

REPORT

📄 Web Application Firewall (WAF) Deployment Report

Project Title:

****Design and Implementation of a Web Application Firewall using ModSecurity and OWASP CRS****

🎯 Objective

To deploy a WAF using ****ModSecurity**** with ****Apache2**** on ****Ubuntu****, and evaluate its effectiveness by simulating attacks from ****Kali Linux**** using tools like ``sqlmap``, ``curl``, and ``Nikto``.

🧰 Tools & Technologies

Component	Tool/Tech	
Deployment OS	Ubuntu 20.04 LTS	
Attacker OS	Kali Linux	
WAF Engine	ModSecurity (Apache Module)	
Web Server	Apache2	
Rule Set	OWASP Core Rule Set (CRS)	
Testing Tools	sqlmap, Nikto, XSSer, curl	
Logging	<code>`/var/log/apache2/modsec_audit.log`</code>	

🛠️ WAF Setup Steps

1. ****Install Dependencies****

```
``bash
sudo apt update && sudo apt upgrade -y
sudo apt install -y apache2 libapache2-mod-security2 git curl
sudo a2enmod security2
```