

Zero-day

Phase	Time	Learning Outcome	Learning Activities	Teaching/Learning Objectives	Teacher/trainer activities (What is the role of the teacher/trainer and what is he/she going to do?)	Communication and Collaboration form	Resources, tools, and media
Introduction and orientation	20 minutes	<ul style="list-style-type: none"> - Recall the concept of zero-day exploits - Define what zero-day exploits are and their basic characteristics - Identify common examples and scenarios where zero-day exploits can occur - Recognize the potential risks and consequences of zero-day exploits 	<ul style="list-style-type: none"> - Use VR/WebVR technology to watch zero-day exploit simulations - Use VR/WebVR technology to interact with different types of zero-day exploits - Discussion (Q&A, brainstorming) 	<ul style="list-style-type: none"> - Students will be able to recall and describe the basic concept and importance of understanding zero-day exploits.- Students will be able to define zero-day exploits and explain their basic characteristics.- Students will be able to identify common examples and scenarios where zero-day exploits can occur.- Students will be able to recognize the potential risks and consequences of zero-day exploits. 	<p>Start the session explaining zero-day exploit, then direct students through VR/WebVR simulations, ensuring effective interaction and comprehension of zero-day exploit characteristics and scenarios through facilitated discussion.</p>	<p>Verbal and Guided Communication and collaboration form: teacher - student, student-student; remote or on site, synchronous or asynchronous .</p>	<p>VR/Web, LMS</p>
Lesson Execution	15 minutes	<ul style="list-style-type: none"> - Understand how zero-day exploits work - Study the vulnerabilities and techniques used in zero-day exploits - Explore the life cycle of a zero-day exploit and its impact - Analyze the impact of zero-day exploits - Examine real-world examples of zero-day exploit incidents and their consequences - Assess the financial, privacy, and security implications of zero-day exploits - Evaluate the effectiveness of zero-day exploit prevention techniques - Evaluate the potential consequences of zero-day exploits - Compare and contrast different prevention techniques and 	<ul style="list-style-type: none"> - Discussion (Q&A, brainstorming) 	<ul style="list-style-type: none"> - Students will be able to understand and explain how zero-day exploits work.- Students will be able to study and describe the vulnerabilities and techniques used in zero-day exploits.- Students will be able to explore and describe the life cycle of a zero-day exploit and its impact.- Students will be able to analyze and evaluate the impact of zero-day exploits, including financial, privacy, and security implications.- Students will be able to compare and contrast different prevention techniques and strategies for mitigating zero-day exploits. 	<p>Engage students in critical analysis and discussion of various zero-day exploit prevention techniques and their potential consequences.</p>	<p>Verbal and Guided Communication and collaboration form: teacher - student, student-student; remote or on site, synchronous or asynchronous .</p>	<p>LMS</p>

		strategies for mitigating zero-day exploits					
Evaluation	10 minutes	<ul style="list-style-type: none"> - Evaluate what is a zero-day exploit and what's not - Compare different types of zero-day exploits 	<ul style="list-style-type: none"> - Students will answer an online evaluation assessment/lesson feedback in the LMS and they will get the results 	<ul style="list-style-type: none"> - Students will be able to evaluate and differentiate what constitutes a zero-day exploit and what does not.- Students will be able to compare different types of zero-day exploits based on their characteristics and impacts. 	<p>Guide students through the online evaluation, providing clarity and assistance as needed, ensuring feedback is collected and affirming the importance and constructive use of their insights for future sessions.</p>	<p>Written Evaluation</p> <p>Verbal and Guided Communication and collaboration form: teacher - student, student-student; remote or on site, synchronous or asynchronous .</p>	LMS/Quiz