

## **Lab:11** Write a menu-based program to Multicast and Broadcast messages using client-server

### **Ans:**

#### Source code:

#### Server:

```
import socket
```

```
HOST = '127.0.0.1'
```

```
PORT = 3300
```

```
conn_list = list()
```

```
with socket.socket(socket.AF_INET, socket.SOCK_STREAM) as s:
```

```
    s.bind((HOST,PORT))
```

```
    s.listen()
```

```
    while True:
```

```
        choice = int(input("Enter\n 1. to add network\n 2. to send message to all\n connections\n 4. to end\n"))
```

```
        if(choice==1):
```

```
            conn,add = s.accept()
```

```
            conn_list.append((conn,add))
```

```
conn.sendall(b'connected to Server')

print("Connected to:" + add[0]+":"+str(add[1]))

elif(choice==2):

    msg:str = input("Enter message to send: ")

    for c,a in conn_list:

        c.sendall(msg.encode())

    else:

        break
```

### Client:

```
import socket
```

```
HOST:str='127.0.0.1'
```

```
PORT:int=3300
```

```
with socket.socket(socket.AF_INET,socket.SOCK_STREAM) as s:
```

```
    s.connect((HOST,PORT))
```

```
    while True:
```

```
        data=s.recv(1024)
```

```
        if not data or data.decode()=="bye":
```

```
            break
```

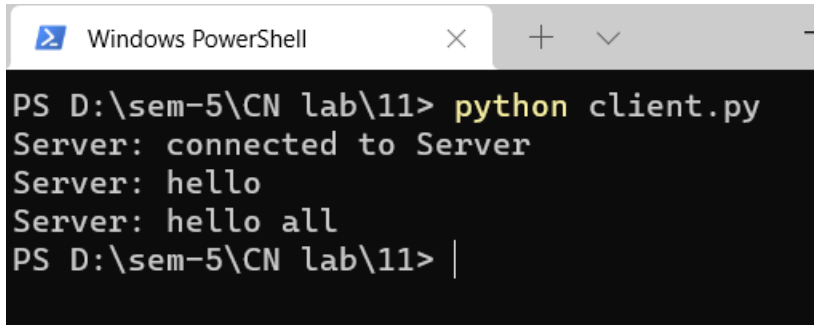
```
        print("Server: " +data.decode())
```

## Output:

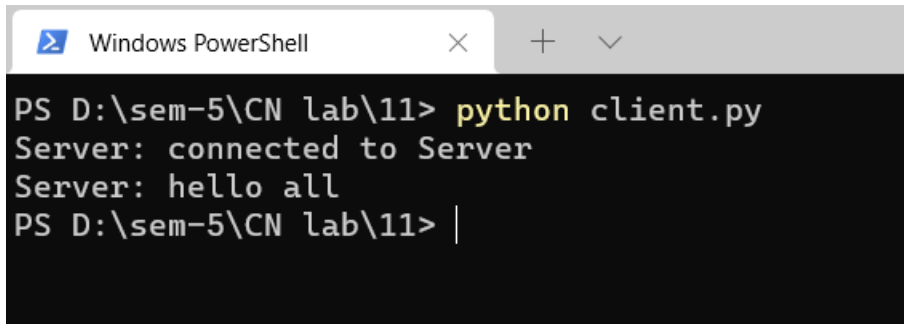
server:

```
Windows PowerShell
PS D:\sem-5\CN lab\11> python server.py
Enter
 1. to add network
 2. to send message to all connections
 4. to end
1
Connected to:127.0.0.1:61944
Enter
 1. to add network
 2. to send message to all connections
 4. to end
2
Enter message to send: hello
Enter
 1. to add network
 2. to send message to all connections
 4. to end
1
Connected to:127.0.0.1:61945
Enter
 1. to add network
 2. to send message to all connections
 4. to end
2
Enter message to send: hello all
Enter
 1. to add network
 2. to send message to all connections
 4. to end
4
PS D:\sem-5\CN lab\11> |
```

## Client:



```
Windows PowerShell
PS D:\sem-5\CN lab\11> python client.py
Server: connected to Server
Server: hello
Server: hello all
PS D:\sem-5\CN lab\11> |
```



```
Windows PowerShell
PS D:\sem-5\CN lab\11> python client.py
Server: connected to Server
Server: hello all
PS D:\sem-5\CN lab\11> |
```