



## EJERCICIO 1 DEL SPRING 9

### REGLAS WAF

## 1.- REGLAS PARA LA REALIZACION DEL EJERCICIO

```
<VirtualHost *:80>
#DVWA
ServerName http://10.0.2.6/
ProxyPreserveHost On

#proxy inverso
ProxyPass / http://10.0.2.6/
ProxyPassReverse / http://10.0.2.6/

<IfModule security2_module>
    SecRuleEngine On
    # ejercicio 1 spring 9

    # Regla Path Traversal
    SecRule REQUEST_URI|ARGS|REQUEST_BODY "@rx (\.\.\/|\.\.\\\.\.\.\/)" "t:none,log,tag:'ATAC_P_TRAV',deny,msg:'PATH TRAVERSAL DETECTADO',id:300001,phase:2"

    # Regla LFI
    SecRule REQUEST_URI|ARGS "@rx (/etc/passwd|etc/hosts|etc/shadow)" "t:none,log,tag:'ATAC_LFI',deny,msg:'LFI DETECTADO',id:300002,phase:2"

    # Regla RFI
    SecRule REQUEST_URI|ARGS "@rx (http|https|ftp)\\:\/\|\/" "t:none,log,tag:'ATAC_RFI',deny,msg:'RFI DETECTADO',id:300003,phase:2"

    # Regla XSS-reflected
    SecRule ARGS|REQUEST_URI "@rx (<script[>]*.*?<\/script>|javascript:|<img[>]*src=[>]*)" "t:none,log,tag:'XSS_REFLECTED',deny,msg:'XSS REFLECTED DETECTADO',id:300004,phase:2"

    # Regla SQLi
    SecRule ARGS|REQUEST_URI "@rx (\b(select|union|insert|update|delete|drop|alter|from|where|table|database)\b|--|#|;) " "t:none,log,tag:'SQLI',deny,msg:'SQL INJECTION DETECTADO',id:300005,phase:2"

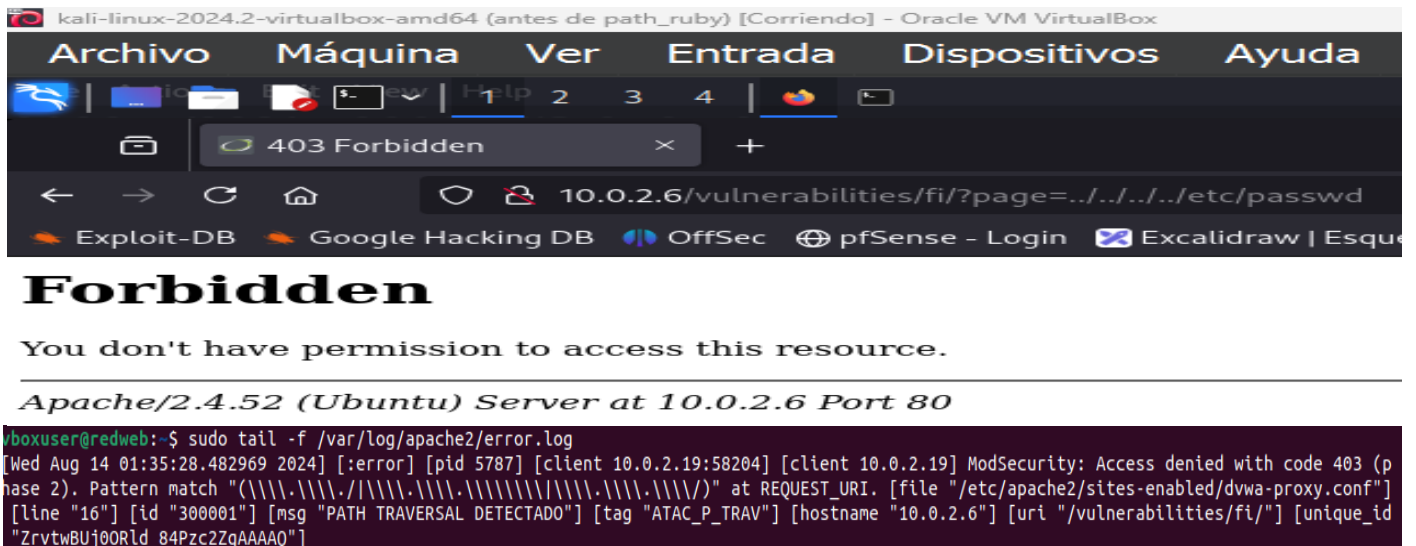
    # Regla RCE
    SecRule ARGS "@rx (\b(exec|system|passthru|shell_exec|popen|proc_open|eval|assert|base64_decode)\b|\b(cmd|php|python|perl)\b)" "t:none,log,tag:'RCE',deny,msg:'RCE DETECTADO',id:300006,phase:2"

<\/IfModule>
<\/VirtualHost>
```

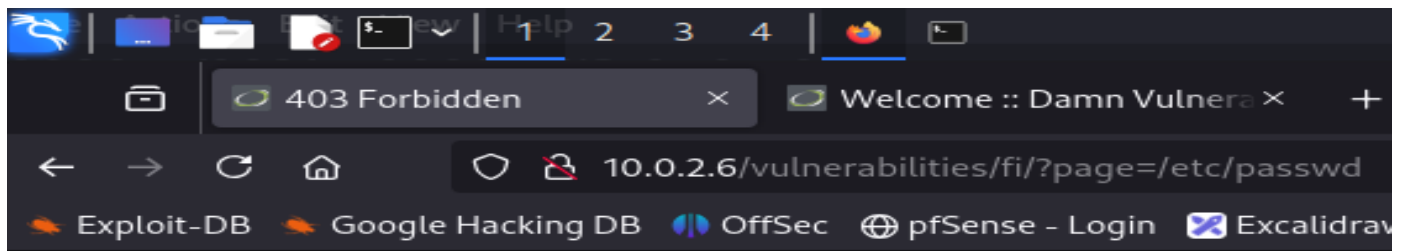
Para la configuración del WAF en la maquina REDWEB con ip 10.0.2.4, he configurado la maquina como un proxy inverso, de forma que todo el trafico que envío a la web DVWA, se redirige por el WAF modsecurity instalado en la REDWEB, incluyendo las 5 reglas del ejercicio en el [archivo /etc/apache2/sites-enabled/dvwa-proxy.conf](#).

## 2 – APLICACIÓN DE LA REGLAS WAF EN DVWA EN KALI

✓ PATH TRAVERSAL:



- ✓ LOCAL FILE INCLUSION (LFI)



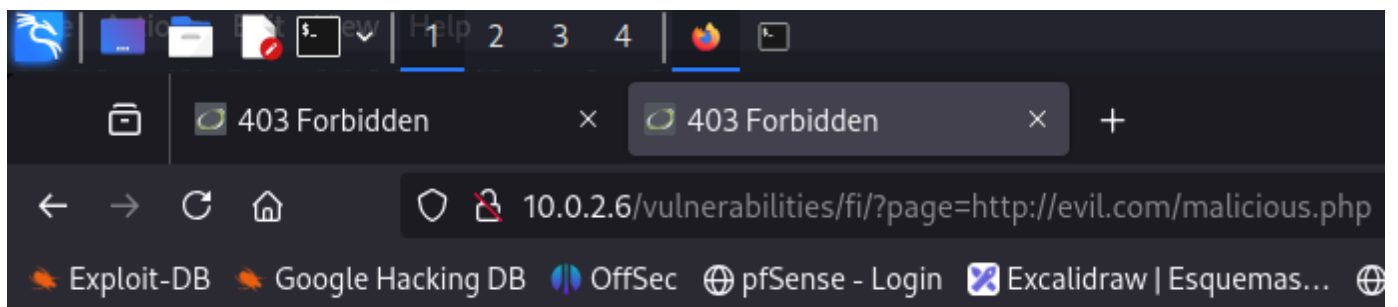
# Forbidden

You don't have permission to access this resource.

Apache/2.4.52 (Ubuntu) Server at 10.0.2.6 Port 80

```
[Wed Aug 14 02:07:17.623401 2024] [:error] [pid 5784] [client 10.0.2.19:34894] [client 10.0.2.19] ModSecurity: Access denied with code 403 (phase 2). Pattern match "(/etc/passwd|/etc/hosts|/etc/shadow)" at REQUEST_URI. [file "/etc/apache2/sites-enabled/dwma-proxy.conf"] [line "19"] [id "300002"] [msg "LFI DETECTADO"] [tag "ATAC_LFI"] [hostname "10.0.2.6"] [uri "/vulnerabilities/fi/"] [unique_id "Zrv1NbY7_lPP9j8r1fcShgAAAE"]
```

- ✓ REMOTE FILE INCLUSION(RFI)



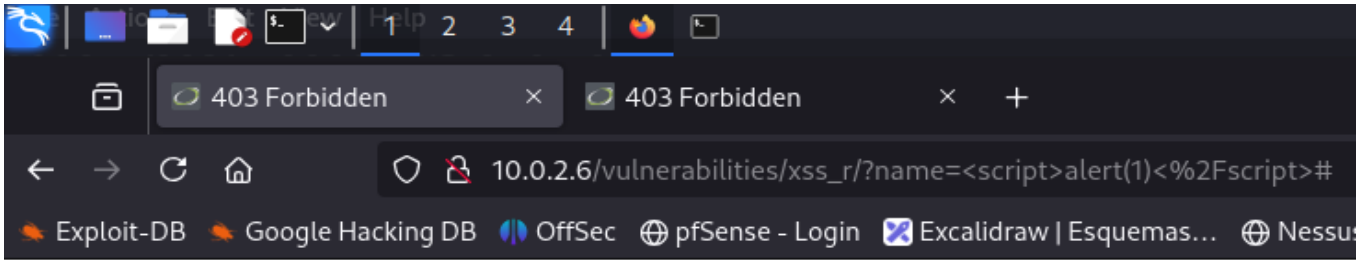
## Forbidden

You don't have permission to access this resource.

Apache/2.4.52 (Ubuntu) Server at 10.0.2.6 Port 80

```
[Wed Aug 14 02:14:34.071220 2024] [:error] [pid 5785] [client 10.0.2.19:60018] [client 10.0.2.19] ModSecurity: Access denied with code 403 (phase 2). Pattern match "(http|https|ftp)\\\\\\\\:\\\\\\\\/\\\\\\\\/" at REQUEST_URI. [file "/etc/apache2/sites-enabled/dvwa-proxy.conf"] [line "22"] [id "300003"] [msg "RFI DETECTADO"] [tag "ATAC RFI"] [hostname "10.0.2.6"] [uri "/vulnerabilities/fi/"] [unique id "Zrv26tP2li1K0W4DrYi59gAAAAI"]
```

✓ CROSS SITE SCRIPTING REFLECTED (XSS REFLEJADO)



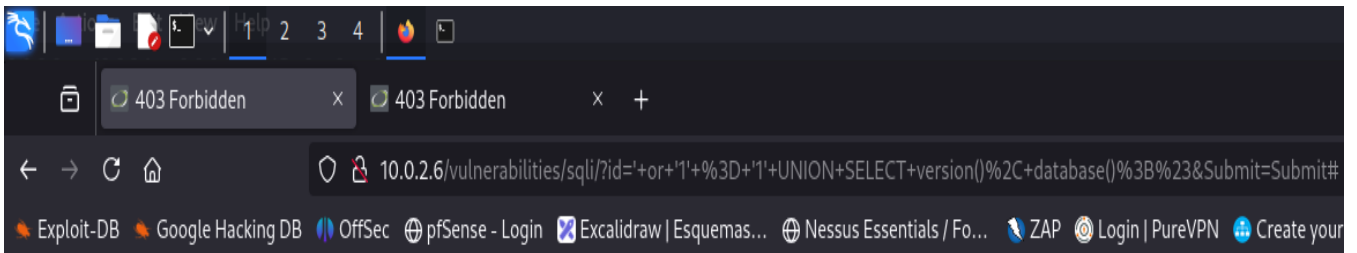
# Forbidden

You don't have permission to access this resource.

Apache/2.4.52 (Ubuntu) Server at 10.0.2.6 Port 80

```
[Wed Aug 14 02:20:34.087761 2024] [:error] [pid 6019] [client 10.0.2.19:45214] [client 10.0.2.19] ModSecurity: Access denied with code 403 (phase 2). Pattern match "(<script[>]*.*?<\\\\\\\\/script>|javascript:|<img[>.*src=[>]*>)" at ARGS:name. [file "/etc/apache2/sites-enabled/dvwa-proxy.conf"] [line "24"] [id "300004"] [msg "XSS REFLECTED DETECTAD0"] [tag "XSS_REFLECTED"] [hostname "10.0.2.6"] [uri "/vulnerabilities/xss_r/"] [unique_id "Zrv4UmydybClKIdk09BG1AAAAA"], referer: http://10.0.2.6/vulnerabilities/xss_r/?name=%3C%3Fscript%3Ealert%281%29%3C%2Fscript%3E
```

- ✓ SQL INJECTION (SQLi)



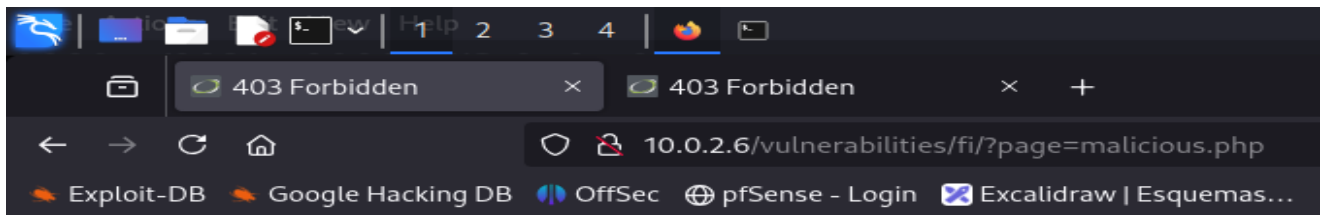
## Forbidden

You don't have permission to access this resource.

Apache/2.4.52 (Ubuntu) Server at 10.0.2.6 Port 80

```
[Wed Aug 14 02:26:59.761147 2024] [:error] [pid 6023] [client 10.0.2.19:40844] [client 10.0.2.19] ModSecurity: Access denied with code 403 (phase 2). Pattern match "(\\\\\\\\b(select|union|insert|update|delete|drop|alter|from|where|table|database)\\\\\\\\b|--|#|;)\" at ARGS:id. [file \"/etc/apache2/sites-enabled/dvwa-proxy.conf"] [line "27"] [id "300005"] [msg "SQL INJECTION DETECTADO"] [tag "SQLI"] [hostname "10.0.2.6"] [uri "/vulnerabilities/sqli/"] [unique id "Zrv50yKTnUrmQtyuIJNpAAAAAQ"], referer: http://10.0.2.6/vulnerabilities/sqli/
```

## ✓ REMOTE CODE EXECUTION (RCE)



# Forbidden

You don't have permission to access this resource.

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*Apache/2.4.52 (Ubuntu) Server at 10.0.2.6 Port 80*

```
[Wed Aug 14 02:30:08.301805 2024] [:error] [pid 6019] [client 10.0.2.19:34440] [client 10.0.2.19] ModSecurity: Access denied with code 403 (phase 2). Pattern match "(\\\\\\\\b(exec|system|passthru|shell_exec|popen|proc_open|eval|assert|base64_decode)\\\\\\\\b|\\\\\\\\b(cmd|php|python|perl)\\\\\\\\b)" at ARGS:page. [file "/etc/apache2/sites-enabled/dvwa-proxy.conf"] [line "30"] [id "300006"] [msg "RCE DETECTADO"] [tag "RCE"] [hostname "10.0.2.6"] [uri "/vulnerabilities/fi/"] [unique_id "Zrv6kGdyblCIKdK09BG1QAAAAA"]
```