



SPYPRO SECURITY SOLUTIONS Pvt. Ltd.,

C Y B E R S E C U R I T Y

5-Day Workshop on Ethical Hacking & Cyber Security

Day 1: Cyber Security & Ethical Hacking Fundamentals

Session 1: Introduction to Ethical Hacking

- What is Ethical Hacking? Importance & career scope
- Types of hackers (White Hat, Black Hat, Grey Hat)
- Phases of ethical hacking
- Cyber laws & legal considerations

Hands-On

- Setting up hacking lab (Kali Linux / VirtualBox)
 - Introduction to basic Linux commands
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Session 2: Networking & Security Basics

- Computer networking fundamentals
- TCP/IP, ports & protocols
- Common network attacks overview
- Understanding firewalls & security concepts

Hands-On

- Network scanning using Nmap
 - Identifying open ports & services
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Day 2: Footprinting, Reconnaissance & Scanning

Session 1: Footprinting & Information Gathering

- Passive vs active reconnaissance
- Whois, DNS enumeration
- Google hacking techniques

Hands-On

- Gathering target information using OSINT tools
 - DNS & domain reconnaissance
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Session 2: Scanning & Enumeration

- Network scanning techniques
- Vulnerability scanning basics
- Enumeration of users & services

Hands-On

- Vulnerability scanning using Nmap & Nessus (demo)
 - Service enumeration
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Day 3: System Hacking & Malware Basics**Session 1: System Hacking Techniques**

- Password cracking concepts
- Authentication bypass methods
- Privilege escalation basics

Hands-On

- Password attacks using John the Ripper / Hydra (demo)
 - Understanding system vulnerabilities
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Session 2: Malware & Exploitation Basics

- Types of malware (Trojan, Worm, Ransomware)
- Exploitation framework overview
- Introduction to Metasploit

Hands-On

- Exploitation demo using Metasploit
 - Understanding payloads
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Day 4: Web Application & Wireless Hacking**Session 1: Web Application Security**

- Web architecture & HTTP basics
- OWASP Top 10 vulnerabilities
- SQL Injection, XSS, CSRF concepts

Hands-On

- SQL Injection & XSS demo
 - Web vulnerability testing
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Session 2: Wireless & Network Attacks

- Wireless security protocols (WEP, WPA, WPA2)
- Man-in-the-Middle (MITM) attacks
- Network sniffing

Hands-On

- Wireless attack demonstration
 - Packet analysis using Wireshark
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Day 5: Advanced Topics, Project & Future Scope

Session 1: Advanced Ethical Hacking

- Social engineering techniques
- Denial of Service (DoS) & DDoS attacks
- Incident response basics

Hands-On

- Social engineering attack scenarios
 - Security testing best practices
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Session 2: Project & Closing

- Mini project development
 - Project demos & presentations
 - Discussion on challenges & solutions
 - Career roadmap in Cyber Security
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Capstone Project Example

Web Application Security Assessment

- **Target:** Demo web application
- **Tasks:** Vulnerability assessment , Exploitation & reporting , Security recommendations

Tools Used:

- Kali Linux
 - Nmap
 - Metasploit
 - Wireshark
 - Burp Suite
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Closing Session

- Certificates distribution
- Feedback & Q&A