

Server Code

```
import socket

# Create a TCP/IP socket
server_socket = socket.socket(socket.AF_INET, socket.SOCK_STREAM)

# Define server address and port
server_address = ('localhost', 12345)
server_socket.bind(server_address)

# Listen for incoming connections
server_socket.listen(1)
print("Server is listening on port 12345...")

# Wait for a connection
connection, client_address = server_socket.accept()
print(f"Connection established with {client_address}")

try:
    while True:
        # Receive data in small chunks
        data = connection.recv(1024).decode()
        if data.lower() == 'exit':
            print("Client requested to close the connection.")
            break
        print(f"Received from client: {data}")

        response = input("Enter response to client: ")
        connection.sendall(response.encode())
finally:
    connection.close()
    print("Server socket closed.")
```

Client-Side Code

```
import socket

# Create a TCP/IP socket
client_socket = socket.socket(socket.AF_INET, socket.SOCK_STREAM)

# Connect to the server
server_address = ('localhost', 12345)
client_socket.connect(server_address)

try:
    while True:
        # Send data
        message = input("Enter message to send (or type 'exit' to
quit): ")
        client_socket.sendall(message.encode())

        if message.lower() == 'exit':
            break

        # Receive response
        response = client_socket.recv(1024).decode()
        print(f"Received from server: {response}")
finally:
    client_socket.close()
    print("Client socket closed.")
```

How to Run:

1. Open a terminal and run the **server**:

```
python server.py
```

2. Open another terminal and run the **client**:

```
python client.py
```

3. They will exchange messages until either side types "exit".