**University of Engineering and Technology, Lahore**

**Semester: 6th Session: 2019-2023**

**Assignment-1 (Individual)**

**Computer Networks**

**Task 0:**

**Now let’s get our hands dirty and take a look at the client-server program pair**

**for a UDP/TCP implementation of this simple application.**

**UDPClient.py**

**Here is the code for the client side of the application:**

from socket import \*

serverName = ‘hostname’

serverPort = 12000

clientSocket = socket(socket.AF\_INET, socket.SOCK\_DGRAM)

message = raw\_input(’Input lowercase sentence:’)

clientSocket.sendto(message,(serverName, serverPort))

modifiedMessage, serverAddress = clientSocket.recvfrom(2048)

print modifiedMessage

clientSocket.close()

**UDPServer.py**

**Let’s now take a look at the server side of the application:**

from socket import \*

serverPort = 12000

serverSocket = socket(AF\_INET, SOCK\_DGRAM)

serverSocket.bind((’’, serverPort))

print ”The server is ready to receive”

while 1:

message, clientAddress = serverSocket.recvfrom(2048)

modifiedMessage = message.upper()

serverSocket.sendto(modifiedMessage, clientAddress)

**Task 0\***

**TCPClient.py**

Here is the code for the client side of the application:

from socket import \*

serverName = ’servername’

serverPort = 12000

clientSocket = socket(AF\_INET, SOCK\_STREAM)

clientSocket.connect((serverName,serverPort))

sentence = raw\_input(‘Input lowercase sentence:’)

clientSocket.send(sentence)

modifiedSentence = clientSocket.recv(1024)

print ‘From Server:’, modifiedSentence

clientSocket.close()

**TCPServer.py**

from socket import \*

serverPort = 12000

serverSocket = socket(AF\_INET,SOCK\_STREAM)

serverSocket.bind((‘’,serverPort))

serverSocket.listen(1)

print ‘The server is ready to receive’

while 1:

connectionSocket, addr = serverSocket.accept()

sentence = connectionSocket.recv(1024)

capitalizedSentence = sentence.upper()

connectionSocket.send(capitalizedSentence)

connectionSocket.close()