



ETHICAL HACKING

COURSE CONTENT

1. INTRODUCTION TO ETHICAL HACKING

- Understanding hacker objectives
- Outlining the differences between ethical hackers and malicious hackers
- Examining how the ethical hacking process has come about
- Understanding the dangers that your computer systems face
- Starting the ethical hacking process

2. BASIC OF LINUX AND WINDOWS

- History of Linux and window
- Why should I choose Linux?
- What is Kernel
- How can you interact with/use a Linux system?
- The shell and command line interface
- Basic command line skills both operating system

3. VIRTUALIZATION

- Describe the concepts of Virtualization
- Explain why virtualization is so highly adopted?
- Create and use a virtual machine



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4. SETTING UP OWN TEST SERVER

- What is Metasploitable 2
- How to configure and connect it to your own Linux ?

5. NETWORKING

- Networking
 1. Computer Network
 2. Types of Network
 3. Major Network Topologies
- Network Components
 1. NIC
 2. Repeater
 3. Switches
 4. Router
 5. Bridges
 6. Gateways



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- IP Addressing
 1. CClassful IP Addressing
 2. Address Classes
 3. Reserved IP address
 4. Subnet Masking
 5. Subnetting
- OSI Model
- TCP/IP Networking Basics
- UDP
- ARP
- 7. HACKING PROCEDURE
 - Footprinting and Reconnaissance
 - Scanning
 - Enumeration



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8. MALWARES

- Introduction to Malware

1. Trojan Horse
2. Rootkit
3. Ransomware
4. Adware
5. Worms
6. Spyware
7. Botnet
8. Crypter

- Making Viruses
- Countermeasure

9. SOCIAL ENGINEERING

- Social Engineering Concepts
- Social Engineering Techniques
- Identity Theft
- Social Engineering Countermeasures



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10. NETWORK SECURITY DEVICES

- Firewalls
- VPN
- Proxy Server
 1. Advantages of Using Proxy Servers
 2. Proxy tools
- Honepot
 1. Advantages of using Honeypots
 2. Honepots Tools
 3. IDS/IPS
 4. How to setup Honepot
 5. Bypassing Firewalls

11. SQL INJECTION

- Meaning
- SQL injection Concepts
- Types of SQL Injection
- SQL Injection Methodology

12. SESSION HIJACKING

- What is Session Hijacking
- Software used for Session Hijacking
- How to perform Session Hijacking
- Countermeasures



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COURSE CONTENT

13. HACKING MOBILE/WINDOWS PLATFORMS

- Mobile Platform Attack Vectors
- Android Lock Directory Opening
- Phone unlocking android
- Encoded Payloads
- Port Forwarding

14. CRYPTOGRAPHY

- Cryptography Concepts
- Encryption Algorithms
- PKI(Public Key Infrastructure)

15. RDP

- Introduction
- RDP Setup and Login

16. QUIZ

- Introduction to CTF
- Types of CTFs
- Live Demo of CTFs

17. PROJECT DISCUSSION