

TASK LIST

Ethical Hacking

COMPLETE ANY 3

TASK 1:

Cybersecurity Lab Setup

Configure a secure virtual environment on your computer using either VirtualBox or VMware. Install and set up Kali Linux within the virtual machine to create a robust cybersecurity workspace.



TASK 2:

Web Application Vulnerability Assessment

Conduct a vulnerability assessment on a web application using tools like OWASP ZAP or Burp Suite. Identify common vulnerabilities such as SQL injection or cross-site scripting (XSS).

Target Site: <http://testphp.vulnweb.com/>

TASK 3:

Password Cracking

Attempt to crack passwords using tools like John the Ripper or Hashcat. Use a variety of password cracking techniques, such as dictionary attacks and brute force attacks.

TASK 4:

Wireless Network Security Assessment

Perform a security assessment on a wireless network. Identify security vulnerabilities, check for weak encryption, and explore potential attack vectors.

TASK 5:

Email Phishing Simulation

Conduct a simulated email phishing exercise. Create a basic phishing email and analyze responses to raise awareness about email security among your peers.

TASK 6:

Advanced Web Application Penetration Testing

Conduct a thorough penetration test on a web application, going beyond automated tools. Identify complex vulnerabilities and propose mitigation strategies.

Target Site: <http://testphp.vulnweb.com/>

TASK 7:

Exploiting Buffer Overflow

Learn and demonstrate the exploitation of a buffer overflow vulnerability in a vulnerable program. Understand the principles of stack-based buffer overflows.

TASK 8:

Reverse Engineering Malware

Explore the field of reverse engineering by analyzing a simple malware sample. Identify its functionality, extract indicators of compromise, and propose defensive measures.

TASK 9:

Social Engineering Simulation

Simulate a social engineering attack, such as phishing or pretexting. Create a scenario to trick users into revealing sensitive information or performing actions they shouldn't.