

PSP0201

Week 2

Writeup

Group Name:HUSTLERS

Members

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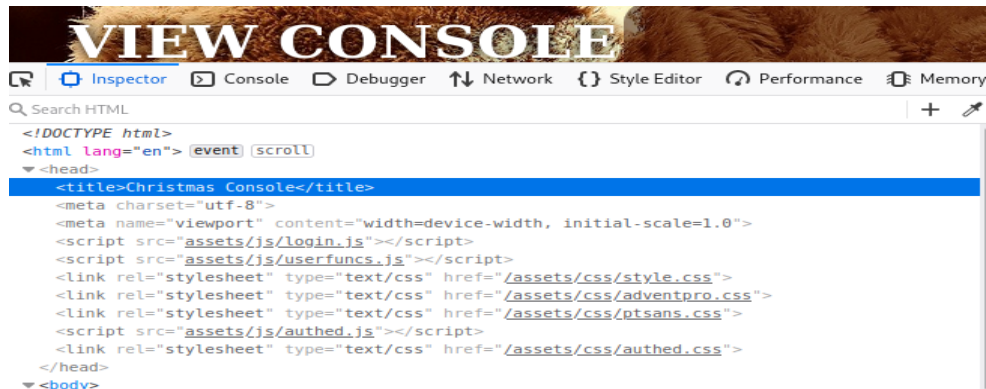
Day 1 - [Web Exploitation] A Christmas Crisis

Tools used: Kali Linux, Firefox, Cyberchef

Solution/walkthrough:

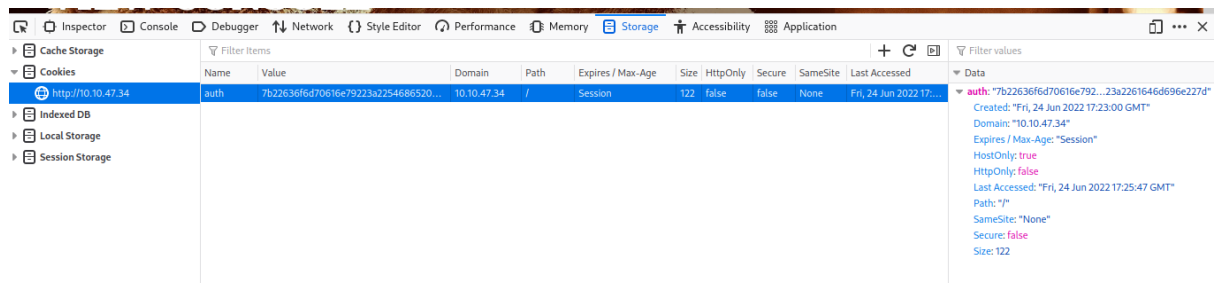
question 1

Inspect the website and obtain the title from html tag



question 2 and 3

Check on the cookies tab to get the name and value in hexadecimal



question 4,5 and 6

Using Cyberchef, decoded the cookie value and get JSON format and company with username value

The screenshot shows the CyberChef web application. The 'Recipe' panel on the left has a 'From Hex' step selected with the 'Delimiter' set to 'Auto'. The 'Input' panel on the right contains a long hexadecimal string. The 'Output' panel at the bottom displays the decoded JSON: {"company": "The Best Festival Company", "username": "admin"}. The interface includes a sidebar with various operations like 'To Base64', 'From Base64', 'To Hex', 'From Hex', 'To Hexdump', 'From Hexdump', 'URL Decode', 'Regular expression', and 'Entropy'. The top bar shows 'Download CyberChef' and 'Last build: 15 days ago'.

question 7

change the username value to santa

The screenshot shows the CyberChef web application with the 'Recipe' panel set to 'To Hex' and 'Delimiter' set to 'None'. The 'Input' panel contains the same JSON as before: {"company": "The Best Festival Company", "username": "santa"}. The 'Output' panel displays the resulting hexadecimal string. The interface is identical to the previous screenshot, showing the same sidebar and top bar.

question 8

get access control to active and obtain the flag



Thought Process/Methodology:

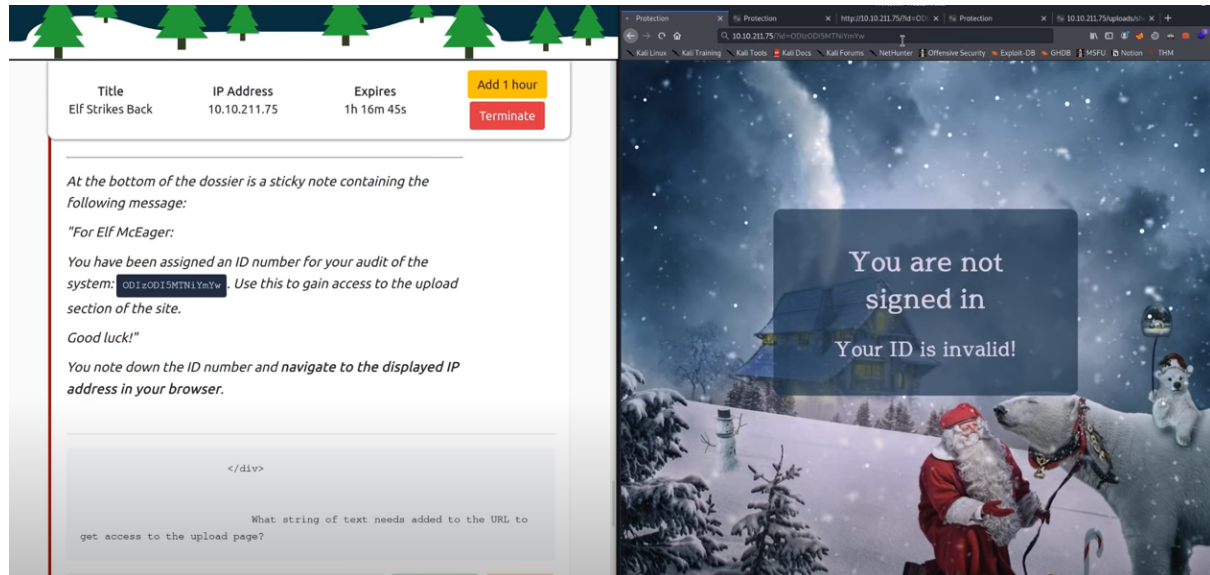
Having accessed the target machine, we were shown a login/registration page. We proceeded to register an account and login. After logging in, we open the browser's developer tool and chose to view the site cookie from the Storage tab. Looking at the cookie value, we deduced it to be a hexadecimal value and proceeded to convert it to text using Cyberchef. We found a JSON statement with the username element. Using Cyberchef, we altered the username to 'santa', the administrator account, and converted it back to hexadecimal using Cyberchef. We replaced the cookie value with converted one and refreshed the page. We are now show an administrator page (Santa's) and proceeded to enable every control, which in turn showed the flag.

Day 2 - [Web Exploitation] The Elf Strikes Back!

Tools used: Kali Linux, Firefox, reverse shell, netcat listener

Solution/walkthrough:

Question 1



?id=ODIzODI5MTNiYmYw is there itself in tryhackme

Question 2

(JPEG,JPG,PNG)represents = IMAGE

```
1 <!DOCTYPE html>
2 <html lang=en>
3   <head>
4     <title>Protection</title>
5     <meta charset=utf-8>
6     <meta name=viewport content="width=device-width, initial-scale=1.0">
7     <link rel="icon" type="image/x-icon" href="favicon.ico">
8     <link type=text/css rel=stylesheet href="/assets/css/lemonada.css">
9     <link type=text/css rel=stylesheet href="/assets/css/roboto.css">
10    <link type=text/css rel=stylesheet href="/assets/css/auth.css">
11    <link type=text/css rel=stylesheet href="/assets/css/lightrope.css">
12    <link type=text/css rel=stylesheet href="/assets/css/buttons.css">
13    <script src="/assets/js/upload.js"></script>
14    <script src="/assets/js/boxfade.js"></script>
15  </head>
16  <body>
17    <ul class="lightrope"><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li></ul>
18    <div class=nose></div>
19    <main>
20      <h1>Protect the Factory!</h1>
21      <h2>If you see any suspicious people near the factory, take a picture and upload it here!</h2>
22      <input type=file id="chooseFile" accept=".jpeg,.jpg,.png">
23      <button tabindex=0 id=coverFile>Select</button>
24      <button tabindex=1 id=uploadFile>Submit</button>
25      <p id=fileText>No file selected</p>
26    </main>
27  </body>
28 </html>
```

Question 3

try /upload directory

Index of /uploads

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 shell.jpeg	2020-12-01 20:34	5.4K	
 shell.jpg.php	2020-12-01 20:36	5.4K	

Question4

search on netcat's parameter explanation at firefox

<code>nc -l [host] [port]</code>	Listen for an incoming connection
<code>nc -k -l [host] [port]</code>	Continue listening after client has disconnected
<code>nc -n [host] [port]</code>	No DNS lookups
<code>nc -p [source port] [host] [port]</code>	Use specific source port
<code>nc -s [source ip] [host] [port]</code>	Use source IP
<code>nc -w [timeout] [host] [port]</code>	Apply 'n' second timeout
<code>nc -v [host] [port]</code>	Verbose output

question 5

```
20:59:48 up 45 min, 0 users, load average: 0.00, 0.00, 0.00
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
uid=48(apache) gid=48(apache) groups=48(apache)
sh: cannot set terminal process group (882): Inappropriate ioctl for device
sh: no job control in this shell
sh-4.4$ cat /var/www/flag.txt
cat /var/www/flag.txt

=====

You've reached the end of the Advent of Cyber, Day 2 -- hopefully you're
enjoying yourself so far, and are learning lots!
This is all from me, so I'm going to take the chance to thank the awesome
@Vargnaar for his invaluable design lessons, without which the theming
of the past two websites simply would not be the same.

Have a flag -- you deserve it!      I
THM{MGU3Y2UyMGUwNjExYTY4NTAxOWJhMzhh}
```

Flag is received

Thought Process/Methodology:

Having accessed the target machine, we need to navigate to the website, which is the IP address for the box we deployed. Next we need to provide a key and value using query strings at the end of the URL. We use the key and value that is provided by thm which is ?id=ODIzODI5MTNiYmYw and we can access the uploads section. On the page we see an instruction to users, suggesting that this form is to be used for uploading images. This gives us a good hint of what kind of files we will be able to upload. We could test our hypothesis by creating a number of different files with different file types and trying to upload one of each, however this can become time consuming. A simpler solution here can be checking the page's source by right clicking and selecting 'View Page Source' and searching the HTML for the upload form or button. If we look inside of the main tags we see an input tag with an 'accept' attribute. Listed are .jpeg, .jpg and .png which are all image formats. After trying submitting an image file, we can know the image has been inside the upload directory. Then, we activate our reverse shell and launch netcat listener. After our reverse shell is running, to navigate to a specific location within the filesystem in our reverse shell, we use cat to see what the flag.

Day 3 - [Web Exploitation] Christmas Chaos

Tools used: Kali Linux, Firefox, burpsuite, foxyproxy, sqlmap

Question 1& 2

What's even worse is that these devices are often exposed to the internet, potentially allowing anyone to access and control it. In 2018 it was reported that a botnet (a number of internet-connected devices controlled by an attacker to typically perform DDoS attacks) called [Mirai](#) took advantage of Internet of Things (IoT) devices by remotely logging, configuring the device to perform malicious attacks at the control of the attackers; the Mirai botnet infected over 600,000 IoT devices mostly by scanning the internet and using default credentials to gain access.

In fact, companies such as Starbucks and the US Department of Defense have been victim to leaving services running with default credentials, and bug hunters have been rewarded for reporting these very simple issues responsibly (Starbucks paid \$250 for the reported issue):

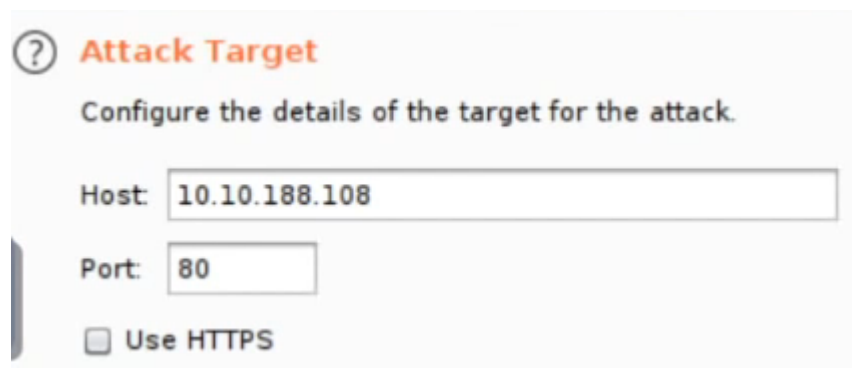
Question 3

The agent was ag3nt-j1

ag3nt-j1 U.S. Dept Of Defense staff agreed to disclose this report.

Jun 25th (2 years ago)

Question 4@5



Attack Target

Configure the details of the target for the attack.

Host: 10.10.188.108

Port: 80

☐ Use HTTPS

Question 6

Url encoding

%50%53%50%30%32%30%31

Question 7

Use cluster bomb in attack type

Payload Positions

Configure the positions where payloads will be inserted into the base request. The attack type determines the way in which payloads are assigned to payload positions - see help for full details.

Attack type: Cluster bomb

Question 8

Get the THM Flag

Flag: THM{885ffab980e049847516f9d8fe99ad1a}

Thought Process/Methodology:

Day 4 - [Web Exploitation] Santa's watching


Tools used: Kali Linux, Wfuzz, Gobuster

Question 1

```
root@tp-10-10-200-120:~# wfuzz -c -z 't' --url http://10.10.225.129/api/site-log.php?date=FUZZ
```

Question 2

Can get this in index of /api

 [site-log.php](#)

Question 3

Flag displayed in Api Directory

THM{D4t3_AP1}

Question 4

☐ proxy address

☒ printer

☐ recipe

☒ filename

Thought Process/Methodology:

Day 5 - [Web Exploitation] Someone stole Santa's gift list!

Tools used: Kali Linux, Firefox, burpsuite, foxyproxy, sqlmap

Solution/walkthrough:

question 1

default port number for SQL Server running on TCP microsoft documentation

port 1433

If enabled, the default instance of the SQL Server Database Engine listens on TCP port 1433. Named instances of the Database Engine and SQL Server Compact are configured for dynamic ports.

11 Mar 2022

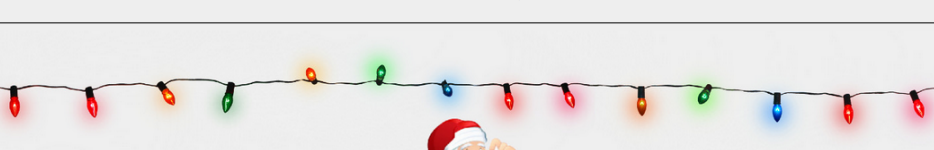
[https://docs.microsoft.com > en-us > sql > database-engine](https://docs.microsoft.com/en-us/sql/database-engine)

Configure a Server to Listen on a Specific TCP Port - SQL Server

question 2

get access to secret's santa login panel without using bruteforce

Welcome back, Santa!



The database has been updated while you were away!

question 4,5 and 6

```

Database: SQLite_masterdb
Table: sequels
[22 entries]
+-----+-----+-----+
| kid      | age | title                |
+-----+-----+-----+
| James    | 8   | shoes                |
| John     | 4   | skateboard           |
| Robert   | 17  | iphone               |
| Michael  | 5   | playstation          |
| William  | 6   | xbox                 |
| David    | 6   | candy                |
| Richard  | 9   | books                |
| Joseph   | 7   | socks                |
| Thomas   | 10  | 10 McDonalds meals  |
| Charles  | 3   | toy car              |
| Christopher | 8   | air hockey table     |
| Daniel   | 12  | lego star wars       |
| Matthew  | 15  | bike                 |
| Anthony  | 3   | table tennis         |
| Donald   | 4   | fazer chocolate     |
| Mark     | 17  | wii                  |
| Paul     | 9   | github ownership    |
| James    | 8   | finnish-english dictionary |
| Steven   | 11  | laptop               |
| Andrew   | 16  | raspberry pie        |
| Kenneth  | 19  | TryHackMe Sub       |
| Joshua   | 12  | chair                |
+-----+-----+-----+

```

question 7

```

Database: SQLite_masterdb
Table: hidden_table
[1 entry]
+-----+
| flag |
+-----+
| thmfox{All_I_Want_for_Christmas_Is_You} |
+-----+

```

question 8

```

Database: SQLite_masterdb
Table: users
[1 entry]
+-----+-----+
| username | password |
+-----+-----+
| admin    | EhCNSWzzFP6sc7gB |
+-----+-----+

```

Thought Process/Methodology:

after get access to santa's secret login panel,we get to a new page where we will be able to traverse the database.we get burpsuite opened,turn intercept on and turn on foxy proxy.Next,we head back to the webpage to test request