PSP0201 Week 2 Writeup

Group Name: UrKomputerHasPirus

Members:

ID	Name	Role
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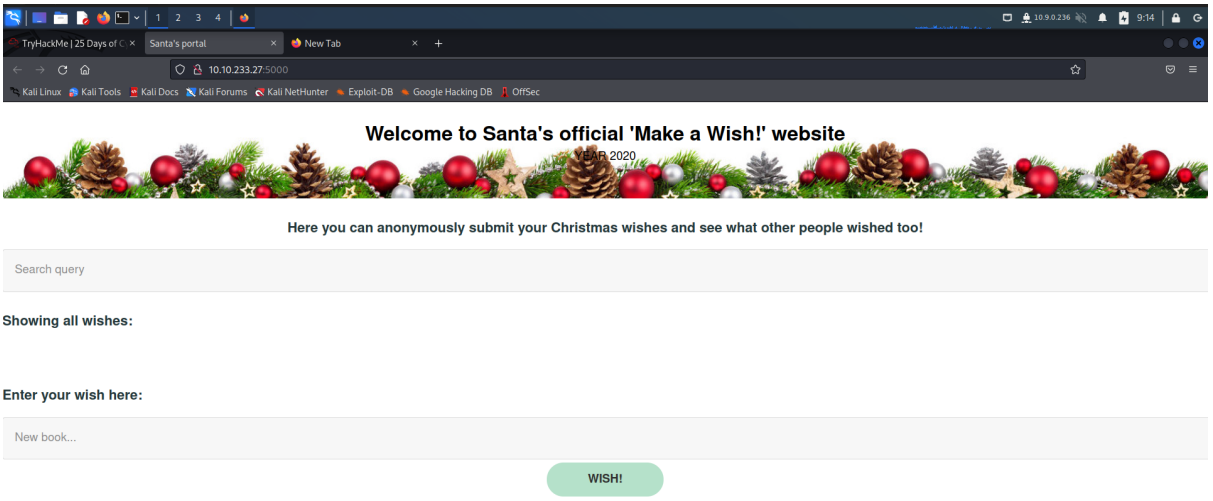
Day 6: Web Exploitation - Be careful with what you wish on a Christmas night

Tools Used: Kali Linux, Zaproxy

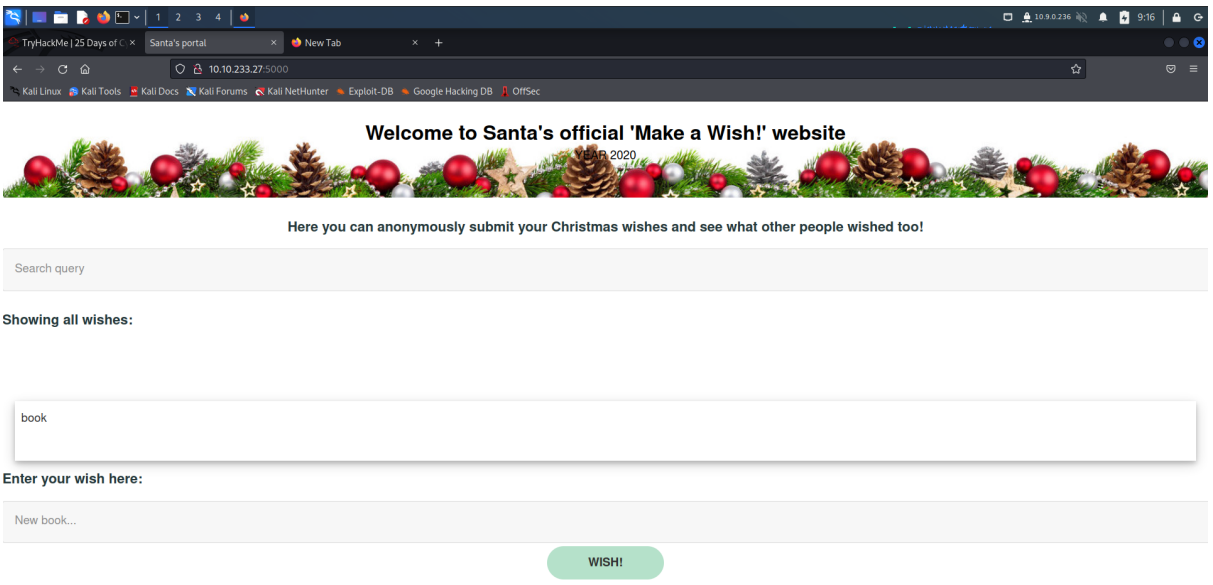
Solution/ Walkthrough

Question 1-3

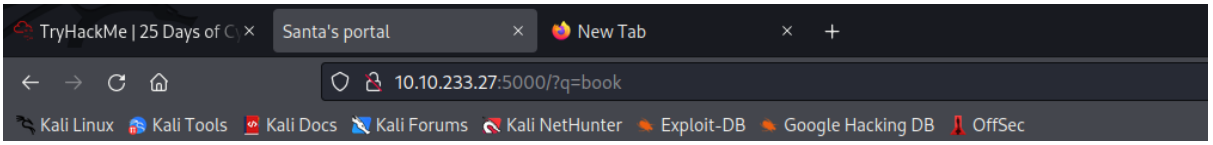
Go to the machine ip provided with port 5000



Stored Cross-site Scripting could be used to exploit this application

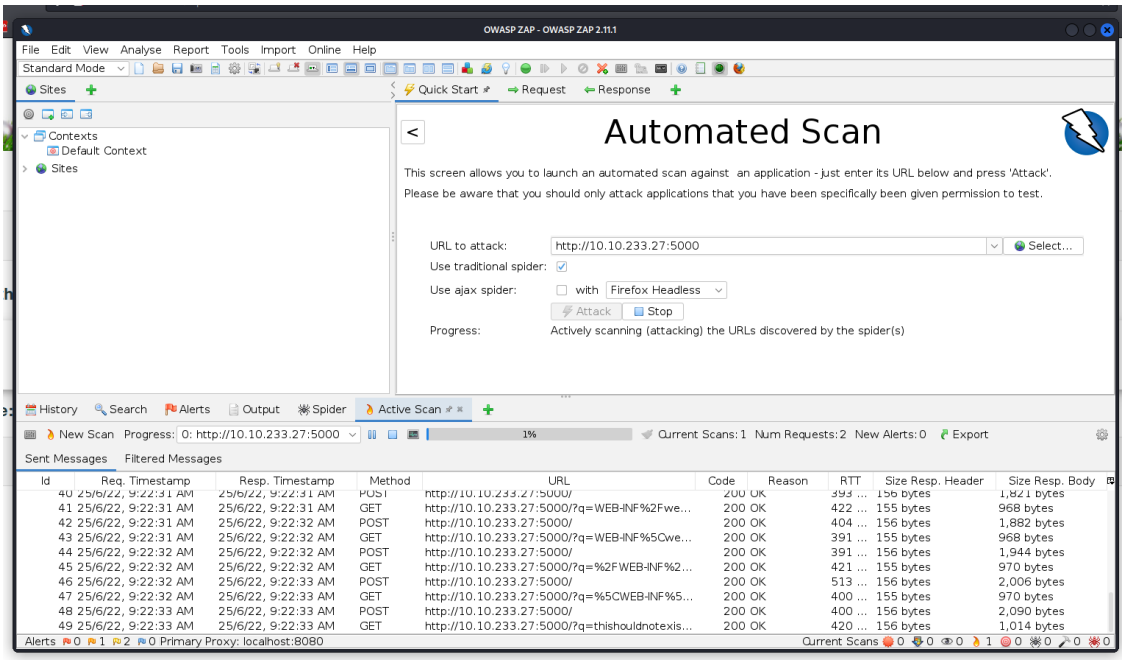


"q" as the query string



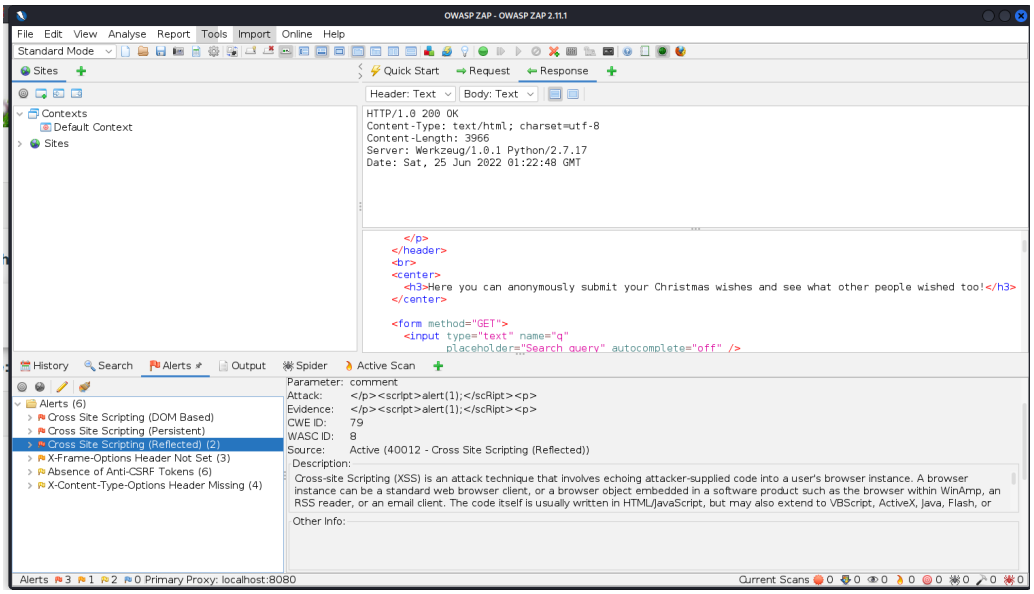
Question 4

Use OWASP ZAP to run a scan on it



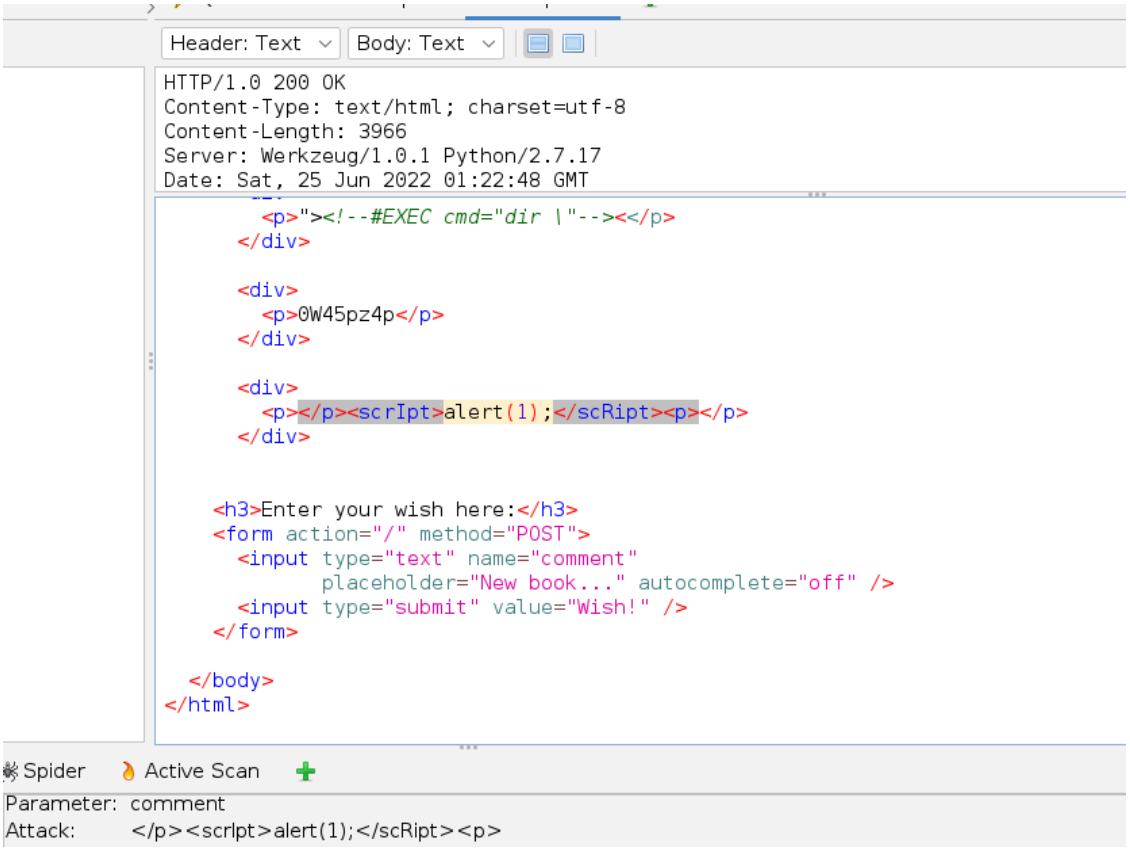
Question 5

3 types of XSS Alerts from the results, but reflected XSS should be the one we're looking for



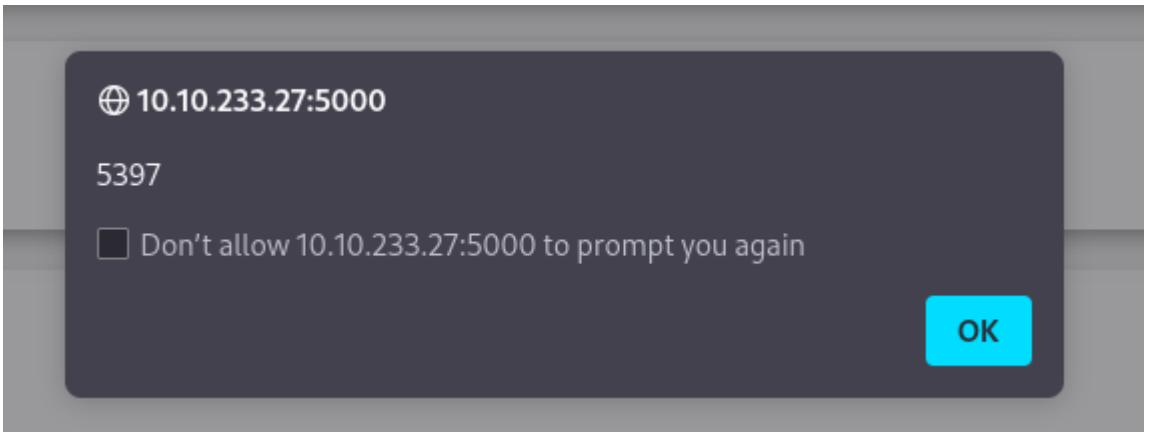
Question 6

Found weird script



Question 7

Run alert(1) random alert with numbers 5397 popping up



Thought Process/ Methodology:

We go to the machine ip provided with port 5000, it seems like this app stores data on the website, meaning Stored Cross-site Scripting could be used to exploit this application. This app seems like this app stores data on the website, meaning Stored Cross-site Scripting could be used to exploit this application. We found out “q” is used as the query string, which can be abused to craft a reflected XSS. Using OWASP ZAP to run a scan on it, There seems to be 3 types of XSS Alerts from the results, but reflected XSS should be the one we’re looking for. There is a javascript that looks suspicious, we ran iit in the “Enter your wish” slot and It seems like it broke the website, random strings and code and exposed and omitted, with a random alert with numbers 5397 popping up.

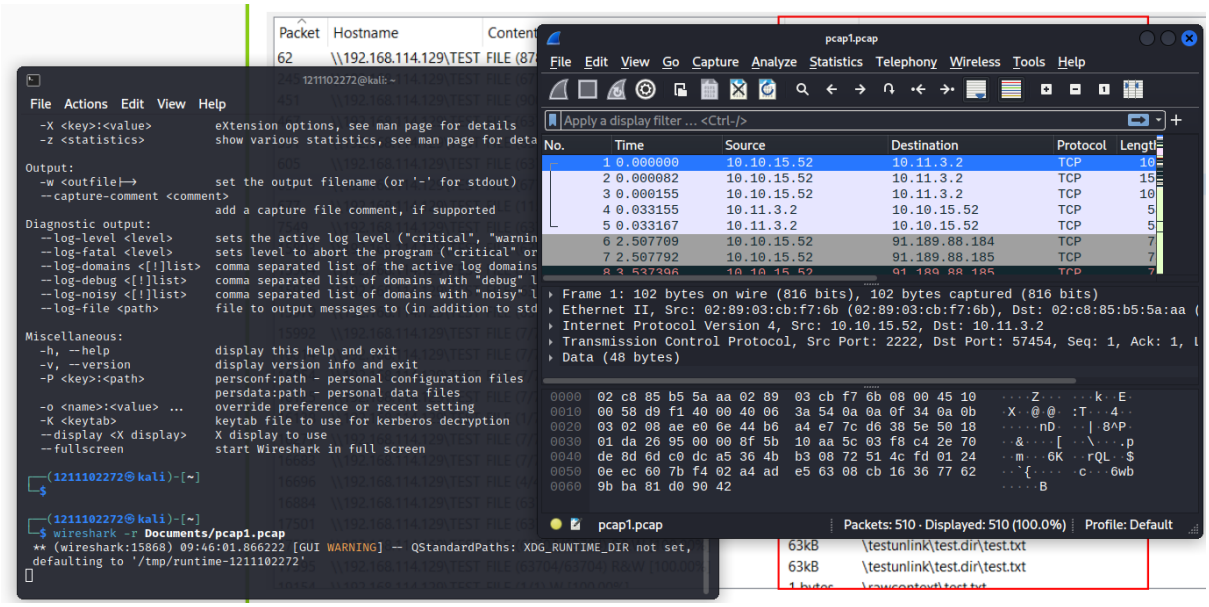
Day 7: Networking - The Grinch really did Steal Christmas

Tools Used: Kali Linux, WireShark

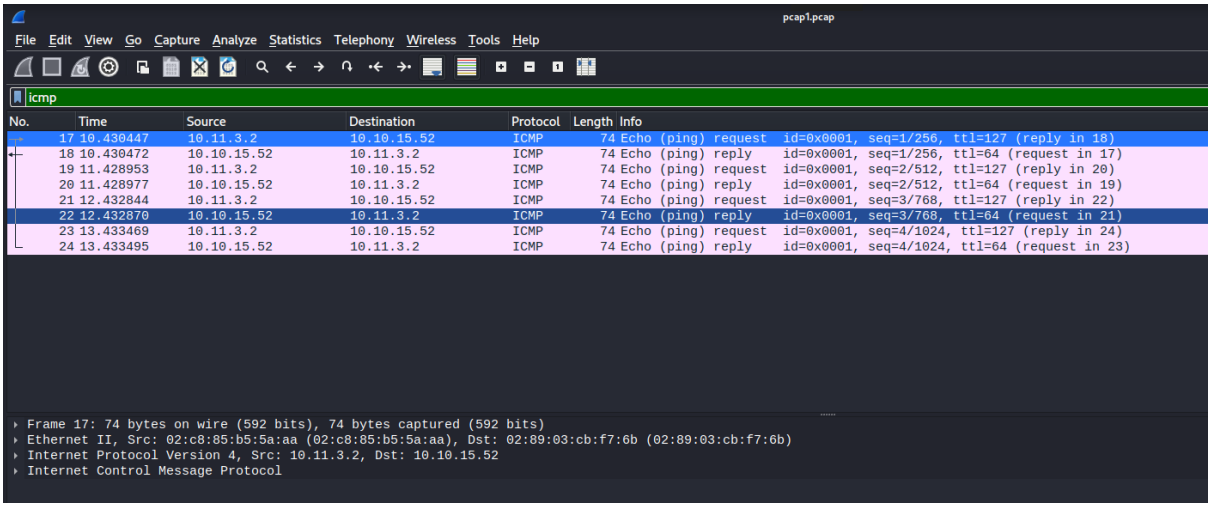
Solution/ Walkthrough

Question 1

Launching wireshark with the -r flag to read the .pcap file provided

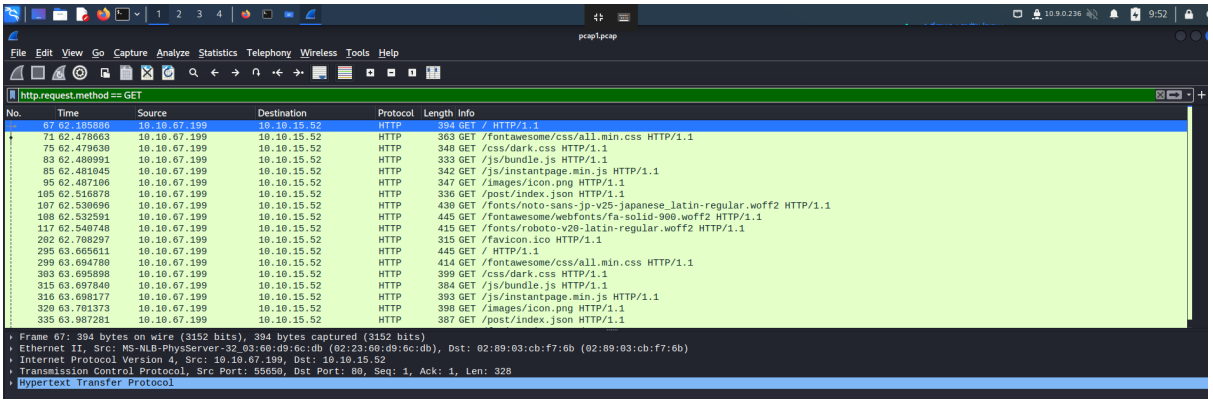


Applying the ICMP display filter, the address which initiated it is 10.11.3.2 as seen from the “source” tab



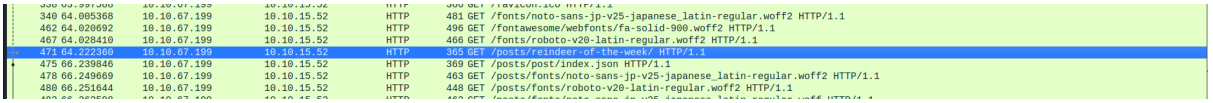
Question 2

the filter “HTTP.REQUEST.METHOD == GET” is used.



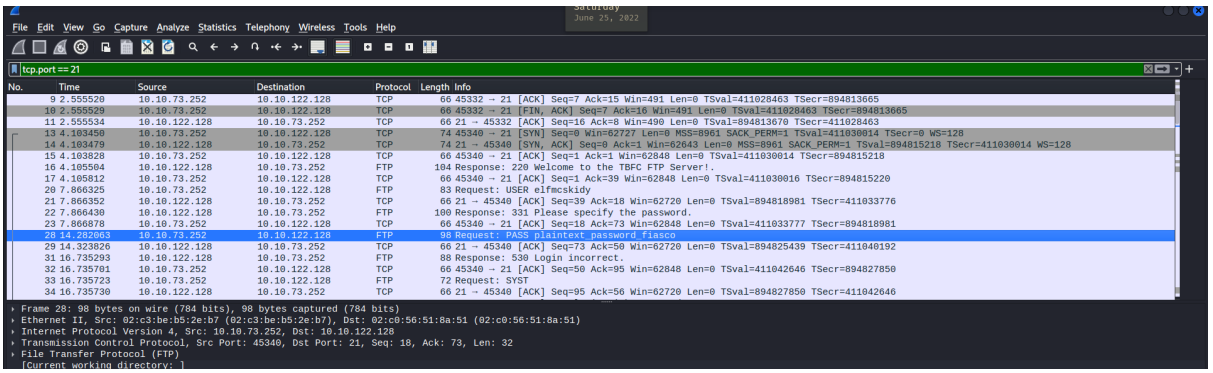
Question 3

IP Address `"10.10.67.199"` visited an article called “reindeer-of-the-week”



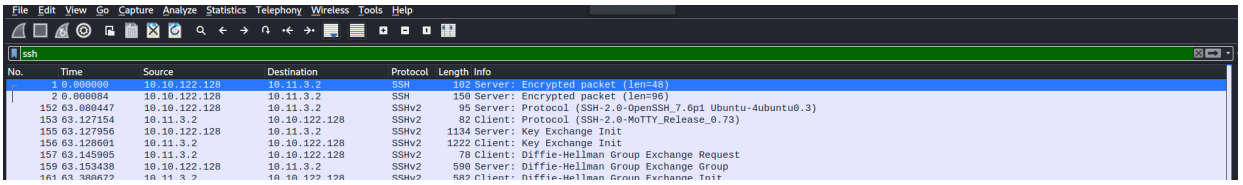
Question 4

Launching pcap2.pcap with the same steps, we apply “tcp.port == 21” to filter out the logs, we see the correct password for login “plaintext_password_fiasco”



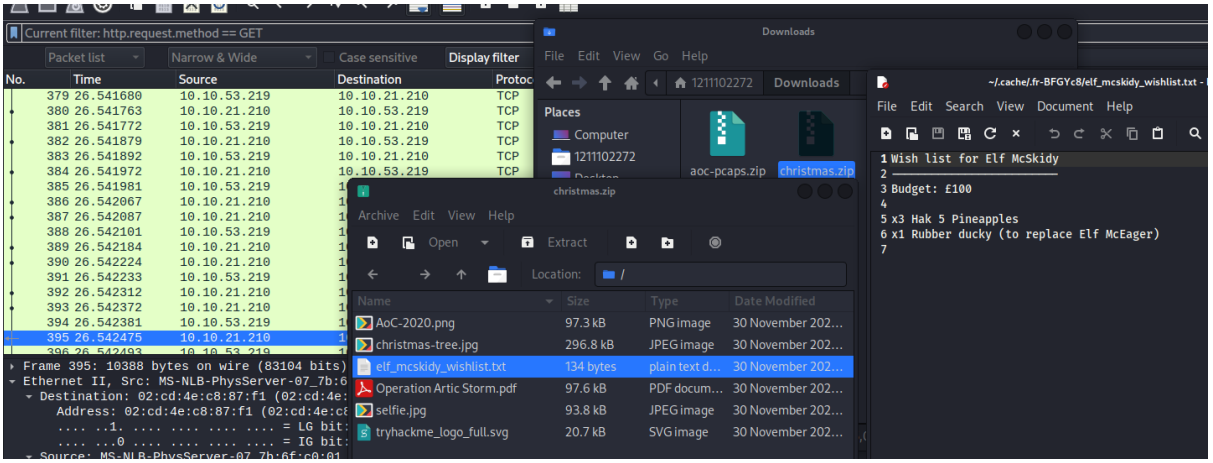
Question 5

SSH protocol is encrypted



Question 6

Analysing pcap3.pcap, we find a christmas.zip file, we exported it as HTTP, then extracted it to find a .txt file saying a rubber ducky will be used to replace Elf McEager



Thought process/ Methodology:

We launched wireshark with the -r flag to read the .pcap file provided. After applying the ICMP display filter, the address which initiated it is 10.11.3.2 as seen from the “source” tab. To filter out all the HTTP GET requests, the filter “HTTP.REQUEST.METHOD == GET” is used. After some analysing, IP Address "10.10.67.199" visited an article called “reindeer-of-the-week”. After that, we launched pcap2.pcap with the same steps, we apply “tcp.port == 21” to filter out the logs, because FTP runs on port 21, we see the correct password for login “plaintext_password_fiasco”. We see the SSH protocol is encrypted. After that we started analysing pcap3.pcap, we find a christmas.zip file, we exported it as HTTP, then extracted it to find a .txt file saying a rubber ducky will be used to replace Elf McEager.

Day 8: Networking - What’s under the Christmas Tree?

Tools used: Kali Linux, nmap

Question 1

Run the nmap scan on the machine IP

```
┌──(1211102272㉿kali)-[~]
└─$ nmap -A 10.10.146.238
Starting Nmap 7.92 ( https://nmap.org ) at 2022-06-25 11:30 +08
Nmap scan report for 10.10.146.238
Host is up (0.22s latency).
Not shown: 997 closed tcp ports (conn-refused)
PORT     STATE SERVICE       VERSION
80/tcp   open  http          Apache httpd 2.4.29 ((Ubuntu))
|_http-generator: Hugo 0.78.2
|_http-title: TBFC&#39;s Internal Blog
|_http-server-header: Apache/2.4.29 (Ubuntu)
2222/tcp open  ssh           OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 cf:c9:99:d0:5c:09:27:cd:a1:a8:1b:c2:b1:d5:ef:a6 (RSA)
|   256 4c:d4:f9:20:6b:ce:fc:62:99:54:7d:c2:b4:b2:f2:b2 (ECDSA)
|_  256 d0:e6:72:18:b5:20:89:75:d5:69:74:ac:cc:b8:3b:9b (ED25519)
3389/tcp open  ms-wbt-server xrdp
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 35.33 seconds
```

Question 2

Scanning using -Pn flag

```
┌──(1211102272㉿kali)-[~]
└─$ nmap -Pn 10.10.146.238
Starting Nmap 7.92 ( https://nmap.org ) at 2022-06-25 11:37 +08
Nmap scan report for 10.10.146.238
Host is up (0.19s latency).
Not shown: 997 closed tcp ports (conn-refused)
PORT     STATE SERVICE
80/tcp   open  http
2222/tcp open  EtherNetIP-1
3389/tcp open  ms-wbt-server

Nmap done: 1 IP address (1 host up) scanned in 24.45 seconds
```

Question 3

Comparebetween -A and -sV flags

```
┌──(1211102272㉿kali)-[~]
└─$ nmap -sV 10.10.146.238
Starting Nmap 7.92 ( https://nmap.org ) at 2022-06-25 11:43 +08
Nmap scan report for 10.10.146.238
Host is up (0.22s latency).
Not shown: 997 closed tcp ports (conn-refused)
PORT     STATE SERVICE       VERSION
80/tcp   open  http          Apache httpd 2.4.29 ((Ubuntu))
2222/tcp open  ssh           OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; protocol 2.0)
3389/tcp open  ms-wbt-server xrdp
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 42.56 seconds
```

Question 4

Determining the Linux Distro: Ubuntu

```
2222/tcp open  ssh           OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; protocol 2.0)
```

Question 5

Using NSE to determine the possible use for the website

```
┌──(1211102272㉿kali)-[~]
└─$ nmap --script http-title 10.10.146.238
Starting Nmap 7.92 ( https://nmap.org ) at 2022-06-25 11:48 +08
Nmap scan report for 10.10.146.238
Host is up (0.19s latency).
Not shown: 997 closed tcp ports (conn-refused)
PORT     STATE SERVICE
80/tcp   open  http
|_http-title: TBFC&#39;s Internal Blog
2222/tcp open  EtherNetIP-1
3389/tcp open  ms-wbt-server

Nmap done: 1 IP address (1 host up) scanned in 26.25 seconds
```

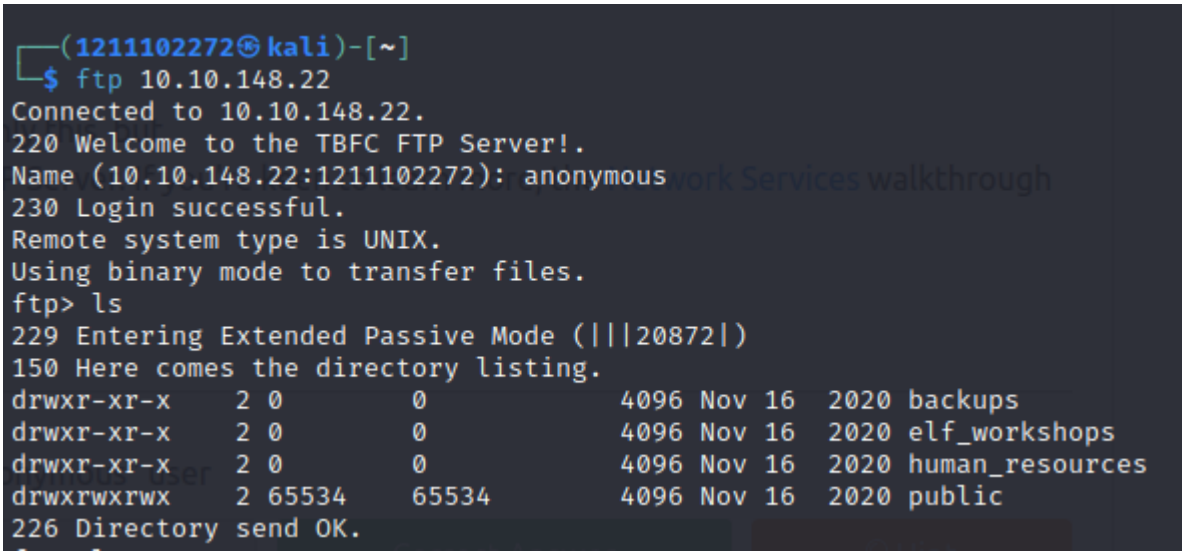
Thought Process/ Methodology:
We ran the nmap scan on the machine IP. We then scanned using the -Pn flag. We compare between -A and -sV flags, one displayed the running process and one didn't. We went ahead to determine the Linux Distro, which is Ubuntu. We searched for a script using NSE to determine the possible use for the website on nmap.org, which found out the website is used for a blog.

Day 9: Networking - Anyone can be Santa!

Tools Used: Kali Linux, FTP

Question 1

The "Public" directory is available for access



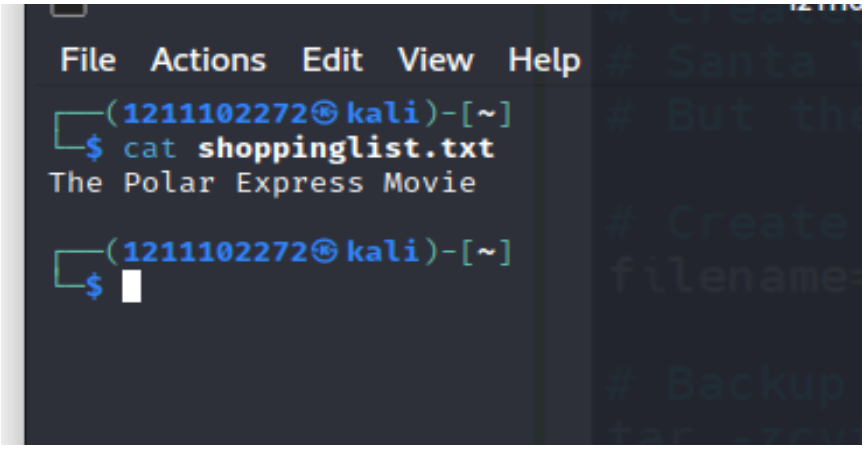
Question 2

Backup.sh is an executable script

```
ftp> cd public
250 Directory successfully changed.
ftp> ls -a
229 Entering Extended Passive Mode (|||7267|)
150 Here comes the directory listing.
drwxrwxrwx    2 65534    65534        4096 Nov 16  2020 .
drwxr-xr-x    6 65534    65534        4096 Nov 16  2020 ..
-rwxr-xr-x    1 111      113           341 Nov 16  2020 backup.sh
-rw-rw-rw-    1 111      113            24 Nov 16  2020 shoppinglist.txt
226 Directory send OK.
ftp>
```

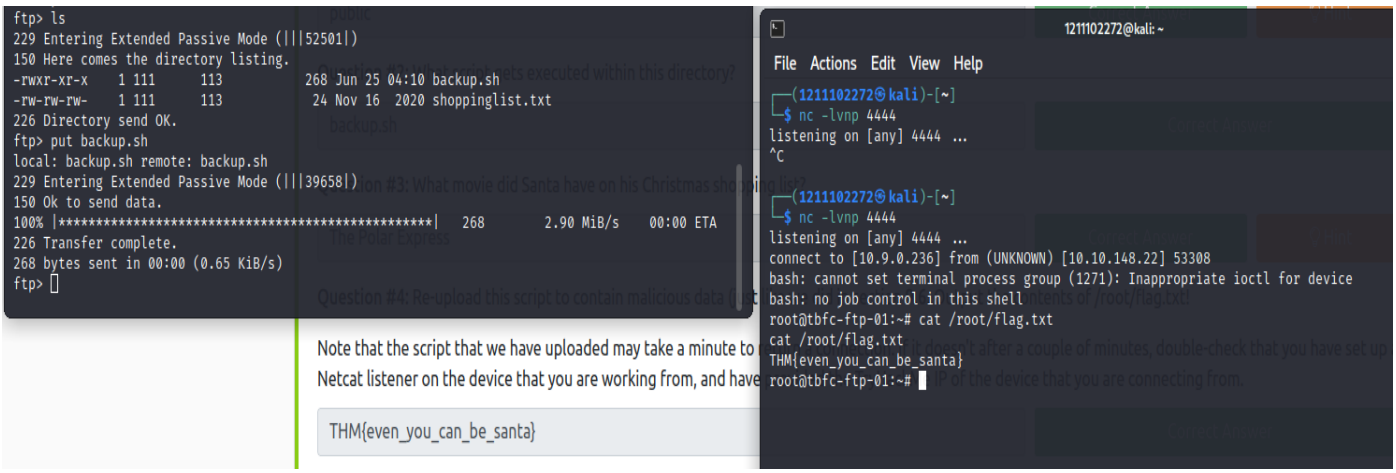
Question 3

The Polar Express Movie is on santa's shopping list



Question 4

Change the contents of the .sh file, set up net cat and reupload the script to gain root access, then concatenate the THM flag



Thought Process/ Methodology:
When we use the ftp to connect to the server, the “Public” directory is available for access, we found out there was a backup.sh which we can use it to exploit for access. Santa had a shopping list saying he wanted to watch The Polar Express Movie. After that, we downloaded the script, changed the contents, mean while we set up netcat for a listener port, after that we uploaded the file back to gain root access, we outputted the contents with cat to find the THM flag.

Day 10: Networking - Don’t be sElfish!

Tools Used: Kali Linux, samba

Question 1

Displaying all the users on samba server

```
user:[elfmcelferson] rid:[0×3e9]

 ==========( Share Enumeration on 10.10.64.58 )==========
 ========

        Sharename       Type      Comment
        ---------       ----      -------
        tbfc-hr         Disk      tbfc-hr
        tbfc-it         Disk      tbfc-it
        tbfc-santa      Disk      tbfc-santa
        IPC$            IPC       IPC Service (tbfc-smb server (Samba, Ubuntu))
Reconnecting with SMB1 for workgroup listing.

        Server               Comment
        ---------            -------

        Workgroup            Master
        ---------            -------
        TBFC-SMB-01          TBFC-SMB

[+] Attempting to map shares on 10.10.64.58

//10.10.64.58/tbfc-hr   Mapping: DENIED Listing: N/A Writing: N/A
//10.10.64.58/tbfc-it   Mapping: DENIED Listing: N/A Writing: N/A
//10.10.64.58/tbfc-santa        Mapping: OK Listing: OK Writing: N/A

[E] Can't understand response:

NT_STATUS_OBJECT_NAME_NOT_FOUND listing \*
//10.10.64.58/IPC$      Mapping: N/A Listing: N/A Writing: N/A
enum4linux complete on Sat Jun 25 12:40:43 2022
```

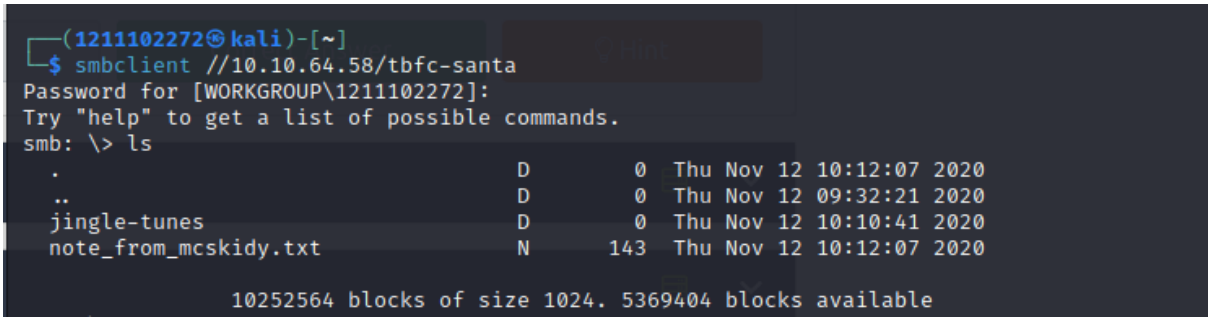
Question 2

Shares on the server

```
 Sharename       Type      Comment
 ---------       ----      -------
 tbfc-hr         Disk      tbfc-hr
 tbfc-it         Disk      tbfc-it
 tbfc-santa      Disk      tbfc-santa
 IPC$            IPC       IPC Service (tbfc-smb server (Samba, Ubuntu))
ecting with SMB1 for workgroup listing.
```

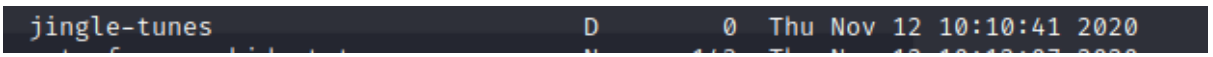
Question 3

Logging into share



Question 4

Directory left for santa



Thought Process/ Methodology:

We used enum4linux to display all the users on the samba server. As well as shares on the server. We found out there was a share which didn't require a password for login. There is a directory left for santa called Jingle Tunes.