

## **Lab Assignment: Understanding Web Browser Vulnerabilities with BeEF**

**Objective:** In this lab assignment, you will be introduced to the concept of web browser vulnerabilities and ethical hacking practices using the BeEF tool. You will use intentionally vulnerable web applications to explore these concepts.

### **Materials:**

1. Access to a computer with internet access.
2. A virtual machine with BeEF installed (for demonstration purposes).

### **Instructions:**

#### **Part 1: Introduction**

Research and review what BeEF is and how it can be used in ethical hacking and security testing. Understand its role in assessing web browser vulnerabilities and its ethical considerations, such as the importance of proper authorization before conducting security assessments.

#### **Part 2: Setting Up BeEF**

4. Explore instructions on how to set up BeEF in an environment (using a pre-installed virtual machine) for demonstration purposes.

#### **Part 3: Using Intentionally Vulnerable Web Applications**

5. Choose one of the following intentionally vulnerable web applications to practice with (or choose any other that you know of):

- Accunetix web vulnerability scanner: [testphp.vulnweb.com/](https://testphp.vulnweb.com/)
- OWASP Mutillidae: <https://owasp.org/www-project-mutillidae/>
- OWASP WebWolf: <https://owasp.org/www-project-webwolf/>
- OWASP Security Knowledge Framework: <https://owasp.org/www-project-security-knowledge-framework/>
- bWAPP (Buggy Web Application): <https://www.bwapp.be/>

- Web Security Dojo: <https://github.com/ethicalhack3r/WebSecurityDojo>

6. Experiment with the chosen application to explore and understand common web application vulnerabilities. Take note of your findings.

#### Part 4: Demonstrating Browser Vulnerabilities with BeEF

#### Part 5: Reflective Questions

7. How can a deep understanding of web browser vulnerabilities and ethical hacking practices, as demonstrated in this assignment, contribute to improving the security of web applications and online services?

8. Based on what you have learned in this assignment, provide specific examples of how the responsible and ethical use of security assessment tools like BeEF can protect users and organizations from potential threats and security risks.

#### Submission guidelines:

Submit your answers to the reflective questions, along with the recording of your BeEF attack demonstration on canvas.