## **Main Solution:**

You are expected to copy the nc command which is as follows, going into it we can see that it executes an app that prints each character ONE BY ONE

```
F-1
File Actions Edit View Help
  -(kali⊛kali)-[~]
s nc 94.237.62.117 49011
Which character (index) of the flag do you want? Enter an index: 0
Character at Index 0: H
Which character (index) of the flag do you want? Enter an index: 1
Character at Index 1: T
Which character (index) of the flag do you want? Enter an index: 2
Character at Index 2: B
Which character (index) of the flag do you want? Enter an index: 3
Character at Index 3:
Which character (index) of the flag do you want? Enter an index: 4
Character at Index 4: t
Which character (index) of the flag do you want? Enter an index: 5
Character at Index 5: H
Which character (index) of the flag do you want? Enter an index: 6
Character at Index 6: 1
Which character (index) of the flag do you want? Enter an index: 7
Character at Index 7: 5
Which character (index) of the flag do you want? Enter an index: 8
Character at Index 8:
Which character (index) of the flag do you want? Enter an index: 9
Character at Index 9: 1
Which character (index) of the flag do you want? Enter an index: 10
Character at Index 10: s
Which character (index) of the flag do you want? Enter an index: 11
Character at Index 11: _
```

## WELL DEFINITELY NOT GOING TO DO IT MANUALLY

Firstly, to establish a baseline, i.e. how big of a number I would likely need,

```
(kali® kali)-[~/.../CTFs/HTB Cyber Apocalypse 2024/Misc/Very Easy]
$ nc 94.237.62.117 49011
Which character (index) of the flag do you want? Enter an index: -1
Index out of range!
Which character (index) of the flag do you want? Enter an index: 10000
Index out of range!
Which character (index) of the flag do you want? Enter an index: 1000
Index out of range!
Which character (index) of the flag do you want? Enter an index: 100
Character at Index 100: g
Which character (index) of the flag do you want? Enter an index: 200
Index out of range!
Which character (index) of the flag do you want? Enter an index: exi^C
```

Good to see that you did handled for exceptions, but we can see that the safe side is about 100+- there are still some parts of the string so we can establish that approx is 0 to 200 minimally.

So I did a bash script with my limited knowledge of bash scripting (for now), the following does the connects to the specified IP address and PORT using nc and then sends inputs of 0 to 200

\*NOTE: in case you are new to linux in general, in order to run this you would minimally need to **chmod +x test.sh** before doing a ./test.sh

## test.sh

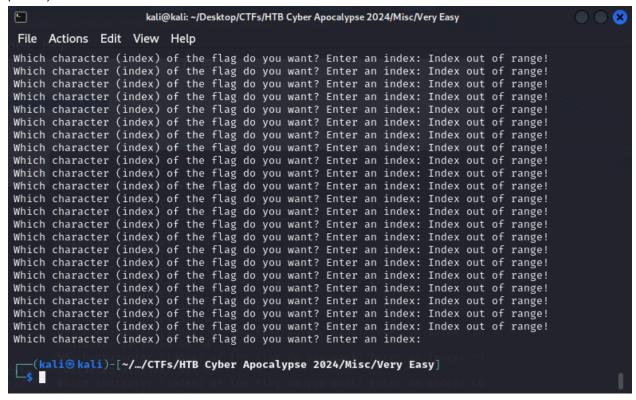
#!/bin/bash

**EOF** 

# IP address and port to connect to IP="94.237.62.117"
PORT="49011"

# Connect using nc nc "\$IP" "\$PORT" << EOF \$(seq 0 200)

After running the above test.sh copy all the lines excluding the last line before you terminate (ctrl+c) the sh file to a txt file.



Python script that helps to parse the data of the txt file to give you the final flag

## test.py

```
#Usage: python3 test.py <text file> e.g. python3 test.py test.txt
import sys

f = open(sys.argv[1], "r")
temp = ""
i=0
for x in f:
    #this is to check in case you decided to copy the index out of range ones also
if "Index out of range!" in x:
    continue
else:
    temp += x.replace('Which character (index) of the flag do you want? Enter an index:
Character at Index ' + str(i) + ': ', ").rstrip()
i+=1

print(temp)
```

```
(kali@kali)-[~/.../HTB Cyber Apocalypse 2024/Misc/Very Easy/Character]
    python3 test.py test.txt
HTB{tH15_1s_4_r3aLly_l0nG_fL4g_i_h0p3_f0r_y0Ur_s4k3_tH4t_y0U_sCr1pTEd_tH1s_oR_els3_iT_t0oK_qU1
t3_l0ng!!}

(kali@kali)-[~/.../HTB Cyber Apocalypse 2024/Misc/Very Easy/Character]
    python3 test.py test2.txt
HTB{tH15_1s_4_r3aLly_l0nG_fL4g_i_h0p3_f0r_y0Ur_s4k3_tH4t_y0U_sCr1pTEd_tH1s_oR_els3_iT_t0oK_qU1
t3_l0ng!!}
```

The above shows 2 different txt files, one containing only the lines that contains characters of the flag and the other txt file contains all lines include the index out of range lines