

Question 4:

Write a Python script to determine which ports are open and display the information in a tidy format. Where port 22 is shown as open display the word “SSH” where port 80 is shown as open display the word “HTTP”. Take screenshots of the code running on your system. Save them to a file named L0012345_Q4_File_1 where L0012345 is replace by your own L number. Save the script as L0012345_Q4_File_2

1. Code ScreenShot

```
10 #
11 # -----
12 import socket
13
14 # You can scan 0-65535 ports.
15 port_min = 0
16 port_max = 90
17
18 # Ask user to input the ip address they want to scan.
19 while True:
20     ip = input("\nPlease enter the ip address that you want to scan: ")
21     break
22
23 open_ports = []
24
25 # Socket port scanning
26 for port in range(port_min, port_max + 1):
27     try:
28         with socket.socket(socket.AF_INET, socket.SOCK_STREAM) as s:
29             s.connect((ip, port))
30             open_ports.append(port)
31     except:
32         pass
33
34 # showing open ports
35 for port in open_ports:
36     if port == 22:
37         print(f"SSH: port {port} is open on ip: {ip}.")
38     elif port == 80:
39         print(f"HTTP: port {port} is open on ip: {ip}.")
40
```

1. Code execute

```
~/Users/Luca/Library/Mobile Documents/com-apple-CloudDocs/LYIT - School/Assignments/bin/python /Users/Luca/PycharmProjects/Assignment/Question_4/L00170171_Q4_File_2.py
Please enter the ip address that you want to scan: 192.168.178.122
SSH: port 22 is open on ip: 192.168.178.122.
HTTP: port 80 is open on ip: 192.168.178.122.
Process finished with exit code 0
```