

LAB-13

Write a program on a datagram socket for the client/server to display the messages on the client side typed at the server-side.

UDP-SERVER

```
import socket

localIP    = "127.0.0.1"
localPort  = 20001
bufferSize = 1024

msgFromServer = "HELLO HELLO HELLLLLLLLLL"
bytesToSend   = str.encode(msgFromServer)

# Create a datagram socket
UDPServerSocket = socket.socket(family=socket.AF_INET, type=socket.SOCK_DGRAM)

# Bind to address and ip
UDPServerSocket.bind((localIP, localPort))

print("UDP server up and listening")

# Listen for incoming datagrams
while(True):
    bytesAddressPair = UDPServerSocket.recvfrom(bufferSize)
    message = bytesAddressPair[0]
    address = bytesAddressPair[1]
    clientMsg = "Message from Client:{}".format(message)
    clientIP  = "Client IP Address:{}".format(address)
    print(clientMsg)
    print(clientIP)

    # Sending a reply to client
    UDPServerSocket.sendto(bytesToSend, address)
```

```
PS C:\Users\Ashwani> python -u "c:\Users\Ashwani\OneDrive\Desktop\Random Files\UDP -SERVER.py"
UDP server up and listening
```

UDP-CLIENT

```
import socket

msgFromClient      = "Hello UDP Server"
bytesToSend        = str.encode(msgFromClient)
serverAddressPort  = ("127.0.0.1", 20001)
bufferSize         = 1024

# Create a UDP socket at client side
UDPClientSocket = socket.socket(family=socket.AF_INET, type=socket.SOCK_DGRAM)

# Send to server using created UDP socket
UDPClientSocket.sendto(bytesToSend, serverAddressPort)

msgFromServer = UDPClientSocket.recvfrom(bufferSize)
msg = "Message from Server {}".format(msgFromServer[0])
|
print(msg)
```

```
C:\Users\Ashwani>python -u "c:\Users\Ashwani\OneDrive\Desktop\Random Files\UDP-CLIENT.py"
Message from Server b'HELLO HELLO HELLLL000000'
```

```
PS C:\Users\Ashwani> python -u "c:\Users\Ashwani\OneDrive\Desktop\Random Files\UDP -SERVER.py"
UDP server up and listening
Message from client:b'Hello UDP Server'
Client IP Address:('127.0.0.1', 62875)
|
```