data Encryption:

- 3. Explain how encryption can protect sensitive data on your devices. Give examples of situations where this could be particularly useful.
- 4. Discuss the steps to encrypt data on a mobile device or removable mass storage. Why is it important to encrypt data stored in such devices?

#### For Data Breach Awareness:

- 5. What are the risks associated with transmitting or storing personal information on devices? How can such practices lead to potential data breaches?
- 6. Describe a scenario in which a data breach could occur due to insecure data transmission or storage. What measures could be taken to prevent such a scenario?

# INTERMEDIATE LEVEL (Level 3 and Level 4)



# Cybersecurity Best Practices (MC 4.1.B.1)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Cybersecurity Best Practices Code: MC 4.1.B.1
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	INTERMEDIATE
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro- credential	Peer Review

Learning Outcomes (ref. LOs LOs 4.1.21, 4.1.22):

Safe Browsing and Download Practices

 Cautiously handle suspicious links and avoid downloading files from unknown sources to protect your devices from potential malware threats.

#### Data Backup and Protection

Indicate the importance of regularly backing up data to protect against data loss and device failures.

#### Description

The "Cybersecurity Best Practices" Micro Credential is a comprehensive program specifically designed to empower learners with crucial knowledge and skills necessary for safeguarding digital information and devices against a vast array of threats. This program delves into understanding and implementing safe browsing and downloading practices to mitigate malware threats. Moreover, it underscores the significance of regular data backups as a potent strategy to shield against potential data loss or device failures.

The first segment of this course aims to equip learners with a profound understanding of safe browsing practices. It dissects the anatomy of cyber threats such as phishing, malware, and ransomware, imparting the ability to identify and mitigate them. Participants will be walked through safe browsing practices, including the use of HTTPS, verification of site certificates, and the implications of cookies and tracking. They will also learn how to handle suspicious links and avoid downloading files from unknown sources to prevent potential malware threats.

The second module dives deep into safe downloading practices. Learners will explore the risks associated with downloading programs, files, or apps from unofficial or third-party sources. They will learn how to ascertain the safety of a source and the importance of using official platforms for downloads. The module also covers the potential risks of opening compressed files like zip or rar archives from untrusted or unknown sources.

The final module focuses on the importance of data backups. Participants will be introduced to various data backup techniques and understand the role of regular data backups in cybersecurity. This module also delves into creating backup schedules, choosing between cloud-based or physical backup solutions, and encrypting backups for an additional layer of security.

This course also includes hands-on activities and real-world scenarios, fostering the practical application of learned skills. Regular quizzes and assessments will gauge the progress of the participants, ensuring they have mastered each topic before moving forward.

On completing this Micro Credential, learners will have a robust grasp of the principles and practices of cybersecurity. They will be equipped to navigate the digital landscape confidently, keeping their data secure and devices safe. This aligns well with the European Union's focus on cybersecurity and digital literacy, making it a highly valuable course for individuals and professionals alike in today's increasingly digital world.

Aligned with the European Union's focus on enhancing digital literacy and security, this Micro Credential provides a certified testament of a learner's proficiency in key aspects of cybersecurity best practices.

#### Questions

For Safe Browsing and Download Practices:

- 1. Why is it important to be cautious when clicking on links or downloading files from the internet? What risks could you potentially encounter if you aren't cautious?
- 2. Imagine you receive an email with a link from an unknown sender. What steps would you take before deciding whether to click on the link?
- 3. Describe the risks associated with downloading files from unknown sources. How can these risks be mitigated?

For Data Backup and Protection:

- 4. Why is it important to regularly back up your data? How does this practice protect against data loss and device failures?
- 5. Outline the steps you would take to back up data on your computer. How frequently would you recommend this process to be done?

# Device Loss Management and Data Protection (MC 4.1.B.2)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Device Loss Management and Data Protection Code: MC 4.1.B.2
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	INTERMEDIATE
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs LOs 4.1.23, 4.1.24):

#### **Device Loss Awareness**

 Know that lost or stolen devices can be tracked, locked, or erased using free Web-based tools available on most devices.

#### **Practical Device Loss Management**

• Skillfully utilize tracking, locking, and erasing features to protect your data and privacy if your device is lost or stolen.

#### Description

The "Device Loss Management and Data Protection" Micro Credential is an intensive, practical course intended to arm learners with the requisite knowledge and skills to efficiently manage and safeguard their devices and data in instances of device loss or theft. This involves a thorough understanding of how to track, lock, and erase lost or stolen devices using web-based tools, and effectively applying these features to protect personal data and ensure privacy.

The first module of the course is dedicated to educating participants about the measures to be taken when a device is lost or stolen. Participants will learn how to track missing devices using built-in or third-party tracking tools. They will also explore how to remotely lock their devices, making them inaccessible to unauthorized users. The ability to remotely erase all data on the device will also be covered, preventing sensitive personal data from falling into the wrong hands.

Practical demonstrations will provide participants with a hands-on understanding of these procedures.

The second module focuses on proactive steps for data protection. Participants will be taught how to regularly backup data, minimizing data loss in the event of device theft or failure. They will explore various backup methods and solutions, including cloud-based backups and physical storage options. The importance of encryption for protecting sensitive data will also be emphasized, and participants will learn how to implement encryption on their devices and for their backups.

Additional topics covered in the course include setting up and managing device insurance, understanding the legal aspects of device theft, and how to report a lost or stolen device to authorities and service providers. The course will also cover the importance of securing devices with strong passwords, biometric data, or other security measures to delay or prevent unauthorized access if a device is lost or stolen.

By the end of this Micro Credential, learners will possess a comprehensive understanding of how to manage the loss or theft of a device and protect their data effectively, ensuring their digital security and privacy remain intact even in adverse situations. This knowledge aligns with the European Union's commitment to digital literacy and security, providing participants with an essential skill set for the digital age.

Consistent with the European Union's commitment to promoting digital literacy and security, this Micro Credential provides learners with a certified proof of their proficiency in managing device loss and protecting data.

#### Questions

#### For Device Loss Awareness:

- 1. "Describe the importance of knowing that lost or stolen devices can be tracked, locked, or erased using free Web-based tools. How does this knowledge empower users to protect their data and privacy?"
- 2. "How would you explain the concept of tracking, locking, or erasing a lost or stolen device to someone who is not familiar with these features?"

#### For Practical Device Loss Management:

- 3. "If your smartphone was lost, what steps would you take to track, lock, or erase it using available Webbased tools? How would you prioritize these actions?"
- 4. "Imagine you have remotely locked your lost device. What other steps would you take to protect your data and privacy in such a situation?"

#### For a combination of both:

5. "Suppose your laptop was stolen. How would you apply your knowledge of device loss awareness and practical device loss management to protect your data and privacy in this scenario?"

# Online Privacy and Application Security (MC 4.1.B.3)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Online Privacy and Application Security  Code: MC 4.1.B.3
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	INTERMEDIATE
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro- credential	Peer Review

Learning Outcomes (ref. LOs 4.1.25, 4.1.26):

#### Session Management

 Understand the importance of logging out at the end of your internet or app sessions to protect your personal information from unauthorized access.

#### **App Permissions Management**

• Understand how to manage app permissions to safeguard your privacy and be aware of the data collected by apps on your devices.

#### Description

The "Online Privacy and Application Security" Micro Credential is a comprehensive program, meticulously crafted to impart a robust understanding of online privacy and application security practices. This program emphasizes the importance of effective session management and appropriate handling of application permissions to maintain the confidentiality of personal data and user privacy.

The first module of this course is centred around the critical concept of online privacy. Participants will delve into the various aspects that constitute online privacy, including understanding cookies, tracking technologies, online fingerprinting, and data sharing practices. They will learn how their information is used, stored, and shared online, and the associated privacy risks. This module also focuses on the importance of proper session management, emphasizing the significance of logging out at the end of internet or app sessions to protect personal information from unauthorized access. Participants will gain hands-on experience in managing their online sessions and using privacy-enhancing tools like VPNs, private browsing, and cookie managers.

The second module tackles application security, concentrating on the role of app permissions in maintaining user privacy. Participants will explore how apps access and use personal data through permissions and the potential privacy implications. They will understand how to manage app permissions effectively, providing only the necessary access to maintain functionality without compromising privacy. The module includes practical exercises in managing permissions on a variety of apps and platforms, providing participants with practical skills they can apply in their digital lives.

Additionally, the course includes sessions on emerging online privacy and security trends and potential future developments in this dynamic field. Participants will engage in discussions on topics such as privacy in social media, the role of artificial intelligence in privacy, and the impact of privacy regulations.

Upon completion of this Micro Credential, learners will possess a strong understanding of online privacy and application security practices, along with the ability to implement these principles in their day-to-day digital activities. This aligns with the European Union's commitment to promoting digital literacy and privacy, making it a valuable course for any individual seeking to enhance their online security and privacy.

This Micro Credential aligns with the European Union's commitment to strengthening digital competencies and promoting online safety among its citizens. It provides a certified testament of the learner's mastery in managing online privacy and application security.

#### Questions

#### For Session Management:

- 1. Why is it important to log out at the end of your internet or app sessions? What risks could arise if you fail to do so?
- 2. Discuss the potential consequences of leaving your personal information accessible by not logging out of an internet or app session. How could this information be misused?

#### For App Permissions Management:

- 3. Explain the concept of app permissions and their relevance to safeguarding your privacy. How do app permissions impact the security of your personal data?
- 4. Imagine you have installed a new app on your smartphone. How would you manage its permissions to ensure your privacy is protected while using the app?

#### For a combination of both:

5. Suppose you are using a public computer in a library. How would you manage your internet and app sessions to safeguard your personal information and privacy?

## Secure Digital Behavior and Physical Device Security (MC 4.1.B.4)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Secure Digital Behavior and Physical Device Security Code: MC 4.1.B.4
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	INTERMEDIATE
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs 4.1.27, 4.1.28):

#### Safe Browsing Practices

• Practice safe browsing habits, such as avoiding suspicious websites and using HTTPS connections, to reduce the risk of malware and data theft.

#### **Physical Device Security**

• Acknowledge the importance of keeping devices physically secure, especially in public places, to prevent theft and unauthorized access.

#### Description

The "Secure Digital Behavior and Physical Device Security" Micro Credential offers an extensive and interactive course intended to inculcate secure digital habits and a clear understanding of physical device security. It guides learners to adopt and maintain safe browsing practices, appreciate the importance of physical device security, and apply this knowledge to protect their devices from malware, data theft, and unauthorized access.

In the first part of the course, the focus is placed on fostering secure digital behavior. Participants will learn about safe browsing habits, such as using secure (HTTPS) connections, avoiding suspicious websites and downloads, and recognizing and handling phishing attempts. They will also learn about the potential consequences of malware infections and data theft, enhancing their understanding of the importance of safe browsing habits. This section includes practical exercises and examples, allowing participants to apply what they've learned in real-world scenarios.

The second part of the course is dedicated to physical device security. It stresses the significance of keeping devices physically secure, especially in public places, to prevent theft and unauthorized access. Participants will learn about different ways to physically secure their devices, including device locks, biometric authentication, and using secure storage solutions. They will also understand the potential risks of leaving devices unattended or storing them in easily accessible locations.

Furthermore, the course also highlights the interplay between digital behavior and physical security, and how these two areas can complement each other to create a comprehensive security approach. Participants will learn how to balance the convenience of device use with the need for security, and how small changes in their habits can significantly enhance their overall security posture.

By the conclusion of this Micro Credential, participants will have developed a keen understanding of secure digital behavior and physical device security, and be able to apply these concepts to protect their digital data and devices effectively. The program aligns with the European Union's efforts to increase digital literacy and security, making it an indispensable skill set for any digitally-engaged citizen.

In line with the European Union's efforts to enhance digital literacy and security among its citizens, this Micro Credential offers a validated testament of the learner's expertise in practicing secure digital behavior and maintaining physical device security.

#### Questions

#### For Safe Browsing Practices:

- 1. Explain the significance of using HTTPS connections when browsing the internet. How does this practice help reduce the risk of malware and data theft?
- 2. What are some red flags that might indicate a website is suspicious or potentially unsafe? How would you handle encountering such a website?

#### For Physical Device Security:

- 3. Why is it crucial to keep your devices physically secure, especially in public places? What potential risks could arise if you leave your device unattended?
- 4. Describe some practical steps you could take to ensure the physical security of your devices when you are out in a public setting.

# Digital Threats Awareness and Password Management (MC 4.1.B.5)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Digital Threats Awareness and Password Management Code: MC 4.1.B.5
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	INTERMEDIATE
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs 4.1.29, 4.1.30):

**Public Charging Station Risks** 

 Identify the risks associated with using public charging stations and the potential for data theft or malware installation.

#### Secure Password Management

 Being able to implement a password manager to securely store and generate complex passwords for different online accounts, reducing the risk of password- related security breaches.

#### Description

The "Digital Threats Awareness and Password Management" Micro Credential provides an all-encompassing program intended to boost participants' understanding of various digital threats and their implications, and to equip them with efficient password management practices. This Micro Credential encompasses the dangers associated with public charging stations and underscores the value of password managers for securing digital identities and assets.

In the first segment of the course, learners will delve into the complex landscape of digital threats. They will explore various forms of cyber threats, such as malware, phishing, ransomware, and data breaches, and learn how to identify and respond to these threats. A particular emphasis will be given to the risks associated with using public charging stations, which can potentially expose users to "juice jacking" – a cyberattack involving the unauthorized access and manipulation of devices via USB charging ports. Participants will gain awareness of the importance of using secure charging solutions, such as personal chargers or power banks, and understanding the risks of public charging stations.

The second component of this Micro Credential focuses on the crucial topic of password management. Learners will understand the importance of creating strong, unique passwords for different online accounts, and how password reuse can lead to security breaches. The course highlights the use of password managers, which help users store and generate complex passwords securely, thus significantly reducing the risk of password-related security incidents. The learners will be introduced to various password managers, learning how to use them effectively to manage their digital identities.

In addition to these core themes, the course will offer practical guidelines and tips for maintaining personal online security, such as regular software updates, multi-factor authentication, secure browsing habits, and safe handling of suspicious links or downloads.

By the end of this Micro Credential, participants will have gained a robust understanding of digital threats and a set of strong password management skills, enabling them to navigate the digital world with enhanced security and confidence. Aligned with the European Union's commitment to digital literacy and security, this course provides invaluable skills for any individual in the contemporary digital age. In accordance with the European Union's commitment to promoting digital literacy and security, this Micro Credential provides a certified testament of a learner's proficiency in recognizing digital threats and managing passwords securely.

#### Questions

#### For Public Charging Station Risks:

- 1. What are the potential risks associated with using public charging stations for your devices, such as smartphones or laptops? How could using a public charging station lead to data theft or malware installation?
- 2. Describe some precautions you can take to protect your device from risks when using public charging stations.

#### For Secure Password Management:

- 3. Explain the importance of using a password manager to securely store and generate complex passwords for different online accounts. How does this practice reduce the risk of password-related security breaches?
- 4. What are some key features you would look for in a password manager to ensure it meets your security needs?

# Device Security and Software Maintenance (MC 4.1.B.6)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Device Security and Software Maintenance Code: MC 4.1.B.6
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	INTERMEDIATE
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.31, 4.1.32):

#### **Device Security Enhancement**

• Implement device-specific security features, such as biometric authentication or device encryption, to enhance the protection of sensitive data.

#### **Software Maintenance Awareness**

• Understand the risks of using outdated or unsupported software on your devices and the importance of updating or replacing such software to maintain security.

#### Description

The "Device Security and Software Maintenance" Micro Credential offers a comprehensive curriculum aimed at providing learners with an in-depth understanding of device security and the pivotal role of software maintenance in ensuring robust digital protection.

In the first segment of the course, which concentrates on device security, participants will delve into various ways to bolster the security of their devices. They will learn about the multitude of device-specific security features available in today's technological landscape, including biometric authentication, device encryption, secure boot mechanisms, firewalls, and more. Through practical examples and scenarios, learners will discover how to utilize these features to enhance the protection of their sensitive data and ward off potential cyber threats. They will gain the knowledge to configure these settings according to their specific needs and use cases, further empowering them to take control of their digital security.

The second component of the course hones in on software maintenance, a facet of device security often overlooked by many users. Participants will understand the risks associated with using outdated or unsupported software, such as the increased vulnerability to malware attacks, data breaches, and other cybersecurity threats. The course will highlight the importance of regular software updates, patches, and the timely replacement of unsupported software. It will teach learners to interpret update logs and understand the security improvements that come with each software update.

Additionally, the course will touch on secure software installation and removal practices, ensuring learners understand how to safely add and remove software from their devices without compromising security.

Upon completion of this Micro Credential, participants will possess a solid understanding of device security enhancement techniques and the critical role of software maintenance in maintaining a secure digital environment. The program aligns with the European Union's commitment to promoting digital literacy and security, making it a valuable addition to anyone's digital skill set. This course will be an asset to any individual or professional who wants to ensure their devices are as secure as possible, contributing to a safer and more secure digital world.

Consistent with the European Union's commitment to strengthening digital literacy and security, this Micro Credential provides a certified testament to a learner's mastery in maintaining device security and understanding software maintenance's role in cybersecurity.

#### Questions

#### For Device Security Enhancement:

- 1. Explain the importance of implementing device-specific security features like biometric authentication or device encryption. How do these features enhance the protection of sensitive data?
- 2. Describe the steps you would take to enable biometric authentication (e.g., fingerprint or facial recognition) on your smartphone or laptop. How does this additional layer of security benefit you?

#### For Software Maintenance Awareness:

- 3. Discuss the risks associated with using outdated or unsupported software on your devices. How can outdated software potentially compromise the security of your data and device?
- 4. Imagine you receive a notification for a software update on your computer. How would you handle this update to ensure your device's security and functionality are maintained?

# Device Security Management and Privacy Preservation (MC 4.1.B.7)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Device Security Management and Privacy Preservation  Code: MC 4.1.B.7
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	INTERMEDIATE
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs 4.1.33, 4.1.34 and 4.1.35):

#### Suspicious Activities Identification

• Identify suspicious activities on your devices, such as unexpected pop-ups or unusual battery drainage, which may indicate potential malware or security breaches.

#### **Device Security Evaluation**

• Evaluate the security features of various devices and choose the most secure options based on your specific needs and use cases.

#### **App Permissions Management**

 Recognize the importance of regularly reviewing and managing app permissions to limit access to personal data and safeguard privacy.

#### Description

The "Device Security Management and Privacy Preservation" Micro Credential delivers a comprehensive course tailored towards empowering individuals with the knowledge and skills to navigate the digital world securely. It focuses on three fundamental areas: identification of potential security threats, evaluation of device security features, and effective management of app permissions.

The first part of the course is dedicated to the identification of potential security threats. Participants will be exposed to the range of cybersecurity threats that exist in the digital world, from malware and viruses to phishing attempts and ransomware attacks. They will gain an understanding of how these threats operate and the potential damage they can inflict. Armed with this knowledge, learners will be better prepared to recognize these threats when they encounter them and react appropriately to mitigate potential damage.

The second component of the course delves into the evaluation of device security features. As we increasingly rely on digital devices for various personal and professional tasks, understanding how to keep these devices secure becomes paramount. Participants will learn about different device security features and how to evaluate their effectiveness. They will learn about encryption, biometric authentication, secure boot processes, and more. In doing so, they will be able to make informed decisions when choosing devices and setting up their security configurations.

The final segment of the course focuses on the effective management of app permissions. In the age of mobile apps, it's important to understand the access that these apps have to personal data. The course will guide learners through the process of reviewing and managing app permissions, limiting unnecessary access to personal data, and understanding the potential risks of over-permissive apps.

By the end of this Micro Credential, participants will possess a robust set of skills that not only enhances their own digital safety but can also be shared within their communities to foster a safer digital environment for all. The course aligns with the European Union's commitment to bolstering digital literacy and security, making it an essential addition to the skillset of the modern, responsible digital citizen.

Aligned with the European Union's mission to enhance digital literacy and security, this Micro Credential provides a certified testament to a learner's proficiency in managing device security and preserving privacy.

#### Questions

#### For Suspicious Activities Identification:

- 1. What are some signs of suspicious activities on your device that may indicate potential malware or security breaches?
- 2. Describe a situation where you encountered an unexpected pop-up on your device. How did you handle the situation to ensure your device's security?

#### For Device Security Evaluation:

- 3. When evaluating the security features of various devices, what are some factors you would consider to determine which device is the most secure for your specific needs and use cases?
- 4. Compare the security features of a smartphone and a tablet. Based on your evaluation, which device would you choose for secure usage, and why?

#### For App Permissions Management:

- 5. Why is it essential to regularly review and manage app permissions on your devices? How can this practice limit access to personal data and safeguard your privacy?
- 6. Imagine you have installed a new app on your smartphone. How would you review and manage its permissions to protect your privacy?

# Remote Working Security and Digital Archiving Security (MC 4.1.B.8)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Remote Working Security and Digital Archiving Security  Code: MC 4.1.B.8
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	INTERMEDIATE
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro- credential	Peer Review

Learning Outcomes (ref. LOs 4.1.36, 4.1.37 and 4.1.38):

#### **Remote Working Security**

• Extend your device security measures to include remote working environments, ensuring data protection and secure communication channels.

#### Security Awareness Facilitation

• Facilitate security awareness among your colleagues or family members, educating them on best practices for device security and safe online behavior.

#### **Archive Security Awareness**

Recognize the potential risks associated with opening zip or rar archives from untrusted or unknown sources

#### Description

The "Remote Working Security and Digital Literacy Promotion" Micro Credential provides an expansive and indepth course focused on securing remote work environments and promoting digital literacy in personal and professional spheres. The program also elucidates the potential risks associated with handling archives from uncertain or unknown sources.

As we move into an era increasingly reliant on remote working and digital communication, this course aims to help learners adapt to these changes securely and responsibly. Participants will gain insight into the various security challenges posed by remote work environments, including data privacy, unsecured networks, phishing attacks, and other potential cybersecurity threats. They will also learn effective strategies to secure their virtual workspaces, such as the use of secure communication channels, strong encryption, multi-factor authentication, and safe digital habits.

A key aspect of this course is the facilitation and promotion of digital literacy. Participants will learn how to guide their colleagues or family members towards understanding and adopting best practices for device security and safe online behaviour. This includes education on password hygiene, secure browsing habits, app permissions, and recognising potential phishing or scam attempts. By promoting digital literacy, participants can contribute towards creating safer digital communities at work, home, and beyond.

The course also explores the risks associated with opening archives such as zip or rar files from untrusted or unknown sources. Participants will learn about the potential threats these files can pose, including malware, ransomware, or other forms of harmful software. The course will guide learners on the safer practices of handling these files, such as verifying the source, using protective software, and understanding the importance of regular system backups.

Upon completion of this Micro Credential, learners will be better equipped to secure their remote working environments, educate others on safe digital practices, and navigate potential digital threats more effectively. This aligns with the European Union's commitment to enhancing digital literacy and security, making this a valuable investment in any digital citizen's education.

In line with the European Union's commitment to enhancing digital literacy and security among its citizens, this Micro Credential provides a certified competence of the learner's proficiency in managing remote working security and promoting digital literacy.

#### Questions

#### For Remote Working Security:

- 1. Explain how you can extend your device security measures to ensure data protection and secure communication channels while working remotely. What additional precautions would you take compared to when working from a secure office environment?
- 2. Describe a situation where remote working security measures were crucial in protecting sensitive data or preventing a security breach.

#### For Security Awareness Facilitation:

- 3. As a security-aware individual, how would you facilitate security awareness among your colleagues or family members? What topics and best practices would you focus on during your awareness sessions?
- 4. What are some strategies you can employ to encourage a security-conscious culture among your colleagues or family members?

#### For Archive Security Awareness:

- 5. Discuss the potential risks associated with opening zip or rar archives from untrusted or unknown sources. How can such archives be used to spread malware or phishing attempts?
- 6. Imagine you receive a zip archive file from an unknown email address. What precautions would you take before opening the archive?

# Portable Device Security and Safe App Downloading (MC 4.1.B.9)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Portable Device Security and Safe App Downloading Code: MC 4.1.B.9
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	INTERMEDIATE
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro- credential	Peer Review

Learning Outcomes (ref. LOs 4.1.39, 4.1.40):

Portable Device and Media Safety

• Develop the habit of ensuring the safety of portable hardware media and removal devices, avoiding trust in unsafe devices or media contents.

Safe App Downloading Practices

 Explain the risks of downloading apps from unknown sources and the importance of using official app stores.

#### Description

The "Portable Device Security and Safe App Downloading" Micro Credential aims to cultivate proper safety habits regarding portable devices and media, and to impart an understanding of safe app downloading practices.

Through this course, learners will acquire the knowledge to differentiate secure and unsafe portable hardware, becoming more adept at handling such devices with necessary caution. They will develop an understanding of the risks associated with unsafe devices or unverified media contents, learning the importance of device safety and the potential threats to their digital security.

In addition, this Micro Credential places emphasis on the safety protocols of downloading apps. Learners will be equipped with the understanding of risks associated with downloading apps from unknown sources, including potential malware threats, data theft, and other cybersecurity vulnerabilities. The course underscores the importance of using official app stores, which adhere to stringent security standards and app verification processes.

In line with the European Union's commitment to enhance digital literacy and security, this Micro Credential provides a certified testament of a learner's proficiency in managing portable device security and safe app downloading practices. Learners who complete this course will be better equipped to protect their digital assets and navigate the digital world more securely.

This Micro Credential aligns with the European Union's commitment to enhancing digital literacy and security, providing a certified competence of a learner's proficiency in managing portable device security and practicing safe app downloading.

#### **Questions**

For Portable Device and Media Safety:

- 1. Why is it important to ensure the safety of portable hardware media and removal devices? What risks could arise if you trust unsafe devices or media contents?
- 2. Describe some precautions you can take to ensure the safety of portable hardware media, such as USB drives or external hard drives, from potential risks and data loss.

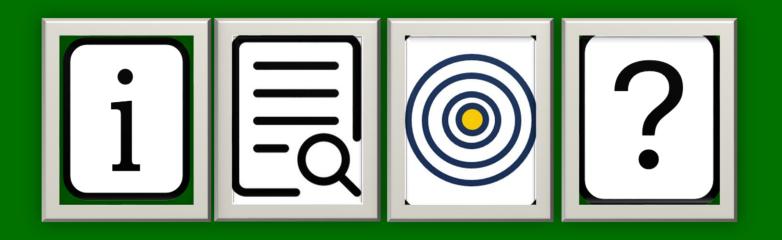
#### For Safe App Downloading Practices:

- 3. Discuss the potential risks associated with downloading apps from unknown sources. How can such practices compromise the security of your device and data?
- 4. Explain the importance of using official app stores to download apps. How does this practice contribute to ensuring the safety and security of the apps you install on your device?

#### For a combination of both:

5. Imagine you want to transfer some files to your friend using a portable USB drive. How would you ensure the safety of the USB drive and its contents before sharing it with your friend? Additionally, how would you ensure the safety of your device when connecting the USB drive?

# ADVANCED LEVEL (Level 5 and Level 6)



# Personal Device Security and Best Practices (MC 4.1.C.1)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Personal Device Security and Best Practices Code: MC 4.1.C.1
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	ADVANCED
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs 4.1.41, 4.1.42):

- Evaluate and compare different security software solutions, such as antivirus programs and firewalls, to select the most effective ones for your specific device and needs.
- Advocate for avoiding the use of sensitive or easily traceable information in passwords to enhance their strength and security.

#### Description

The "Personal Device Security and Best Practices" Micro Credential is a comprehensive and hands-on program designed to empower learners with essential knowledge and skills to safeguard their personal devices and data in an increasingly interconnected world. Endorsed by the European Commission, this program equips participants with practical tools and techniques to evaluate and select the most effective security software solutions, such as antivirus programs and firewalls, tailored to their specific device and security needs.

In the first module, learners delve into the world of security software, exploring various options available in the market. They learn to assess the features, capabilities, and performance of different antivirus and firewall solutions to identify the best fit for their devices. Through real-world simulations and exercises, participants gain hands-on experience in deploying and configuring security software effectively.

The second module focuses on password management, a critical aspect of personal device security. Learners are enlightened about the vulnerabilities associated with using sensitive or easily traceable information in passwords. By understanding the principles of strong password creation, they are able to advocate for best practices and advocate for the use of password managers to securely store and manage complex passwords across various online accounts.

Throughout the Micro Credential, learners are exposed to real-world case studies and cybersecurity scenarios, enabling them to apply their newly acquired knowledge in practical situations. They are encouraged to critically analyze potential security risks and devise proactive strategies to mitigate threats effectively.

Upon successful completion of the "Personal Device Security and Best Practices" Micro Credential, participants will earn a prestigious endorsement from the European Commission, affirming their mastery of device security and password management. Armed with these competencies, learners will be equipped to confidently protect their personal devices and data from cyber threats, contributing to a safer and more secure digital environment for themselves and those around them.

#### Questions

- 1. Question on Evaluating Security Software Solutions: "You are in the process of selecting security software for your laptop, which you primarily use for online banking and work-related tasks. Outline the criteria you would consider when evaluating different antivirus programs and firewalls. What factors would be essential to ensure the most effective protection for your specific device and needs?"
- 2. Question on Password Security Advocacy: "You are discussing password security best practices with your colleagues, and one of them suggests using easily traceable information, such as birthdates or common words, in passwords. How would you advocate for avoiding the use of such information and promote

- stronger password practices? Provide reasons and examples to support your argument."
- 3. Scenario-based Question on Implementing Password Recommendations: "Imagine you have several online accounts with different websites, and you are using weak and repetitive passwords. After learning about the importance of strong passwords, you decide to enhance your password security. Describe the steps you would take to improve the strength and security of your passwords. How would you ensure that you remember these complex passwords while maintaining a high level of security?"

# Password Security and Best Practices (MC 4.1.C.2)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Password Security and Best Practices Code: MC 4.1.C.2
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	ADVANCED
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.43, 4.1.44 and 4.1.45):

- Understand the importance of avoiding dictionary words or common patterns in passwords to prevent brute-force attacks.
- Recognize the risk of using the same password across multiple accounts and the importance of using unique passwords for each account.
- Acknowledge the importance of periodically updating passwords and avoiding the reuse of old passwords.

#### Description

The "Password Security and Best Practices" Micro Credential is a comprehensive and specialized program meticulously crafted to empower learners with advanced knowledge and skills in safeguarding their digital identities through robust password practices. This program, endorsed by the esteemed European Commission, delves into the intricacies of password security, equipping participants with the expertise required to create, manage, and maintain strong, unique passwords that fortify their online presence against potential threats.

In the first module, learners embark on a journey to explore the vulnerabilities associated with using dictionary words or common patterns in passwords. Through illuminating case studies and real-world examples, they gain a profound understanding of how such practices render their accounts susceptible to brute-force attacks. Armed with this knowledge, participants will be guided on alternative strategies and best practices to develop highly secure passwords that deter unauthorized access and thwart malicious attempts.

The second module delves into the critical risks and consequences of using the same password across multiple accounts. Learners are exposed to eye-opening scenarios that highlight the domino effect of password reuse, where a single compromised account can lead to a cascading series of security breaches. Through interactive exercises, they grasp the paramount importance of adopting unique passwords for each account, safeguarding their digital assets, and maintaining a fortified defense against cyber adversaries.

In the final module, learners are introduced to the indispensable significance of regularly updating passwords and eschewing the reuse of old passwords. They comprehend how these practices contribute to an ever-evolving security posture, fortifying their digital fortresses against emerging cyber threats. Engaging in hands-on activities and simulations, participants internalize the principles of effective password management, thus bolstering their readiness to adapt to evolving security challenges.

Throughout the Micro Credential, learners benefit from a dynamic and interactive learning environment, facilitated by industry experts and seasoned cybersecurity professionals.

They engage in practical exercises and real-life simulations, enabling them to confidently apply their newfound knowledge in their everyday digital interactions.

Upon successful completion of the "Password Security and Best Practices" Micro Credential, participants will not only earn a prestigious endorsement from the European Commission but also become key agents of change in promoting password security best practices. Armed with advanced expertise, they will serve as torchbearers, disseminating their knowledge and fostering a culture of heightened digital security within their communities and organizations.

In summary, the "Password Security and Best Practices" Micro Credential is a transformative program that goes beyond theory, empowering learners with practical, applicable knowledge and skills to fortify their digital identities and safeguard their personal data from the ever-advancing realm of cyber threats. It is suitable for professionals seeking to enhance their cybersecurity acumen and everyday users aspiring to safeguard their digital realms with utmost proficiency.

#### Questions

- 1. Question on Password Complexity: "Why is it crucial to avoid using dictionary words or common patterns in passwords? How does employing such practices enhance the security of your accounts and prevent brute-force attacks? Provide examples to support your answer."
- 2. Scenario-based Question on Password Reuse: "You have been using the same password for both your email and online banking accounts. What are the potential risks associated with this practice? How can using unique passwords for each account mitigate these risks and bolster your overall security?"
- 3. Question on Password Update Frequency: "Explain the importance of periodically updating passwords. How does this practice contribute to maintaining strong account security over time? What factors should you consider when deciding how often to update your passwords?"
- 4. Scenario-based Question on Password Change: "Suppose you have not changed your passwords for your social media accounts in over a year. What risks could arise from this lack of password updates? Describe the steps you would take to update these passwords and ensure they are strong and unique."
- 5. Question on Mitigating Account Compromise: "You suspect that your password for an online shopping account may have been compromised. How would using unique passwords for each account help mitigate the potential consequences of this security breach? What additional steps would you take to protect your other accounts?"
- 6. Question on Password Management Strategies: "How can password managers assist in implementing unique and secure passwords for each account? What are the advantages and potential drawbacks of using password managers for password management?"
- 7. Scenario-based Question on Old Password Reuse: "Imagine you accidentally used an old password from a previous account for a new online subscription service. What risks might you face due to this oversight? How would you rectify the situation and prevent similar occurrences in the future?"

# Secure Device Management and Data Efficiency (MC 4.1.C.3)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Secure Device Management and Data Efficiency Code: MC 4.1.C.3
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	ADVANCED
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro- credential	Peer Review

Learning Outcomes (ref. LOs 4.1.46, 4.1.47):

- Skillfully use a compression program on your device to reduce data volume, ensuring efficient storage and transmission.
- Being able to configure device settings to automatically lock or log out after a period of inactivity to prevent unauthorized access.

#### Description

The "Secure Device Management and Data Efficiency" Micro Credential is a cutting-edge and comprehensive program meticulously designed to empower learners with essential skills in managing their devices securely and optimizing data efficiency. Endorsed by the prestigious European Commission, this program equips participants with the expertise to navigate the digital landscape with confidence, ensuring their devices are both resilient against potential security threats and efficient in data handling.

In the first module, learners embark on an engaging exploration of data compression. Guided by expert instructors, participants gain hands-on experience using compression programs on their devices to efficiently reduce data volume without compromising quality. Through practical exercises, they learn to optimize storage space and enhance data transmission, thus streamlining their digital workflows and making their devices more agile and responsive. Whether it's managing large files, enhancing data sharing, or optimizing storage capacity, learners will acquire the prowess to make the most of their devices' data- handling capabilities.

The second module delves into the paramount aspect of device security through automated locking and log-out mechanisms. Learners become adept at configuring device settings to implement automatic locking or log-out features after periods of inactivity.

Armed with this knowledge, they effectively fortify their devices against unauthorized access, protecting sensitive information and personal data from potential security breaches. The skillful implementation of these measures ensures that learners maintain control over their devices' access points, fostering a resilient and secure digital environment.

Throughout the Micro Credential, learners engage in interactive simulations and real-life scenarios that allow them to apply their newly acquired knowledge in practical situations. By encountering and resolving challenges relevant to their daily digital experiences, participants gain invaluable skills to tackle real-world device management and data efficiency concerns.

Upon successful completion of the "Secure Device Management and Data Efficiency" Micro Credential, participants earn a prestigious endorsement from the European Commission, recognizing their proficiency in securing their devices and optimizing data handling. Armed with these advanced skills, learners are positioned to embrace the evolving digital landscape with confidence, contributing to a safer, more productive, and resourceful digital ecosystem.

In summary, the "Secure Device Management and Data Efficiency" Micro Credential is a transformative program that blends essential security practices and data optimization techniques. Tailored for individuals seeking to elevate their digital prowess, this program equips learners to be savvy navigators of the digital realm, ensuring their devices remain secure and data usage is maximized to its full potential.

#### Questions

- Practical Skill Assessment on Data Compression: "Using a compression program of your choice, demonstrate how you would compress a large video file without compromising its quality. Explain the steps you took and the expected benefits of compressing the file in terms of data volume reduction and efficient storage."
- 2. Scenario-based Question on Device Locking Settings: "Imagine you frequently use your device in public places and are concerned about unauthorized access when it's left unattended. How would you skillfully configure your device settings to automatically lock after a period of inactivity? Describe the steps you would take and the potential security benefits of implementing this feature."
- 3. Critical Thinking Question on Data Efficiency: "Suppose you have limited storage space on your device, and you need to manage various files, including documents, photos, and music. How would skillful data compression and device settings for automatic lock/log-out help optimize data efficiency and enhance your overall digital experience? Explain the advantages of these practices in ensuring both data security and smooth data handling."

## Digital Safety and Secure Data Handling (MC 4.1.C.4)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Digital Safety and Secure Data Handling Code: MC 4.1.C.4
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	ADVANCED
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro- credential	Peer Review

Learning Outcomes (ref. LOs 4.1.48, 4.1.49 and 4.1.50):

- Know the risks of using automatic login features for websites or apps that store personal information.
- Advocate for the use of secure file transfer methods, such as SFTP or secure cloud storage, to exchange sensitive files between devices.
- Recognize the potential risks of using unfamiliar software or applications on your devices.

#### Description

The "Digital Safety and Secure Data Handling" Micro Credential is a comprehensive and forward-thinking program designed to empower learners with essential knowledge and skills to navigate the digital landscape safely and protect sensitive data. Endorsed by the esteemed European Commission, this program equips participants with the expertise to make informed decisions, advocate for secure practices, and safeguard their digital information effectively.

In the first module, learners gain an in-depth understanding of the risks associated with automatic login features. Through real-world examples and case studies, participants become acutely aware of the potential implications of allowing websites or apps to store personal information automatically. Armed with this knowledge, learners are equipped to make conscious decisions about enabling or disabling such features to protect their sensitive data and preserve their digital privacy.

The second module focuses on secure file transfer methods. Participants are introduced to industry-standard practices such as SFTP (Secure File Transfer Protocol) and secure cloud storage. Through practical demonstrations and interactive exercises, learners comprehend the significance of using these methods to exchange sensitive files securely between devices. By advocating for secure file transfer, participants bolster their ability to protect confidential information during digital communication, reducing the risk of unauthorized access or data breaches.

The final module sheds light on the potential risks of using unfamiliar software or applications on personal devices. Participants explore the hazards associated with downloading and running software from unverified sources. By recognizing these risks, learners enhance their digital vigilance and exercise caution while evaluating and utilizing new applications, protecting their devices from potential malware and security vulnerabilities.

Throughout the Micro Credential, learners engage in hands-on activities, simulations, and interactive discussions, enabling them to internalize best practices in digital safety and secure data handling. Successful completion of the program not only earns learners a prestigious endorsement from the European Commission but also empowers them to make responsible and informed choices in their digital interactions, contributing to a safer and more secure digital environment for themselves and others.

In summary, the "Digital Safety and Secure Data Handling" Micro Credential is a transformative program that empowers learners with the knowledge and skills to navigate the digital landscape with confidence. Participants emerge as advocates of secure practices, equipped to protect sensitive data and promote digital safety across various contexts, making a positive impact in their personal and professional spheres.

- 1. Risk Awareness Question on Automatic Login Features: "Explain the potential risks of using automatic login features for websites or apps that store personal information. How can these features compromise your digital privacy and security? Provide examples of scenarios where disabling automatic login would be advisable."
- 2. Advocacy and Justification Question on Secure File Transfer Methods: "You have been tasked with advocating for the use of secure file transfer methods in your workplace or community. Write a persuasive statement outlining the importance of using methods like SFTP or secure cloud storage to exchange sensitive files between devices. Include specific benefits and advantages of these secure transfer methods over traditional file transfer options."
- 3. Critical Thinking Question on Software Risks: "You come across a new software application from an unfamiliar source that claims to provide unique features and functionalities. How would you approach the decision of whether to install and use this software on your device? Discuss the potential risks involved in using unfamiliar software, and outline steps you would take to assess its legitimacy and security before proceeding."

## Device Security and Data Protection (MC 4.1.C.5)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Device Security and Data Protection Code: MC 4.1.C.6
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	ADVANCED
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro- credential	Peer Review

Learning Outcomes (ref. LOs 4.1.51, 4.1.52):

- Recognize the importance of disabling Bluetooth on your devices when not in use.
- Being able to perform virus scans on external storage devices.

#### Description

The "Device Security and Data Protection" Micro Credential is a focused and practical program aimed at equipping learners with essential skills to safeguard their devices and data from potential security threats. Endorsed by the esteemed European Commission, this program empowers participants with the knowledge and capabilities to fortify their devices against Bluetooth-related vulnerabilities and perform crucial virus scans on external storage devices.

In the first module, learners explore the risks associated with Bluetooth connectivity when left enabled on their devices, especially when not in use. Through real-world examples and case studies, participants become acutely aware of the potential security vulnerabilities that may arise due to Bluetooth connections. They understand the significance of disabling Bluetooth when not actively in use, thereby reducing the risk of unauthorized access or data breaches.

The second module focuses on the critical practice of performing virus scans on external storage devices. Participants gain insights into the potential risks associated with using external storage media, such as USB drives or external hard drives, and learn how viruses and malware can be inadvertently transferred to their devices through infected storage devices. By acquiring practical skills in conducting virus scans on external media, learners can proactively detect and mitigate threats, ensuring that their devices and data remain secure.

Throughout the Micro Credential, learners engage in hands-on activities, simulations, and practical exercises to reinforce their understanding of device security and data protection. They gain confidence in applying their newfound knowledge in real-life scenarios, making informed decisions to safeguard their devices and data effectively.

Upon successful completion of the "Device Security and Data Protection" Micro Credential, participants earn a robust knowledge, validating their proficiency in securing their devices and protecting their data. Armed with these essential skills, learners are well-prepared to navigate the digital landscape with confidence, ensuring their devices remain secure, and their data is safeguarded against potential threats.

In summary, the "Device Security and Data Protection" Micro Credential is a transformative program that empowers learners with practical knowledge and skills in device security and data protection. Participants emerge as proactive guardians of their digital devices and data, equipped to mitigate security risks and foster a safer digital environment for themselves and others.

#### Questions

1. Scenario-based Question on Bluetooth Security: "Imagine you have just finished using Bluetooth to connect your device to a wireless speaker. What steps would you take to ensure the security of your device after disconnecting from the speaker? Explain the potential risks of leaving Bluetooth enabled

- when not in use, and provide reasons why it's essential to disable Bluetooth in such situations."
- 2. Practical Skills Assessment on Virus Scanning: "You receive a USB drive from a colleague that contains important documents for an upcoming project. Before accessing the files, explain the steps you would take to perform a thorough virus scan on the external storage device. Describe the tools and software you would use and the significance of conducting a virus scan to protect your device and data."
- 3. Critical Thinking Question on Data Protection: "You plan to transfer some files from your computer to an external hard drive for backup purposes. How would you ensure that the external storage device is free from malware or viruses that might infect your computer during the transfer process? Discuss the importance of virus scanning external storage devices and how this practice contributes to overall data protection and device security."

## Comprehensive Security Training and Implementation (MC 4.1.C.6)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Comprehensive Security Training and Implementation Code: MC 4.1.C.6
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	ADVANCED
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs 4.1.53, 4.1.54 and 4.1.55):

- Understand the importance of training employees on IT security techniques.
- Develop comprehensive physical security measures to protect organizational assets.
- Being aware of the importance of the concept of two-factor authentication (2FA) and its role in providing an extra layer of protection for online accounts.

#### Description

The "Comprehensive Security Training and Implementation" Micro Credential is a comprehensive and specialized program designed to equip learners with the knowledge and skills to ensure robust security practices within organizations.

Endorsed by the esteemed European Commission, this program focuses on three essential aspects of security: IT security training, physical security measures, and two-factor authentication (2FA).

In the first module, participants delve into the critical domain of IT security training. They learn how to effectively educate employees on best practices, cybersecurity protocols, and threat awareness. By utilizing interactive learning methods, case studies, and real-life scenarios, learners develop the expertise to train and guide employees on safeguarding data, identifying potential threats, and responding to security incidents.

The second module emphasizes the significance of comprehensive physical security measures. Participants gain insights into assessing and developing robust security measures to protect organizational assets, infrastructure, and sensitive information. Through practical exercises and site assessments, learners formulate tailored security plans, encompassing access control, surveillance, and contingency measures to mitigate physical security risks.

In the third module, participants dive into the concept of two-factor authentication (2FA). They understand the benefits of 2FA in bolstering the security of online accounts by adding an additional layer of protection beyond traditional passwords. Through interactive discussions and hands-on demonstrations, learners comprehend the various methods of 2FA, such as one-time passwords (OTP) and biometric authentication, and learn how to implement and advocate for this essential security practice.

Throughout the Micro Credential, learners engage in practical scenarios, role- playing exercises, and implementation projects to apply their knowledge effectively. The program fosters a proactive and security-conscious mindset, enabling learners to make informed decisions and promote a culture of security within their organizations.

Upon successful completion of the "Comprehensive Security Training and Implementation" Micro Credential, participants earn a prestigious knowledge, validating their expertise in enhancing organizational security. Armed with this comprehensive skill set, learners are well-equipped to assume key roles in driving security initiatives, safeguarding sensitive data, and fostering a secure and resilient organizational environment.

In summary, the "Comprehensive Security Training and Implementation" Micro Credential is an empowering program that equips learners to proactively address security challenges in organizations. Participants emerge as leaders in implementing effective security measures, training employees, and advocating for security best practices, contributing to a safer digital landscape and bolstering organizational resilience against cyber threats.

- 1. Training Approach Question: "As an IT security trainer, describe the steps you would take to design an effective training program for employees on IT security techniques. How would you tailor the training to different roles and levels of technical expertise within the organization?"
- 2. Physical Security Planning Question: "You are tasked with developing comprehensive physical security measures for a new company headquarters. Outline the key steps you would take to assess potential security risks, identify assets that require protection, and design a security plan that encompasses access control, surveillance, and contingency measures."
- 3. 2FA Explanation and Advantages: "Explain the concept of two-factor authentication (2FA) to someone unfamiliar with the term. Describe how 2FA works and the specific advantages it provides in comparison to single-factor authentication methods, such as traditional passwords."
- 4. Real-life Scenario on IT Security Training: "You are conducting an IT security training session for employees in a large organization. Choose one of the following scenarios: phishing attacks, password security, or data protection. Describe how you would simulate a real-life situation related to the chosen scenario to effectively train and educate employees."
- 5. Physical Security Implementation: "After assessing the physical security needs of a company, you have been tasked with implementing the recommended security measures. Describe the key steps you would take to implement access control, surveillance, and visitor management systems, ensuring maximum protection for the organization's assets."
- 6. 2FA Implementation and Advocacy: "You are tasked with implementing two-factor authentication (2FA) for an organization's online accounts. Outline the steps you would take to roll out 2FA to all employees and explain how you would advocate for its adoption to ensure widespread usage."
- 7. Employee Engagement and Involvement: "As a security trainer, how would you ensure active participation and engagement of employees during IT security training sessions? Describe strategies you would use to encourage employees to adopt security best practices in their daily work routines."
- 8. 2FA Methods Comparison: "Compare and contrast two different methods of two-factor authentication (e.g., one-time passwords and biometric authentication). Explain the strengths and weaknesses of each method and identify specific scenarios where one method might be more suitable than the other."

## Cybersecurity Awareness and Device Protection (MC 4.1.C.7)

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Identification of the learner	Any Citizen
Title and code of the micro-credential	Cybersecurity Awareness and Device Protection Code: MC 4.1.C.7
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	ADVANCED
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.56, 4.1.57 and 4.1.58):

- Know how to diagnose and troubleshoot security issues on your devices, identifying potential malware or unauthorized access attempts.
- Understand the potential dangers of storing passwords in web browsers and the importance of using dedicated password management tools.
- Develop a personal cybersecurity awareness plan to stay informed about current threats and adopt best practices to protect personal devices and data.

#### Description

The "Cybersecurity Awareness and Device Protection" Micro Credential is a comprehensive and hands-on program designed to empower learners with essential cybersecurity knowledge and skills.

This program focuses on three vital aspects of cybersecurity to ensure the protection of personal devices and data.

In the first module, participants delve into the practical world of diagnosing and troubleshooting security issues on their devices. Through interactive simulations and real-life scenarios, learners gain expertise in identifying potential malware infections, detecting unauthorized access attempts, and applying effective remediation strategies. By mastering these skills, participants can proactively safeguard their devices from security threats and maintain the integrity of their digital assets.

The second module delves into the potential dangers of storing passwords in web browsers and the pivotal role of dedicated password management tools. Learners explore the vulnerabilities associated with browser-based password storage and the heightened risks of unauthorized access to sensitive accounts. Armed with this knowledge, participants discover the importance of using reliable password management tools to generate and securely store complex, unique passwords for each account. Hands-on activities allow learners to implement robust password management practices to enhance their online security.

In the final module, participants develop a personalized cybersecurity awareness plan to stay informed about current threats and adopt best practices for device and data protection. They learn how to access credible cybersecurity resources, follow industry updates, and remain vigilant against emerging cyber threats. By cultivating a proactive mindset and implementing security best practices, participants create a robust defense against potential cyber attacks and data breaches.

Throughout the Micro Credential, learners engage in interactive assessments, practical exercises, and personalized action plans to apply their newly acquired knowledge. The program emphasizes critical thinking, problem-solving, and the adoption of proactive security measures to protect personal devices and data in today's dynamic digital landscape.

Upon successful completion of the "Cybersecurity Awareness and Device Protection" Micro Credential, participants receive the certification of the MC. This recognition validates their competency in diagnosing security issues, employing secure password management techniques, and developing a proactive cybersecurity awareness plan.

In conclusion, the "Cybersecurity Awareness and Device Protection" Micro Credential equips learners with essential cybersecurity skills and knowledge to safeguard their digital lives. Participants emerge as proactive defenders against cyber threats, equipped to protect personal devices and data, and contribute to building a safer digital ecosystem for themselves and their communities.

- 1. You notice that your computer is running slower than usual, and you receive frequent pop-up ads while browsing the internet. What security issue might you suspect, and what steps would you take to troubleshoot and resolve this issue?
- 2. Explain the potential dangers of storing passwords in web browsers and how it can compromise your online security. What are the benefits of using dedicated password management tools, and how do they enhance password security?
- 3. Imagine you receive an email that appears to be from your bank, asking you to click on a link to update your account information urgently. What should you do to verify the legitimacy of the email and protect yourself from falling victim to a phishing scam?
- 4. Develop a cybersecurity awareness plan outlining the steps you will take to stay informed about current threats and best practices for protecting your personal devices and data. Include specific actions you will take, such as subscribing to cybersecurity news sources, enabling two-factor authentication, and regularly updating your device's software.

## Advanced Security Practices for Personal Devices and Systems (MC 4.1.C.8)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Advanced Security Practices for Personal Devices and Systems Code: MC 4.1.C.8
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	ADVANCED
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.59, 4.1.60):

- Adopt reputable antivirus and anti-malware software on personal devices to detect and remove potential threats.
- Implement access controls to regulate and restrict entry to systems, accounts, or personal profiles, ensuring better security and privacy.

#### Description

The "Advanced Security Practices for Personal Devices and Systems" Micro Credential is a specialized program curated to provide individuals with advanced security techniques to safeguard their personal devices and digital profiles. This comprehensive course focuses on two key competencies critical for fortifying digital security and privacy.

The first module is dedicated to empowering participants with the knowledge and skills to adopt reputable antivirus and anti-malware software on their personal devices. By exploring the best practices for selecting and installing effective security solutions, learners gain insights into detecting and removing potential threats that can compromise the integrity of their devices. Real-world scenarios and hands-on simulations enable participants to apply their expertise in identifying and mitigating various types of malware, including viruses, trojans, and spyware. By mastering the utilization of these essential tools, learners build a robust defense against digital threats and enhance their overall cybersecurity posture.

In the second module, participants delve into the realm of access controls and their significance in regulating entry to systems, accounts, and personal profiles.

Learners will explore various access control methods, such as passwords, multi- factor authentication, and role-based access control (RBAC). Practical exercises guide participants in configuring access controls for different scenarios, enabling them to secure their data, applications, and online identities effectively. Additionally, the module emphasizes the importance of maintaining strong and unique passwords to bolster access control mechanisms, mitigating the risk of unauthorized access and potential data breaches.

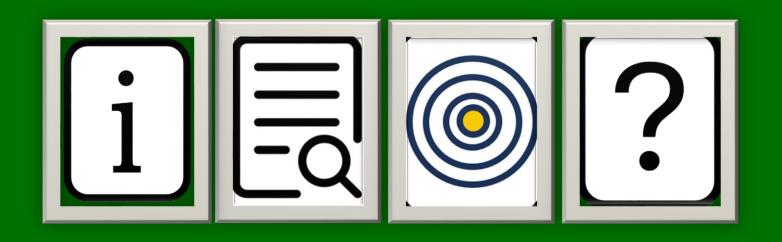
Throughout the Micro Credential, learners will be assessed through interactive classes, practical assignments, and simulations that mirror real-world security challenges. Participants will develop a deep understanding of advanced security practices, enabling them to proactively protect their personal devices and digital assets against emerging threats.

Upon successful completion of the "Advanced Security Practices for Personal Devices and Systems" Micro Credential, participants will receive the recognition that validates their proficiency in adopting and implementing advanced security measures, bolstering their credibility in the digital security landscape.

In conclusion, the "Advanced Security Practices for Personal Devices and Systems" Micro Credential equips learners with the expertise needed to safeguard their digital lives effectively. Armed with a deeper understanding of reputable security software, advanced access controls, and secure password practices, participants emerge as adept guardians of their personal devices and systems, promoting a safer digital ecosystem for themselves and society as a whole.

- 1. Why is it important to adopt reputable antivirus and anti-malware software on personal devices? Provide examples of potential threats that these software solutions can help detect and remove.
- 2. Explain the concept of access controls and their role in ensuring better security and privacy for systems, accounts, or personal profiles. Provide specific examples of access control methods and scenarios where they can be implemented effectively.
- 3. Imagine you have just purchased a new personal device. Outline the steps you would take to research, select, and install reputable antivirus and anti-malware software on your device.
- 4. You are responsible for securing a web-based application used by your organization's employees. Describe how you would implement access controls to regulate and restrict entry to the application's various features and functionalities. Include the specific access control methods you would use and the rationale behind your choices.

# EXPERT LEVEL (Level 7 and Level 8)



## Cybersecurity Risk Management and Staff Awareness (MC 4.1.D.1)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Cybersecurity Risk Management and Staff Awareness Code: MC 4.1.D.1
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	EXPERT
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.61, 4.1.62 and 4.1.63):

- Understand the importance of conducting annual staff awareness training on cybersecurity.
- Analyze and categorize potential cybersecurity risks based on their impact and likelihood of occurrence.
- Regularly review and update policies and procedures related to cybersecurity.

#### Description

The "Cybersecurity Risk Management and Staff Awareness" Micro Credential is a comprehensive program designed to equip individuals with the expertise to effectively manage cybersecurity risks within their organizations. This specialized course focuses on three key competencies that are fundamental to ensuring robust cybersecurity practices and promoting a culture of security awareness among staff.

The first module emphasizes the significance of conducting annual staff awareness training on cybersecurity. Participants will learn how educated and vigilant employees play a pivotal role in safeguarding organizational assets and data from cyber threats. By understanding the common cybersecurity risks and best practices, learners can tailor effective training programs to address the specific needs of their organization. Practical examples and case studies will highlight the impact of well-informed staff in mitigating risks and fostering a resilient cybersecurity posture.

In the second module, participants will delve into the world of cybersecurity risk analysis and categorization. Learners will gain valuable insights into evaluating potential threats based on their impact and likelihood of occurrence. Through risk assessment methodologies and frameworks, participants will learn to prioritize and allocate resources efficiently to address the most critical cybersecurity risks. Hands- on exercises will provide learners with the ability to perform risk assessments, enabling them to identify vulnerabilities, implement countermeasures, and optimize cybersecurity strategies.

The third module focuses on the importance of regularly reviewing and updating cybersecurity policies and procedures. Participants will explore best practices for creating and maintaining comprehensive cybersecurity policies that align with the organization's objectives and compliance requirements. They will learn how to adapt policies and procedures to address emerging cyber threats and changes in the technology landscape. Practical case studies and group discussions will enable learners to identify areas for improvement and implement necessary updates to bolster their organization's cybersecurity defenses.

Throughout the Micro Credential, learners will be assessed through a combination of quizzes, case studies, and practical assignments that assess their ability to apply the acquired knowledge in real-world scenarios. Participants will emerge with a deeper understanding of cybersecurity risk management and the role of staff awareness training in promoting a secure organizational environment.

Upon successful completion of the "Cybersecurity Risk Management and Staff Awareness" Micro Credential, participants will receive a strong understanding in managing cybersecurity risks and fostering a culture of security awareness among staff, contributing to the enhancement of cybersecurity practices across diverse organizations.

In summary, the "Cybersecurity Risk Management and Staff Awareness" Micro Credential equips learners with the knowledge and skills to effectively analyze cybersecurity risks, design targeted staff awareness training programs, and maintain up-to-date cybersecurity policies and procedures. By empowering individuals to take proactive measures against cyber threats, this Micro Credential plays a critical role in fortifying the digital resilience of organizations across various industries.

- 1. Why is conducting annual staff awareness training on cybersecurity essential for organizations? Provide specific examples of how well-informed employees can contribute to better cybersecurity practices.
- 2. Describe the process of analyzing and categorizing potential cybersecurity risks based on their impact and likelihood of occurrence. How does this risk assessment aid in prioritizing security measures and resource allocation?
- 3. Why is it crucial for organizations to regularly review and update policies and procedures related to cybersecurity? How can outdated policies pose risks to the organization's security posture?
- 4. You are an IT security professional tasked with conducting staff awareness training on cybersecurity for a company. Outline the key topics and best practices you would include in the training program, considering the company's industry and specific security challenges.
- 5. Imagine you are a cybersecurity risk analyst for a financial institution. Analyze a hypothetical cybersecurity risk scenario, categorizing the risks based on their impact and likelihood of occurrence. Provide recommendations for mitigating the identified risks and explain why these measures are essential for the organization's security strategy.

## Data-Centric Cybersecurity and Redundant Data Management (MC 4.1.D.2)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Data-Centric Cybersecurity and Redundant Data Management Code: MC 4.1.D.2
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	EXPERT
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro- credential	Peer Review

Learning Outcomes (ref. LOs 4.1.64, 4.1.65):

- Emphasize data-centric security measures rather than relying solely on perimeter defenses.
- Demonstrate the knowledge and skills to identify and remove redundant data to enhance cybersecurity.

#### Description

The "Data-Centric Cybersecurity and Redundant Data Management" Micro Credential is a cutting-edge program designed to equip participants with advanced cybersecurity techniques centered around protecting data, the most critical asset for any organization. This comprehensive course focuses on two key competencies that address modern cybersecurity challenges.

In today's dynamic threat landscape, traditional perimeter defenses alone are no longer sufficient to safeguard sensitive data from sophisticated cyber threats. The first module of this Micro Credential emphasizes the paradigm shift towards data- centric security measures. Participants will gain a deep understanding of the principles of data-centric security, exploring encryption, tokenization, access controls, and data masking techniques. Real-world case studies and best practices will demonstrate how data-centric security strengthens the protection of sensitive information and fortifies organizations against data breaches and cyber-attacks.

The second module is dedicated to redundant data management, a crucial aspect of cybersecurity that is often overlooked. Participants will learn the importance of identifying and removing redundant data to minimize the attack surface and improve data integrity. Through hands-on exercises, learners will develop the skills to conduct data audits, detect and eliminate redundant data, and streamline data storage systems. This proactive approach not only enhances cybersecurity but also promotes data efficiency, reducing storage costs and improving data management practices.

Throughout the Micro Credential, participants will be assessed using a combination of practical assignments, data auditing exercises, and scenario-based assessments. They will have the opportunity to apply their knowledge in simulated cybersecurity incidents, demonstrating their proficiency in implementing data- centric security measures and redundant data management.

Upon successful completion of the "Data-Centric Cybersecurity and Redundant Data Management" Micro Credential, participants will receive an official endorsement from the European Commission. This prestigious recognition validates their expertise in safeguarding data through data-centric security measures and implementing efficient redundant data management strategies.

In summary, the "Data-Centric Cybersecurity and Redundant Data Management" Micro Credential empowers participants with the latest knowledge and skills in data- centric cybersecurity and redundant data management. By prioritizing data protection and streamlining data storage practices, this program plays a crucial role in bolstering cybersecurity resilience and promoting data efficiency across organizations in various sectors. Participants will be well-equipped to navigate the evolving cybersecurity landscape and become valuable assets in safeguarding sensitive data from ever-evolving cyber threats.

- 1. Explain the concept of data-centric security and how it differs from relying solely on perimeter defenses. Provide specific examples of data-centric security measures that can effectively protect sensitive information even in the absence of strong perimeter defenses.
- 2. You are an IT security professional responsible for enhancing cybersecurity in your organization. Describe the steps you would take to identify and remove redundant data from the organization's data storage systems. How does this practice contribute to improving cybersecurity resilience and data integrity?
- 3. In a hypothetical scenario, a company experienced a data breach despite having strong perimeter defenses. How could data-centric security measures have potentially mitigated or minimized the impact of the breach? Provide insights into the key data-centric security strategies that might have made a difference in preventing or responding to the incident.

## Cybersecurity Leadership and Culture Development (MC 4.1.D.3)

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Identification of the learner	Any Citizen
Title and code of the micro-credential	Cybersecurity Leadership and Culture Development Code: MC 4.1.D.3
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	EXPERT
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.66, 4.1.67):

- Advocate for increased investment in cybersecurity and allocate resources effectively
- Be aware of the importance to foster a company-wide security mindset and promote a culture of cybersecurity awareness

#### Description

The "Cybersecurity Leadership and Culture Development" Micro Credential is a comprehensive program that empowers participants to champion cybersecurity within organizations, foster a security-conscious culture, and drive effective resource allocation for enhanced cyber resilience. Developed in collaboration with the European Commission, this transformative course equips participants with the essential knowledge and skills to become proactive leaders in cybersecurity.

In the rapidly evolving digital landscape, cybersecurity has become a strategic imperative for organizations of all sizes and sectors. The first module of this Micro Credential delves into the significance of increased investment in cybersecurity.

Participants will gain insights into the emerging cyber threats, the potential consequences of cyber-attacks, and the growing importance of allocating adequate resources to fortify cyber defenses. Through case studies and expert-led discussions, learners will explore best practices for conducting cost-benefit analyses to justify cybersecurity investments and align security strategies with organizational objectives.

The second module centers on fostering a company-wide security mindset and cultivating a culture of cybersecurity awareness. Participants will delve into the psychology of human behavior and its impact on cybersecurity. Armed with this understanding, learners will develop strategies to engage and educate employees at all levels to become active participants in safeguarding digital assets. The module will address effective communication techniques, engaging training methods, and the establishment of robust cybersecurity policies and guidelines.

Participants will be equipped to implement security awareness programs that instill a proactive security culture and empower employees to recognize and respond to cyber threats effectively.

Throughout the Micro Credential, participants will engage in interactive workshops, role-playing exercises, and scenario-based simulations. They will learn from industry experts and cybersecurity leaders who will share their experiences and insights into managing cybersecurity initiatives. The course emphasizes practical applications and real-world challenges, allowing participants to build leadership skills in the context of cybersecurity.

As part of the assessment process, participants will be required to develop a cybersecurity leadership plan tailored to their organization. This plan will demonstrate their proficiency in advocating for cybersecurity investment, fostering a security-conscious culture, and effectively allocating resources to address the organization's cybersecurity needs.

Upon successful completion of the "Cybersecurity Leadership and Culture Development" Micro Credential, participants will receive official recognition from the University UniNettuno. This esteemed credential attests to their capabilities in leading cybersecurity initiatives, cultivating a security-aware culture, and steering their organization towards cyber resilience and risk mitigation.

In summary, the "Cybersecurity Leadership and Culture Development" Micro Credential equips participants with the expertise and strategies to spearhead cybersecurity efforts within organizations. From advocating for strategic investments to fostering a security-conscious culture, participants will emerge as effective leaders and change agents in the realm of cybersecurity. By integrating technical knowledge with leadership skills, this program plays a pivotal role in ensuring organizations stay ahead of cyber threats and embrace cybersecurity as a strategic enabler for their long-term success.

- 1. As a cybersecurity advocate, how would you approach senior executives or management to emphasize the importance of increased investment in cybersecurity? Provide specific arguments and data to support your case.
- 2. Describe the steps you would take to conduct a thorough cybersecurity risk assessment within your organization. How would you use the findings from the assessment to allocate resources effectively to address the identified vulnerabilities and threats?
- 3. How would you communicate the significance of cybersecurity to employees at all levels of the organization? Provide examples of strategies and communication methods you would employ to foster a company-wide security mindset and promote cybersecurity awareness.
- 4. In the context of promoting a culture of cybersecurity awareness, how would you design and implement a cybersecurity training program for employees? What topics would you include in the program, and how would you ensure employee engagement and participation?
- 5. As a cybersecurity leader, how would you measure the success of your efforts in promoting a security-conscious culture within the organization? What metrics and key performance indicators (KPIs) would you use to evaluate the effectiveness of cybersecurity awareness initiatives?
- 6. Describe a scenario where your organization faces budget constraints, but there is a pressing need for cybersecurity improvements. How would you prioritize cybersecurity initiatives and make resource allocation decisions to address critical vulnerabilities while optimizing available resources?
- 7. As an advocate for increased investment in cybersecurity, how would you navigate organizational challenges and resistance from stakeholders who may not fully grasp the significance of cybersecurity? How would you build consensus and support for your proposals?
- 8. Share an example of a successful cybersecurity awareness campaign or initiative that you have implemented in the past. Explain the key elements that contributed to its success and the impact it had on the overall security posture of the organization.

## Secure Data Management and Cyber Awareness (MC 4.1.D.4)

Identification of the learner	Any Citizen
Title and code of the micro-credential	Secure Data Management and Cyber Awareness Code: MC 4.1.D.4
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	EXPERT
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the micro-credential	Peer Review

Learning Outcomes (ref. LOs 4.1.68, 4.1.69 and 4.1.70):

- Demonstrate the ability to classify data according to priority and importance
- Acknowledge the importance of Two-factor or Multi-factor Authentication
- Practice caution and vigilance while using social media platforms

#### Description

The "Secure Data Management and Cyber Awareness" Micro Credential is a comprehensive program designed to equip learners with the knowledge and skills necessary to ensure the security of their data and promote cyber awareness in various contexts. This program focuses on three critical aspects of safety and security: data classification, two-factor or multi-factor authentication (MFA), and safe social media practices.

Data is the lifeblood of modern organizations, and its security is of paramount importance. The first module of this Micro Credential centers on data classification, a fundamental practice for safeguarding sensitive information. Learners will delve into the concept of data classification, understanding its significance in prioritizing and safeguarding information based on its sensitivity and criticality. Through real- world examples and practical exercises, participants will demonstrate their ability to classify data according to priority and importance.

The second module of the Micro Credential introduces learners to Two-factor or Multi-factor Authentication (MFA), a robust security practice that goes beyond traditional passwords. Learners will explore the various forms of MFA, including SMS-based codes, authenticator apps, biometric verification, and hardware tokens. They will learn how MFA adds an extra layer of protection by requiring users to provide multiple forms of identification before accessing sensitive accounts or systems. Participants will gain hands-on experience implementing MFA on different platforms and devices, ensuring that they can effectively safeguard their online identities and digital assets.

The final module emphasizes the importance of practicing caution and vigilance while using social media platforms. Social media has become an integral part of modern life, but it also poses significant security risks if not used responsibly.

Learners will be guided on best practices for securing their social media accounts, protecting their privacy, and avoiding common pitfalls such as oversharing personal information. They will also explore the potential consequences of social media misuse and learn how to recognize and respond to suspicious activities or phishing attempts on these platforms.

Throughout the program, learners will engage in interactive activities, case studies, and quizzes to reinforce their understanding of the concepts and practical skills presented. They will also have access to resources and tools to further enhance their knowledge of data security and cyber awareness. The Micro Credential offers a flexible learning experience, allowing participants to progress at their own pace while receiving expert guidance from experienced instructors.

Upon successful completion of the "Secure Data Management and Cyber Awareness" Micro Credential, learners will earn a certified recognition endorsed by UniNettuno. This certification will attest to their proficiency in data classification, MFA implementation, and safe social media practices, making them valuable assets to any

organization seeking to strengthen its cybersecurity posture.

In conclusion, the "Secure Data Management and Cyber Awareness" Micro Credential is a comprehensive program designed to equip learners with the essential knowledge and skills needed to protect their data and promote a culture of cyber awareness. It addresses the growing need for individuals and organizations to adopt proactive security measures in an ever-evolving digital landscape. By completing this Micro Credential, learners will become adept at safeguarding data, securing accounts, and practicing vigilance in their online interactions, contributing to a safer and more secure digital environment for all.

- 1. How would you determine the priority and importance of different types of data within an organization? Provide specific examples of data categories and explain how you would classify them.
- 2. Describe the process of implementing Two-factor Authentication (2FA) or Multi- factor Authentication (MFA) for an online account or system. Include the steps involved and any potential challenges or considerations.
- 3. Explain the benefits of using Two-factor or Multi-factor Authentication compared to traditional single-factor authentication methods. How does it enhance security?
- 4. Provide examples of situations where using Two-factor or Multi-factor Authentication would be particularly important, and explain why these scenarios require an additional layer of security.
- 5. How do you stay cautious and vigilant while using social media platforms? Describe specific practices or habits you follow to protect your privacy and personal information.
- 6. Identify common social media security risks, such as phishing attacks or unauthorized access to accounts. Explain strategies to mitigate these risks and protect your social media presence.
- 7. Describe the potential consequences of sharing sensitive or personal information on social media platforms without proper privacy settings. How can individuals safeguard their data in such environments?
- 8. How can organizations promote cybersecurity awareness among their employees regarding the use of social media platforms both in the workplace and in personal settings?
- 9. Imagine you encounter a suspicious message or link on a social media platform. What steps would you take to verify its authenticity and ensure your safety before engaging with it?

## Advanced Cybersecurity and Ethical Hacking (MC 4.1.D.5)

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Identification of the learner	Any Citizen
Title and code of the micro-credential	Advanced Cybersecurity and Ethical Hacking Code: MC 4.1.D.5
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	EXPERT
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.71, 4.1.72):

- Know how to employ a "white hat" hacker for cybersecurity assessments
- Recognize and defend against social engineering tactics

#### Description

The "Advanced Cybersecurity and Ethical Hacking" Micro Credential is an extensive and immersive program designed to equip learners with advanced knowledge and skills in recognizing and defending against social engineering tactics. Additionally, participants will learn how to employ ethical hacking techniques using "white hat" hackers for cybersecurity assessments.

#### Micro Credential Overview:

The program is divided into two comprehensive modules, each focusing on essential aspects of cybersecurity and ethical hacking. Learners will delve into real- world scenarios and hands-on exercises, gaining practical experience in dealing with sophisticated cyber threats.

#### Module 1: Recognizing and Defending Against Social Engineering Tactics

This module provides learners with an in-depth understanding of social engineering tactics commonly used by malicious actors to exploit human vulnerabilities.

Participants will learn to recognize these manipulative techniques and develop effective defense mechanisms to safeguard against social engineering attacks.

- 1. Introduction to Social Engineering
  - Define social engineering and its various forms, including phishing, pretexting, baiting, tailgating, and more.
  - Understand the psychological aspects that make individuals susceptible to social engineering attacks.
- 2. Phishing Attacks and Email Spoofing
  - Identify common phishing indicators in emails and messages.
  - Analyze email headers to detect email spoofing attempts.
  - Practice safe email handling and reporting suspicious emails to the appropriate authorities.
- 3. Pretexting and Manipulation
  - Recognize common pretexting tactics used to gain trust and deceive victims.
  - Develop strategies to verify the authenticity of requests and communications.
- 4. Baiting and Tailgating
  - Understand the concept of baiting and how malicious actors use enticing offers to compromise security.
  - Implement procedures to prevent unauthorized physical access to secure areas through tailgating.
- 5. Social Engineering Awareness and Training
  - Advocate for the importance of regular cybersecurity awareness training for employees and individuals.
  - Develop and implement social engineering awareness campaigns within organizations.

- 6. Defense Mechanisms and Incident Response
  - Create incident response plans to handle social engineering incidents.
  - Evaluate and improve defense mechanisms against social engineering attacks.

#### Module 2: Ethical Hacking and "White Hat" Assessments

In this module, learners will dive into the world of ethical hacking, understanding the methodologies and tools used by "white hat" hackers to perform cybersecurity assessments. The focus is on employing ethical hacking techniques to identify vulnerabilities and strengthen an organization's cybersecurity posture proactively.

- 1. Introduction to Ethical Hacking
  - Define ethical hacking and differentiate it from malicious hacking activities.
  - Understand the ethical and legal considerations associated with ethical hacking assessments.
- 2. Scoping and Rules of Engagement
  - Define the scope and rules of engagement for ethical hacking assessments.
  - Develop clear guidelines for conducting assessments in a controlled and secure manner.
- 3. Footprinting and Reconnaissance
  - Conduct footprinting and reconnaissance to gather information about target systems and networks.
  - Use open-source intelligence (OSINT) tools and techniques to gather data.
- 4. Vulnerability Assessment and Penetration Testing
  - Perform vulnerability assessments and penetration testing to identify and exploit security weaknesses.
  - Report findings and recommend remediation measures to address vulnerabilities.
- 5. Web Application Security Testing
  - Understand common web application vulnerabilities and their impact on security.
  - Employ tools and methodologies to assess and secure web applications.
- 6. Wireless Network Security Assessment
  - Assess wireless network security and detect potential vulnerabilities.
  - Implement secure configurations for wireless networks.
- 7. Social Engineering in Ethical Hacking
  - Use social engineering techniques in ethical hacking assessments to test organizational resilience.
  - Discuss the ethical implications and responsibilities associated with using social engineering in assessments.

#### Assessment and Certification:

The Micro Credential assessment will involve practical scenarios and hands-on exercises that assess the learners' ability to recognize and defend against social engineering tactics. Additionally, learners will demonstrate their proficiency in employing ethical hacking techniques during a simulated "white hat" assessment. Successful completion of the program will earn participants the "Advanced Cybersecurity and Ethical Hacking" Micro Credential, validating their expertise in mitigating social engineering threats and conducting ethical hacking assessments.

#### Conclusion:

The "Advanced Cybersecurity and Ethical Hacking" Micro Credential provides an in- depth and hands-on learning experience, empowering participants with the knowledge and skills necessary to address sophisticated cyber threats. From recognizing social engineering tactics to conducting ethical hacking assessments, learners will be equipped to protect organizations from cyber threats and contribute to a more secure digital environment.

- 1. What are some common social engineering tactics used by malicious actors to exploit human vulnerabilities, and how can individuals defend against such tactics?
- 2. How would you employ ethical hacking techniques as a "white hat" hacker to assess the cybersecurity posture of an organization? Provide an example of a scenario where ethical hacking can be used effectively.
- 3. Explain the importance of social engineering awareness training for employees within an organization. How can such training contribute to a stronger security culture?
- 4. During a cybersecurity assessment as a "white hat" hacker, how would you handle sensitive information or vulnerabilities discovered during the assessment to maintain ethical practices and protect the organization?
- 5. Describe the role of footprinting and reconnaissance in an ethical hacking assessment. How can these activities help identify potential vulnerabilities in an organization's security infrastructure?

## Mastering Cybersecurity - Secure Passwords and Access Management (MC 4.1.D.6)

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Identification of the learner	Any Citizen
Title and code of the micro-credential	Mastering Cybersecurity - Secure Passwords and Access Management Code: MC 4.1.D.6
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	EXPERT
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

Learning Outcomes (ref. LOs 4.1.73, 4.1.74):

- Being able to create strong and secure passwords for enhanced cybersecurity.
- Plan effective access management strategies to enhance the security of business- owned devices and sensitive data.

#### Description

In a rapidly evolving digital age where almost every aspect of human interaction is mediated through digital platforms and devices, cybersecurity has become a pressing priority. The emergence of technologies like artificial intelligence, cloud computing, the Internet of Things, and machine learning has significantly amplified the value and vulnerability of data. This situation invariably invites malicious actors who are eager to exploit these vulnerabilities. As a result, there is an escalating need for efficient cybersecurity practices that incorporate robust password protection and comprehensive access management strategies.

This micro-credential is designed to impart a thorough understanding of cybersecurity with a concentrated focus on the creation of robust, secure passwords and the implementation of effective access management strategies. Upon completion of this program, participants will have gained an essential foundation in enhancing the security of business-owned devices and safeguarding sensitive data.

#### Module: Secure Password Creation

The significance of password protection, despite its fundamental nature, is often underestimated, leading to considerable security risks. Weak or recycled passwords become easy targets for cybercriminals, who employ brute-force attacks or sophisticated algorithms to crack them. In the first part of this course, participants will learn about the underlying principles of creating strong, secure passwords, which include the use of a combination of special characters, letters, and numbers. Strategies such as refraining from using dictionary words, employing two-factor authentication, and changing passwords frequently to bolster cybersecurity will also be covered.

This segment of the micro-credential offers participants both theoretical knowledge and practical experience in generating resilient passwords that can withstand various types of cyber-attacks. Utilizing real-world scenarios and case studies, the importance of secure passwords and the repercussions of their compromise will be highlighted. Participants will learn to utilize password management tools, implement a secure password policy, and disseminate the importance of strong passwords amongst their team members.

#### Module: Access Management Strategies Implementation

Apart from passwords, another critical aspect of enhancing security is implementing effective access management strategies. This includes regulating who has access to the systems, defining their level of access, and controlling what they can do with that access. Inadequate access management can lead to sensitive data and resources falling into unauthorised hands, resulting in substantial financial and reputational damage.

In this section of the course, participants will delve into access management strategies. They will understand how to assign and manage access privileges based on the principle of least privilege (PoLP), ensuring that users have only the necessary access to execute their jobs. Topics such as role-based access control (RBAC), user identity verification, session management, as well as auditing and monitoring of user activities will be covered.

This section will also examine methods for managing access to business-owned devices and handling privileged access to prevent insider threats.

With the completion of this micro-credential, participants will acquire a comprehensive understanding of effective cybersecurity practices. They will gain the knowledge and skills to generate secure passwords and implement robust access management strategies, consequently enhancing the security of their organization's devices and sensitive data. In addition, they will be well-positioned to propagate the significance of these practices within their organization, fostering a culture of cybersecurity awareness and responsibility.

Through a blend of theory, practical exercises, and case studies, this course will arm participants with the skills to navigate the increasingly complex cybersecurity landscape with confidence. They will be well equipped to proactively identify potential security vulnerabilities and implement strategies to counter them effectively, ensuring the integrity, confidentiality, and availability of their organization's information assets.

The accomplishment of this micro-credential will not only signify participants' proficiency in password security and access management but will also underscore their commitment to staying updated with the evolving cybersecurity landscape, thereby making them an invaluable resource for their organization's data protection initiatives.

- 1. What are the key characteristics of a strong and secure password, and how do these components contribute to enhanced cybersecurity?
- 2. How does the use of a combination of special characters, letters, and numbers in a password help prevent cyber attacks? Provide an example of a robust password following these principles.
- 3. What is the role of two-factor authentication in enhancing password security? Explain how it can protect a system even if a password is compromised.
- 4. Why is it critical to avoid using dictionary words in passwords? Explain with the help of a real-world example.
- 5. Explain the principle of least privilege (PoLP) and its role in effective access management. How does applying PoLP enhance the security of business-owned devices and sensitive data?
- 6. What is role-based access control (RBAC), and how can implementing it help in managing access to sensitive data and business-owned devices?
- 7. How does user identity verification contribute to the overall access management strategy? Provide an example where identity verification can prevent a potential security breach.
- 8. Why is continuous auditing and monitoring of user activities important in an effective access management strategy? How does it help in early detection of potential security threats?
- 9. Discuss a scenario where improper access management led to a data breach. How could this have been prevented by implementing effective access management strategies?

## Cybersecurity Awareness and Account Management (MC 4.1.D.7)

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Identification of the learner	Any Citizen
Title and code of the micro-credential	Cybersecurity Awareness and Account Management Code: MC 4.1.D.7
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	EXPERT
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

#### **Learning Outcomes**

Learning Outcomes (ref. LOs 4.1.75, 4.1.76):

- Educate employees about the risks associated with using personal accounts for work- related tasks and promote the importance of separating personal and business accounts.
- Implement a personal account system for each employee to establish clear accountability for access to sensitive data and track user activities effectively.

#### Description

In the digital era, the integration of technology into the daily operations of a business is ubiquitous, bringing with it an increase in the amount of sensitive data that needs protection. This paradigm shift necessitates rigorous security measures and an educated workforce to minimize the potential for cyber threats. The risks associated with cyber threats are not confined to the external attackers but can often come from within the organization, intentionally or inadvertently, through the misuse of personal accounts for work-related tasks. Hence, it is crucial to educate employees about these risks and implement a system that separates personal and business accounts.

This micro-credential is designed to provide participants with a comprehensive understanding of the risks associated with using personal accounts for work-related tasks and the importance of separating personal and business accounts. The participants will also learn to implement a personal account system for each employee to establish clear accountability for access to sensitive data and effectively track user activities.

Module: Educating Employees about the Risks

The importance of cybersecurity in the workspace cannot be understated. However, a security system is only as strong as its weakest link. Oftentimes, this weak link tends to be human error or negligence, primarily when employees use their personal accounts for work-related tasks. This part of the course delves into the risks associated with using personal accounts for business purposes, including data leakage, potential hacking, and difficulty in tracking work-related activities. Participants will learn about real-world examples where the misuse of personal accounts led to significant security breaches. They will understand the far-reaching implications of such breaches, including the potential for financial loss, reputational damage, and loss of trust among stakeholders. Through these lessons, participants will come to appreciate the critical importance of maintaining separate personal and business accounts to ensure the security and integrity of sensitive data.

Module: Promoting the Importance of Separating Personal and Business Accounts

In the second segment of the course, participants will learn about the importance of having separate personal and business accounts. This separation is a fundamental element of a strong cybersecurity strategy, as it allows for better control over access to sensitive data, easier tracking of work-related activities, and improved accountability. Participants will explore the various benefits of separating personal and business accounts, including increased security, clearer audit trails, and greater control over data access. Case studies showcasing the advantages of such separation, as well as the pitfalls of not doing so, will further reinforce this understanding.

Module: Implementing Personal Account Systems

The final segment of the course will focus on the implementation of personal account systems for each employee. Participants will learn how to set up individual work accounts for their employees, establish clear rules and guidelines for their use, and implement monitoring systems to track user activities effectively. Participants will learn about best practices for setting up and managing personal account systems, including how to handle onboarding and offboarding, manage access permissions, and audit user activities. They will also understand the role of such systems in maintaining accountability and improving overall security.

By the completion of this micro-credential, participants will have a deep understanding of the importance of separating personal and business accounts and the risks associated with using personal accounts for work-related tasks. They will be equipped with the skills to implement effective personal account systems, ensuring better data security and accountability within their organization.

This micro-credential will provide them with an opportunity to understand how an informed and educated workforce can act as the first line of defense against potential cybersecurity threats. They will be able to spread awareness among their teams about the importance of separating personal and business accounts, thereby helping to create a security-conscious culture within their organizations. Through a combination of theoretical learning, real-world examples, and practical exercises, participants will be better equipped to anticipate potential security risks and implement strategies to mitigate them. Their completion of this micro-credential will not only signify their understanding of the importance of account separation and management but will also reflect their commitment to maintaining robust cybersecurity practices within their organization, making them invaluable assets in their organization's data protection initiatives.

#### Questions

- 1. What are the potential risks associated with employees using personal accounts for work-related tasks? Please provide a real-life example illustrating these risks.
- 2. Explain the benefits of separating personal and business accounts for employees. How can this separation enhance an organization's cybersecurity posture?
- 3. What measures can an organization take to educate employees about the dangers of using personal accounts for work-related tasks?
- 4. How does separating personal and business accounts help in tracking work- related activities more effectively?
- 5. What role does employee education play in promoting the importance of separating personal and business accounts?
- 6. Describe a situation where the failure to separate personal and business accounts led to a security breach. How could this have been prevented?
- 7. What elements are crucial in implementing a personal account system for each employee?
- 8. How can the implementation of personal account systems establish clear accountability for access to sensitive data?
- 9. What strategies can an organization employ to track user activities effectively when using a personal account system for employees?

# Cybersecurity Management - Endpoint Protection and Data Retention (MC 4.1.D.8)

#### **Basic Information**

	1
Identification of the learner	Any Citizen
Title and code of the micro-credential	Cybersecurity Management - Endpoint Protection and Data Retention Code: MC 4.1.D.8
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	EXPERT
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

#### **Learning Outcomes**

Learning Outcomes (ref. LOs 4.1.77, 4.1.78):

- Know how to implement, handle and maintain endpoint protection solutions to safeguard individual devices and networks from security threats.
- Practice data retention policies to ensure data is only kept for the necessary duration, minimizing the risk of data exposure and potential impact from cybersecurity incidents.

#### Description

In the dynamic realm of cybersecurity, the protection of endpoints, such as laptops, smartphones, and other wireless devices, is a crucial component in defending an organization's digital assets from security threats. At the same time, robust data retention policies can play a pivotal role in minimizing the risk of data exposure and the potential impact of cybersecurity incidents. To navigate the complexities of these cybersecurity domains, there is a critical need for professionals adept at implementing and maintaining endpoint protection solutions and practicing effective data retention policies.

This micro-credential is designed to offer participants a comprehensive understanding of the strategies and practices involved in safeguarding individual devices and networks from security threats. It also aims to equip them with the necessary skills to implement data retention policies effectively, ensuring that data is only retained for the required duration, thus reducing the risk of data exposure.

Module: Implementing and Maintaining Endpoint Protection Solutions

Endpoints, as the gateways to an organization's network, are prime targets for cyberattacks. Ensuring the security of these devices is a complex task requiring specialized knowledge and skills. The first part of this course is dedicated to understanding the importance of endpoint protection and learning how to implement and maintain endpoint protection solutions effectively. Participants will delve into the various types of endpoint protection solutions, ranging from antivirus and anti-malware software to firewalls and intrusion detection systems. They will understand the role each type of solution plays in defending against different types of cyber threats and how to select the appropriate solutions for their specific organizational needs. In addition, they will learn about best practices for maintaining these solutions, including regular software updates and patches, continuous monitoring, and prompt response to potential threats. Through real-world scenarios and case studies, participants will understand the consequences of insufficient endpoint protection and the critical role of timely updates and continuous monitoring in maintaining a robust defense against cyber threats.

Module: Practicing Data Retention Policies

Another vital aspect of cybersecurity is the management of the data lifecycle, particularly the length of time data is retained. The second part of the course focuses on data retention policies and their role in minimizing the risk of data exposure. Participants will learn about the importance of keeping data only for the necessary duration and the potential risks associated with retaining data longer than required. They will delve into the legal and regulatory requirements related to data retention and how to incorporate these into their organization's data retention policies. Further, participants will gain insights into best practices for implementing and maintaining data retention policies, including regular audits, automated data deletion protocols, and staff training. They will understand the role of these policies in reducing the surface area for potential cyberattacks and minimizing the impact of any potential cybersecurity incidents.

Upon completion of this micro-credential, participants will have developed a solid foundation in two critical aspects of cybersecurity: endpoint protection and data retention. They will gain the knowledge and skills to implement and maintain effective endpoint protection solutions and data retention policies, thereby enhancing the security of their organization's devices, networks, and data. In addition, they will be well-positioned to advocate for the importance of these practices within their organization, promoting a culture of cybersecurity awareness and responsibility.

Through a blend of theory, practical exercises, and case studies, this course will arm participants with the skills to navigate the increasingly complex cybersecurity landscape with confidence. They will be well equipped to proactively identify potential security vulnerabilities and implement strategies to counter them effectively, ensuring the integrity, confidentiality, and availability of their organization's information assets.

The accomplishment of this micro-credential will not only signify participants' proficiency in endpoint protection and data retention but will also underscore their commitment to staying updated with the evolving cybersecurity landscape, thereby making them an invaluable resource for their organization's data protection initiatives.

#### Questions

- 1. What are the key components of an effective endpoint protection solution? How do these components work together to safeguard individual devices and networks from security threats?
- 2. Describe the process of implementing an endpoint protection solution in an organization. What are the steps involved, and what are the key factors to consider?
- 3. How can regular updates and patches contribute to the effectiveness of endpoint protection solutions? Provide a real-world example where the lack of regular updates led to a security breach.
- 4. Explain the concept of data retention policies. How do these policies help minimize the risk of data exposure?
- 5. What is the importance of setting a necessary duration for data retention, and what are the potential risks of keeping data longer than required?
- 6. How do legal and regulatory requirements influence data retention policies? Give an example of a regulation that impacts data retention and explain how.
- 7. Describe the process of implementing a data retention policy within an organization. What are the critical steps, and what challenges might arise during implementation?
- 8. How does practicing effective data retention policies minimize the potential impact from cybersecurity incidents? Provide an example to support your explanation.

## Browser Optimization and Security Management (MC 4.1.D.9)

#### **Basic Information**

	1
Identification of the learner	Any Citizen
Title and code of the micro-credential	Browser Optimization and Security Management Code: MC 4.1.D.9
Country(ies)/Region(s) of the issuer	IRELAND, ITALY, CYPRUS, GREECE, ROMANIA <a href="http://dsw.projectsgallery.eu">http://dsw.projectsgallery.eu</a>
Awarding body(ies)	DSW Consortium Project Number: <b>101087628</b>
Date of issuing	Nov 2023
Notional workload needed to achieve the learning outcomes	Minimum 3 – Maximum 8 hrs
Level of the learning experience leading to the micro- credential	EXPERT
Type of assessment	Automatically marked Questions Number of Questions: 16 – 20 Passing Score: 75%
Form of participation in the learning activity	Online Asynchronous
Type of quality assurance used to underpin the microcredential	Peer Review

#### **Learning Outcomes**

Learning Outcomes (ref. LOs 4.1.79, 4.1.80):

- Optimize your browser settings and performance to improve browsing speed and efficiency.
- Personalize your browser security settings to enhance online safety and privacy.

#### Description

The browser serves as a primary interface between users and the Internet, offering a gateway to vast amounts of information and services. As such, the performance and security of the browser can significantly influence the quality of a user's online experience. Therefore, it is crucial for users to optimize their browser settings for enhanced speed and efficiency while also personalizing the security settings to promote online safety and privacy.

This micro-credential aims to equip participants with the necessary knowledge and skills to optimize browser settings for improved speed and efficiency and personalize security settings for enhanced online safety and privacy. The course will cover all aspects of browser management, from understanding the various settings to manipulating them to optimize performance and enhance security.

Module: Browser Optimization for Enhanced Speed and Efficiency

In the first part of the course, participants will learn about the numerous settings and features that can affect a browser's speed and efficiency. Participants will delve into the different components that influence browsing speed, including cache management, cookie control, and the disabling of unnecessary extensions. Through hands-on exercises, they will learn how to adjust these settings to optimize browser performance and improve the overall online experience. The importance of regular browser updates will also be covered, with participants learning how updates not only provide the latest features and security patches but also often enhance browser efficiency. Real-world examples will further underscore the importance of regular browser updates and proper browser management in improving browsing speed.

Module: Personalizing Browser Security Settings for Enhanced Safety and Privacy

The second part of the course will focus on browser security settings. Participants will learn how to personalize these settings to enhance online safety and privacy. From understanding the role of cookies in online tracking to learning how to implement various security features, such as pop-up blockers and private browsing, participants will gain a comprehensive understanding of browser security settings. Topics will also include managing saved passwords, enabling automatic updates for security patches, and understanding secure connections (HTTPS). Participants will learn how to manage privacy settings to control how much personal information is shared with websites and how to use incognito or private mode for additional privacy.

By the end of this micro-credential, participants will have gained a comprehensive understanding of how to optimize and manage their browser settings for improved speed, efficiency, safety, and privacy. They will be able to navigate their online environment with greater confidence and control, ensuring a secure and efficient browsing experience.

Through theoretical knowledge and practical exercises, this course will enable participants to understand the

nuances of browser settings and their impact on speed, efficiency, and security. They will also gain valuable insights into the importance of browser management in the broader context of online safety and privacy.

The completion of this micro-credential will demonstrate their proficiency in browser optimization and security management. This accomplishment will not only enhance their online experience but will also equip them with critical skills necessary in the increasingly digital world. They will become more competent and responsible digital citizens, well-versed in managing their online interface effectively and safely.

#### Questions

- 1. What are some key settings that can be optimized to enhance a browser's speed and efficiency? Provide examples.
- 2. How does cache management influence a browser's performance? Discuss the implications of clearing browser cache on browsing speed and efficiency.
- 3. What are the potential risks associated with using default browser security settings? How can personalizing these settings improve online safety and privacy?
- 4. Describe the role of cookies in online tracking and privacy. How can browser settings be adjusted to manage cookies effectively?
- 5. Discuss the importance of browser updates in the context of both performance optimization and security. Give a real-life example where the lack of browser updates led to a security breach or decreased performance.
- 6. How can the use of extensions impact a browser's performance and security? Discuss some strategies for managing extensions effectively.
- 7. How does private browsing or incognito mode enhance online privacy? In what scenarios might it be particularly beneficial to use this feature?

# APPENDIX I: PROTECTING DEVICES

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COMP	ETENCE: PROTECTING DEVICES (4.1)	
1	At basic level and with guidance, I can:	<ul> <li>identify simple ways to protect my devices and digital content,</li> <li>differentiate simple risks and threats in digital environments.</li> <li>choose simple safety and security measures</li> <li>identify simple ways to have due regard to reliability and privacy.</li> </ul>
2	At basic level and with autonomy and appropriate guidance where needed, I can:	<ul> <li>identify simple ways to protect my devices and digital content.</li> <li>differentiate simple risks and threats in digital environments.</li> <li>follow simple safety and security measures.</li> <li>identify simple ways to have due regard to reliability and privacy.</li> </ul>
3	On my own and solving straightforward problems, I can:	<ul> <li>indicate well-defined and routine ways to protect my devices and digital content</li> <li>differentiate well-defined and routine risks and threats in digital environments</li> <li>select well-defined and routine safety and security measures.</li> <li>indicate well-defined and routine ways to have due regard to reliability and privacy.</li> </ul>
4	Independently, according to my own needs, and solving well-defined and non-routine problems, I can:	<ul> <li>organise ways to protect my devices and digital content.</li> <li>differentiate risks and threats in digital environments.</li> <li>select safety and security measures.</li> <li>explain ways to have due regard to reliability and privacy.</li> </ul>
5	As well as guiding others, I can:	<ul> <li>apply different ways to protect devices and digital content.</li> <li>differentiate a variety of risks and threats in digital environments.</li> <li>apply safety and security measures.</li> <li>employ different ways to have due regard to reliability and privacy.</li> </ul>
6	At advanced level, according to my own needs and those of others, and in complex contexts, I can:	<ul> <li>choose the most appropriate protection for devices and digital content.</li> <li>discriminate risks and threats in digital environments.</li> <li>choose the most appropriate safety and security measures.</li> <li>assess the most appropriate ways to have due regard to reliability and privacy.</li> </ul>
7	At highly specialised level, I can:	<ul> <li>create solutions to complex problems with limited definition that are related to protecting devices and digital content, managing risks and threats, applying safety and security measures, and reliability and privacy in digital environments.</li> <li>integrate my knowledge to contribute to professional practice and knowledge and guide others in protecting devices.,</li> </ul>
8	At the most advanced and specialised level, I can:	<ul> <li>create solutions to solve complex problems with many interacting factors that are related to protecting devices and digital content, managing risks and threats, applying safety and security measures, and reliability and privacy in digital environments.</li> <li>propose new ideas and processes to the field.</li> </ul>

COMPETENCE AREA: SAFETY (4)

# **INTRODUCTION:**

Digital safety and security literacy encompass the skills and knowledge necessary to safeguard devices, digital content, and personal data while understanding the risks and threats present in digital environments. In today's interconnected world, where technology is pervasive, cultivating digital safety practices is essential to protect oneself from potential harm.

At the basic level, with guidance, individuals can identify simple ways to protect their devices and digital content. This includes adopting secure password practices and recognizing the importance of using different strong passwords for various online services. They can also differentiate basic risks and threats in digital environments, such as identity theft, scams, and malware attacks. Additionally, they learn to choose simple safety and security measures and become aware of the significance of privacy and reliability.

As learners progress to the intermediate level, they gain autonomy and can follow simple safety and security measures independently. They understand the importance of keeping their devices and applications up-to-date to mitigate security vulnerabilities. Moreover, they learn about two-factor authentication and how it enhances their digital protection.

Advancing to the intermediate level, individuals can indicate well-defined and routine ways to protect their devices and digital content. They can discern well-defined and routine risks and threats in digital environments. They select and apply well-defined and routine safety and security measures. They understand the importance of encrypting sensitive data and can respond appropriately to security breaches.

At the advanced level, learners demonstrate a comprehensive understanding of digital safety and security measures. They can apply various methods to protect their devices and digital content effectively. They differentiate a wide range of risks and threats in digital environments and employ suitable safety and security measures accordingly. Moreover, they possess the knowledge to guide others in adopting protective practices.

At the highly specialized level, individuals can create innovative solutions to complex problems related to protecting devices, managing risks and threats, and applying safety and security measures in digital environments. Their expertise enables them to contribute to professional practice and knowledge, becoming valuable resources for guiding others in protecting their devices and digital content.

Finally, at the most advanced and specialized level, learners can devise sophisticated solutions to multifaceted problems in digital safety and security. They can propose novel ideas and processes to enhance the field, promoting cutting-edge protective practices.

In various use cases, individuals apply their digital safety and security literacy to real-world scenarios. For instance, in an employment setting, they can secure corporate social media accounts, detect and address risks, and educate colleagues on best practices. In educational settings, they can safeguard digital learning platforms, identify potential threats, and help their peers navigate these platforms safely.

# **PREREQUISITES**

- 1. Basic knowledge about the internet, including its functions and how it facilitates data exchanges between computers.
- 2. Understanding the significance of strong passwords, along with knowledge on how to manage and protect them securely.
- 3. Knowledge of safe online practices, such as avoiding public Wi-Fi for sensitive activities and being cautious while sharing personal information online.
- 4. Awareness of two-factor authentication and how to enable it for added security on online accounts.
- 5. Basic knowledge of organizing and managing digital content and files securely.

### 4.1

COMPETENCE AREA: SAFETY (4) COMPETENCE: PROTECTING DEVICES (4.1)			
Learning Outcome	Level	K – S - A	Explanation
Recognize the importance of using unique passwords for different online accounts to enhance security.	L1	К	Understand that using different strong passwords for each account can reduce the risk of multiple accounts being compromised if one password is exposed. Understand that having unique, strong passwords for every account helps lower the likelihood that numerous accounts will be compromised if one password is made public.
Foster an attitude of vigilance and awareness of your surroundings	L1	A	By encouraging individuals to be aware of their surroundings, they will develop an attitude of vigilance and attentiveness to potential risks or threats in their environment. This heightened awareness can contribute to personal safety and security, enabling individuals to respond appropriately to any unexpected situations or hazards they may encounter.
3. Identify common signs of phishing attempts and learn how to avoid falling victim to such scams.	L1	K - S	Recognize suspicious emails, messages, or websites that might try to deceive you into revealing personal information or login credentials.
4. Recognize suspicious emails, messages, or websites that might try to deceive you into revealing personal information or login credentials.	L1	К	List the advantages of installing trusted antivirus software to detect and remove harmful programs from your devices.
5. Apply the skill of securing your device when it's unattended.	L1	S	By learning to apply the skill of securing their devices when unattended, individuals can take proactive measures to prevent unauthorized access or misuse. This may involve locking the device with a password, PIN, or biometric authentication, enabling automatic screen lock when idle, and being cautious of leaving devices in public places. Implementing these measures helps protect sensitive data and ensures the device remains safe from potential security threats while unattended.
6. Describe the significance of securing your home network with strong passwords and encryption protocols.	L1	К	Explain how setting a strong Wi-Fi password and enabling encryption protocols help prevent unauthorized access to your network.

7. Identify the risks associated with using public Wi-Fi networks	L1	K - S	Recognize that public Wi-Fi networks may be insecure, also inserting passwords in public Wi-Fi is strongly discouraged
8. Describe how reviewing and adjusting privacy settings can help control the information shared on devices and online accounts.	L1	K	Explain the importance of regularly checking and updating privacy settings to manage personal information shared with apps and services.
9. Enumerate the potential threats posed by digital risks and the importance of staying informed about cybersecurity best	L1	К	List different types of digital risks, such as phishing, malware, and social engineering, and the need to stay informed to protect against them.
10. Outline the steps to take if a device is lost or stolen to safeguard personal data and privacy.	L1	K - S - A	When a device is lost or stolen, immediate action protects sensitive information. The individual must first report the theft to the police and then utilize remote lock features to secure the device. They need to quickly change passwords for accounts accessible on the device, while using tracking tools to attempt location. Informing personal and professional contacts helps guard against unauthorized communication, and contacting insurance may lead to a claim. Speed is essential in minimizing potential damage.
11. Recognize the importance of turning off unnecessary network services and background programs on your devices to reduce potential attack surfaces.	L2	К	Understand that disabling unnecessary network services and background programs can help minimize the risk of security vulnerabilities.
12. Be mindful of physical device security, especially in public places, to prevent theft and unauthorized access	L2	S	Develop a habit of being attentive to the security of your mobile devices and keeping them under your observation in public settings to deter theft.

13. Apply safe screen sharing practices during virtual meetings or remote collaborations to protect sensitive information from unauthorized access or exposure	L2	S	To prevent sensitive information from being accessed or exposed by unauthorized parties during virtual meetings or remote collaborations, it is crucial to follow secure screen sharing procedures. You can ensure that only the intended audience may see the content being shared and avoid any potential privacy or data breaches by employing safe screen sharing procedures. This may entail employing secure meeting platforms with built-in screen sharing restrictions, picking the content to present with caution, and keeping an eye on who has access to the shared screen. You can keep your sensitive data confidential, maintain its integrity, and prevent it from getting into the wrong hands by following these safeguards.
14. Know the importance of regularly reviewing and removing your personal information stored in social media databases to protect your digital content's privacy	L2	K	Be aware of the need to regularly check and manage the personal information stored in social media accounts to maintain privacy.
15. Implement parental controls and filtering software to protect children from inappropriate content and online risks	L2	S	Set up parental controls and filtering software when needed to create a safer online environment for children.
16. Understand the risks associated with downloading programs or apps from unofficial or third-party sources	L2	К	Know that downloading from unofficial sources may expose your device to malicious software and security risks.
17. Avoid using jailbroken or rooted devices, as these methods can bypass security measures and compromise the safety of your data.	L2	S	Choose not to use jailbroken or rooted devices to maintain the integrity of the device's security features.

18. Know the importance of securely erasing and disposing of old devices to prevent your data from being recovered by others	L2	K	Understand the need to properly erase data from old devices to ensure data privacy.
19. Use encryption to protect sensitive data on your devices, especially for data stored on mobile devices and removable mass storage.	L2	S	Implement encryption programs to safeguard sensitive data, giving special attention to mobile devices and external storage.
20. Understand the risks associated with transmitting or storing personal information on devices and the potential for data breaches	L2	К	Be aware that storing sensitive information, such as credit card details or EU Heatlth Insurance numbers, on devices can expose you to identity theft if the device is compromised.
21. Cautiously handle suspicious links and avoid downloading files from unknown sources to protect your devices from potential malware threats.	L3	S - A	Understand the risks associated with clicking on suspicious links and downloading files from untrusted sources.
22. Indicate the importance of regularly backing up data to protect against data loss and device failures.	L3	K	Understand that regularly backing up files ensures that important data is safe and retrievable in case of unexpected events.

23. Know that lost or stolen devices can be tracked, locked, or erased using free Web-based tools available on most devices	L3	K	Be aware that devices come with built-in tools that can help track and remotely secure or erase data in case of loss or theft.
24. Skillfully utilize tracking, locking, and erasing features to protect your data and privacy if your device is lost or stolen	L3	S	Utilize device tracking, locking, and erasing features effectively to safeguard sensitive information in case of device loss.
25. Understand the importance of logging out at the end of your internet or app sessions to protect your personal information from unauthorized access.	L3	K	Know that logging out after using online services ensures your accounts remain secure and your data protected.
26. Understand how to manage app permissions to safeguard your privacy and be aware of the data collected by apps on your devices.	L3	S	Use app permissions judiciously and carefully read the terms and conditions before accepting them.
27. Practice safe browsing habits, such as avoiding suspicious websites and using HTTPS connections, to reduce the risk of malware and data theft.	L3	S	Implement safe browsing practices to protect devices and data from potential cyber threats while accessing the internet.

28. Acknowledge the importance of keeping devices physically secure, especially in public places, to prevent theft and unauthorized access.	L3	K	Recognize the need to be vigilant about device security and keeping devices within sight to avoid potential theft or tampering.
29. Identify the risks associated with using public charging stations and the potential for data theft or malware installation.	L3	K - S	Be aware of the potential security risks when using public charging stations and take precautions to protect devices from such risks.
30. Being able to implement a password manager to securely store and generate complex passwords for different online accounts, reducing the risk of password-related security breaches.	L3	S	Use a password manager tool to generate and manage strong, unique passwords for each online account, enhancing overall security.
31. Implement device-specific security features, such as biometric authentication or device encryption, to enhance the protection of sensitive data.	L4	S	Set up biometric authentication or device encryption to strengthen device security and safeguard personal information.
32. Understand the risks of using outdated or unsupported software on your devices and the importance of updating or replacing such software to maintain security.	L4	К	Be aware of the security risks posed by using outdated software and the need to update or replace it with supported versions.

33. Identify suspicious activities on your devices, such as unexpected pop-ups or unusual battery drainage, which may indicate potential malware or security breaches.	L4	K - S	Recognize signs of device compromise and take necessary actions to address potential security threats.
34. Evaluate the security features of various devices and choose the most secure options based on your specific needs and use cases.	L4	A	When considering a purchase, thoroughly research the device's inherent security features. Evaluate encryption standards, authentication mechanisms, and frequency of security updates. Reflect on your unique requirements: do you need advanced biometric verification or multi-factor authentication? Also, consider feedback from tech experts and everyday users. Balancing security with your specific needs ensures optimal protection and functionality. Your data's safety hinges on informed choices.
35. Recognize the importance of regularly reviewing and managing app permissions to limit access to personal data and safeguard privacy.	L4	K	Regularly reviewing and managing these app permissions is crucial. By being proactive, you can prevent unauthorized data access, preserving your privacy. Periodic checks ensure that only essential permissions are granted, minimizing risks. For example, does a note-taking app need your location? Likely not. By limiting unnecessary access, you not only protect sensitive information but also bolster your device's defense against potential breaches. Safeguard your privacy by being vigilant.
36. Extend your device security measures to include remote working environments, ensuring data protection and secure communication channels.	L4	K-S	Working outside traditional office environments can expose sensitive data to new threats. To adapt, ensure encrypted connections, especially on public Wi-Fi. Regularly update and backup data. Employ strong, unique passwords and activate two-factor authentication when possible. Limit device access to necessary personnel and install reliable security software. In remote settings, proactive device security is crucial to safeguard vital information.
37. Facilitate security awareness among your colleagues or family members, educating them on best practices for device security and safe online behavior.	L4	A	Promote device security awareness and encourage responsible online behavior among peers or family members.

38. Recognize the potential risks associated with opening zip or rar archives from untrusted or unknown sources.	L4	K	Avoid opening email attachments or downloading files from websites if you do not trust the sender or source. This prevents the risk of downloading malicious zip or rar archives that could contain harmful software or viruses.
39. Develop the habit of ensuring the safety of portable hardware media and removal devices, avoiding trust in unsafe devices or media contents.	L4	A	Before using a USB flash drive or external hard disk, visually inspect it for any physical damage or suspicious signs. Also, consider scanning the media contents with reliable antivirus software to prevent potential security threats from spreading to your devices.
40. Explain the risks of downloading apps from unknown sources and the importance of using official app stores.	L4	К	Downloading apps from unknown sources can expose your device to harmful malware.
41. Evaluate and compare different security software solutions, such as antivirus programs and firewalls, to select the most effective ones for your specific device and needs.	L5	S	Research and compare various antivirus programs based on their features, reviews, and effectiveness to choose the most suitable one for your computer.
42. Advocate for avoiding the use of sensitive or easily traceable information in passwords to enhance their strength and security.	L5	A	Encourage friends and colleagues to create strong passwords that do not include easily guessable information like birthdays, names, or common phrases.

43. Understand the importance of avoiding dictionary words or common patterns in passwords to prevent brute-force attacks.	L5	K	Be aware that using simple dictionary words or predictable patterns in passwords can make them vulnerable to automated password-cracking tools.
44. Recognize the risk of using the same password across multiple accounts and the importance of using unique passwords for each account.	L5	К	Generate strong passwords with a mix of uppercase and lowercase letters, numbers, and special characters for each of your accounts.
45. Acknowledge the importance of periodically updating passwords and avoiding the reuse of old passwords.	L5	К	Be aware that regularly changing passwords helps mitigate the risks associated with potential data breaches or compromised accounts.
46. Skillfully use a compression program on your device to reduce data volume, ensuring efficient storage and transmission.	L5	S	Implement a compression algorithm to reduce data size, making it easier to store and share information.
47. Being able to configure device settings to automatically lock or log out after a period of inactivity to prevent unauthorized access.	L5	S	Set your smartphone or laptop to lock automatically after a short period of inactivity to protect your data from prying eyes.

48. Know the risks of using automatic login features for websites or apps that store personal information.	L5	K	Understand that enabling automatic login features may save time but can pose a security risk if someone gains physical access to the device.
49. Advocate for the use of secure file transfer methods, such as SFTP or secure cloud storage, to exchange sensitive files between devices.	L5	A	Encourage colleagues or friends to use secure file transfer methods to share confidential documents without compromising their security.
50. Recognize the potential risks of using unfamiliar software or applications on your devices.	L5	S	When you encounter a new software or app that you are not familiar with, it is essential to exercise caution and consider the potential consequences before installing it on your device.  Using unfamiliar software can pose several risks to your device's security and functionality. Some of these risks include malwares, unwanted modifications, privacy concerns, etc.
51. Recognize the importance of disabling Bluetooth on your devices when not in use	L6	К	Understand that turning off Bluetooth when not needed helps to reduce potential security risks and save battery life on your device.
52. Being able to perform virus scans on external storage devices	L6	K-S	Acquire the knowledge and skill to conduct virus scans on external storage devices such as USB drives or external hard drives. By doing so, you can identify and eliminate potential viruses or malware that may be present on the storage media, safeguarding your devices from possible infections and data corruption.

53. Understand the importance of training employees on IT security techniques	L6	K-A	Possess the knowledge and ability to conduct IT security training for employees. By doing so, you can equip them with essential knowledge and skills to identify and respond to cybersecurity threats effectively. This training empowers employees to adopt best practices, safeguard sensitive information, and contribute to a more secure work environment.
54. Develop comprehensive physical security measures to protect organizational assets	L6	A	With your knowledge of physical security principles, you will design and implement robust security measures to safeguard the organization's physical assets, including buildings, equipment, and sensitive information. Applying your skills, you can conduct risk assessments, install access control systems, surveillance cameras, and alarm systems, as well as establish secure entry and exit procedures. This proactive approach ensures that the organization's physical infrastructure is protected from unauthorized access, theft, vandalism, and other physical threats. By fostering a security-conscious attitude among employees and stakeholders, you create a safer working environment, mitigating potential risks and enhancing the overall security posture of the organization.
55. Being aware of the importance of the concept of two-factor authentication (2FA) and its role in providing an extra layer of protection for online accounts.	L6	A	Describe how 2FA adds an additional verification step beyond a password, making it harder for unauthorized individuals to access accounts.
56. Know how to diagnose and troubleshoot security issues on your devices, identifying potential malware or unauthorized access attempts.	L6	S	Skillfully investigate and resolve security incidents to protect your devices from potential threats.
57. Understand the potential dangers of storing passwords in web browsers and the importance of using dedicated password management tools.	L6	K	Be aware that storing passwords in web browsers may not be as secure as using dedicated password managers.

58. Develop a personal cybersecurity awareness plan to stay informed about current threats and adopt best practices to protect personal devices and data.	L6	A	Create a personalized cybersecurity plan to stay updated on threats and protect personal devices and data.
59. Adopt reputable antivirus and anti-malware software on personal devices to detect and remove potential threats.	L6	S	Ensure the security of your personal devices by installing and regularly updating reputable antivirus and anti-malware software. This software will actively scan your devices for potential threats, such as viruses, malware, and other malicious programs. If any threats are detected, the software will promptly remove them, protecting your devices and data from harm. Regular updates ensure that your antivirus and anti-malware software can effectively detect and combat the latest and emerging threats, providing you with a strong defense against potential cybersecurity risks.
60. Implement access controls to regulate and restrict entry to systems, accounts, or personal profiles, ensuring better security and privacy	L6	S	By employing access controls, you can manage and limit who has permission to access your systems, accounts, or personal profiles. This helps safeguard sensitive information and prevents unauthorized individuals from gaining entry. Utilizing techniques like passwords, two-factor authentication, and role-based access control, you can enhance the overall security of your digital assets. Controlling access also minimizes the risk of data breaches, identity theft, and unauthorized use of personal information. As a result, you maintain a higher level of confidentiality, integrity, and availability of your resources, bolstering your cybersecurity defenses.
61. Understand the importance of conducting annual staff awareness training on cybersecurity	L7	K - S - A	Demonstrate the knowledge, skills, and attitude to organize and deliver annual staff awareness training sessions focused on cybersecurity. By conducting these training sessions, you ensure that all employees are educated about the latest cybersecurity threats, best practices, and company policies. This helps to raise awareness among staff members, empowering them to recognize potential risks, avoid common pitfalls, and actively contribute to a secure and vigilant work environment. Regular staff awareness training reinforces the importance of cybersecurity within the organization and fosters a security-conscious culture among employees.
62. Analyse out and categorise potential cybersecurity risks based on their impact and likelihood of occurrence	L7	S	As part of a risk assessment exercise, you will demonstrate your knowledge (K) of cybersecurity threats and vulnerabilities commonly faced by organizations. You will be able to identify and recognize specific risks such as phishing attacks, malware infections, and unauthorized access attempts. Applying your skills (S), you will assess the potential impact and likelihood of each risk on the organization's information systems and data. By categorizing risks into high, medium, or low severity levels, you will prioritize mitigation efforts, allocating resources effectively to address the most critical risks first. This approach demonstrates a proactive attitude (A) towards cybersecurity, ensuring that the organization is well-prepared to protect against potential threats and minimize the impact of security incidents.

63. Regularly review and update policies and procedures related to cybersecurity	L7	K-S-A	As a cybersecurity professional, you will review and update cybersecurity policies and procedures to align with current best practices and regulations. This proactive approach ensures that the organization maintains a strong security posture and can effectively respond to emerging threats.
64. Emphasize data-centric security measures rather than relying solely on perimeter defenses	L7	A	As a cybersecurity advocate, you will prioritize protecting the data itself instead of solely focusing on securing the organization's network perimeter. This approach involves implementing encryption, access controls, and data classification to safeguard sensitive information even if the network perimeter is breached. By emphasizing data-centric security, the organization can ensure that data remains secure at all times, whether it is stored, transmitted, or accessed by authorized personnel. This proactive attitude toward data protection enhances the organization's overall cybersecurity resilience and reduces the risk of data breaches and unauthorized access to critical information.
65. Demonstrate the knowledge and skills to identify and remove redundant data to enhance cybersecurity	L7	K - S	As a cybersecurity practitioner, you will be proficient in recognizing redundant data stored within the organization's systems and databases. By applying your knowledge, you can assess the impact and potential risks associated with redundant data, such as increased storage costs and exposure to data breaches. Utilizing your skills, you will effectively identify and eliminate unnecessary duplicate records, files, or sensitive information. This proactive approach optimizes data management, reduces the attack surface, and enhances overall cybersecurity by minimizing the potential points of vulnerability.
66. Advocate for increased investment in cybersecurity and allocate resources effectively	L7	S - A	As a cybersecurity professional, you will actively advocate for allocating more financial resources and time towards strengthening the organization's cybersecurity efforts. By utilizing your skills, you can assess the current cybersecurity posture and identify areas that require additional investments, such as advanced security tools, employee training, and security audits. Through effective resource allocation, you can enhance the organization's ability to detect, prevent, and respond to cyber threats, thereby reducing the risk of security breaches and data compromise. This proactive attitude towards spending more on cybersecurity reflects the commitment to safeguarding the organization's digital assets and maintaining a strong defense against potential cyber-attacks.
67. Be aware of the importance to foster a company-wide security mindset and promote a culture of cybersecurity awareness	L7	A	By leading by example, you will inspire employees at all levels to prioritize cybersecurity in their daily activities. Regularly communicating the importance of security and providing real-life examples of cyber threats and their potential impact, you will cultivate a company-wide security mindset. Encouraging employees to report any security concerns or incidents, you will create an environment where everyone plays an active role in safeguarding the company's digital assets and sensitive data. This proactive approach will contribute to a strong security culture where security practices become ingrained in the organization's DNA, enhancing overall cybersecurity resilience.

68. Demonstrate the ability to classify data according to priority and importance	L7	K-S	You will acquire the skills to assess and categorize data into different priority levels, such as critical, sensitive, and public. This classification enables the organization to allocate security resources effectively, ensuring that the most valuable and sensitive data receives enhanced protection. By understanding the importance of data classification, you can implement appropriate security measures to safeguard critical information from potential cyber threats.
69. Acknowledge the importance of Two-factor or Multi-factor Authentication	L7	K-S	With the knowledge of different authentication methods, you will set up Two-factor or Multi-factor Authentication (MFA) for various accounts and systems. By applying your skills, you will configure MFA to require an additional verification step, such as a one-time password or fingerprint scan, in addition to the usual password. This proactive approach enhances the security of sensitive accounts, as it adds an extra layer of protection against unauthorized access, reducing the risk of successful cyber-attacks like phishing or password breaches.
70. Practice caution and vigilance while using social media platforms	L7	A	By adopting a cautious attitude towards social media usage, you will be mindful of the information you share, the privacy settings you apply, and the connections you accept. This proactive approach helps protect your personal data and sensitive information from potential threats like identity theft, social engineering, and cyber scams. Being aware of the risks associated with oversharing or accepting friend requests from unknown individuals, you can maintain a safer online presence and reduce the likelihood of falling victim to social media-related security breaches.
71. Know how to employ a "white hat" hacker for cybersecurity assessments	L8	K-A	Understand the benefits of hiring a "white hat" hacker, also known as an ethical hacker, to conduct cybersecurity assessments and identify potential vulnerabilities in your organization's systems. By employing such a professional, you can proactively test and strengthen your defenses, ensuring that potential security weaknesses are addressed before malicious hackers can exploit them. This approach helps enhance your organization's cybersecurity posture and minimizes the risk of data breaches and cyber-attacks.
72. Recognize and defend against social engineering tactics	L8	K-S	Acquire knowledge about social engineering tactics used by malicious actors and develop skills to identify and respond appropriately to such attempts, enhancing overall cybersecurity resilience.

73. Being able to create strong and secure passwords for enhanced cybersecurity	L8	A	Acquire knowledge about the principles of creating strong passwords to bolster cybersecurity. Develop skills to generate passwords with a minimum of 12 characters, incorporating a mix of uppercase letters, lowercase letters, numbers, and special symbols. Implementing these practices increases the complexity of passwords, making them less susceptible to brute-force attacks and significantly improving overall account security.
74. Plan effective access management strategies to enhance the security of business-owned devices and sensitive data.	L8	S	As a business owner, ensuring proper access management is crucial for maintaining the security of your organization's devices and sensitive data. By having managed admin rights and restricting employees from installing unauthorized software or accessing certain data on the network, you can minimize the risk of potential security breaches and compromises. This proactive approach helps protect your business from unauthorized access, data leaks, and potential cyber threats. By carefully controlling access to critical resources and data, you can maintain a secure and robust IT environment, safeguarding your business and its valuable assets from potential harm.
75. Educate employees about the risks associated with using personal accounts for work-related tasks and promote the importance of separating personal and business accounts.	L8	A	It is essential to make employees aware of the risks involved in using their personal accounts for work-related tasks. Using personal accounts for business purposes can expose sensitive company information to potential security threats and data breaches. By educating employees about these risks and promoting the practice of separating personal and business accounts, you can help safeguard your organization's data and protect it from unauthorized access or exposure. Encouraging employees to use dedicated work accounts and adopting secure login practices can significantly reduce the chances of confidential information being compromised, ensuring the overall security and integrity of your business operations.
76. Implement a personal account system for each employee to establish clear accountability for access to sensitive data and track user activities effectively.	L8	A	By setting up individual personal accounts for each employee, you create a clear and traceable system for monitoring who accesses what information and at what time. This personalized approach enhances security by attributing specific actions and responsibilities to individual employees, allowing you to identify any potential security breaches or unauthorized activities more easily. With personal accounts in place, you can monitor user activities, track login attempts, and review data access logs to ensure that only authorized personnel have access to sensitive data. This increased level of accountability strengthens your overall cybersecurity measures and helps protect your business from potential insider threats or unauthorized access to critical information.
77. Know how to implement, handle and maintain endpoint protection solutions to safeguard individual devices and networks from security threats.	L8	S	Endpoint protection refers to a set of security measures designed to protect individual devices, such as computers, laptops, and mobile devices, from cybersecurity threats. By ensuring endpoint protection, you deploy antivirus, anti-malware, firewall, and other security tools on each device to defend against malicious software, unauthorized access, and data breaches. These solutions help detect and block potential threats, ensuring that devices are less susceptible to malware infections, data theft, and cyberattacks. Implementing and regularly updating endpoint protection measures strengthens your overall security posture and creates a safer computing environment for employees and the organization's data.

78. Practice data retention policies to ensure data is only kept for the necessary duration, minimizing the risk of data exposure and potential impact from cybersecurity incidents.	L8	A	Adopting data retention policies helps in efficiently managing data and reducing the risk of data breaches. By not keeping data for longer than necessary, you minimize the amount of personal information at risk in case of a cyber-attack or data breach. This practice also leads to freeing up storage space, optimizing data storage, and streamlining data management processes. Regularly reviewing and purging unnecessary data ensures that sensitive information is adequately protected and reduces the likelihood of unauthorized access or data leaks. As a result, the organization's cybersecurity posture is strengthened, and compliance with data protection regulations is maintained.
79. Optimize your browser settings and performance to improve browsing speed and efficiency.	L8	S	By adjusting browser settings and configurations, you can enhance its performance, resulting in faster and smoother browsing experiences. This may involve clearing cache and cookies, disabling unnecessary extensions, and updating the browser to the latest version. Taking these steps will boost your browser's speed, making it more responsive and efficient in handling web content and reducing loading times for web pages. Additionally, optimizing your browser can also lead to improved security and privacy by eliminating potential vulnerabilities and reducing the risk of tracking or data collection through cookies.
80. Personalize your browser security settings to enhance online safety and privacy.	L8	S	Customizing browser security settings allows you to tailor your browsing experience according to your specific security and privacy preferences. By adjusting settings such as privacy, pop-up blockers, cookie management, and security levels, you can strengthen your browser's ability to protect against various online threats and data tracking. For instance, enabling strict privacy settings can limit the amount of information websites collect about you, while enabling pop-up blockers helps prevent unwanted advertisements or potential malicious content. By making these adjustments, you can bolster your browser's security, making it more resilient against potential cyber risks and safeguarding your personal data during online interactions.

### **Coordinator:**



### Partners:

















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