SPYPRO SECURITY SOLUTIONS Pvt. Ltd.,
C Y B E R S E C U R I T Y

3-Day Workshop on Ethical Hacking & Cyber Security

Day 1: Introduction and Fundamentals

Session 1: Basics of Ethical Hacking

- Overview of ethical hacking and cybersecurity
- Types of hackers (White Hat, Black Hat, Grey Hat)
- Phases of ethical hacking methodology
- Legal and ethical considerations

Hands-On Activity
- Setting up ethical hacking lab (Kali Linux / VirtualBox)
- Introduction to basic Linux commands

Session 2: Cyber Security Fundamentals

- Importance of cybersecurity
- Common cyber threats (malware, phishing, DDoS attacks)
- Basics of networking (IP, ports, protocols)
- Introduction to cryptography and authentication

Hands-On Activity
- Network scanning using Nmap
- Identifying open ports and services

Day 2: Attacks, Scanning & System Security

Session 1: Footprinting & Network Scanning

- Footprinting and reconnaissance techniques
- Passive vs active information gathering
- Vulnerability scanning concepts

Hands-On Activity
- Information gathering using OSINT tools
- Network scanning and vulnerability detection

Session 2: System & Network Security

- Password cracking techniques
- Privilege escalation basics
- Firewalls and intrusion detection systems (IDS)

Hands-On Activity
- Password attack demonstration (John the Ripper / Hydra)
- Analyzing security gaps in systems

Day 3: Advanced Topics and Project

Session 1: Web Security & Data Protection

- Web application security basics
- OWASP Top 10 vulnerabilities
- SQL Injection, XSS, CSRF concepts
- Data privacy and cyber laws

Hands-On Activity
- Web vulnerability testing
- SQL Injection and XSS demo

Session 2: Real-World Applications and Project Building

- Ethical hacking in real-world organizations
- Security assessment methodologies
- Reporting vulnerabilities and remediation

Project

Task: Perform a Security Assessment on a Web Application

- **Target:** Demo web application

- **Features:** Vulnerability scanning , Exploitation testing ,Security recommendations report

- **Tools:**

- Kali Linux

- Nmap

- Metasploit

- Burp Suite

Closing Session

- Project presentations
- Q&A session
- Feedback & certification