Project 4 (Entrepreneurship project): IT Cyber Security Business Proposal

Project Owner/Sponsor: Dr. Ying Xie

Description

With the ever-maturing sophisticated stature of cybercriminals today, organizations cannot rely on out-of-the-box cybersecurity protections alone. OOB antivirus software and basic firewalls are not enough. Cybercriminals are becoming smarter and are continuously evolving. Their tactics are more resilient to conventional cyber defenses. Businesses must address all aspects of cybersecurity to stay well-protected. Owl Cyber Defense Systems is a startup IT cybersecurity company being built from the ground up to meet the evolving cybersecurity defense systems requirements to protect today's businesses.

This project is based on the requirements of the founder, the project owner/sponsor, for his team to design and develop the company and deliver a presentation utilizing proprietary charts and diagrams where appropriate to convince investors to invest in the IT cybersecurity business model.

Students will be required to exhibit both technical and soft skill components. The student team, made up of 3 to 5 students, will be required to collaborate (physically and/or virtually), communicate efficiently, research thoroughly, and plan accordingly. They will need to define the problem, conduct project management, and engage in technical writing of appropriate documentation; ultimately culminating in a presentation to the instructor (project owner/sponsor) in a format to convince investors to invest in the company. The students will be required to learn and practice new knowledge and skills and the project will have real-world context, requirements, communications, and challenges.

Business Requirements

Using open-source tooling conduct analysis and research to design, develop, and implement a Business Plan to include but not be limited to the below.

- Appropriate company vision based on today's need for advanced cyber protections.
- Business and IT Strategies to support the vision.
- Business and IT Goals to support the Business and IT Strategies.
- Determination of appropriate policies to be put in place to maintain proper governance across the business and the details of these policies if possible (policy details not required).
- Proposed business model, target market, and customers.
- Product offering catalogue.
- Establish an appropriate cost model for established product offerings.
- Design and publish a website to socialize the business and the IT cybersecurity offerings.

Functional Requirements

Using open-source tooling conduct analysis and research to design, develop, and implement at least three of the below IT cybersecurity product offerings.

- Design and create client proprietary IT Security Plan and Risk Management Matrix.
- Develop client cybersecurity awareness training curriculum.
- Trusted AI-driven assistant to facilitate preferred cyber security configuration models focusing on IT security operations to manage vulnerability and incident detection/response for local network traffic analysis and cloud-native application protection.
- AI-enabled server hardening based on NIST 800-53 family guidelines.
- Zero Trust Security protections incorporating NIST framework specifications.
- Advanced Firewalls, SIEM, and log analyzers.