

# Hacking Mr. Robot Virtual Machine

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# Step 1: Set Up Environment

- **Install necessary software on Kali Linux:** Ensure your Kali Linux environment is ready by installing essential tools such as Nmap, Gobuster, Hydra, and Metasploit.
- **Commands to Install:** `""bash sudo apt update sudo apt install -y nmap gobuster hydra metasploit-framework ""`



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## Step 2: Network Scanning



- **Objective:** Identify the target's open ports and services.
- **Tools: Nmap:** Utilize Nmap to scan the target for open ports and services.
- **Commands:** `bash nmap -sS -sV -O 192.168.1.226`

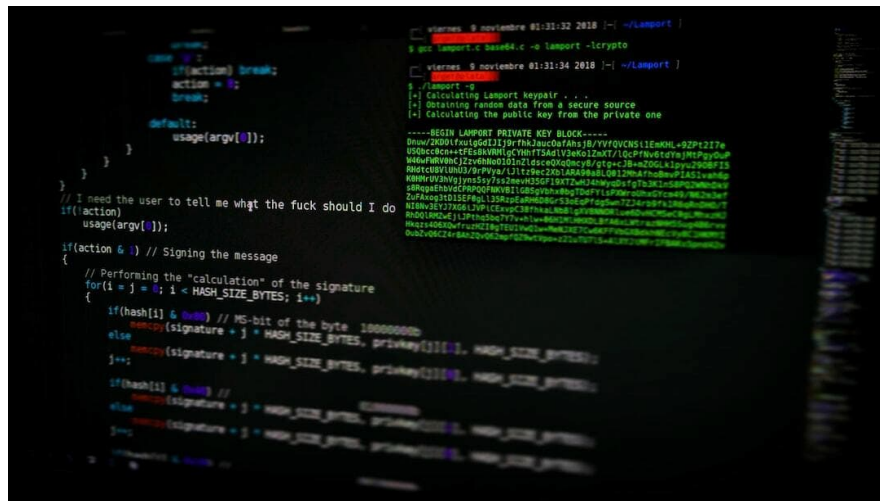


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## Step 3: Enumeration

- **Objective:** Gather detailed information about the target's web applications and technologies.
- **Tools: Gobuster, Wappalyzer:** Utilize Gobuster and Wappalyzer for directory enumeration and identifying web technologies.
- **Commands:** `bash gobuster dir -u http://192.168.1.226 -w /usr/share/wordlists/dirbuster/directory-list-2.3-medium.txt`
- **Wappalyzer:** Use Wappalyzer browser extension to identify web technologies used by the target site.

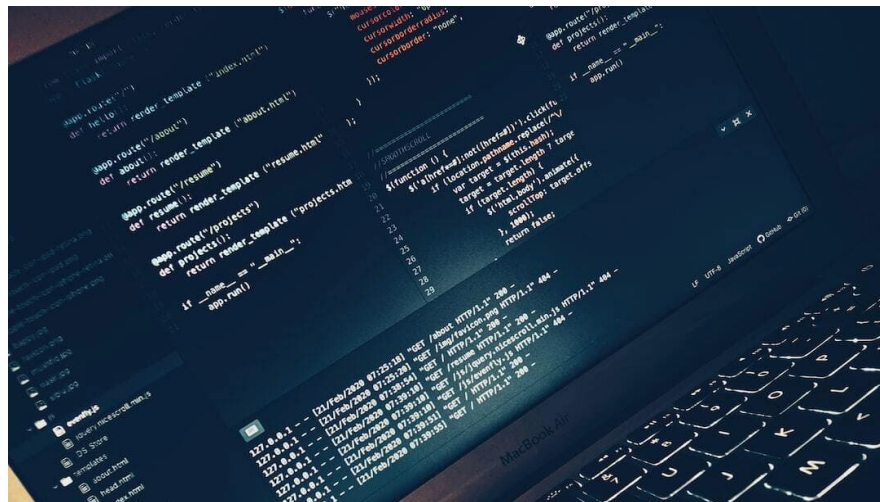


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# Step 4: Vulnerabilities

- **Objective:** Identify vulnerabilities in the target's web applications and services.
- **Tools: Nmap, Nikto:** Utilize Nmap and Nikto for vulnerability scanning.
- **Commands:** `bash nmap --script vuln 192.168.1.226`  
`nikto -h http://192.168.1.226`



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## Step 5: Brute-force

- **Objective:** Gain access to the target by brute-forcing login credentials.
- **Tools: Hydra:** Utilize Hydra for brute-force attacks.
- **Commands:**

```
``bash hydra -l admin -P /usr/share/wordlists/rockyou.txt 192.168.1.226 http-post-form "/wp-login.php:log=^USER^&pwd=^PASS^:Invalid username" ``
```

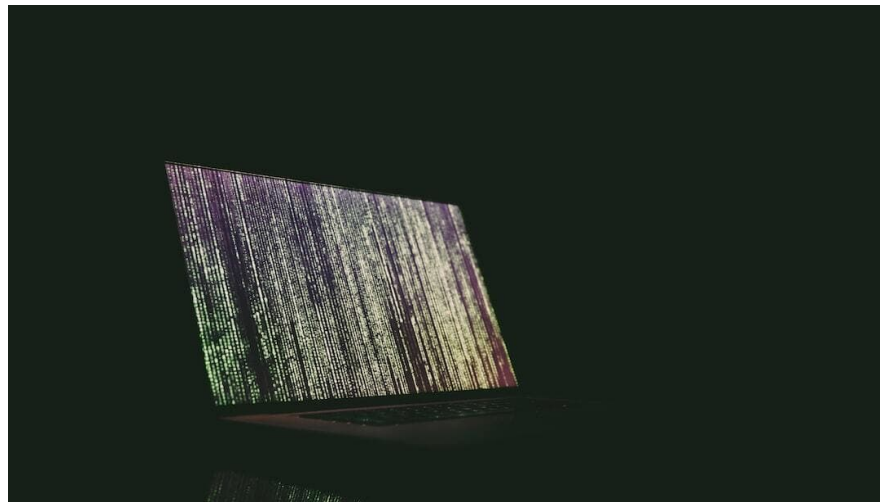


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# Step 6: Reverse Shell

- **Objective:** Gain remote access to the target system.
- **Tools: PHP Reverse Shell, Metasploit:** Utilize a crafted PHP reverse shell and Metasploit to exploit vulnerabilities and gain access.
- **Techniques and Commands:** - Crafting a PHP reverse shell - Using Metasploit to exploit vulnerabilities and gain access

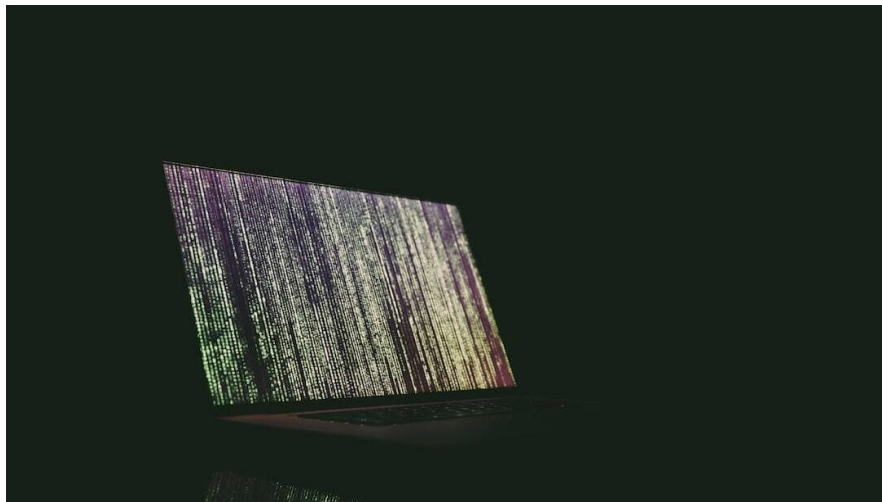


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# Findings

Finding	CVSS Score	Severity	Finding Name	Description	Recommendation
1	9	High	HTTP (80/tcp) - Apache HTTPD	Open ports 80 and 443 running Apache HTTPD, potential entry points	Ensure Apache is up-to-date and configure security headers
2	8	High	SSL Info	Missing security headers and outdated SSL configurations	Update SSL/TLS settings and add security headers
3	6	Medium	WordPress Plugins	Various plugins, including outdated versions	Regularly update all plugins and monitor for vulnerabilities
4	5	Medium	WordPress Themes	Multiple themes, including outdated versions	Update themes and remove unused ones
5	8	High	Configuration Issues	Missing security headers and outdated PHP version	Update server configurations and PHP version
6	9	Critical	Credentials Found	Username and password retrieved (elliott/ER28-0652)	Change all passwords and review user access controls
7	5	Low	Directories/Files	Various sensitive directories and files exposed	Restrict access to sensitive directories and files

# Recommendations

- ✓ Update and Patch Management
- ✓ Implement Security Headers and Update SSL/TLS Configurations
- ✓ Regular Security Audits and Monitoring
- ✓ Strengthen Authentication Mechanisms
- ✓ Restrict Access to Sensitive Directories and Files
- ✓ Enhance Configuration Management