EX:10B
DATE: 24/09/2024

PING TO TEST SERVER CONNECTIVITY USING SOCKETS

AIM: To develop ping program to test server connectivity using sockets.

ALGORITHM:

Server.py
1. Import the socket package
2. Initialize local IP address and local port.
3. Create a socket using socket() function
4. Bind the IP address and port number.
5. Accept client request for connection.
6. Print the received connection details
7. Send reply message to the client.
8. Close the connection.

Client.py
1. Import the socket package
2. Initialize server IP address and local port.
3. Create a socket using socket() function.
4. Start the timer.
5. Send message to the server.
6. The reply message of the server is received.
7. The timer is stopped.
8. Print the round trip time statistics.

Ping to test server connectivity using sockets

Client code:

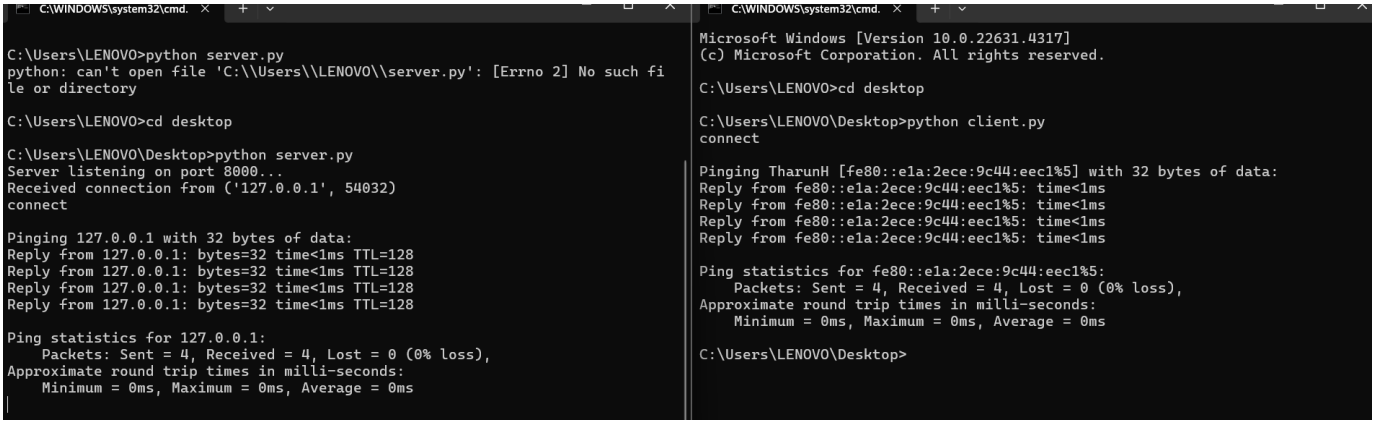
```
from socket import *
from os import system
s = socket(AF_INET, SOCK_STREAM)
s.connect(("127.0.0.1",8000)) # Connect
op='connect'
s.send(op.encode('utf-8')) # Send request
```

```
data = s.recv(100).decode()# Get response print(data)
system("ping "+ gethostname())
s.close()
```

Server Code:

```
from socket import *
from os import system
s = socket(AF_INET,SOCK_STREAM)
s.bind(("",8000))
s.listen(5)
while
True:
        c,a = s.accept()
        print("Received connection from",
        a) data=c.recv(100).decode()
        print(data)
        c.send(data.encode('utf-8'))
        system("ping "+ a)


c.close()
```



RESULT: server connectivity using sockets has been tested using ping command