

# Module 4 Project

## Title: Design Secure Network - Diagram and Writeup.

### Scenario:

Using an online network mapping tool like draw.io or <https://chatuml.com/>, students will create a basic diagram of a hypothetical small business network. They will then analyze potential security risks and propose mitigation strategies in a written report.

### Instructions:

Build a diagram for a hypothetical network. Build with the following technical details:

- Brief introduction to the project.
- Goals and objectives of the network design.
- Description of the hypothetical organization's needs that the network design is meant to fulfill.
- Identification of potential threats and vulnerabilities based on the organization's profile.
- Detailed schematic of the proposed network design.
- Explanation of the key components (servers, clients, routers, switches, firewalls, etc.) in the network.
- Placement of security measures (firewalls, IDS/IPS, VPN, etc.) in the network design.
- Discussion on wireless network considerations, if applicable.
- Detailed description of the chosen security measures (firewall rules, IDS/IPS settings, VPN setup, etc.).

- Explanation of how these measures help to mitigate the identified threats and vulnerabilities.
- If applicable, detail the wireless network security strategies employed.
- Justify why these strategies were chosen and how they enhance security.
- Detailed steps for implementing the network design and security measures.
- Any necessary configurations, codes, or scripts should be included in an appendix.
- Describe how you would test the security of your implemented network.
- Discuss what success would look like (i.e., what outcomes would demonstrate that the network is secure).
- Key takeaways from the project.
- Any challenges faced and how they were addressed.
- Discussion on the potential for scaling or adapting the network as the organization's needs evolve.
- List all your sources of information in a proper citation format.
- Any additional information, diagrams, or supporting materials that contribute to understanding the project.

## Bonus

- Include the necessary configurations, codes, or scripts for implementation.

## Submission:

Upload the completed report in pdf format in Google Classroom.