Echo sever

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The Code

Client Server and Server

client.py - C:\Engineering\Term 8\Networks lab\lab1 sniffing\client.py (3.11.0)

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```
import socket
import sys
client=socket.socket(socket.AF_INET,socket.SOCK_STREAM)
server_address=("127.0.0.1",50000)

client.connect(server_address)
while True :
    msg=input("Enter The Message wanted to be sent: ")
    print("THe message which is sent: ",msg)
    client.sendall(msg.encode("utf-8"))


    data=client.recv(1000).decode("utf-8")
    print("The echo:" ,data)
    if data=="quit":
        break
client.close()
```

server.py - C:\Engineering\Term 8\Networks lab\lab1 sniffing\server.py (3.11.0)

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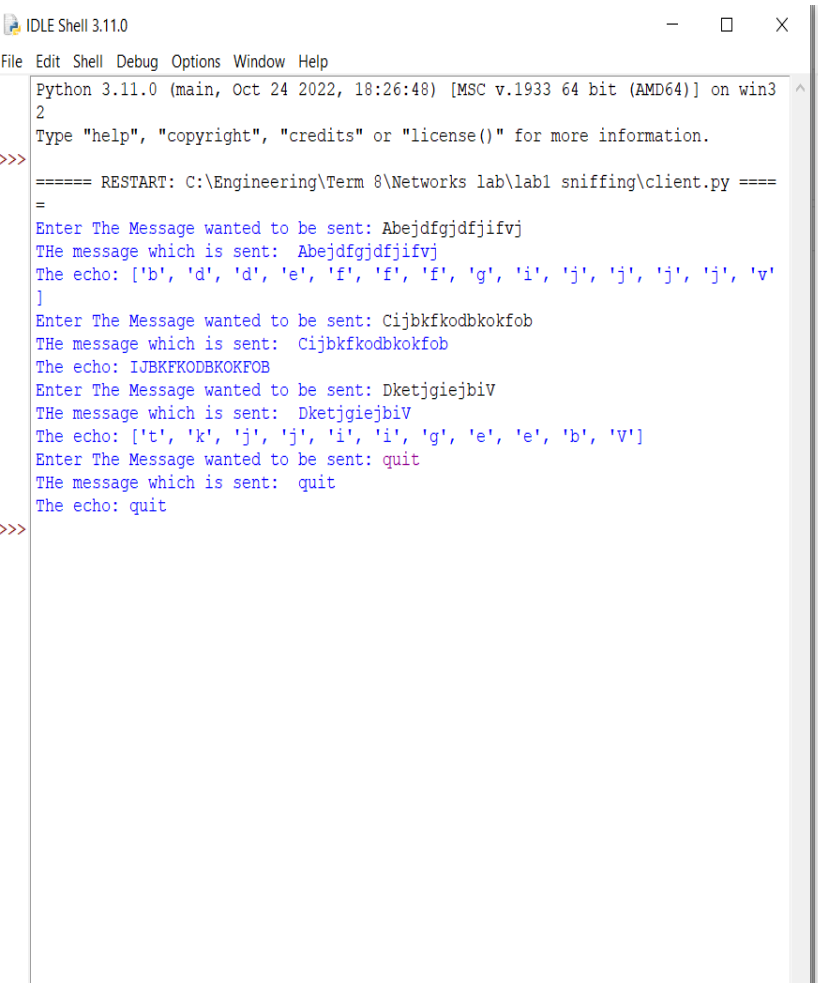
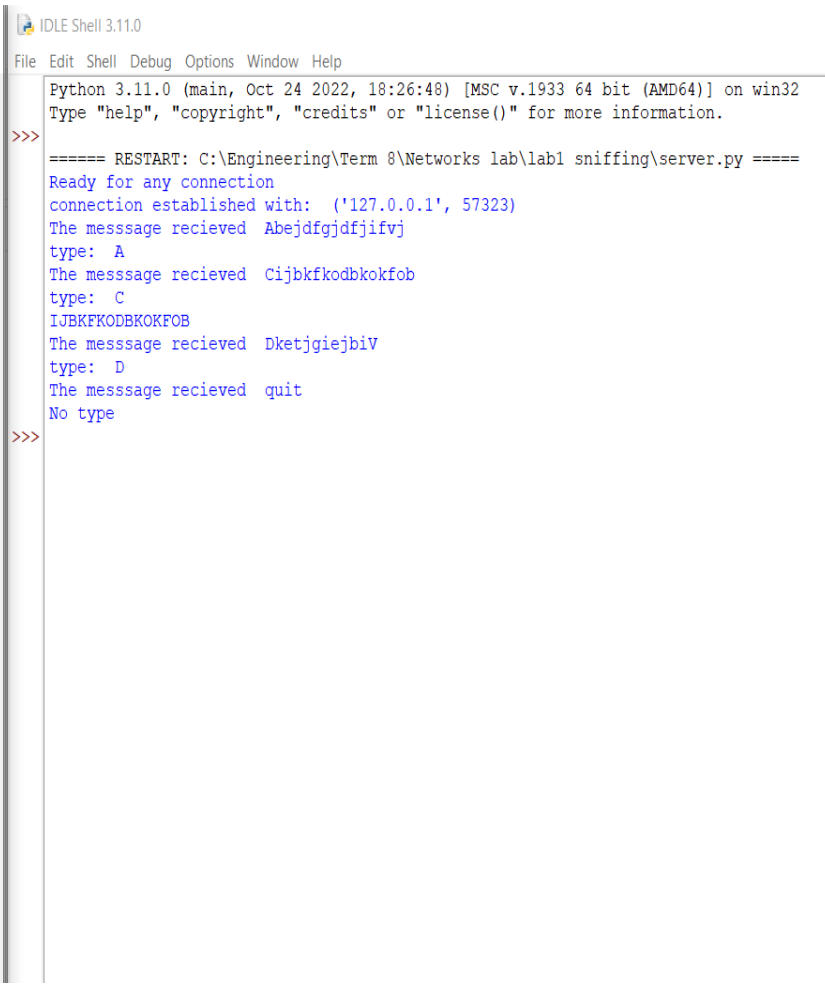
```
import socket
import sys
server=socket.socket(socket.AF_INET,socket.SOCK_STREAM)
server_address=("127.0.0.1",50000)
server.bind(server_address)
server.listen(1)
print('Ready for any connection')
connection, client_address=server.accept()
print('connection established with: ',client_address)
while True :
    data=connection.recv(1000).decode("utf-8")
    print('The messsage recieved ',data)

    # print("type: ",type(data))
    # data= str(data)


    if data[0] == 'A' :
        print("type: ",data[0])
        data=data[1:]
        data=sorted(data)
        data= str(data)

        connection.sendall(data.encode("utf-8"))
    elif data[0] == 'C' :
        print("type: ",data[0])
        data=data[1:]
        data= str(data)
        data=data.upper()
        print(data)
        connection.sendall(data.encode("utf-8"))
    elif data[0] == 'D' :
        print("type: ",data[0])
        data=data[1:]
        data=sorted(data,reverse=True)
        data= str(data)
        connection.sendall(data.encode("utf-8"))
    else:
        print("No type ")
        connection.sendall(data.encode("utf-8"))
        if data=="quit" :
            break


connection.close()
server.close()
```

Output



```
IDLE Shell 3.11.0
File  Edit  Shell  Debug  Options  Window  Help
Python 3.11.0 (main, Oct 24 2022, 18:26:48) [MSC v.1933 64 bit (AMD64)] on win3
2
Type "help", "copyright", "credits" or "license()" for more information.
>>>

====== RESTART: C:\Engineering\Term 8\Networks lab\lab1 sniffing\client.py ====
=
Enter The Message wanted to be sent: Abejdfgjdfjifvj
THe message which is sent:  Abejdfgjdfjifvj
The echo: ['b', 'd', 'd', 'e', 'f', 'f', 'f', 'g', 'i', 'j', 'j', 'j', 'j', 'v'
]
Enter The Message wanted to be sent: Cijbkfkodbkokfob
THe message which is sent:  Cijbkfkodbkokfob
The echo: IJBKFKODBKOKFOB
Enter The Message wanted to be sent: DketjgiejbiV
THe message which is sent:  DketjgiejbiV
The echo: ['t', 'k', 'j', 'j', 'i', 'i', 'g', 'e', 'e', 'b', 'V']
Enter The Message wanted to be sent: quit
THe message which is sent:  quit
The echo: quit
>>>
```



```
IDLE Shell 3.11.0
File  Edit  Shell  Debug  Options  Window  Help
Python 3.11.0 (main, Oct 24 2022, 18:26:48) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>

====== RESTART: C:\Engineering\Term 8\Networks lab\lab1 sniffing\server.py =====
Ready for any connection
connection established with:  ('127.0.0.1', 57323)
The messsage recieved  Abejdfgjdfjifvj
type:  A
The messsage recieved  Cijbkfkodbkokfob
type:  C
IJBKFKODBKOKFOB
The messsage recieved  DketjgiejbiV
type:  D
The messsage recieved  quit
No type
>>>
```

WireShark OUTPUT