

CN Lab Writeup (TCP)TCP\_server.py :

```
import socket
```

```
serverName = '127.0.0.1'
```

```
serverPort = 12345
```

```
#create
```

```
server_socket = socket.socket(socket.AF_INET,  
                               socket.SOCK_STREAM)
```

```
#bind
```

```
server_socket.bind((serverName, serverPort))
```

```
#listen
```

```
server_socket.listen(5)
```

```
while True:
```

```
    print("The Server is waiting for connection")
```

```
    client_socket, addr = server_socket.accept()
```

```
    print("Client connected from")
```

```
    print("The client has been connected from", addr)
```

```
    while True:
```

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

```
        if not data or data.decode('utf-8') == 'END':
```

```
            break
```

```
        print("Received from Client: %s" % data.decode('utf-8'))
```

```
        try:
```

```
            client_socket.send(bytes('Hello TCP Client!', 'utf-8'))
```

```
        except:
```

```
            print("User Exit!")
```

```
    client_socket.close()
```

# TCP\_client.py :

```
import socket
```

```
serverName = '127.0.0.1'
```

```
serverPort = 12345
```

```
client_socket = socket.socket(socket.AF_INET, socket.SOCK_
```

```
client_socket.connect((serverName, serverPort))  STREAM)
```

```
payload = 'Hello TCP Server!'
```

```
try:
```

```
    while True:
```

```
        client_socket.send(payload.encode('utf-8'))
```

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

```
        print(str(data))
```

```
        more = input('Do you wish to send more data  
to the Server? \n')
```

```
        if more.lower() == 'y':
```

```
            payload = input('Enter the payload \n')
```

```
        else
```

```
            break.
```

```
except KeyboardInterrupt:
```

```
    print('User Exit!')
```

```
client_socket.close()
```