Your Gateway to Becoming a
Certified Cybersecurity Warrior

ETHICAL HACKING

iGNITE Technologies

www.ignitetechnologies.in

TECHNICAL ROADMAP

Stage 3

Module 7: System Hacking
Module 8: Post Exploitation
Module 9: Malware and Threats

Exploitation

Stage 2

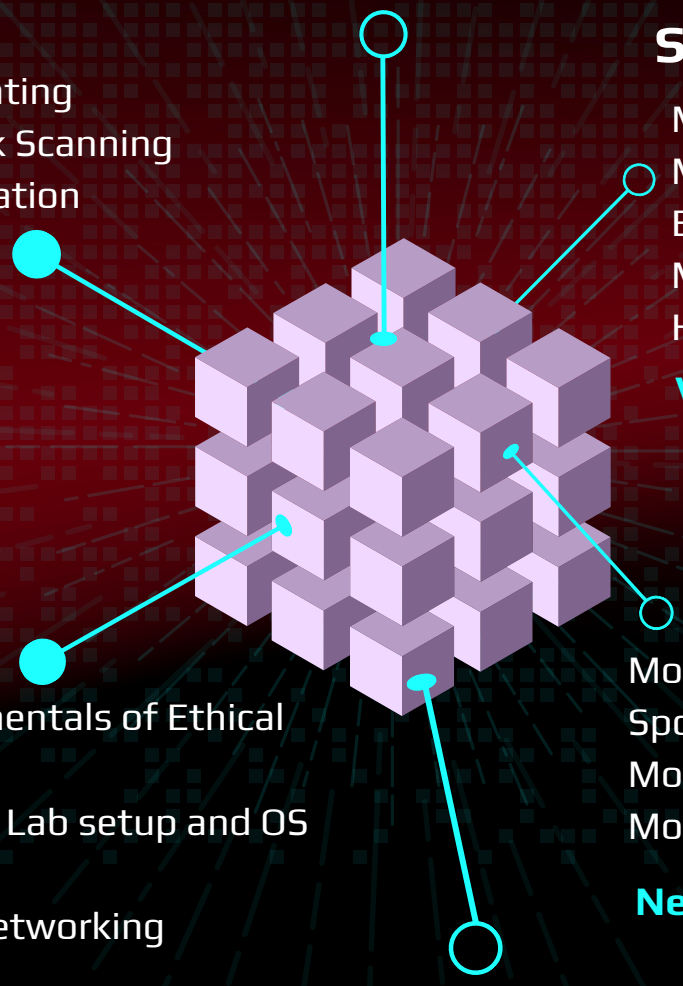
Module 4: Footprinting
Module 5: Network Scanning
Module 6: Enumeration

Complete Reconnaissance

Stage 4

Module 10: Web Hacking
Module 11: Social Engineering
Module 12: Mobile Hacking

Various Cyber Threats



Stage 1

Module 1: Fundamentals of Ethical Hacking
Module 2: Pentest Lab setup and OS Dos Command
Module 3: Basic Networking

Fill up the technical gaps

Stage 5

Module 13: Sniffing and Spoofing
Module 14: Denial of Service
Module 15: Wireless Hacking

Network Attacks

Stage 6

Module 16: IDS, Firewalls, and Honeypots
Module 17: Cryptography & Steganography

Network Security Essentials

iGNITE Technologies

STAGE 1

In this Stage, the trainer will focus on the primary skills required to fulfil prerequisites for ethical hacking by providing conceptual and practical sessions on the following Modules.

Module 1: Fundamentals of Ethical Hacking
This module describes all methods, techniques, approaches and standards used by attackers. Moreover, will give an overview of the Risk, threats and Vulnerabilities.
Key pointers:

- Information Security Overview
- Information Security Threats and Attack Vectors
- Hacking Concepts and their Types
- Penetration Testing Concepts and their Types
- Scope of Ethical Hacking

Module 2: Pentest Lab setup and OS Dos Command
This module will help the candidate to implement the Virtual lab environment for hands-on learning including basic OS installation for Windows and Linux platforms.
Key Pointers

- Fundamental of VMware and Virtual Box
- VM Network Setting (NAT/Bridge/Host-only)
- Virtualization of Windows and Linux
- Installation of Kali Linux
- Command Kung-fu for Windows and Linux

Tools: VMware and Virtual Box,
OS: Windows (2), Linux (2) and Kali Linux

STAGE 1

Module 3: Basic Networking

This module will help to understand well-known Ports and Protocols used in network concepts. Although it will focus on key areas of networking required for the Network Hacking Concept.

Key Pointers

- Fundamental IP Address & Subnet Mask
- Network Devices
- OSI Layer Model vs TCP|IP Model
- ARP, ICMP, TCP, UDP protocol
- TCP Flags
- TCP 3-way handshake
- Well know Service Port

STAGE 2

In this stage, the trainer will focus on various techniques and tools used for information gathering to perform Recon with the help of Footprinting, network Scanning and Enumeration by providing conceptual and practical sessions on the following Modules.

Module 4: Footprinting

In this module, the candidate will learn how to gather information against their target with the help of online tools available on the Internet to fetch the information available on the web.

Key Points

- OSINT Framework
- Email Footprinting
- DNS Footprinting
- Web FootPrinting
- Google Hacking Database

Tools: Shodan, Whois, DNS Dumpster, Exploit DB, Hunter, iplogger, OSINT, Httrack and similar alternative tools.

STAGE 2

Module 5: Network Scanning

This module will help the candidate to learn network scanning to identify live hosts, OS, ports, installed services and their versions.

Key Points

- Host Discovery
- OS Fingerprinting
- Subnet Scanning
- Default Scan
- Stealth Scan
- TCP Scan
- UDP Scan
- Specific port Scan
- ALL port Scan
- Version Scan
- Script Scan
- Decoy Scan
- Fast Scan
- Time Scan
- Aggressive Scan

Tools: Nmap, netdiscover, Zenmap, advanced IP scanner and similar alternative tools.

Module 6: Enumeration

This module will help the candidate to collect gather juicy information for installed services running inside a host machine.

Key Points

- NetBios Enumeration
- FTP Enumeration
- SMB Enumeration
- Telnet Enumeration
- SMTP Enumeration

Tool: Nmap, Rpcclient, SMBmap, SMBclient, NTBScan and similar alternative tools.

In this stage, the trainer will focus on various tools and techniques used by hackers to compromise the target machine by providing a conceptual and practical session on the following Modules.

Module 7: System Hacking

The module primarily focuses on techniques used by an attacker to compromise the target machine with the help of Metasploit Framework and other tools

Key Points

- Scanning Vulnerability
- Exploiting Vulnerability
- Password Brute Force
- Creating Malicious File Type (eg: Exe, Elf, apk)
- Metasploit Framework – Auxiliaries, Exploits, Payloads Post Modules and Meterpreter
- Msfvenom Framework

Tools: Metasploit, Msfvenom, Netcat

Module 8: Post Exploitation

This module will help the candidate complete the objective of Hacking a system from an attacker's point of view.

Key Points

- Post Enumeration
- Gathering System information
- Gathering User Information
- Download and Upload operations
- Process Migrate
- Web Camera Hacking
- Collect Stored Credentials (System, Brower, Wifi)
- Privilege Escalation to gain Administrator Access
- Hashdump
- Clear Event logs
- Persistence to maintain permanent access

Tools: Metasploit Post Modules

STAGE 3

Module 9: Malware and Threats

This Module will help candidates to understand the different behaviours of various types of malware and analysis malicious process behind their execution.

Key Points:

- Malware Concept
- Techniques used for Spreading Malware
- Trojan Concept Vs Virus and Worm
- Payload Binders and Cryptor
- Countermeasure
- Malicious Process Analysis

Tools: Trojans RAT, Virus Total, TCP View, Process Explore, Ad blocker

STAGE 4

Module 10: Web Hacking

This module will define Standards and tools used by hackers to exploit websites by injecting malicious code or commands.

Key Points

- Introduction to Web Server and Web Applications
- Well Know web servers and CMS
- Introduction to OWASP
- Website Scanning
- Introduction to BrupSuite
- SQL injection
- Cross-Site Scripting
- Remote command Execution
- Brute Force

Tools: Wappalyzer, Burpsuite, Sqlmap, Nikto

STAGE 4

Module 11: Social Engineering

This module will focus on techniques used by attackers to perform social engineering to gather target-sensitive information through phishing and impersonation.

Key Points

- Social Engineering Concepts
- Social Engineering Techniques
- Email Spoofing
- Geolocation
- Credential Harvesting
- Haveibeenpwned
- Detect a phishing attack

Tools: Social Engineering Toolkit, Phishtank, Mxtool box, Iplogger

Module 12: Mobile Hacking

This Module will focus on the real-time application used to compromise the mobile device to spy on someone's activity.

Key Points

- Kali Linux NetHunter
- Generating Malicious APK
- Fake SMS
- Fake caller
- Key loggers
- Introduction to Rooted Devices
- Trace Phone Location
- Anonymous Chat Application
- Network Mapper
- Wi-Fi Kill

Tools: Nirsoft, Fing, Online Application, Net hunter,

STAGE 5

In this stage, the trainer will focus on well-known network attacks to perform MITM and DOS attacks and countermeasures used for prevention.

Module 13: Sniffing and Spoofing
This module will help the candidate to understand network attacks executed by attackers on less secure Protocols to conduct Man-in-middle attacks.

Key Points

- Introduction Sniffing Its Types
- Spoofing
- Man-in-the-Middle Attack
- ARP Poisoning
- DNS Poisoning
- Password Sniffing
- HTTP Password Capture
- Telnet Password Capture
- FTP Password Capture

Tools: Ettercap, Wireshark and similar alternatives tools

Module 14: Denial of Services
This module helps candidates to understand the Dos and DDOs attacks. It also explains countermeasures followed in organizations for protecting jewel assets.

Key Points

- Introduction of DOS Attack & Its Types
- Distributed Denial of Service DDOS
- Bonet
- DOS Attack
- SYN Flood
- ICMP Flood
- UDP Flood
- TCP Flood
- Blue Screen Dead Attack

Tools: Golden-eye, Hping3, Metasploit Framework

STAGE 5

Module 15: Wireless Hacking
This module helps the candidate to understand different types of wireless technologies, including encryption, threats, hacking methodologies, hacking tools, Wi-Fi security tools, and countermeasures

Key Points

- Introduction to Wireless standard IEEE
- Introduction to WIFI Security & Protocols
- Detect Hidden SSID
- Monitor mode Vs promiscuous mode
- Capture WPA/WPA2 Handshake
- WPA/WPA2 Password cracking
- Evil Twin
- Dump Wifi Credential

Tool: Alpha wifi Adapter, Airgredon

STAGE 6

In this stage, the trainer will focus on Network Security Essential by describing the countermeasure used for network attacks by providing a conceptual and practical session on the following Modules.

Module 16: IDS, Firewalls, and Honeypots
This module helps the candidate learn various types of security tools and applications used to protect the organization from cyber attacks
Key Points

- Introduction to IDS, IPS Firewall, DMZ & Honeypots
- Honey Bot, Kfsensor
- Windows Advanced Firewall Rules
- Evading Firewall
- Event Log Management
- Fundamentals of DLP

Tools: Windows ACL, Linux Iptables, Event Viewer, , Kfsensor, Snort

STAGE 6

Module 17: Cryptography & Steganography
This module helps candidates to understand how secure the entire communication is or choose the covert mode for making secret communication.

Key Points

- Introduction to Information Security & CIA Model
- Basic Concept of Encoding
- Base64
- Binary
- Hexa Decimal
- Basic Concept of Steganography
- Image, audio and file-based Steganography
- Introduction to Cryptography
- Cesar cypher
- Rot 13
- Modern Cryptography
- ASE Symmetric Encryption
- PGP Asymmetric Encryption
- Basic Concept of Hashing
- Hash Calculator
- Signature Compression

Tools: Steghide, PowerShell, Online Tools

CONTACT US

PHONE

+91-9599387841 | +91 9599387845

WHATSAPP

https://wa.me/message/HIOPPNENLOX6F1

EMAIL ADDRESS

info@ignitetechnologies.in

WEBSITE

www.ignitetechnologies.in

BLOG

www.hackingarticles.in

LINKEDIN

https://www.linkedin.com/company/hackingarticles/

TWITTER

https://twitter.com/hackinarticles

GITHUB

https://github.com/Ignitetechnologies

iGNITE Technologies