National University of Computer & Emerging Sciences
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WebAuditWizard

Project Proposal

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Course Name:

Information System Audit and Control

Section: A

1. Introduction:

WebAuditWizard is an auditing application based on the Lightbulb framework. By using Lightbulb framework, we intend to create a user-friendly tool that can audit the security of web applications and can perform different penetration testing attacks and will save the results. These results can be conveniently viewed later, letting users do auditing of websites performance and security.

2. Problem Statement:

Existing auditing tools of Web application firewalls often lack user-friendliness and real time monitoring and analyzing; making it challenging for individuals and organizations to proactively safeguard their digital assets.

3. Proposed Solution:

We will create auditing logic using modules of lightbulb in python for auditing web application firewalls and filters and will record application's responses and the behavior of the WAF during the testing. We will observe how the WAF detects and responds to the incoming requests and We will interact it with html and css for GUI to provide user-friendliness.

4. Key Features:

- Security Assessment and Testing:
    1. Web Penetration Testing
    2. Evaluation of WAF Performance

- Behavioral Analysis and Monitoring:

    1. Real-time Monitoring of Web Application Behavior
    2. Analysis of Application Responses and Defenses

5. Tools and Technologies:

- Python, Html and CSS
- Visual Studio Code
- Lightbulb

6. References:

- GitHub - lightbulb-framework/lightbulb-framework: Tools for auditing WAFS
- LightBulb WAF Auditing Framework - PortSwigger