

# MAESTRO IN ETHICAL HACKING



## CONCEPTS OF HACKING

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### Elements of Information Security

- Information Security Supports the Mission of the Organization
- Information Security Should Be Cost-Effective
- Responsibilities and Accountability Should Be Made Explicit
- Owners Have Security Responsibilities Outside Organizations

### Roles and Responsibilities

- Senior Management
- Program and Functional Managers/Application Owners
- Users

### Common Threats: A Brief Overview

- Fraud and Theft
- Employee Sabotage
- Loss of Physical and Infrastructure Support
- Threats to Personal Privacy

### Core Pillar of Information Security

- Confidentiality
- Integrity
- Availability

### General steps of Malicious Attack

- Footprinting
- Scanning
- Gaining Access
- Maintaining Access



## CONCEPTS OF VIRTUALIZATION

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### Introduction to Virtual Machines and Virtualization

- Concept of Virtualization
- Need and Advantages of Virtualization

### Installation and Configuration

- Hardware and Software Requirements
- Installation and Configuration
- Performance Optimization
- Storage Performance

## WINDOWS HACKING

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### Introduction to Windows Security

- Overview of Windows OS
- Windows File System
- Security Architecture in Windows
- User Account Security
- Account Security Strengthening

## ATTACKS ON SOCIAL MEDIA

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### Cyber Social Media Threats

- Social Engineering
- Fake Emails
- Keystroke Loggers
- Phishing
- Identity Theft

### Securing Your Cyber Social Life

- Awareness is the Key
- Email Security
- Online Account Security
- Secure Logout
- Browser Remember Password



## WEB SERVER ATTACKS

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### Introduction to Penetration Testing

- Legal and Ethical Implications
- Types of Penetration Testing

### Setting Up Web Application Penetration Testing Lab

- Collecting and Installing Pentest Tools
- Flexible Browser with Security Add-ons
- Setting up Browser Proxies

### Beginning Application Penetration Testing

- Identification of Application Entry Points
- Testing for Security Vulnerabilities

## GOOGLE DIGGING

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### Working of Google and its methodology

- Introduction to Crawlers, Bots
- Caching Process of Crawlers

### Various Roles of Google as a Friend of Hacker

- Advance Google Search Operators
- Directory Traversal Tool
- Vulnerable Website Locator

### Various Attacks with the help of Google

- Password Harvesting
- Controlling CCTV Camera

## TROJANS AND VIRUSES

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### Introduction to Computer Malware

- Overview Malware: Malicious Software
- Proliferation and Purposes
- Types of Malware

# MAESTRO IN ETHICAL HACKING



- Virus: Vital Information Resources Under Seize
- Worm: Write Once Read Multiple
- Trojan Horse, Rootkit
- Spyware, Keystroke Logger

## **Virus and Worm: Infectious Malware**

- Significance of Virus and Worm
- Behavioural Activity of Virus and Worm
- Virus and Worm Development

## **Trojan Horse: Concealment**

- Overview of Trojan
- Trojan Attack
- Injection in System Files

## **Detection and Removal**

- Anti-Malware Tools
- Manual Removal of Malwares

# REVERSE ENGINEERING

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## **Introduction to Assembly Language**

- Role of Assembly Language in Reverse Engineering
- Concept of Debuggers and Dis-assemblers

## **Understanding Data Flow**

- "Step Over" view of Data flow
- "Step Into" view of Data flow

## **Principles of Software Security**

- Encryption
- Online Key Checking
- Fake Checking Points
- DLL Breakpoints

# INDIAN CYBER LAW

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## **Information Technology Act 2000-2008**

- Introduction to IT Act 2000
- Amendment 2008
- Under Umbrella of IT Act 2000
- Limitations of Indian IT Act

