

## Cyber Security

**“Cyber security is the practice of defending computers”**

### **Introduction to Cyber Security with Ethical Hacking**

- Foot printing
- Scanning & Enumeration
- System Hacking
- Plant Root kits & Backdoors
- Covering Tracks
- Expanding Influence

### **Basics of Internet, Networking**

- What is a Network?
- Types of network – LANs, WANs & WLANs
- What is Internet?
- Basic Structure
- What is a Server?
- What is an IP Address?
- What is a domain name?
- IP-Domain Relation
- Client-Server Relationship Model
- Internet networking
- Set up Ad-hoc networks
- Basic explanation of exploitation of loopholes

### **SQL Injection Using DVWA**

- Introduction of SQL
- What are SQL INJECTION and DVWA?
- Checking SQL injection vulnerability (Demo)
- Basic strategy of SQL injection (Demo)
- Getting login credentials using SQL injections (Live Demo)
- URL and Forms (Demo)
- SQL Query SELECT, DROP etc. (Demo)
- SQL cheat sheets (Demo)
- Using source changes to bypass client side validation (Demo)
- Live demonstration of the attack (Demo)
- Using SQL injection tools (Demo)



- How to protect your system from attacks

### **Man In The Middle Attack (MITM)**

- What is Backtrack Linux?
- What is Man-in-the-middle attack?
- Preparation for Man-in-the-middle attack (Demo)
- Setting Ettercap tool for the attack (Demo)
- Identifying victim (Demo)
- Countermeasures against MITM attack (Demo)

### **Phishing, Trojan, Worms and Viruses**

- What is phishing?
- Preparation for phishing
- Introduction to the concepts of Trojans, worms and viruses

### **Email FORGING AND CYBER LAWS**

- What is Email Forging?
- How to generate a Fake Mail?
- How to detect a fake Email?
- Introduction to cyber laws

### **Advance Wireless Hacking**

- WEP Cracking
- Wifi Pwning
- Countermeasures

### **Introduction to Virtual Machine**

- Basic Introduction
- How to create machine

### **Live Practical's**

#### **Google hacking**

- Live demonstration of Google dorks.
- Magic of 94FBR

#### **Wifi hacking and Preventions**

- Wifi hacking Tools
- How to protect our wifi



### **Live Booting**

- How to create booting
- Hacking through a live booting.

### **Domain hosting for social media safety**

- Creation of free domain
- Facebook account hacking on local server.
- Facebook phishing live on server
- Gmail account hacking on local server.
- How to protect your Information

### **Real Server hacking**

- Account hacking on real server.

### **Stenography**

- Hide a text file in an image file.
- Hide a text file in an audio/video file.
- Hide executable file in an image file.

### **Fake link preventions**

- Sending a fake email
- Understand Fake messages
- Understand Fake emails
- Understand Fake links

### **How to create Virus and Preventions**

- Creation of a virus to automatically shutdown the computer.
- Shutdown the laptop by sending an email Virus.
- How to protect our system

### **Virtual setup of Operating system**

- Creation of virtual environment for session hijacking.
- Sniffing of username and password from a virtual network

### **Operating system hacking and Preventions**

- On virtual network
- Live Practical

### **Real time hacking and protection techniques on BIOS**

### **Masking Concept Practical with networking tool**