

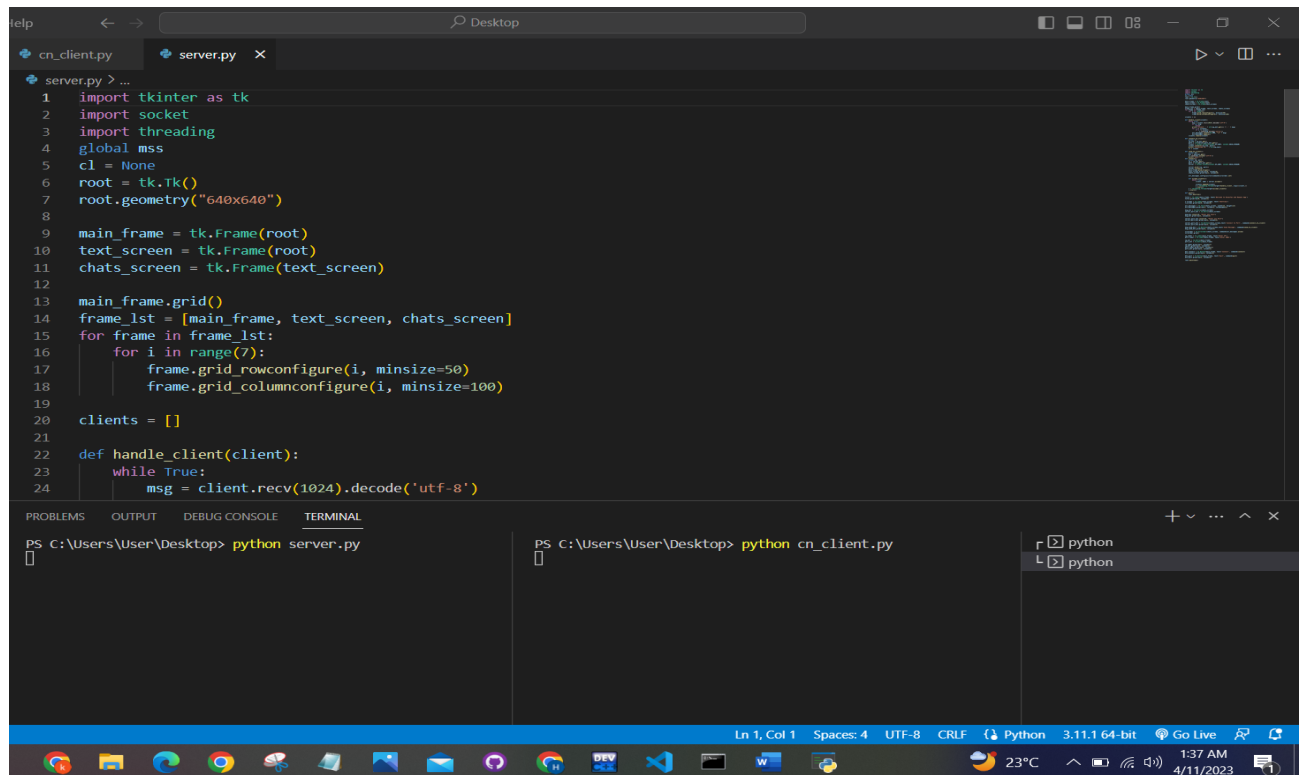


**20k-0305 (HUZAIFA TANZEEL)**

**20K-1083 (RAYAN ALI)**

**CN ASSIGNMENT#1 REPORT**

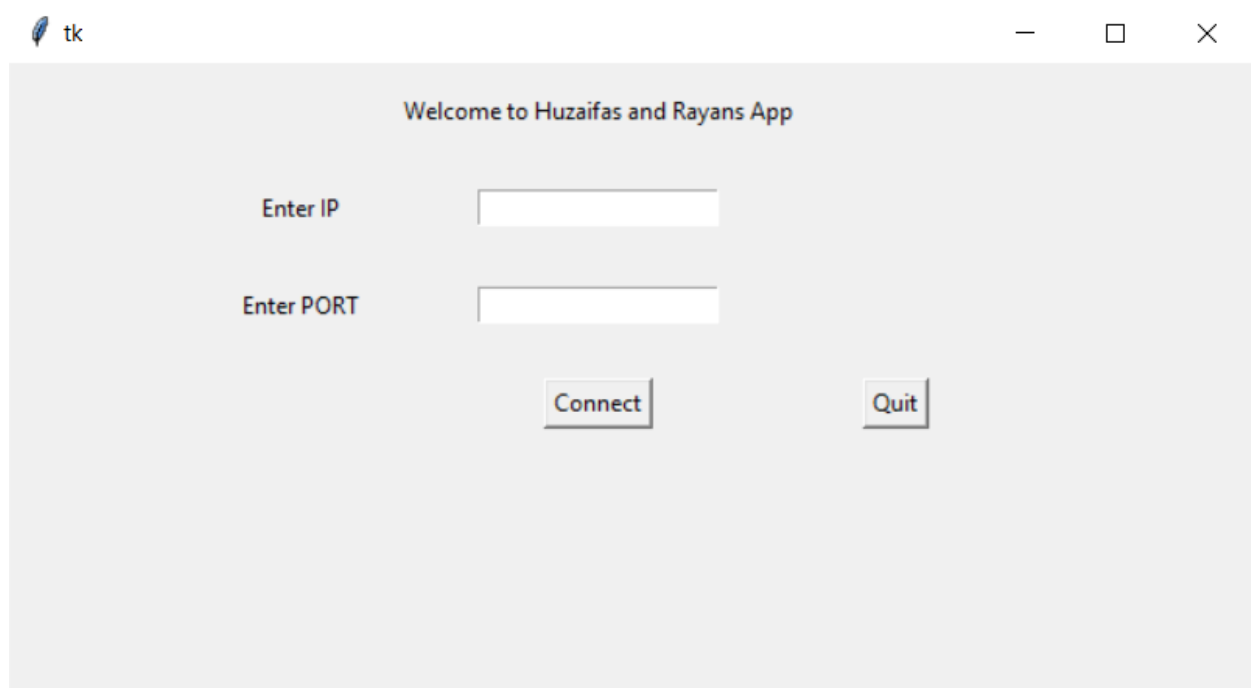
## Run the Server and Client codes



```
server.py > ...
1 import tkinter as tk
2 import socket
3 import threading
4 global mss
5 cl = None
6 root = tk.Tk()
7 root.geometry("640x640")
8
9 main_frame = tk.Frame(root)
10 text_screen = tk.Frame(root)
11 chats_screen = tk.Frame(text_screen)
12
13 main_frame.grid()
14 frame_lst = [main_frame, text_screen, chats_screen]
15 for frame in frame_lst:
16     for i in range(7):
17         frame.grid_rowconfigure(i, minsize=50)
18         frame.grid_columnconfigure(i, minsize=100)
19
20 clients = []
21
22 def handle_client(client):
23     while True:
24         msg = client.recv(1024).decode('utf-8')
```

```
PS C:\Users\User\Desktop> python server.py
PS C:\Users\User\Desktop> python cn_client.py
```

## Server Interface



tk

Welcome to Huzaifas and Rayans App

Enter IP

Enter PORT

## Client Interface



A screenshot of a Tkinter window titled 'tk'. The window has a light gray background. On the left side, there is a large white rectangular area. Below this area is a text input field with the placeholder text 'Enter any Text'. To the right of the input field is a 'Send' button. On the right side of the window, there is a 'Go to Main' button. Below it, the text 'Enter IP and PORT' is displayed. Underneath this text are two input fields: 'Enter IP' and 'Enter PORT'. To the right of these two input fields is a 'Connect and Text' button.

## Copy the IP address of your device

```
Command Prompt

Connection-specific DNS Suffix  . : 
Link-local IPv6 Address . . . . . : fe80::d3a:9afa:3574:90b5%12
Autoconfiguration IPv4 Address. . . : 169.254.211.255
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . : 

Ethernet adapter VMware Network Adapter VMnet8:

Connection-specific DNS Suffix  . : 
Link-local IPv6 Address . . . . . : fe80::f44e:614c:1c28:1d1f%5
Autoconfiguration IPv4 Address. . . : 169.254.101.232
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . : 

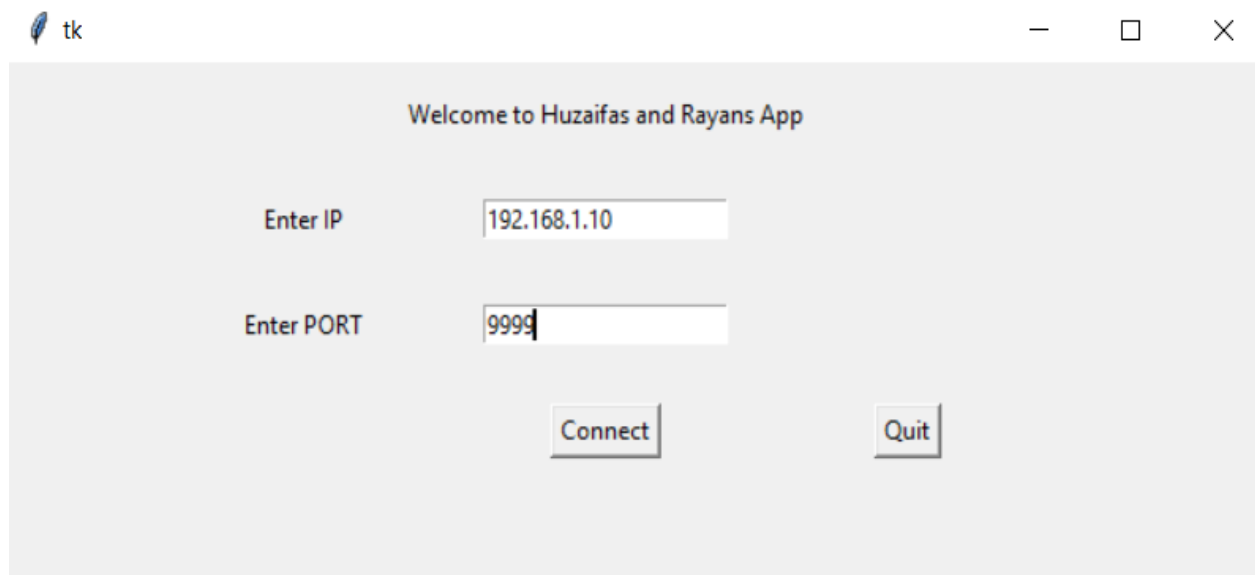
Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix  . : 
IPv6 Address. . . . . : 2400::adc1:1d8:b000:ca5d:fad:4c7a:7dd8
Temporary IPv6 Address. . . . . : 2400::adc1:1d8:b000:5ccf:bb94:25c8:8cdd
Link-local IPv6 Address . . . . . : fe80::84eb:4bcf:f0cc:d9e1%15
IPv4 Address. . . . . : 192.168.1.10
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : fe80::1000%15
                           192.168.1.1

Ethernet adapter Bluetooth Network Connection:

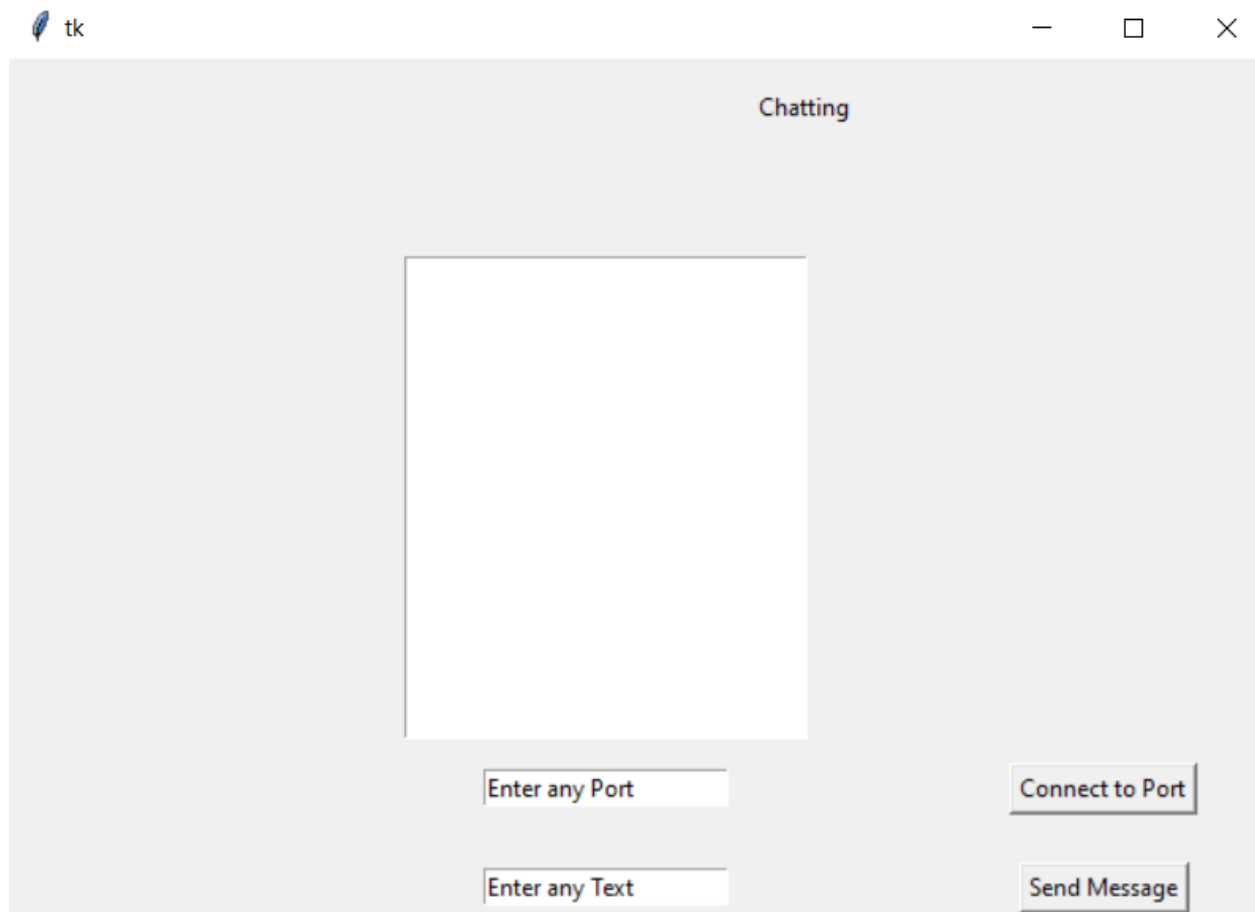
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix  . :
```

Assign IP and port to server to bind them



A screenshot of a Tkinter window titled "Welcome to Huzaifas and Rayans App". The window has a light gray background. It contains two text input fields. The first field is labeled "Enter IP" and contains the text "192.168.1.10". The second field is labeled "Enter PORT" and contains the text "9999". Below the input fields are two buttons: "Connect" and "Quit". The window has a standard macOS-style title bar with a feather icon, the text "tk", and window control buttons (minimize, maximize, close).

Server screen is rendered



A screenshot of a Tkinter window titled "Chatting". The window has a light gray background. It features a large white rectangular area in the center, which is currently empty. Below this area are four input fields and two buttons. The first input field is labeled "Enter any Port", the second is labeled "Enter any Text", the third is labeled "Connect to Port", and the fourth is labeled "Send Message". The window has a standard macOS-style title bar with a feather icon, the text "tk", and window control buttons (minimize, maximize, close).

## Binding the client by assigning IP and port

tk

Go to Main

Enter IP and PORT

Enter IP 192.168.1.10

Enter PORT 9999

Connect and Text

Enter any Text

Send

## Sending Message from Client to Server

tk

SERVER Chatting

I am client

Enter any Port

Connect to Port

Enter any Text

Send Message

tk

Client

Go to Main

Enter IP and PORT

Enter IP 192.168.1.10

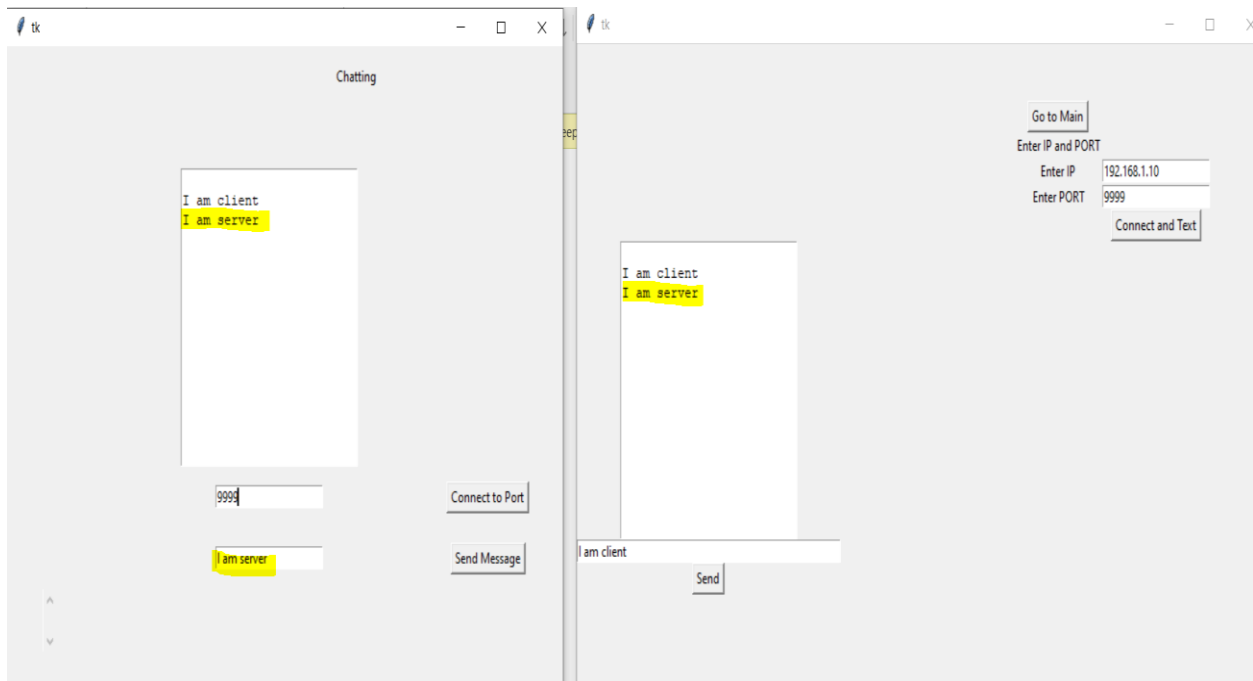
Enter PORT 9999

Connect and Text

I am client

Send

## Sending Message from Server to Client



```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL

Exception in Tkinter callback
Traceback (most recent call last):
  File "C:\Users\User\AppData\Local\Programs\Python\Python39\lib\tkinter\__init__.py", line 1892, in __call__
    return self.func(*args)
  File "C:\Users\User\Desktop\server.py", line 47, in send_to_client
    cl.send(mss.encode('utf-8'))
AttributeError: 'NoneType' object has no attribute 'send'
Connected to: 192.168.1.10
Sent!!!
Client: 192.168.1.10: I am server
█
```