

Lab 4

Tanishq Bhatt || February 20, 2023 || CSE-1

Q -> TCP Socket Programming.

1) Server.py

```
server.py > ...
1  import socket
2
3  s = socket.socket()
4  print("Socket Created")
5
6  port = 8000
7  s.bind(('', port))
8
9  print("Socket Binded - %s" % (port))
10 s.listen(1)
11
12 io, addr = s.accept()
13
14 print('Got a connection from {}'.format(addr))
15 io.send('Connected - '.encode())
16
17 while True:
18     cmsg = io.recv(1024).decode()
19     if not cmsg:
20         break
21     print('Received data: ', cmsg)
22
23     if cmsg.lower() == "stop":
24         io.sendall("Closing connection...".encode())
25         print("Closing connection...")
26         io.close()
27         break
28
29     message = 'Return: ' + cmsg
30     io.sendall(message.encode())
31
32 io.close()
```

```
(venv) PS C:\Users\tanis\Desktop\assignment> py .\server.py
Socket Created
Socket Binded - 8000
Got a connection from ('127.0.0.1', 63605)
Received data: Hi I am TB
Received data: Stop
Closing connection...
(venv) PS C:\Users\tanis\Desktop\assignment>
```

2) Client.py

```
client.py > ...
1  import socket
2
3  client = socket.socket()
4
5  port = 8000
6  client.connect(('127.0.0.1', port))
7
8  print(client.recv(1204).decode())
9
10 while True:
11     msg = input('Enter message to send: ')
12     if msg.strip():
13         client.sendall(msg.encode())
14         if msg.lower() == 'stop':
15             print(client.recv(1204).decode())
16             break
17         print(client.recv(1204).decode())
18
19
20 client.close()
```

```
(venv) PS C:\Users\tanis\Desktop\assignment> py .\client.py
Connected -
Enter message to send: Hi I am TB
Return: Hi I am TB
Enter message to send: Stop
Closing connection...
(venv) PS C:\Users\tanis\Desktop\assignment>
```