Lesson 9: Introduction to Ethical Hacking

Module 14: Ethical Hacking Principles

Topic: What is Ethical Hacking?

Duration: 3 Hours

Objective: Understand the role and importance of ethical hacking in cybersecurity, legal/ethical boundaries, and compliance.

Session Plan Breakdown

Phase 1: Introduction (30 mins)

Icebreaker (5 mins):

- Prompt: "What comes to mind when you hear the word hacker?"

- Engage 23 learners for quick responses.

Define Hacking and Types (10 mins):

- White-hat: Ethical hackers

- Black-hat: Malicious hackers

- Gray-hat: In-between roles

Case Studies (15 mins):

- Kevin Mitnick's story
- Bug bounty programs (HackerOne, Google)

Phase 2: Legal & Regulatory Compliance (30 mins)

Discussion (5 mins):

- Prompt: "What could go wrong if a pentest is done without permission?"

Laws and Regulations Overview (15 mins):

Region | Law/Regulation

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Kenya | Computer Misuse Act

USA | CFAA (Computer Fraud and Abuse Act)

EU | GDPR

Global | HIPAA, PCI-DSS

Certifications & Conduct (10 mins):

- CEH (EC-Council), CompTIA Security+
- Ethical code of conduct principles

Phase 3: Practical Session (1 hr 30 mins)

Activity 1: Legal vs Illegal Hacking Case Study (25 mins):

- Group reading: Equifax data breach vs Bug bounty success
- Discussion points: Authorization, motive, disclosure

Activity 2: Rules of Engagement Review (25 mins):

- Provide simplified RoE templates
- In teams, highlight allowed/not allowed actions

Lab Activity: Draft RoE + Compliance Checklist (40 mins):

- Each group designs an RoE and checklist for a fictional pentest project
- Optional: 12 groups present findings to the class

Recap (10 mins): - Quiz or open-floor Q&A: Ethical vs Unethical Discussion (10 mins): - Why are ethical hackers needed in today's organizations? Assignment Briefing (10 mins): - Homework: 1-page reflection - Prompt: "Why I want to learn ethical hacking and where I plan to use it." Materials Provided - Slide deck (PDF/PPT)

- Case study handouts (Equifax breach & Bug bounty)

- Simplified Rules of Engagement template

- Group worksheet for compliance checklist

- Homework assignment sheet

Phase 4: Conclusion (30 mins)