# Recommendations

## **Metasploitable Linux:-**

(192.168.67.132)

To mitigate the identified risks, the following recommendations are provided:

### • Password Management:

- Implement strong password policies, including the use of complex passwords, password rotation, and password expiration.
- Disable default accounts and create unique, strong passwords for all user accounts.

### Network Security:

- o Close unnecessary ports to reduce the attack surface.
- o Implement a firewall to restrict incoming and outgoing traffic.
- o Regularly review and update firewall rules.

### • Vulnerability Management:

- Conduct regular vulnerability scans to identify and address vulnerabilities promptly.
- o Keep operating systems and software up-to-date with the latest patches.
- Implement a patch management process to ensure timely application of security updates.

#### • Access Control:

- o Implement role-based access control (RBAC) to limit user privileges.
- o Regularly review and audit user access permissions.

#### • Intrusion Detection and Prevention:

- Deploy intrusion detection and prevention systems (IDPS) to monitor network traffic for suspicious activity.
- o Configure IDPS to generate alerts for potential attacks.

### • Security Awareness Training:

o Conduct regular security awareness training for employees to educate them about social engineering attacks and best practices for protecting sensitive information.

## **OWASP Broken Web Apps:-**

(192.168.67.128)

To address the identified vulnerabilities and enhance the overall security posture of the OWASP Broken Web Applications project, the following recommendations are provided:

- **Prioritize Vulnerability Remediation:** Address high and medium-risk vulnerabilities immediately.
- **Implement Secure Coding Practices:** Develop and enforce secure coding standards to prevent future vulnerabilities.
- **Regular Security Assessments:** Conduct ongoing penetration testing and vulnerability assessments to identify and address emerging threats.
- **Employee Security Awareness Training:** Educate employees about security best practices and social engineering attacks.
- **Incident Response Plan:** Develop and implement an incident response plan to effectively handle security breaches.
- **SQL Injection:** The Website is also vulnerable to SQL Injection

To address the identified vulnerabilities and enhance the overall security of Windows 10 systems, the following recommendations are provided:

- **Update Operating Systems:** Ensure all systems are running the latest version of Windows 10 and apply all critical security updates promptly.
- **Strengthen Password Policies:** Implement strong password policies, including minimum password length, complexity requirements, and regular password changes.
- **Patch Management:** Establish a robust patch management process to ensure timely application of security patches.
- **Secure Network Configuration:** Review and tighten network security configurations, closing unnecessary ports and services.
- **Enforce UAC:** Enable UAC on all systems and configure it to provide appropriate levels of protection.
- **Security Awareness Training:** Conduct regular security awareness training to educate employees about phishing attacks and other social engineering threats.
- **Incident Response Planning:** Develop and implement an incident response plan to effectively handle security breaches.
- **Regular Penetration Testing:** Conduct regular penetration testing to identify and address emerging threats.