Echoserver

Echo server and client using python socket

AIM:

To develop a simple webserver to serve html programming pages.

DESIGN STEPS:

Step 1:

Design of echo server and client using python socket

Step 2:

Implementation using Python code

Step 3:

Testing the server and client

PROGRAM:

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SERVER SIDE

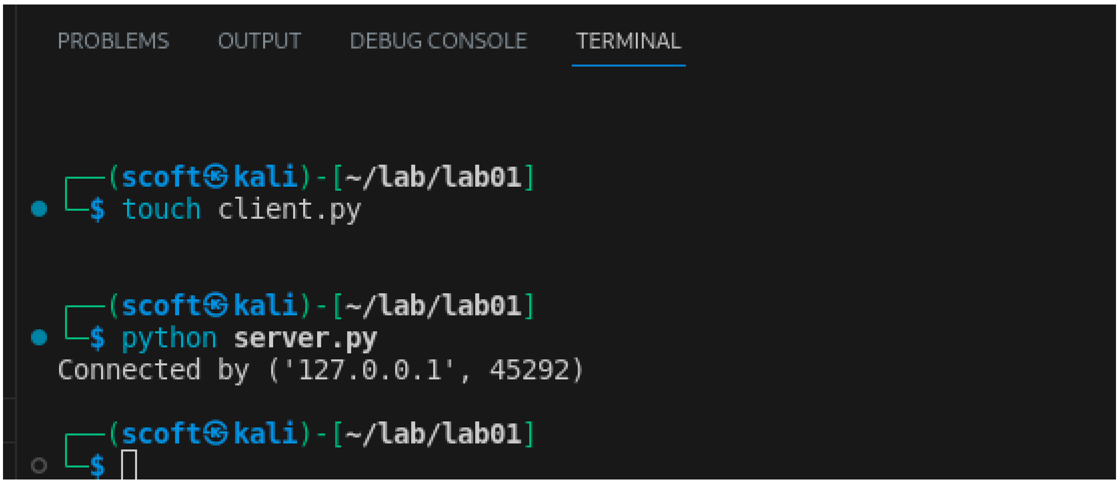
```
import socket
HOST = "127.0.0.1"  # The server's hostname or IP address
PORT = 65432  # The port used by the server
with socket.socket(socket.AF_INET, socket.SOCK_STREAM) as s:
    s.connect((HOST, PORT))
    s.sendall(b"Hello, world")
    data = s.recv(1024)
print(f"Received {data!r}")
```

CLIENT SIDE

```
import socket
HOST = "127.0.0.1"  # Standard loopback interface address (localhost)
PORT = 65432  # Port to listen on (non-privileged ports are > 1023)
with socket.socket(socket.AF_INET, socket.SOCK_STREAM) as s:
    try:
        s.bind((HOST, PORT))
    except Exception as e:
        print(f"Error binding to {HOST}:{PORT}: {e}")
        exit()
    s.listen()
    print(f"Listening on {HOST}:{PORT}...")
    try:
        conn, addr = s.accept()
    except Exception as e:
        print(f"Error accepting connection: {e}")
        exit()
    with conn:
        print(f"Connected by {addr}")
        while True:
            try:
                data = conn.recv(1024)
                if not data:
                    break
                conn.sendall(data)
            except Exception as e:
                print(f"Error receiving/sending data: {e}")
                exit()
```

OUTPUT:

SERVER SIDE

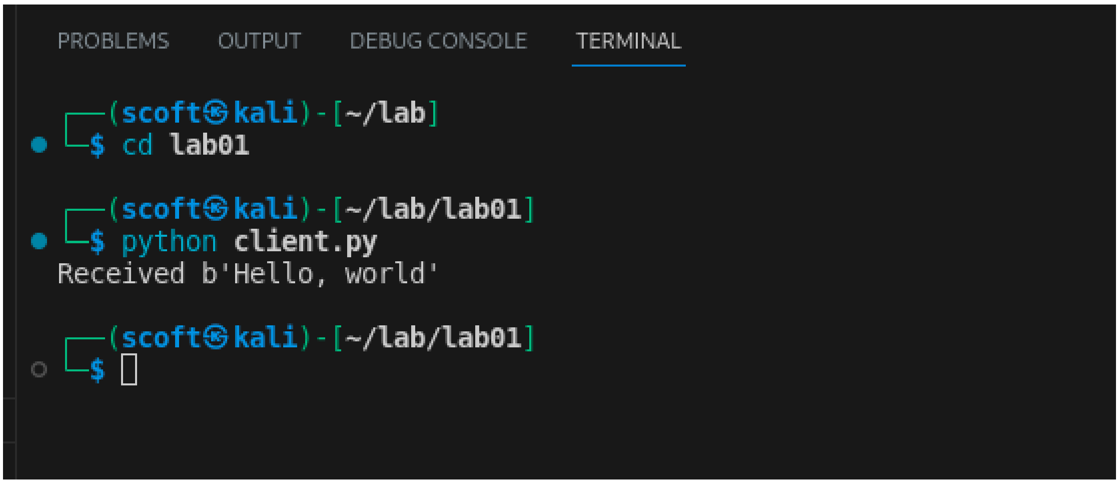


```
┌──(scoft㉿kali)-[~/lab/lab01]
└─$ touch client.py

┌──(scoft㉿kali)-[~/lab/lab01]
└─$ python server.py
Connected by ('127.0.0.1', 45292)

┌──(scoft㉿kali)-[~/lab/lab01]
└─$ 
```

CLIENT SIDE



```
┌──(scoft㉿kali)-[~/lab]
└─$ cd lab01

┌──(scoft㉿kali)-[~/lab/lab01]
└─$ python client.py
Received b'Hello, world'

┌──(scoft㉿kali)-[~/lab/lab01]
└─$ 
```

RESULT:

The program is executed successfully