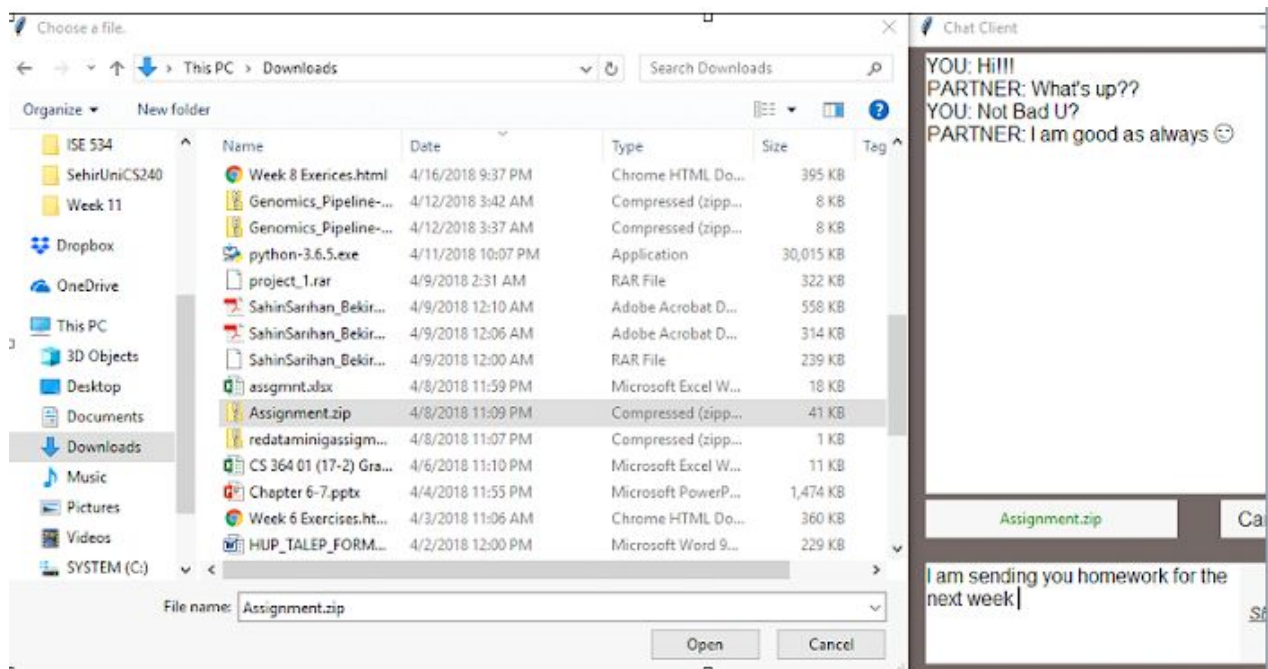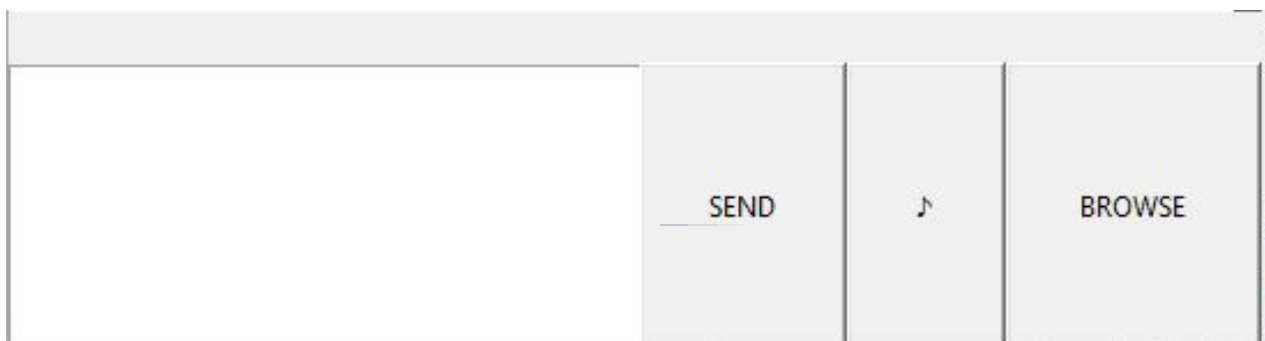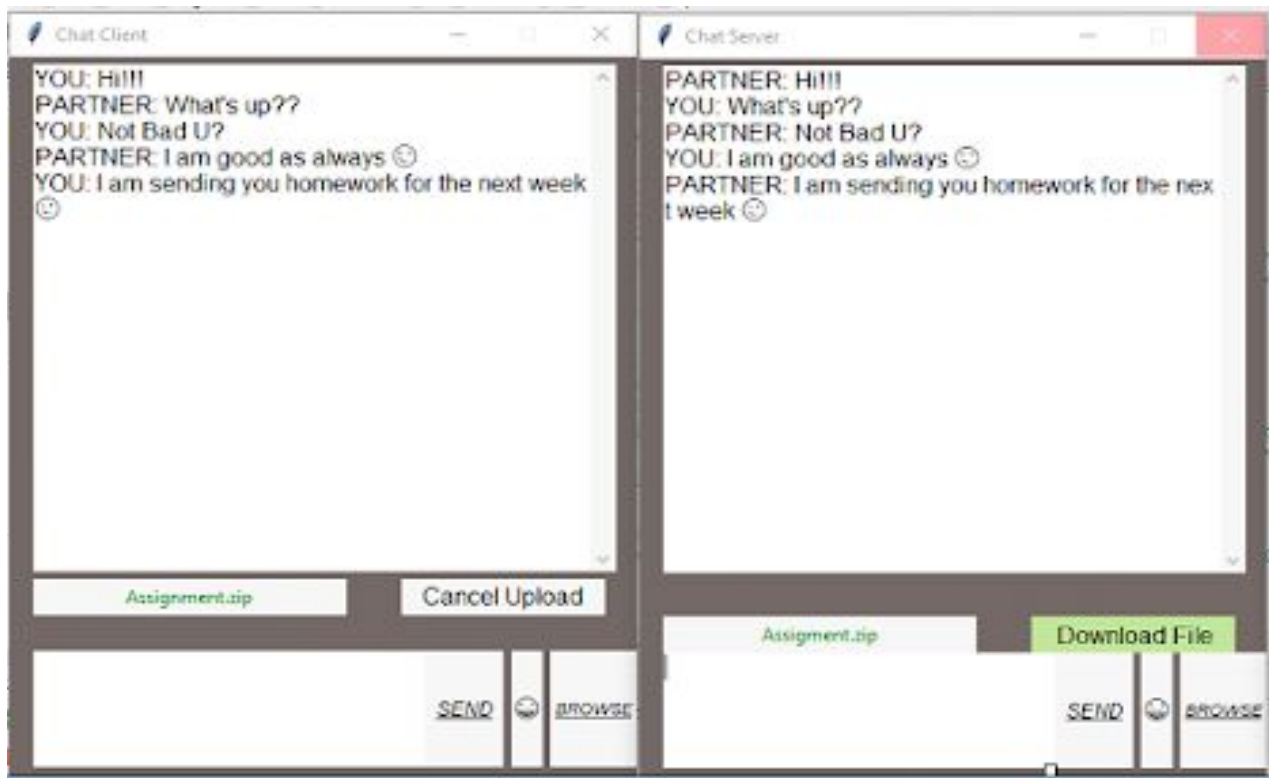# CS364 - Computer Networks
Project 2

The second part of the project will be an extension to the first one and you will add file transfer functionality to your application.

The browse button on the will open a file dialogue to select the file that is to be sent to the partner.

Part A (30 points):

You should be able to send the file to other side successfully.

Part B (60 points):

When you send a file, you should divide the file into small pieces (1000 bytes) and assign a sequence number to each piece. Then you should send each piece in a single packet. On the receiving end you should combine these pieces to reconstruct the file. With TCP you should not have any lost packets and packets should be received in correct order, but with UDP you might lose packets and

```python
import requests
url = 'https://www.virustotal.com/vtapi/v2/file/scan'
params = {'apikey': '<apikey>'}
files = {'file': ('myfile.exe', open('myfile.exe', 'rb'))}
response = requests.post(url, files=files, params=params)
print(response.json())
```

Bonus Part (50 points)

Your file transfer program should add reliability to UDP at the application layer. It should handle packet losses (timeouts, retransmissions) and out-of-order packets (put packets in correct order before processing, buffering).