3. SOCKET PROGRAMMING –SEND TEXT MESSAGE

Write a program to create a server that listens to port 53 using stream sockets. Write a simple client program to connect to the server. Send a simple text message "Hello" from the client to the server and the server to the client and close the connection

server.py

```python
import socket
def start_server():
    server_socket = socket.socket(socket.AF_INET,socket.SOCK_STREAM)
    server_address = ('',53)
    server_socket.bind(server_address)
    server_socket.listen(1)
    print("server listening on port 53")
    while True:
        connection,client_address = server_socket.accept()
        try:
            print("Connection established with",client_address)
            data = connection.recv(1024)
            if data:
                print("Recieved:",data.decode('UTF-8'))
                message="Hello"
                connection.sendall(message.encode('UTF-8'))
        finally:
            connection.close()
            print("connection closed")
if __name__=='__main__':
    start_server()
```

client.py

```python
import socket
def start_client():
    client_socket = socket.socket(socket.AF_INET,socket.SOCK_STREAM)
    server_address =('127.0.0.1',53)
    try:
        client_socket.connect(server_address)
        print("connected to server in port 53")
        message ="Hello"
        client_socket.sendall(message.encode('utf-8'))
        print("sent:",message)
        data = client_socket.recv(1024)
        print("Recieved:",data.decode("utf-8"))
    finally:
        client_socket.close()
        print("connection closed")
if __name__=='__main__':
    start_client()
```

C:\Users\CSE-209-38\Desktop>server.py
  File "C:\Users\CSE-209-38\Desktop\server.py", line 4
    server_address = (",53)
                      ^
SyntaxError: unterminated string literal (detected at line 4)

C:\Users\CSE-209-38\Desktop>server.py
  File "C:\Users\CSE-209-38\Desktop\server.py", line 4
    server_address = (",53)
                      ^
SyntaxError: unterminated string literal (detected at line 4)

C:\Users\CSE-209-38\Desktop>server.py
  File "C:\Users\CSE-209-38\Desktop\server.py", line 16
    connection.sendall(message.encode('utf-8))
                                      ^
SyntaxError: unterminated string literal (detected at line 16)

C:\Users\CSE-209-38\Desktop>server.py
  File "C:\Users\CSE-209-38\Desktop\server.py", line 16
    connection.sendall(message.encode('utf-8))
                                      ^
SyntaxError: unterminated string literal (detected at line 16)

C:\Users\CSE-209-38\Desktop>server.py
  File "C:\Users\CSE-209-38\Desktop\server.py", line 16
    connection.sendall(message.encode('UTF-8))
                                      ^
SyntaxError: unterminated string literal (detected at line 16)

C:\Users\CSE-209-38\Desktop>server.py
  File "C:\Users\CSE-209-38\Desktop\server.py", line 20
    if__name__=='__main__':
                          ^
SyntaxError: invalid syntax

C:\Users\CSE-209-38\Desktop>server.py
server listening on port 53
Connection established with ('127.0.0.1', 64134)
Recieved: Hello
connection closed

Microsoft Windows [Version 10.0.19045.5247]
(c) Microsoft Corporation. All rights reserved.

C:\Users\CSE-209-38>cd Desktop

C:\Users\CSE-209-38\Desktop>client.py
connection closed
Traceback (most recent call last):
  File "C:\Users\CSE-209-38\Desktop\client.py", line 17, in <module>
    start_client()
    ~~~~~~~~~~~~^^
  File "C:\Users\CSE-209-38\Desktop\client.py", line 6, in start_client
    client_socket.connect(server_address)
    ~~~~~~~~~~~~~~~~~~~~~~^^^^^^^^^^^^^^^^
ConnectionRefusedError: [WinError 10061] No connection could be made because the target machine active
ly refused it

C:\Users\CSE-209-38\Desktop>client.py
connected to server in port 53
sent: Hello
Recieved: Hello
connection closed

C:\Users\CSE-209-38\Desktop>

Computer Info by Gitam University
Host Name ICTCSE-L209-38
User   CSE-209-38