## **CNS**: Assignment – 8

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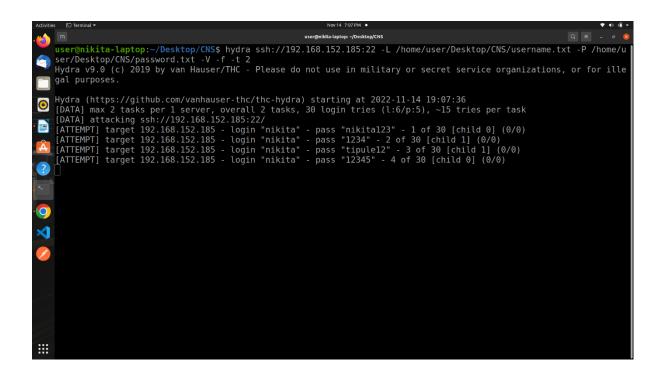
Study and analysis of following networking tools:

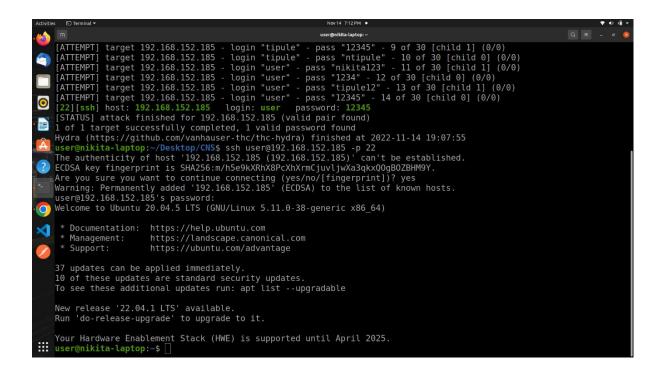
- 1. Hydra
- 2. nmap
- 3. wp scan

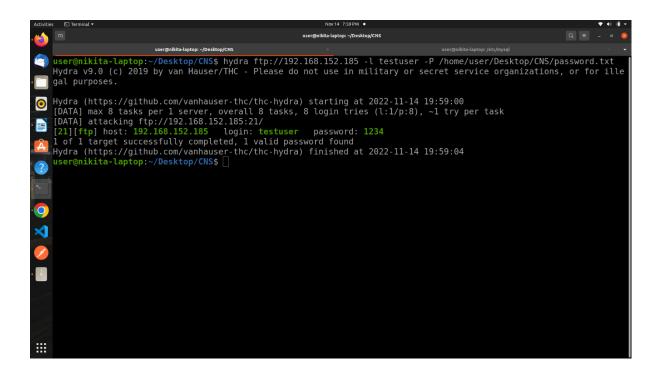
## 1. Hydra:

- Hydra a very fast network logon cracker which supports many different services.
- It is a parallelized login cracker which supports numerous protocols to attack.
- New modules are easy to add, besides that, it is flexible and very fast. This tool gives researchers and security consultants the possibility to show how easy it would be to gain unauthorized access from a remote to a system.
- It is used for brute forcing attack on network service or web service
- it also supports for ipv6 and proxy support
- It is available in GUI version too.
- It supports approx. 51 protocols
- Hydra types:
  - i. CLI based
  - ii. GUI based
- Hydra Style:
  - i. new style:
    - hydra [some command line options] PROTOCOL://TARGET:PORT/MODULE-OPTIONS
  - ii. Old style:
    - hydra [some command line options] [-s PORT] TARGET PROTOCOL [MODULE-OPTIONS]
- Options in Hydra:
  - i. 1 single user name
  - ii. L List of user names
  - iii. p Single user passwards
  - iv. P List of Passwords
  - v. V Show output on the screen
  - vi. t Tasks
  - vii. o Output File
  - viii. m Module Options

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| New No. 1997 | New
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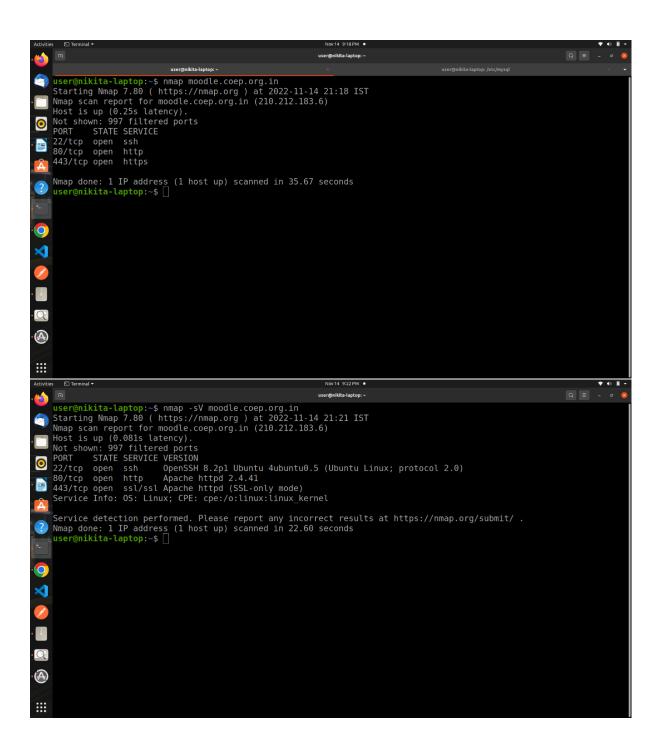


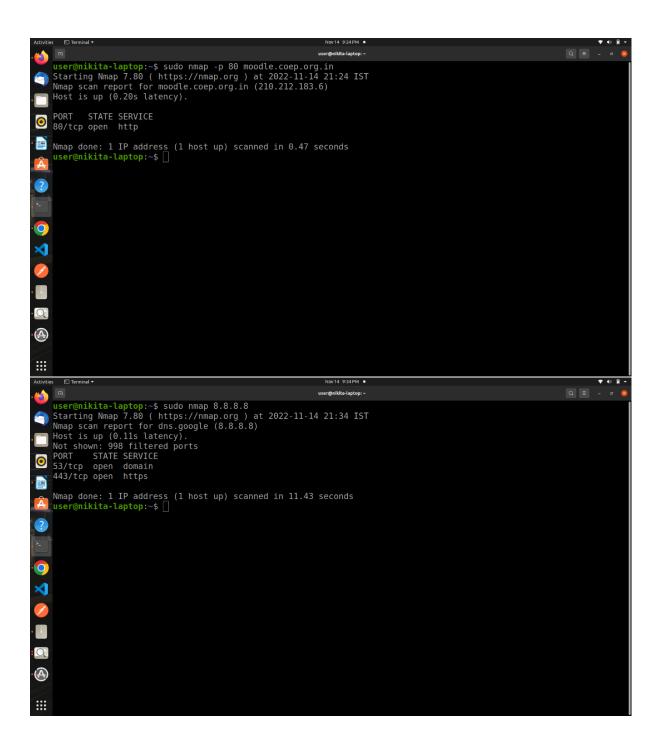
## 2. Nmap:

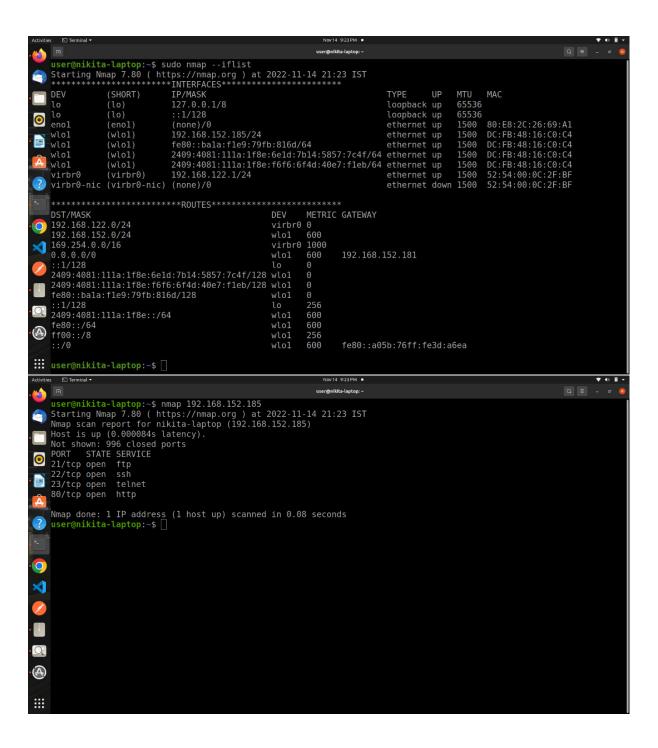
- Nmap is the most famous scanning tool used by penetration testers.
- Nmap is short for Network Mapper. It is an open-source Linux command-line tool
  that is used to scan IP addresses and ports in a network and to detect installed
  applications.
- Nmap allows network admins to find which devices are running on their network, discover open ports and services, and detect vulnerabilities.
- There are a number of reasons why security pros prefer Nmap over other scanning tools.

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- First, Nmap helps you to quickly map out a network without sophisticated commands or configurations. It also supports simple commands (for example, to check if a host is up) and complex scripting through the Nmap scripting engine.
- Other features of Nmap include:
- Ability to quickly recognize all the devices including servers, routers, switches, mobile devices, etc on single or multiple networks.
- Helps identify services running on a system including web servers, DNS servers, and other common applications. Nmap can also detect application versions with reasonable accuracy to help detect existing vulnerabilities.
- Nmap can find information about the operating system running on devices. It can
  provide detailed information like OS versions, making it easier to plan additional
  approaches during penetration testing.
- During security auditing and vulnerability scanning, you can use Nmap to attack systems using existing scripts from the Nmap Scripting Engine.







## 3. Wp Scan:

- WPScan is a free tool that security professionals and website developers can use to perform "black box scanning" to test WordPress sites for vulnerabilities.
- Black box scans approach a website in the same way most hackers do. While they
  don't have specific insider information, they'll pore through your code and poke at
  sensitive points to find exploitable weaknesses.
- Because WordPress is one of the top CMS systems used to build websites, a lot of these vulnerabilities are well known across its popular themes, plugins, and even the core code itself.
- It's a bit like having a house in a big subdivision, where all the houses have similar floor plans, construction, and even modifications. Once a thief knows of a weak point in one house, that weakness can likely be exploited across many.
- That's both a pro and a con for site owners: A con because hackers don't have to be
  particularly savvy to find and exploit vulnerabilities. But a pro because all those
  same tricks are known across the WordPress development and security
  communities. It can also be faster to identify weaknesses, implement fixes, and
  spread the word.
- WPScan bundles a huge chunk of that knowledge into a single tool. And because it takes that "black box" approach, you can see exactly how ripe-for-the-picking your site is in the eyes of hackers.

