16 - Shruti Gauchandra

Experiment 07

SERVER

```
import socket, threading
PORT = 5050
SERVER = socket.gethostbyname (socket.gethostname ())
ADDR = (SERVER, PORT)
FORMAT = 'utf-8'
HEADER = 64
DISCONNECT MESSAGE = '!DISCONNECT'
server = socket.socket (socket.AF INET, socket.SOCK STREAM)
server.bind (ADDR)
def clientHandling (connection, address):
   print (f'[NEW CONNECTION] {address} connected')
    isConnected = True
    while isConnected:
        messageLength = connection.recv (HEADER).decode (FORMAT)
        if messageLength:
            messageLength = int (messageLength)
            message = connection.recv (messageLength).decode (FORMAT)
            if message == DISCONNECT MESSAGE:
                isConnected = False
            print (f'[{address}] {message}')
            connection.send ('Message Recieved'.encode (FORMAT))
    connection.close ()
def start ():
    server.listen ()
   print (f'[LISTENING] Server is listening on {SERVER}')
        connection, address = server.accept ()
```

CLIENT

```
import socket
PORT = 5050
SERVER = ''
SERVER = socket.gethostbyname (socket.gethostname ())
ADDR = (SERVER, PORT)
FORMAT = 'utf-8'
HEADER = 64
DISCONNECT MESSAGE = '!DISCONNECT'
client = socket.socket (socket.AF INET, socket.SOCK STREAM)
client.connect (ADDR)
def send (messages):
   message = messages.encode (FORMAT)
   messageLength = len (message)
   sendLength = str (messageLength).encode (FORMAT)
   sendLength += b' ' * (HEADER - len (sendLength))
   client.send (sendLength)
   client.send (message)
   print (client.recv (2045).decode (FORMAT))
    send ('Hello World')
send (DISCONNECT MESSAGE)
```

Output:

Server

```
C:\Users\admin\Desktop\AI_SE_16\Experiment07> & C:/Users/admin/AppData/Local/Programs/Python/Python313/python.exe c:/Users/admin/Desktop/AI_SE_16/Experiment07/server.py
   PS C:\Users\admin\Desktop\AI_SE_16\Experiment07> & C:\Users\admin\Appbata/Local/Programs/Python/Python313/python.exe c:\Users/admin\Desktop\AI_SE_16\Experiment07/server.py [SERVER_STARTING] server has been started
PS C:\Users\admin\Desktop\AI_SE_16\Experiment07> & C:\Users\admin\Appbata/Local/Programs/Python/Python313/python.exe c:\Users\admin\Desktop\AI_SE_16\Experiment07/server.py PS C:\Users\admin\Desktop\AI_SE_16\Experiment07> & C:\Users\admin\Appbata/Local/Programs/Python/Python313/python.exe c:\Users\admin\Desktop\AI_SE_16\Experiment07/server.py PS C:\Users\admin\Desktop\AI_SE_16\Experiment07\server.py PS C:\Users\admin\Desktop\AI_SE_16\Exp
0 10 0
      TERMINAL
                                         PROBLEMS
                                                                              DEBUG CONSOLE
                                                                                                                                    PORTS
      PS C:\Users\admin\Desktop\AI_SE_16\Experiment07> & C:/Users/adm
      [SERVER STARTING] server has been started
      PS C:\Users\admin\Desktop\AI_SE_16\Experiment07> & C:/Users/adm
      PS C:\Users\admin\Desktop\AI SE 16\Experiment07> & C:/Users/adm
      [SERVER STARTING] server has been started
       [LISTENING] Server is listening on 192.168.21.212
       [NEW CONNECTION] ('192.168.21.212', 51151) connected
       [ACTIVE CONNECTION] 1
      [('192.168.21.212', 51151)] Hello World
[('192.168.21.212', 51151)] !DISCONNECT
[NEW CONNECTION] ('192.168.21.212', 51321) connected
      [ACTIVE CONNECTION] 1
       [('192.168.21.212', 51321)] Hello World
       [('192.168.21.212', 51321)] !DISCONNECT
```

Client

```
> TMELNE 22

TERMINAL PROBLEMS DEBUG CONSOLE PORTS

PS C:\Users\admin\Desktop\AI_SE_16\Experiment07> python client.py

Message Recieved
Message Recieved
PS C:\Users\admin\Desktop\AI_SE_16\Experiment07> [
```