Introduction to Ethical Hacking

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“Hacking involves a different and creative way of looking at problems in ways that no one has thought of.”

- Someone Famous

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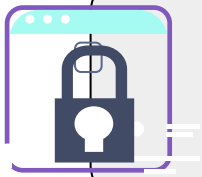
HACKER

Definitions

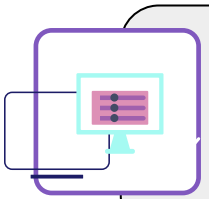
HAT SYSTEM

The profile of a hacker.



IS IT LEGAL?

When?

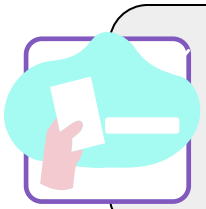


STAGES

Know the process!

PENTESTING

What is and what are the types?



PREPARATION

Certifications

The hacker

Regardless of their motivation, a hacker is a person that uses **tools**, **techniques**, **knowledge**, and **skills** to circumvent system security measures to gain access to information or hack the system.

The Motivation of the Hacker

- Show Off
- Protect and defend
- $$$$
- Acquire new skills
- Be challenged

Profile of a Hacker

The Hat System

The Bad

The Undecided

The Good

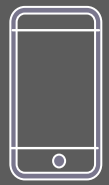
Other

Script kiddies

Person that lacks technical skills, sociability and even maturity.
Person who claims to have knowledge or skills that he does not have.
It describes people who use programs and scripts developed by others to attack computer systems and networks.

Hacktivistas

They do harm to computer systems or a network for social or political reasons.
Hacktivism seeks to draw the public's attention to an a particular issue.
They are usually not looking to hurt but to leave a visible message.



Phreaker

Phone + Hacker
They are basically a telecommunication hacker.

Why do we need the Ethical Hacker?

Is it legal?

- It is completely legal as long as it is done with the proper authorization of the administrators and owners of the systems.

Is it legal?

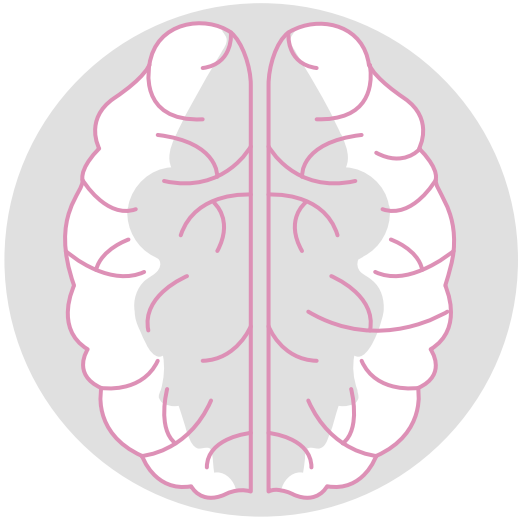
- The best way to guarantee that something is safe is to carry out a fictitious attack, that's why we need ethical hackers.

Is it legal?

Ethical hackers must have:

- specific limits
- contracts
- nondisclosure agreement
- confidentiality agreement
- start and end date

THINK LIKE THE ENEMY

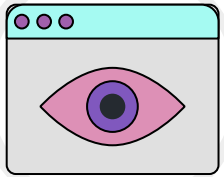


Stages

01

Reconnaissance

Information gathering. **active|passive**



02

Scanning and Enumeration

We begin to ‘touch’ the system.

03

Gaining Access

Using methods to bypass security.

04

Maintaining Access

Using methods to stay in the system as long as possible.

05

Covering tracks

Avoid being detected.

[1] Reconnaissance

Information gathering phase!

Active

We directly interact with the target to gather information.
Most common tools used: nmap

Passive

We try to collect information about the target without directly interacting or accessing it.

Common strategies:

- collecting information from social media
- collecting information from public websites

[2] SCANNING AND ENUMERATION

Perform scans to enumerate elements in target.
Some strategies include:

Port Scanning

Vulnerability Scanning

Network Mapping

[3] GAINING ACCESS

We want to collect enough information to gain access to the target.
Strategies used:

- password cracking
  - online
  - offline
- password guessing
- rainbow tables
- dictionary attacks

[4] MAINTAINING ACCESS

At this stage we take steps to secure our presence.
Some strategies include:

- the use backdoors [Trojan]
- Rootkits

[5] COVERING TRACKS

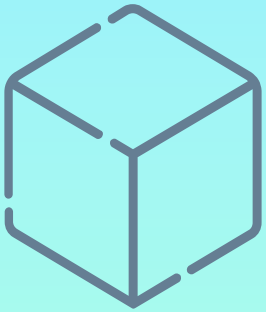
At this stage we want to avoid being detected!
Some strategies include:

- deleting or changing logs
- delete all documents and files created

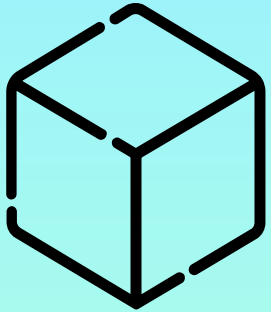
THE PENTEST

It is an attack on a computer system with the intention of finding security weaknesses or attack vectors that lead to data leakage of a door for any type of attack.

The ethical hacker knows all the details of the target of evaluation including infrastructure and passwords.



The ethical hacker knows certain information about the target of evaluation.



The ethical hacker knows nothing about the target of evaluation.

Preparation and Certifications

CEH

Certified Ethical Hacking Certification

OSCP

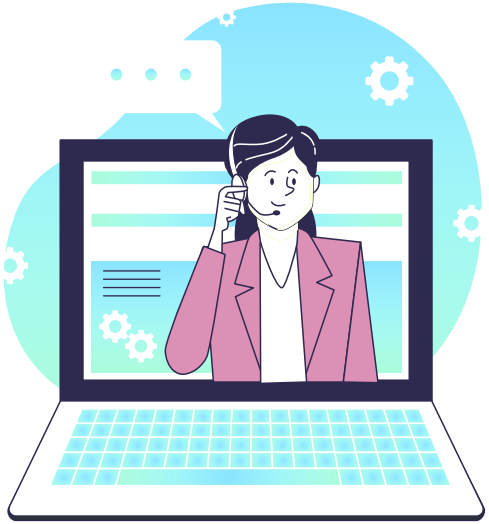
Offensive Security Certified Professional

GPEN

GIAC Penetration Tester

CREST

Highly recognized.



Thank You!