Digital portfolio

STUDENT NAME: A.Kaviyarasi
REGISTER NO AND NMID:autanm22322324214029
DEPARTMENT: B.sc., Computer Science
COLLEGE: Dr.M.G.R. Arts and Science College for women Villupuram
UNIVERSITY: Annamalai University chidambaram.

PROJECT TITLE

Cyber Security

AGENDA

1.Problem statement

2.Project Overview

3.End Users

4.Tools and Technogies

5.Poetfolio design and Layout

6.Features and Functionality

7.Results and Screenshots

8.Conclusion

9.Githup link

PROBLEM STATEMENT

In today’s digital era, organizations, governments, and individuals heavily rely on technology for communication, financial transactions, data storage, and decision-making. However, this growing dependence on digital platforms has made sensitive information highly vulnerable to cyber threats such as hacking, phishing, ransomware, identity theft, and data breaches.

PROJECT OVERVIEW

Cyber Security is the practice of protecting systems, networks, and data from digital attacks, theft, and damage. With the rapid growth of technology and internet usage, cyber threats such as hacking, phishing, malware, ransomware, and data breaches have become increasingly common. This project focuses on studying the principles, methods, and tools of cyber security to ensure the confidentiality, integrity, and availability of information.

WHO ARE THE END USERS?

Cyber Security is not limited to a single group of people—it protects everyone who uses digital systems, networks, or data. The major end users include:

1. Individuals (General Users)

People using smartphones, laptops, and internet services.

They rely on cyber security to protect personal data like banking details, passwords, photos, and identity.

2. Businesses and Organizations

Companies across industries (IT, healthcare, banking, retail, etc.) that store customer data.

TOOLS AND TECHNIQUES

- 1. Firewalls

Act as a barrier between trusted and untrusted networks.

Monitors and filters incoming/outgoing traffic.

Example tools: pfSense, Cisco ASA, Sophos Firewall.

- 2. Antivirus & Anti-Malware Software

Detects, prevents, and removes malicious software (viruses, worms, trojans, ransomware).

Example tools: Norton, McAfee, Kaspersky, Bitdefender

PORTFOLIO DESIGN AND LAYOUT

- Front Page / Cover

Title: “Cyber Security Portfolio”

Student Name, Register Number, Department, College/University

Cyber-security themed background (lock, shield, digital network, etc.)

FEATURES AND FUNCTIONALITY

1. Confidentiality

Ensures sensitive data is accessible only to authorized users.

Achieved using encryption, authentication, and access controls.

2. Integrity

Protects data from being altered or tampered with.

Tools like hashing, checksums, and digital signatures are used.

RESULTS AND SCREENSHOTS

1. Identification of Cyber Threats

Successfully listed common threats (phishing, malware, ransomware, DoS attacks).

2. Analysis of Tools & Techniques

Demonstrated the use of security tools (firewall, antivirus, encryption, penetration testing).

3. Practical Testing

Used penetration testing tools (e.g., Kali Linux, Wireshark, Metasploit) to analyze vulnerabilities.

CONCLUSION

Cyber Security has become one of the most critical aspects of the digital world. With the rapid growth of technology, cloud computing, social media, and online transactions, the risk of cyber threats has increased drastically. This project highlights that protecting sensitive data, systems, and networks is essential for individuals, businesses, and governments