PHISHING
BOTNET
HACKER
MALWARE
DDOS
KEYLOGGER
VIRUS
SPYWARE

Secret of pro hackers :

EAT

SLEEP

HACK

REPEAT

Cool isn't it???

## What is Hacking?

Hacking generally refers to unauthorized intrusion into a computer or a network.

<In other words>

Hacking is identifying weakness in computer systems or networks to exploit its weaknesses to gain access.

## Who is a Hacker?

Hackers are intelligent individuals who spends most of time exploring computing resources like networks, websites, mobile devices etc.

# What is Ethical Hacking?

Ethical Hacking is identifying weakness in computer systems and/or computer networks and coming up with countermeasures that protect the weaknesses.

# Who is an Ethical Hacker?

Ethical Hacker is a Computer and Network Expert, who tries to find out potential vulnerabilities on the target systems before a hacker could use, without actually doing any harm to the information systems on behalf of the owners of the IT Assets.

# W²H in ETHICAL Hacking!

## (What, Why, How)

**What?**

What you'll learn in Ethical Hacking?
What happens if we don't secure our PC?

**Why?**

Why should we practice Ethical Hacking?
Why should we Secure our information?

**How?**

How to perform a Hack?
How to secure our PC?

# W 1

## What we'll learn in this course?

What is Ethical hacking?

Why is Ethical Hacking necessary?

How to hack into a system or a network which is vulnerable?

# **What** happens if we don't secure our PC?

You'll be a victim of bad things that happen in the digital world… ☹

# **What** your friends think once you complete this course …..

# $W^2$
# **Why** is Ethical Hacking necessary?

To crack a hacker you need to think like a hacker!!

For an attack there should be a counter attack! When your PC is under attack you should be able to counter that attack and protect your information, this is the basic necessity of Ethical Hacking.

- ✓ To Prevent hackers from gaining access to information breaches.
- ✓ To fight against terrorism and national security breaches.
- ✓ To build a system that avoids hackers from penetrating.
- ✓ To test if organization's security settings are in fact secure.

# **Why** should we protect our information?

As we know information is wealth in present day scenario!!

Details of Credit card numbers stored in your electronic devices.

Details of Bank Account stored in your electronic devices.

Your personal information related job or personal life store on your electronic

devices will be at stake if you don’t protect your information.

How to Hack into a System?

How to Secure our Information?

In the course.....

# Terminology

**Vulnerability:** In simple words, a vulnerability is loop hole, Limitation, or weakness that becomes a source for an attacker to enter into the system.

**Exploit:** It is a software tool designed to take advantage of a flaw(vulnerability) in a computer system, typically for malicious purposes such as installing malware or cause denial of service.

**Payload:** A payload is an action or set of action has to be done on the target, once the exploit successfully launched. It can be any kind of control, or Denial of service etc.

# **What** are the steps to perform a Hack?

Information Gathering

Scanning

Gaining Access

Maintaining Access

Clearing Tracks/ Reporting

# What is Information Security

Information security, sometimes shortened to **InfoSec**, is the practice of preventing unauthorized access, (use, disclosure, disruption, modification, inspection, recording or destruction of information).

Information security's primary focus is the balanced protection of the confidentiality, integrity and availability of data (also known as the CIA triad) while maintaining a focus on efficient policy implementation, all without hampering organization productivity.

| Mode | VM → Host | HOST → VM | VM1 ←→ VM2 | VM→ NET/LAN | NET/LAN→VM |
|---|---|---|---|---|---|
| Host-Only | ✓ | ✓ | ✓ | ✗ | ✗ |
| Internal | ✗ | ✗ | ✓ | ✗ | ✗ |
| Bridged | ✓ | ✓ | ✓ | ✓ | ✓ |
| NAT | ✓ | Port Forward | ✗ | ✓ | Port Forward |
| Nat Network | ✓ | Port Forward | ✓ | ✓ | Port Forward |