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Fundamentals of Cyber Security Project Description

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Project Title: Secure Measures and Controls for Web Application and Vulnerability Assessment

Description

We will put security measures and controls into place in this project to shield a web application from typical web application weaknesses. To find and use vulnerabilities in the online application, we will also carry out a vulnerability assessment.

Technical Implementation/Execution

Implement safe authentication and authorization procedures to stop unauthorized users from accessing the online application. To safeguard user credentials, use strong password policies, multi-factor authentication, and encryption. Utilize role-based access control (RBAC) to implement the least privilege principles and restrict access to authorized users.

Implement input validation and sanitization to guard against typical vulnerabilities like command injection, SQL injection, and cross-site scripting (XSS).

Assessment of Vulnerabilities and Exploitation:

- ✓ Conduct a web application vulnerability assessment to find any potential weak points, such as passwords, network connections, and out-of-date software.
- ✓ Use the vulnerabilities that have been found to obtain unauthorized access to the online application. Keep track of the actions done to exploit the flaws and the data that was accessed or changed.
- ✓ Implementing the necessary security measures and controls will help to mitigate the vulnerabilities that have been found. Record the actions taken to address the vulnerabilities and confirm that they have been effectively fixed.