SEMESTER 3-FALL 24

PROJECT
PROPOSAL

COMPUTER NETWORKS

SEMESTER 3-FALL 24

PHASE 1 PROPOSAL:

SECURE AND SCALABLE NETWORK DESIGN FOR A CYBERSECURITY STARTUP

COMPUTER NETWORKS

OBJECTIVE:

The primary goal of this project is to design and implement a secure and scalable network infrastructure for a cybersecurity startup.

This network will support VLAN segmentation for departments, dynamic IP addressing through DHCP, and essential services like DNS, email, and web hosting.

Advanced security features, including firewalls, IDS/IPS, and ACLs, will be integrated to protect against potential threats.

SCOPE:

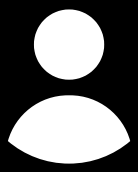
This project involves designing and configuring a network infrastructure for a cybersecurity startup. The network will consist of:

1. VLANs for departmental segmentation.
2. Centralized routing and DHCP configuration.
3. A secure server environment hosting web, email, and backup services.
4. Adding firewalls, access control lists (ACLs), and simulated IDS/IPS for network security.
5. Dynamic IP address assignment to reduce administrative overhead.
6. A scalable architecture to accommodate future growth.

DESIRABLES:

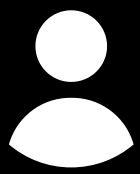
- A Cisco Packet Tracer project file with a complete network design, including VLANs and security features.
- A network topology diagram showing device connections and traffic segmentation.
- Configuration documentation for all devices and security settings.
- A testing report with results on network functionality and security.
- A final project report summarizing the design, configurations, and outcomes.

GROUP MEMBERS AND THEIR RESPONSIBILITIES:



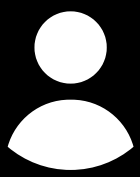
ABEERA MEHTAB
232087

PROJECT DESIGNER AND PLANNING, TOPOLOGY AND PHYSICAL DESIGN, PROJECT PROPOSAL AND PRESENTATION MAKING



MAHNOOR
232083

PROJECT DESIGN CONSULTANCY, FINAL CONFIGURATIONS AND TESTINNG AND FINAL REPORT MAKING



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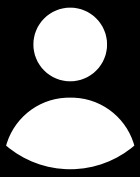
PROJECT DESIGN CONSULTANCY, FINAL CONFIGURATIONS AND TESTINNG AND FINAL REPORT MAKING



EMAN MANSOOR
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FINAL CONFIGURATIONS AND AND TESTING AND INTERMEDIATE PLAN MAKING

COMPUTER NETWORKS PROJECT