



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Experiment Name: Socket Programming

Experiment No: 7

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# 1 Objective

The objective of the lab is to create two socket for communicating with each other. We will create two python file for that.

## 2 Procedure

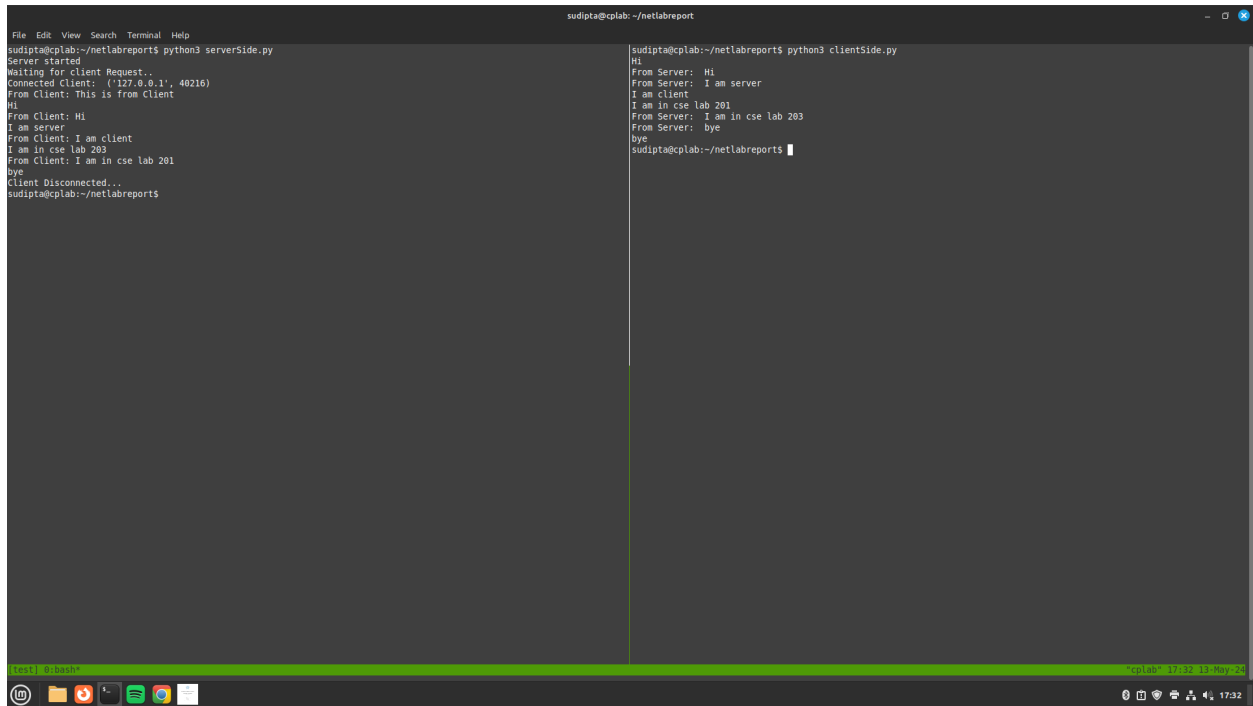
### 2.1 Server.py

```
import socket
LOCALHOST="127.0.0.1"
PORT=8080
server=socket.socket(socket.AF_INET, socket.SOCK_STREAM)
server.bind((LOCALHOST,PORT))
server.listen(1)
print("Server started")
print("Waiting for client Request..")
clientConnection, clientAddress=server.accept()
print("Connected Client: ", clientAddress)
msg= ''
while True:
    in_data=clientConnection.recv(1024)
    msg=in_data.decode()
    if msg=='bye':
        break
    print("From Client: ", msg)
    out_data=input()
    clientConnection.send(bytes(out_data, 'UTF-8'))
print("Client Disconnected ...")
clientConnection.close()
```

### 2.2 Client.py

```
import socket
SERVER="127.0.0.1"
PORT=8080
client=socket.socket(socket.AF_INET, socket.SOCK_STREAM)
client.connect((SERVER,PORT))
client.sendall(bytes("This is from Client", 'UTF-8'))
while True:
    in_data=client.recv(1024)
    print("From Server: ", in_data.decode())
    out_data=input()
    client.sendall(bytes(out_data, 'UTF-8'))
    if out_data=='bye':
        break
client.close()
```

### 3 Result



```
File Edit View Search Terminal Help
sudipta@cplab:~/netlabreports$ python3 serverSide.py
Server started
Waiting for client Request...
Connected Client: ('127.0.0.1', 48216)
From Client: This is from client
Hi
From Client: Hi
I am server
From Client: I am client
I am in cse lab 203
From Client: I am in cse lab 201
bye
Client Disconnected...
sudipta@cplab:~/netlabreports$

sudipta@cplab:~/netlabreports$ python3 clientSide.py
Hi
From Server: Hi
From Server: I am server
I am client
I am in cse lab 201
From Server: I am in cse lab 203
From Server: bye
bye
sudipta@cplab:~/netlabreports$
```

Figure 1: Communication between server and client