EVALUATION OF INTERNSHIP REPORT

B.Tech: III Year

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Certificate

Certified that training work entitled "*Cyber Security*" is a bonafied work carried out after fourth semester by "*Pooja Dalai*" in partial fulfilment for the award of the degree of Bachelor of Technology in Computer Science and Information Technology from "Mr. *Yash Arya*" Acropolis Institute of Technology and Research during the academic year2022-23.

Name and Sign of Training Coordinator *Name & Sign of Internship Coordinator*

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ACKNOWLEDGEMENT

I would like to acknowledge the contributions of the following people without whose help and guidance this report would not have been completed. I acknowledge the counsel and support of our training coordinator, *Prof. Nidhi Nigam (Assistant Prof.,* CSIT Department), with respect and gratitude, whose expertise, guidance, support, encouragement, and enthusiasm has made this report possible. Their feedback vastly improved the quality of this report and provided an enthralling experience. I am indeed proud and fortunate to be supported by him/her. I am also thankful to Dr. Shilpa Bhalerao, H.O.D of Computer Science Information TechnologyDepartment, for her constant encouragement, valuable suggestions and moral support and blessings. Although it is not possible to name individually, I shall ever remain indebted to the faculty members of CSIT Department, for their persistent support and cooperation extended during this work.

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INTRODUCTION

Cybersecurity is the practice of protecting critical systems and sensitive information from digital attacks.

Cyber Security is a process that's designed to protect networks and devices from external threats. Businesses typically employ Cyber Security professionals to protect their confidential information, maintain employee productivity, and enhance customer confidence in products and services.

The main element of Cyber Security is the use of authentication mechanisms. For example, a user name identifies an account that a user wants to access, while a password is a mechanism that proves the user is who he claims to be.

Cyber security is not only essential to business organizations and governmental institutions. It should be for everyone who is using digital devices like computers, mobile phones, tablets, etc. These devices contain many personal pieces of information that digital thieves would love to have. What is also important about it is that if your information is exposed to hackers, they can use you as a bait to lure your friends or family into a digital scam.

Every little thing that is connected to the internet, used for communication and other purposes, can be affected by a breach of security.

OBJECTIVES

1. To prepare students with the technical knowledge and skills needed to protect and defend computer systems and networks.
2. To prepare students that can plan, implement, and monitor cyber security mechanisms to help ensure the protection of information technology assets.
3. To prepare students that can identify, analyze, and remediate computer security breaches.

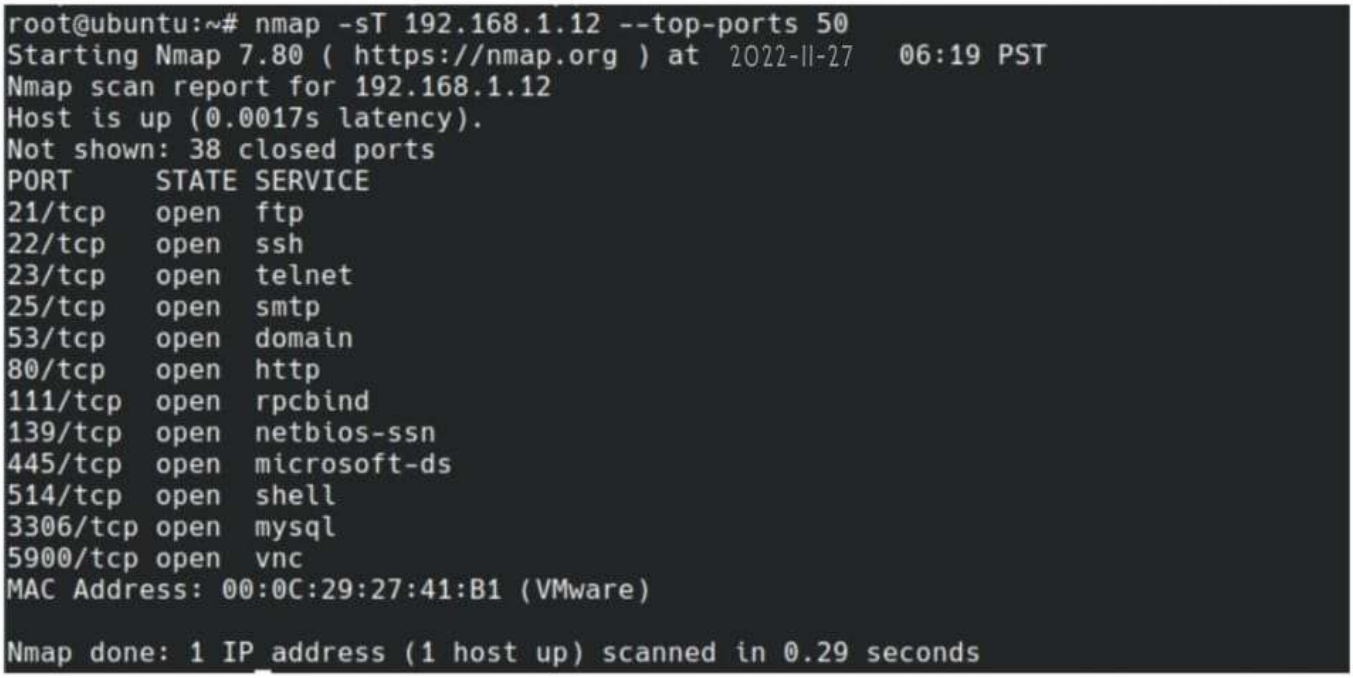
PROJECT DETAIL

NETWORK COMMAND

Nmap stands for Network Mapper which is a free Open source command-line tool.Nmap is an information-gathering tool used for recon reconnaissance. Basically, it scans hosts and services on a computer network which means that it sends packets and analyzes the response. Listed below are the most useful Scans which you can run with the help of Nmap tools.

TCP Scan/TCP Connect Scan:

```
nmap -sT 192.168.1.12 --top-ports 50
```

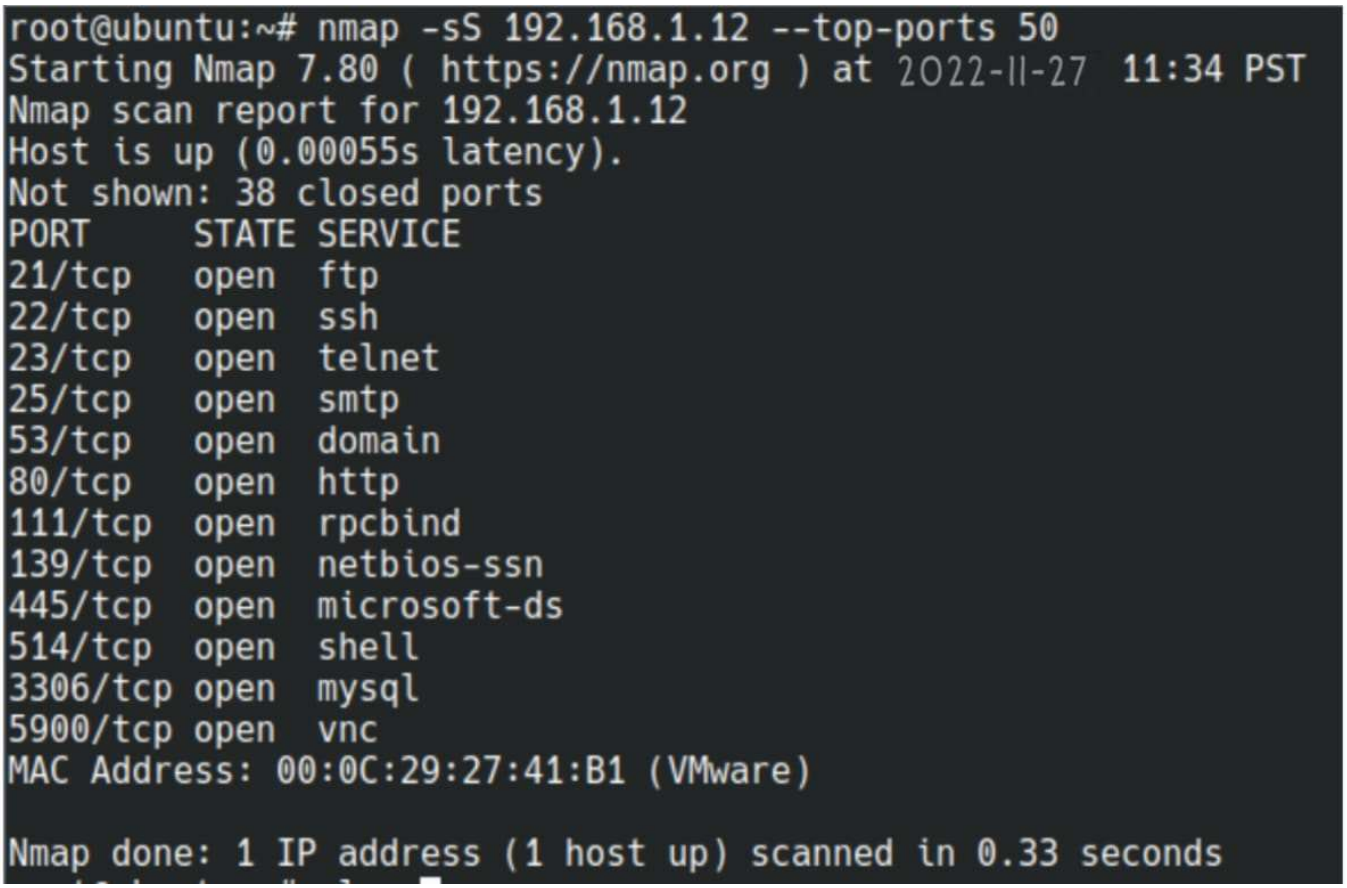


the result of the TCP scan you can see the port number and state of the ports and services on these ports.

SYN Scan/Stealth Scan/Half Open Scan:

```
nmap -sS 192.168.1.12 --top-ports 50
```

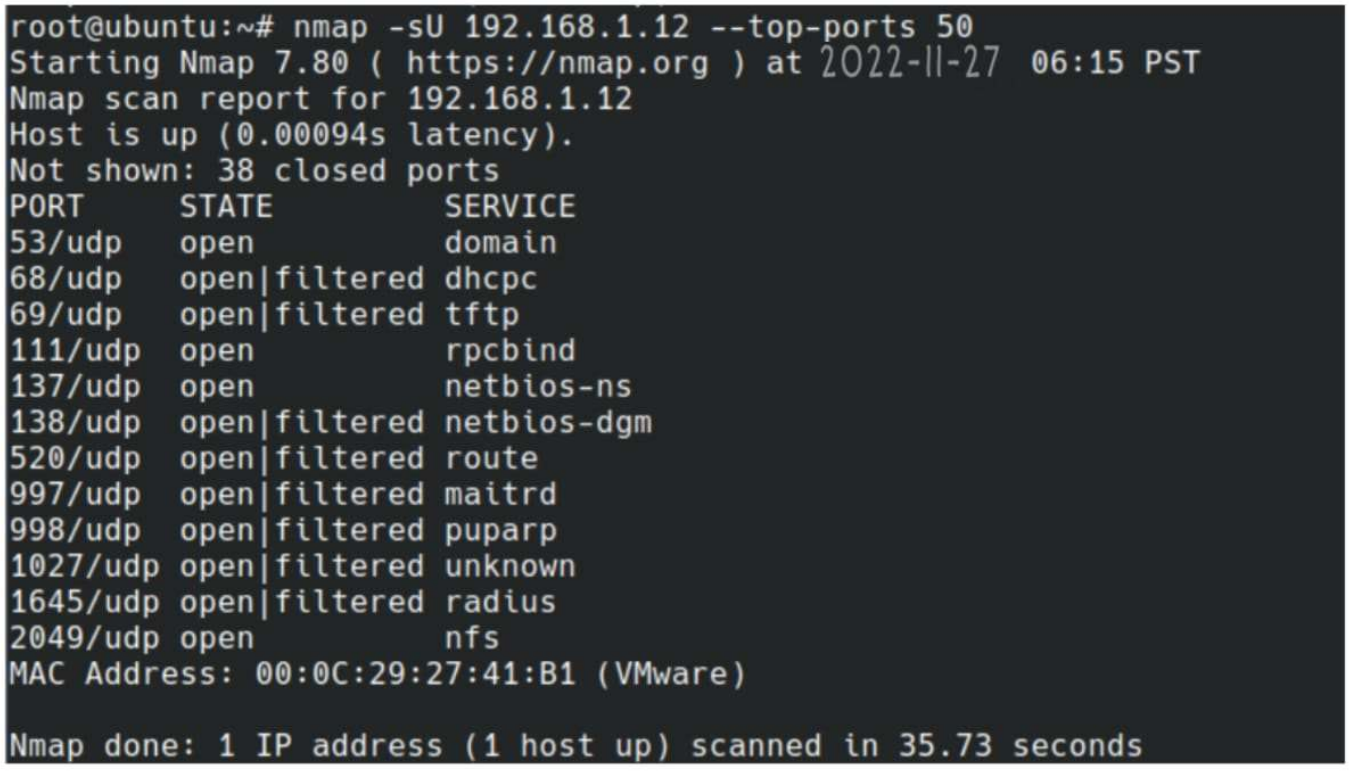
In this scan, Source sends the SYN packet and the destination responds with SYN/ACK packets but the source interrupts the 3-way handshake by sending the RST packet. Because of the interruption Destination or host does not keep a record of the Source system.



UDP Scan:-

```
nmap -sU 192.168.1.12 --top-ports 50
```

Here: -sU is used to activate the UDP Scan. It generally sends the empty UDP packets and it takes more time than TCP Scan.



CERTIFICATE

GITHUB LINK

https://github.com/PoojaDalai20704/EOI_Pooja-Dalai.git

CONCLUSION

Data plays an integral role in the commission of many cybercrimes and vulnerabilities to cybercrime. Even though data provides users of it (individuals, private companies, organizations, and governments) with innumerable opportunities, these benefits can be (and have been) exploited by some for criminal purposes. Specifically, data collection, storage, analysis, and sharing both enables many cybercrimes and the vast collection, storage, use, and distribution of data without users' informed consent and choice and necessary legal and security protections. What is more, data aggregation, analysis, and transfer occur at scales that governments and organizations are unprepared for, creating a slew of cybersecurity risks. Privacy, data protection, and security of systems, networks, and data are interdependent. In view of that, to protect against cybercrime, security measures are needed that are designed to protect data and user's privacy.

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