Ethics in IT

Class 8

Lab 4

Lab Objectives:

- Types of Hacker
  - Types of hacking

Hacker

Hacking has been a part of computing for almost five decades and it is a very broad discipline, which covers a wide range of topics. The first known event of hacking had taken place in 1960 at MIT and at the same time, the term "Hacker" was originated.

Hacking vs Ethical Hacking

Hacking is the act of finding the possible entry points that exist in a computer system or a computer network and finally entering into them. Hacking is usually done to gain unauthorized access to a computer system or a computer network, either to harm the systems or to steal sensitive information available on the computer.

Hacking is usually legal as long as it is being done to find weaknesses in a computer or network system for testing purpose. This sort of hacking is what we call **Ethical Hacking**.

A computer expert who does the act of hacking is called a "**Hacker**". Hackers are those who seek knowledge, to understand how systems operate, how they are designed, and then attempt to play with these systems.

Types of Hacking

We can segregate hacking into different categories, based on what is being hacked. Here is a set of examples —

√ **Website Hacking** — Hacking a website means taking unauthorized control over a web server and its associated software such as databases and other interfaces.

√ **Network Hacking** — Hacking a network means gathering information about a network by using tools like Telnet, NS lookup, Ping, Tracert, Netstat, etc. with the intent to harm the network system and hamper its operation.

√ **Email Hacking** — It includes getting unauthorized access on an Email account and using it without taking the consent of its owner.

√ **_Ethical Hacking_** − Ethical hacking involves finding weaknesses in a computer or network system for testing purpose and finally getting them fixed.

√ **_Password Hacking_** − This is the process of recovering secret passwords from data that has been stored in or transmitted by a computer system.

√ **_Computer Hacking_** − This is the process of stealing computer ID and password by applying hacking methods and getting unauthorized access to a computer system.

Advantages of Hacking

Hacking is quite useful in the following scenarios −

⊐ To recover lost information, especially in case you lost your password.

⊐ To perform penetration testing to strengthen computer and network security.

⊐ To put adequate preventative measures in place to prevent security breaches.

⊐ To have a computer system that prevents malicious hackers from gaining access.

Disadvantages of Hacking

- Massive security breach.

- Unauthorized system access on private information.

- Privacy violation.

- Hampering system operation.

- Denial of service attacks.

- Malicious attack on the system.

Ethical Hacking - Hacker Types

White Hat Hackers

White Hat hackers are also known as Ethical Hackers. They never intent to harm a system, rather they try to find out weaknesses in a computer or a network system as a part of penetration testing and vulnerability assessments.

Ethical hacking is not illegal and it is one of the demanding jobs available in the IT industry.

Black Hat Hackers

Black Hat hackers, also known as crackers, are those who hack in order to gain unauthorized access to a system and harm its operations or steal sensitive information.

Black Hat hacking is always illegal.

Grey Hat Hackers

Grey hat hackers are a blend of both black hat and white hat hackers.

Elite Hackers

This is a social status among hackers, which is used to describe the most skilled. Newly discovered exploits will circulate among these hackers.

Script Kiddie

A script kiddie is a non-expert who breaks into computer systems by using pre-packaged automated tools written by others, usually with little understanding of the underlying concept, hence the term Kiddie.

Neophyte

A neophyte, "n00b", or "newbie" or "Green Hat Hacker" is someone who is new to hacking or phreaking and has almost no knowledge or experience of the workings of technology and hacking.

Hacktivist

A hacktivist is a hacker who utilizes technology to announce a social, ideological, religious, or political message. In general, most hacktivism involves website defacement or denial of service attacks.