

# Ethical Hacking Workshop

## Day 1:

- Introduction to operating systems (OS)
- Types of operating systems (Windows, Mac OS, Linux, etc.)
- Basic functions and features of an OS
- Hands-on activity: Exploring the different OS installed on the computers

## Day 2:

- Introduction to the command line interface (CLI)
- Basic commands and syntax for CLI
- Hands-on activity: Using the command line interface to navigate and manage files

## Day 3:

- Introduction to file systems and disk management
- Understanding file types and extensions
- Hands-on activity: Creating, renaming, copying, and moving files and folders

## Day 4:

- Introduction to system security and user accounts
- Setting up user accounts and permissions
- Understanding system security features and settings
- Hands-on activity: Configuring user accounts and system security settings

## Day 5:

- Troubleshooting common OS issues
- Backup and recovery options
- Hands-on activity: Troubleshooting and solving common OS issues and performing backups

## Day 6: Introduction to Networking

- Understanding computer networks
- Types of networks
- Network topologies
- LANs, WANs, and WLANs

## Day 7: Network Protocols and Models

- OSI model
- TCP/IP model
- Understanding protocols
- IP addressing

## Day 8: Network Devices

- Routers, switches, and hubs
- Firewalls and proxies
- Wireless access points

## Day 9: Network Security

- Types of network attacks
- Authentication and access control
- Network monitoring and intrusion detection

## Day 10: Network Administration

- Network planning and design
- Network troubleshooting
- Network maintenance and management
- Career opportunities in networking

## Day 11: Introduction to HTML

- Understanding what HTML is and how it's used
- Basic HTML tags such as headings, paragraphs, and lists
- Creating a simple webpage using HTML

## Day 12: Introduction to CSS

- Understanding what CSS is and how it's used
- Basic CSS properties such as font, color, and background
- Styling the webpage created on Day 1 using CSS

## Day 13: Responsive Design

- Understanding the concept of responsive design
- Using media queries to create responsive layouts
- Testing the responsive design on different devices

## Day 14: Introduction to JavaScript

- Understanding what JavaScript is and how it's used
- Basic JavaScript concepts such as variables, data types, and functions
- Creating interactive elements on the webpage using JavaScript

## Day 15: Publishing the Website

- Understanding website hosting and domain names
- Publishing the website on a free web hosting platform
- Troubleshooting and debugging any errors on the website

## Day 16: Introduction to Ethical Hacking

- What is ethical hacking?
- Different types of hacking
- Understanding the difference between ethical hacking and cybercrime

## Day 17: Networking Fundamentals

- Basic networking concepts
- OSI model
- TCP/IP protocols
- IP addressing and subnetting
- Introduction to network reconnaissance

## Day 18: Web Application Security

- Understanding the basics of web development
- Common web vulnerabilities (SQL injection, Cross-Site Scripting, etc.)
- Web application scanning using open source tools
- How to prevent web attacks

## Day 19: System Hacking and Penetration Testing

- Basics of operating systems
- Types of system vulnerabilities
- Introduction to penetration testing
- Conducting basic penetration testing on systems

## Day 20: Ethics and Reporting

- The importance of ethics in ethical hacking
- Reporting vulnerabilities responsibly
- Legal aspects of ethical hacking
- Career opportunities in ethical hacking

## Day 21: Introduction to Ethical Hacking

- Define Ethical Hacking and its importance
- Discuss the differences between ethical hacking and illegal hacking
- Explain the ethical hacking process and methodology

## Day 22: Reconnaissance and Scanning

- Define reconnaissance and scanning and explain their importance in ethical hacking
- Teach techniques for network scanning and footprinting
- Introduce tools for port scanning, vulnerability scanning, and banner grabbing

## Day 23: Enumeration and Exploitation


- Define enumeration and explain how it is used in ethical hacking
- Teach techniques for user and password enumeration, SNMP enumeration, and NetBIOS enumeration
- Introduce exploitation techniques such as buffer overflow, SQL injection, and cross-site scripting (XSS)

## Day 24: Post-Exploitation and Privilege Escalation

- Define post-exploitation and privilege escalation
- Teach techniques for password cracking, file transfer, and network pivoting
- Introduce privilege escalation techniques such as password spraying, DLL hijacking, and Windows registry manipulation

## Day 25: Ethics and Final Exam

- Discuss the ethics of ethical hacking and responsible disclosure
- Administer a final exam to test the knowledge and Award merit certificates to cohort.

 **Note:** Please note that expertise in this domain should be used responsibly and in compliance with all applicable laws and regulations. The responsibility for any use of this expertise rests solely with the individual utilizing it.

