MINI PROJECT

## WEB APPLICATION FIREWALL (WAF)

* A Web Application Firewall (WAF) is a security system that monitors, filters, and blocks malicious traffic to and from web applications.
* A Web Application Firewall (WAF) is a security tool that checks and controls the traffic between a web application and the internet.

## Importance of Web Security

* Many websites face cyber threats today. A WAF helps to protect these sites from attacks.

## Problem Statement

### Common Threats to Web Applications

* 1. **SQL Injection:** Attackers use harmful SQL commands to access sensitive data.
  2. **Cross-Site Scripting (XSS):** Malicious scripts are added to web pages, harming users.
  3. **Cross-Site Request Forgery (CSRF):** Tricks users into making unwanted actions on websites.

### Need for a WAF

* 1. Without WAF website data may be compromised by a hacker are unauthorised users. A dedicated WAF can provide extra protection for web applications.

## Goals of the Project

* 1. To create a simple WAF that protects web applications from common attacks.
  2. I’m also including feature like alert system, in this alert system if firewall detect any unauthorised access, then it automatically sends an alert through mail to cyber security engineer (Me).
  3. To include features like blocking harmful requests, banning certain IP addresses, and logging activities.
  4. To design a user-friendly interface for monitoring the firewall.
* In this Project, we use different

## Technologies and Tools,

1. **Programming Languages:** Python or JavaScript for backend development.
2. **Frameworks:** Flask (Python) or Express.js (JavaScript) for building the app.
3. **Database:** SQLite or MySQL for logging and storing settings.

## Conclusion

* 1. A Simple Web Application Firewall is important for protecting web applications from common threats.
  2. This project aims to improve security and provide a useful solution for web developers.