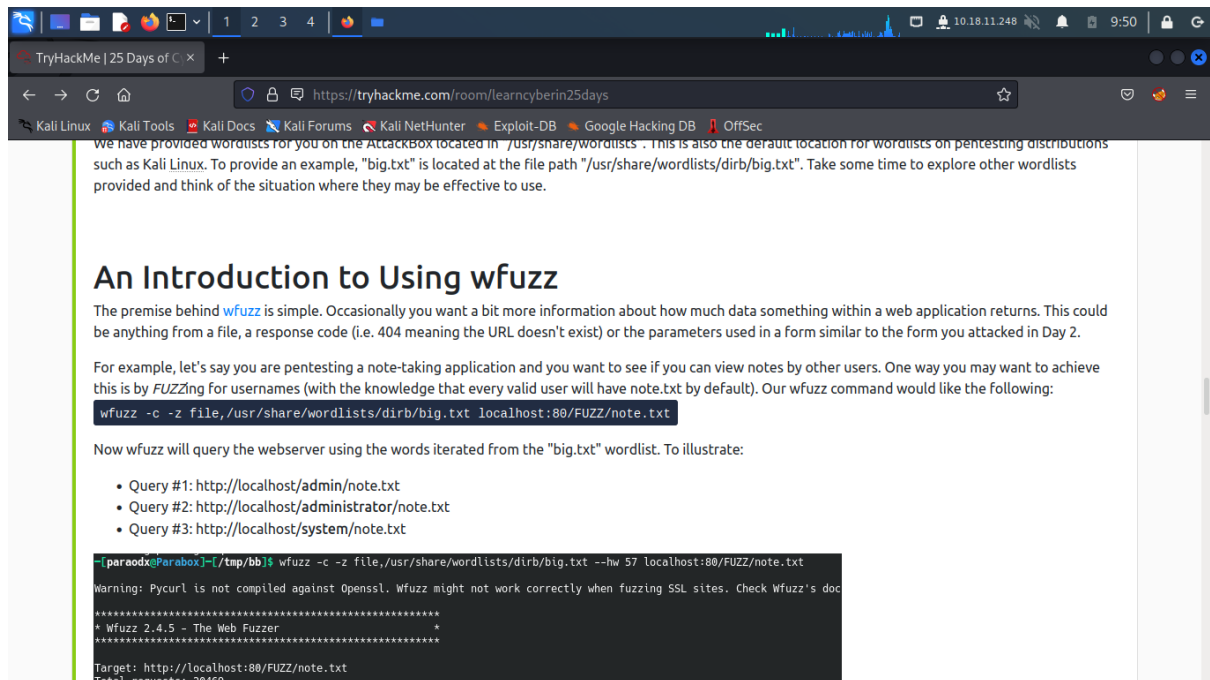


## Day 4: Web Exploitation – A Christmas Crisis

Tool used: Kali-Linux, Gobuster

Solution/walkthrough:

### Question 1



We have provided wordlists for you on the AttackBox located in `/usr/share/wordlists`. This is also the default location for wordlists on pentesting distributions such as Kali Linux. To provide an example, "big.txt" is located at the file path `/usr/share/wordlists/dirb/big.txt`. Take some time to explore other wordlists provided and think of the situation where they may be effective to use.

### An Introduction to Using wfuzz

The premise behind `wfuzz` is simple. Occasionally you want a bit more information about how much data something within a web application returns. This could be anything from a file, a response code (i.e. 404 meaning the URL doesn't exist) or the parameters used in a form similar to the form you attacked in Day 2.

For example, let's say you are pentesting a note-taking application and you want to see if you can view notes by other users. One way you may want to achieve this is by FUZZing for usernames (with the knowledge that every valid user will have `note.txt` by default). Our `wfuzz` command would look like the following:

```
wfuzz -c -z file,/usr/share/wordlists/dirb/big.txt localhost:80/FUZZ/note.txt
```

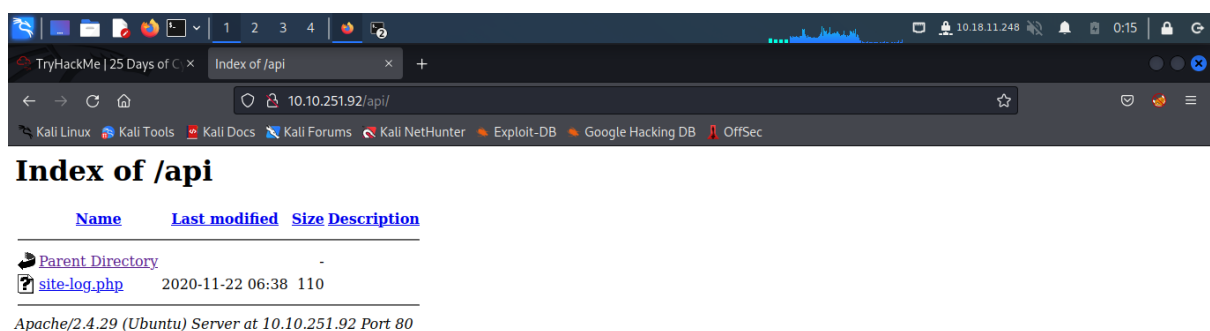
Now `wfuzz` will query the webserver using the words iterated from the "big.txt" wordlist. To illustrate:

- Query #1: `http://localhost/admin/note.txt`
- Query #2: `http://localhost/administrator/note.txt`
- Query #3: `http://localhost/system/note.txt`

```
--paraox@Paraox:~/tmp/bb$ wfuzz -c -z file,/usr/share/wordlists/dirb/big.txt --hw 57 localhost:80/FUZZ/note.txt
Warning: Pycurl is not compiled against Openssl. Wfuzz might not work correctly when fuzzing SSL sites. Check Wfuzz's doc
*****
* Wfuzz 2.4.5 - The Web Fuzzer
*****
Target: http://localhost:80/FUZZ/note.txt
Total requests: 20469
```

Study the answer in tryhackme and find the answer.

### Question 2



### Index of /api

Name	Last modified	Size Description
<a href="#">Parent Directory</a>	-	-
<a href="#">site-log.php</a>	2020-11-22 06:38	110

Apache/2.4.29 (Ubuntu) Server at 10.10.251.92 Port 80

Use gobuster in panel and type in the format of "gobuster dir -u `http://example.com` -w `wordlist.txt`". Then, change the URL with the with the format `<ip address>/api`. The file is shown.

## Question 3

the login form may be using `username` and `password` parameters. Where wfuzz will now iterate through the wordlist specified in the 'username' and 'password' parameters.

### Challenge

Deploy both the instance attached to the page. After allowing 5 minutes, navigate to the instance in your AttackBox browser.

It is up to you to decide if you wish to use the wordlist provided or use a larger wordlist located in the `wordlist` directory on the AttackBox. The wordlist is also available for download if you are using your own machine.

In summary, use the tools and techniques outlined in today's advent of cyber; search for the API, find the correct post and bring back ELF's forums!

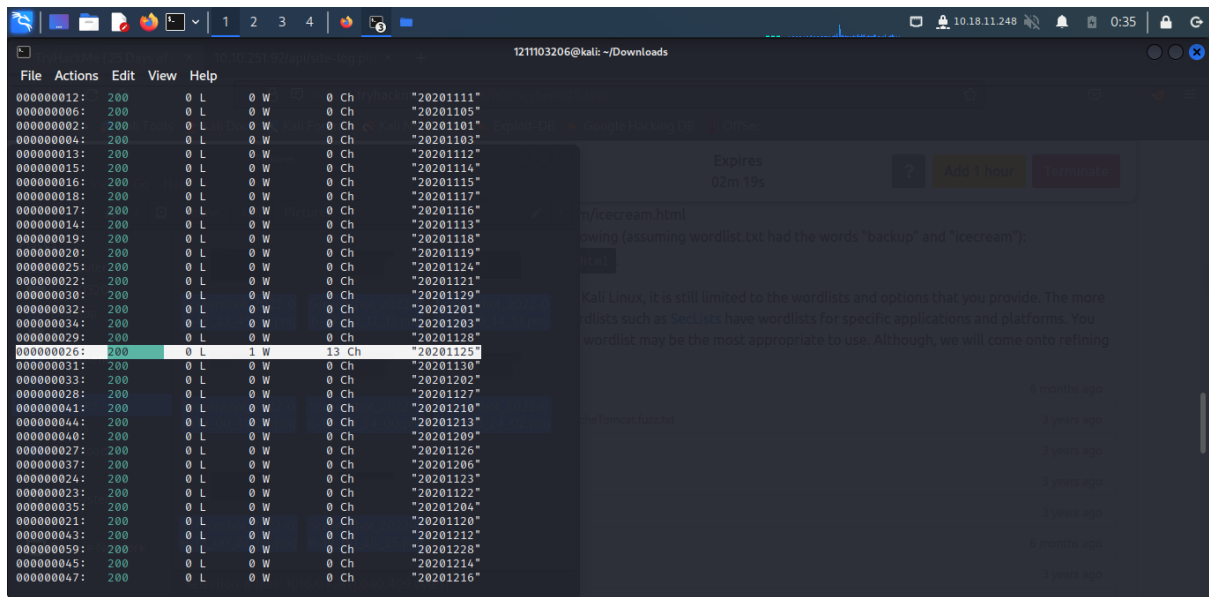
```
121103206@kali: ~/Downloads
File Actions Edit View Help
(121103206@kali)~$ cd Downloads/
(121103206@kali)~$ ls
kaikate.ovpn  php-reverse-shell.jpg.php  wordlist
(121103206@kali)~$ cat wordlist
20201100
20201101
20201102
20201103
20201104
20201105
20201106
20201107
20201108
20201109
20201110
```

To access the file of the site-log.php, we need to find the date of it. Download the file that is given. Then, open the wordlist.

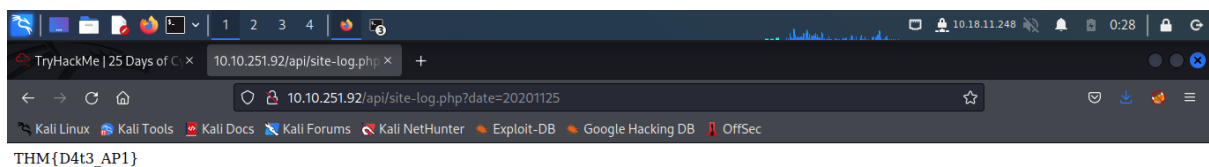
```
121103206@kali: ~/Downloads
File Actions Edit View Help
20201231

(121103206@kali)~$ wfuzz -c -z file,wordlist https://10.10.251.92/api/site-log.php?date=FUZZ
/usr/lib/python3/dist-packages/wfuzz/_init_.py:24: UserWarning:Pycurl is not compiled against OpenSSL. Wfuzz might not work correctly when fuzzing SSL sites. Check Wfuzz's documentation for more information.
* Wfuzz 3.1.0 - The Web Fuzzer *
*****
Target: http://10.10.251.92/api/site-log.php?date=FUZZ
Total requests: 63

ID  Response  Lines  Word  Chars  Payload
-----
000000009: 200      0 L    0 W    0 Ch   "20201108"
000000010: 200      0 L    0 W    0 Ch   "20201109"
000000011: 200      0 L    0 W    0 Ch   "20201110"
000000012: 200      0 L    0 W    0 Ch   "20201111"
000000013: 200      0 L    0 W    0 Ch   "20201112"
000000014: 200      0 L    0 W    0 Ch   "20201113"
000000015: 200      0 L    0 W    0 Ch   "20201114"
000000016: 200      0 L    0 W    0 Ch   "20201115"
000000017: 200      0 L    0 W    0 Ch   "20201116"
000000018: 200      0 L    0 W    0 Ch   "20201117"
```



To specify it, use `wfuzz -c -z file, wordlist` to get more information about it. Then, a different pattern of date is shown.



Copy the date and put into the format of `<ip address>/api/site-log.php?date=xxx`

After that, the flag is shown

Question 4

FUZZ, ..., FUZZnZ wherever you put these keywords wfuzz will replace them with the value FUZZ{baseline\_value} FUZZ will be replaced by baseline\_value. It will be the first request

ns:

```
-h/--help          : This help
--help            : Advanced help
--filter-help      : Filter language specification
--version          : Wfuzz version details
-e <type>          : List of available encoders/payloads/iterators/printers/screens:

--recipe <filename> : Reads options from a recipe. Repeat for various recipes.
--dump-recipe <filename> : Prints current options as a recipe
--oF <filename>      : Saves fuzz results to a file. These can be consumed later o

-c                : Output with colors
-v               : Verbose information.
-f filename,printer : Store results in the output file using the specified printer
-o printer        : Show results using the specified printer.
--interact        : (beta) If selected, all key presses are captured. This allow
--dry-run         : Print the results of applying the requests without actually
--prev            : Print the previous HTTP requests (only when using payloads
--efield <expr>    : Show the specified language expression together with the c
--field <expr>     : Do not show the payload but only the specified language exp
```

Research and find the answer.