

Information Security Practical Lab Assignment

Assignment Title:

Introduction to Information Security Tools and Basic Attacks

1. Introduction to Information Security

Information Security is the practice of protecting information from unauthorized access, misuse, modification, or destruction. It ensures that data remains safe whether it is stored on a computer, sent over the internet, or shared between systems.

2. CIA Triad

Confidentiality: Information should only be accessible to authorized users.

Integrity: Data should remain accurate and unaltered.

Availability: Systems should be accessible when required.

3. Tool Used: Nmap

Nmap is an open-source network scanning tool used to identify active devices and open ports.

4. Installation

Nmap was downloaded from the official website and installed on Windows.

5. Practical Task

Command Used:

```
nmap 192.168.1.1
```

6. Working of Nmap

Nmap sends packets to a target system and analyzes responses to detect open ports and services.

7. Importance

Nmap helps identify network vulnerabilities and improves system security.

8. Conclusion

This assignment improved understanding of basic information security concepts and practical network scanning.