Rupesh Dharme
31124

Page No.
Date / /

Assignment 08

Title: File transfer using UDP.

Problem statement: Write a program using UDP sockets to enable file transfer (script, txt, audio, video file) between two machines.

Prerequisite:
- UDP protocol (Transport layer)
- Socket programming in python

S/W, H/W Requirements:
- Windows 10, 64 bit (4 GB, 512 GB SSD)
- Python 3.9, vscode editor

Theory:

server-client file transfer using UDP server

In this assignment we will send file from client to the server. We will read bytes from file at client and send it to server where server will write those bytes to a file. We will continue this until the whole file is sent.

Teacher's Signature

31124

server :

1. create a UDP socket
2. bind the socket with address, port
3. listen to requests
4. accept incoming requests
5. Run loop
    1. recieve bytes from client
    2. write bytes to file
    3. if bytes are not present : end loop
6. close server.

client :

1. create a UDP socket
2. connect to address, port of server.
3. Run loop
    1. Read from file
    2. IF nothing to read end loop
    3. send bytes to server
4. close connection.

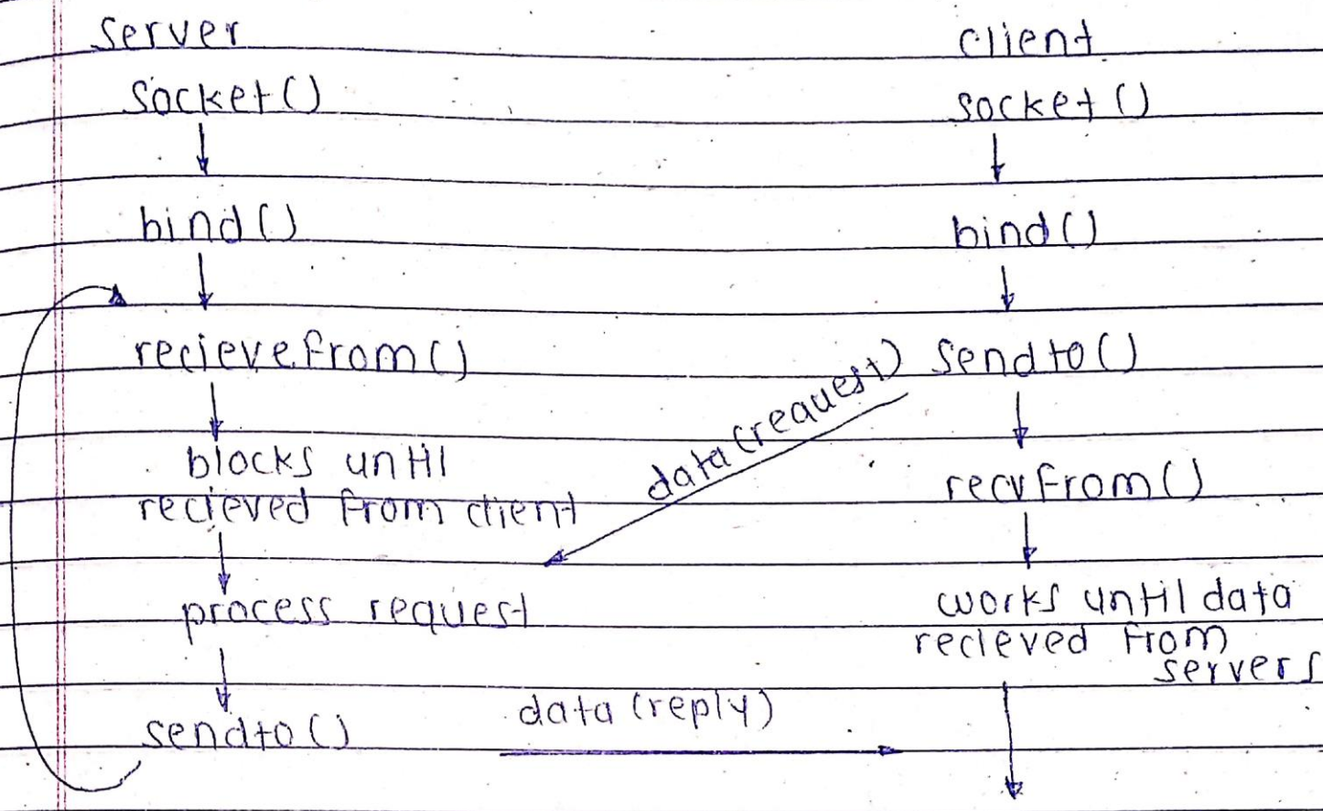
Testing :

Run wireshark tool
Run client-server program
send and recieve file
Capture UDP packets in wireshark.

Teacher's Signature

31124

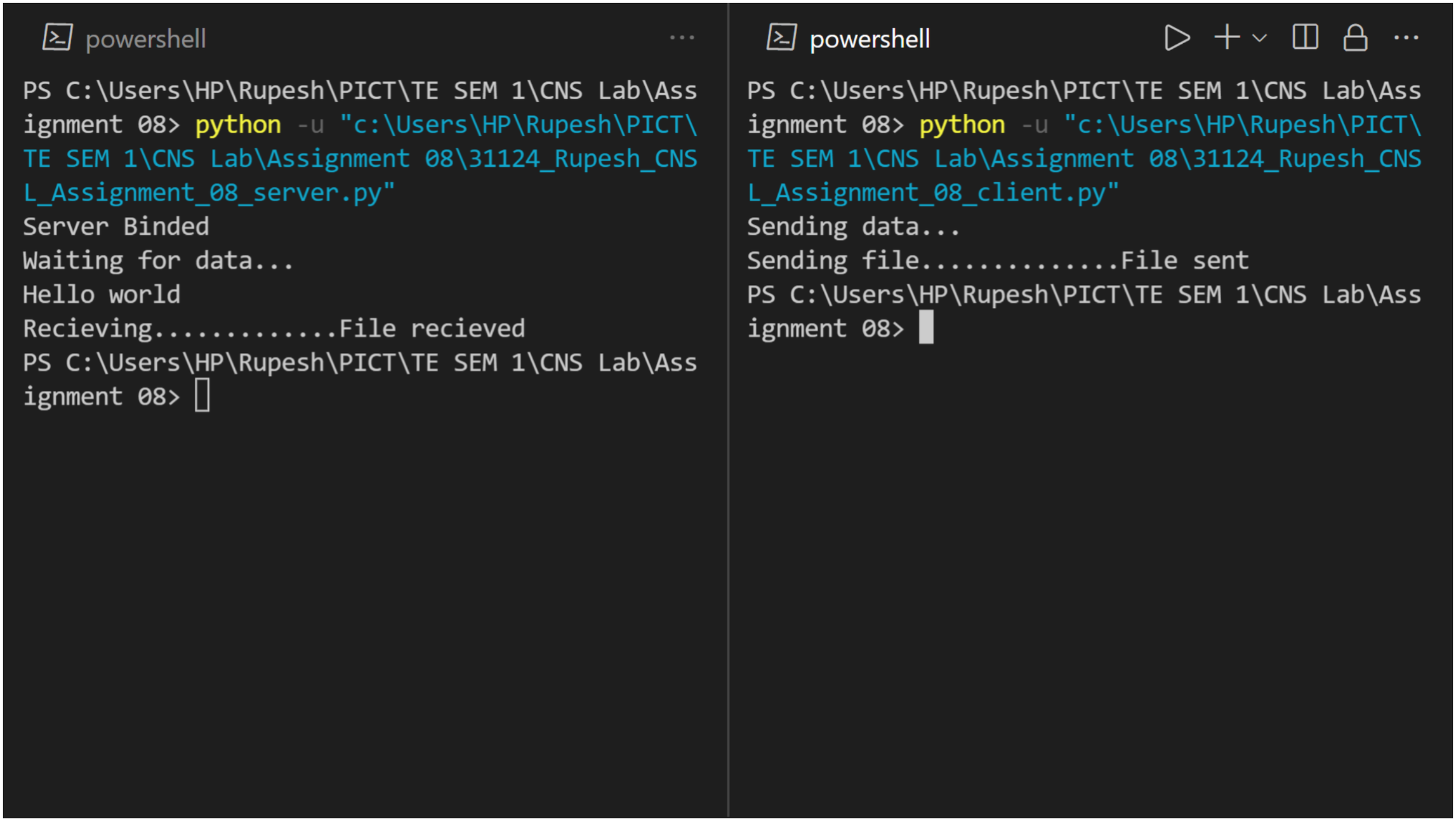
Diagram:



Conclusion:

Successfully implemented and performed file transfer using UDP socket programming.

Teacher's Signature

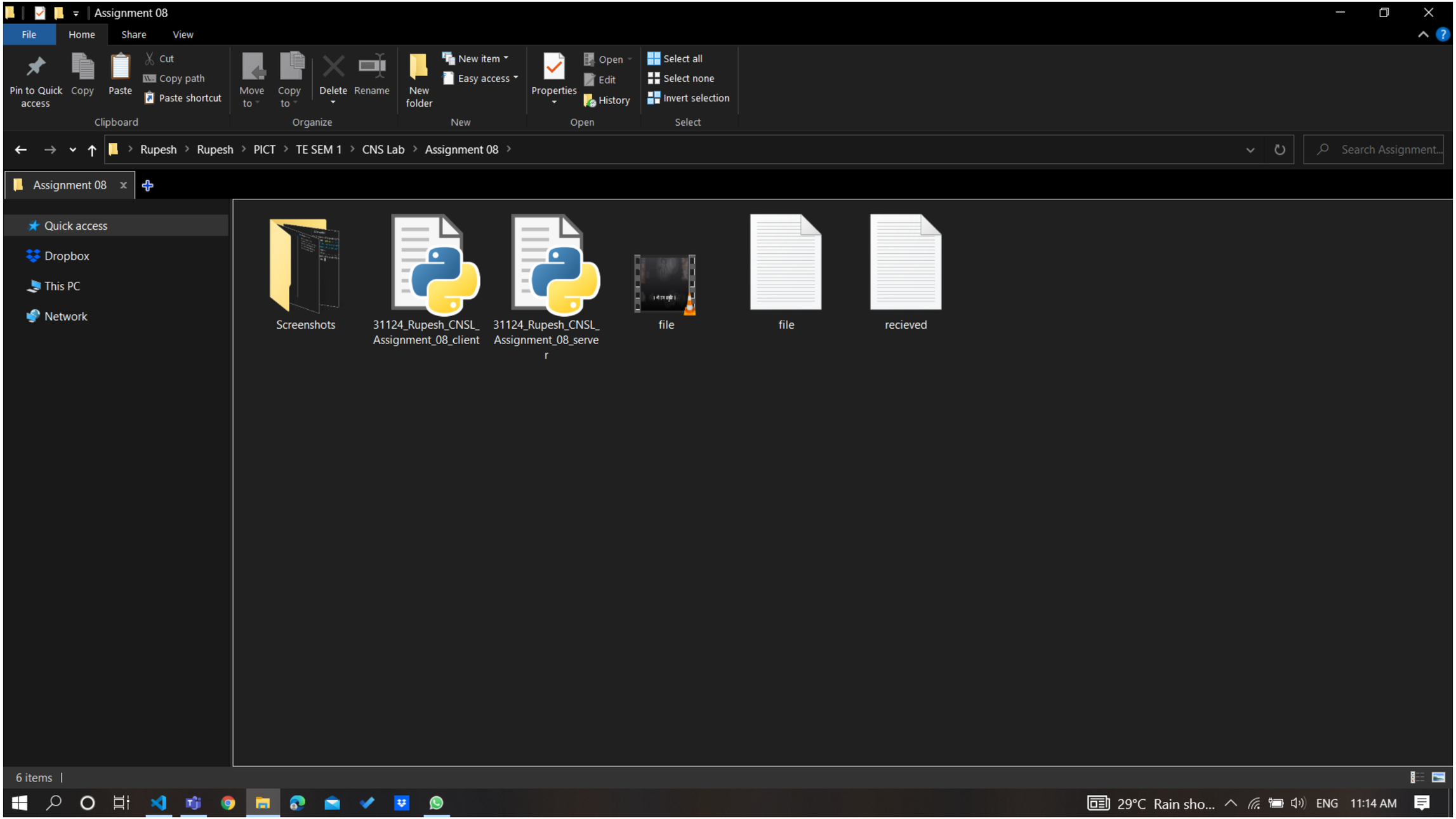

powershell
PS C:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assignment 08> python -u "c:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assignment 08\31124_Rupesh_CNSL_Assignment_08_server.py"
Server Binded
Waiting for data...
Hello world
Recieving.............File recieved
PS C:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assignment 08>
powershell
PS C:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assignment 08> python -u "c:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assignment 08\31124_Rupesh_CNSL_Assignment_08_client.py"
Sending data...
Sending file..............File sent
PS C:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assignment 08>

file.txt

```
This is a text file.
I swear this is a text file.
Why don't you believe me?
Ok, look at my extension.
You are a fool, dear!
```

recieved.txt recieved.txt

```
This is a text file.
I swear this is a text file.
Why don't you believe me?
Ok, look at my extension.
You are a fool, dear!
```


Assignment 08
File
Home
Share
View
Pin to Quick access
Copy
Paste
Cut
Copy path
Paste shortcut
Clipboard
Move to
Copy to
Delete
Rename
Organize
New folder
New item
Easy access
New
Properties
Open
Edit
History
Open
Select all
Select none
Invert selection
Select
Rupesh
Rupesh
PICT
TE SEM 1
CNS Lab
Assignment 08
Search Assignment...
Assignment 08
Quick access
Dropbox
This PC
Network
Screenshots
31124_Rupesh_CNSL_Assignment_08_client
31124_Rupesh_CNSL_Assignment_08_server
file
file
recieved
6 items
29°C Rain sho...
ENG
11:14 AM

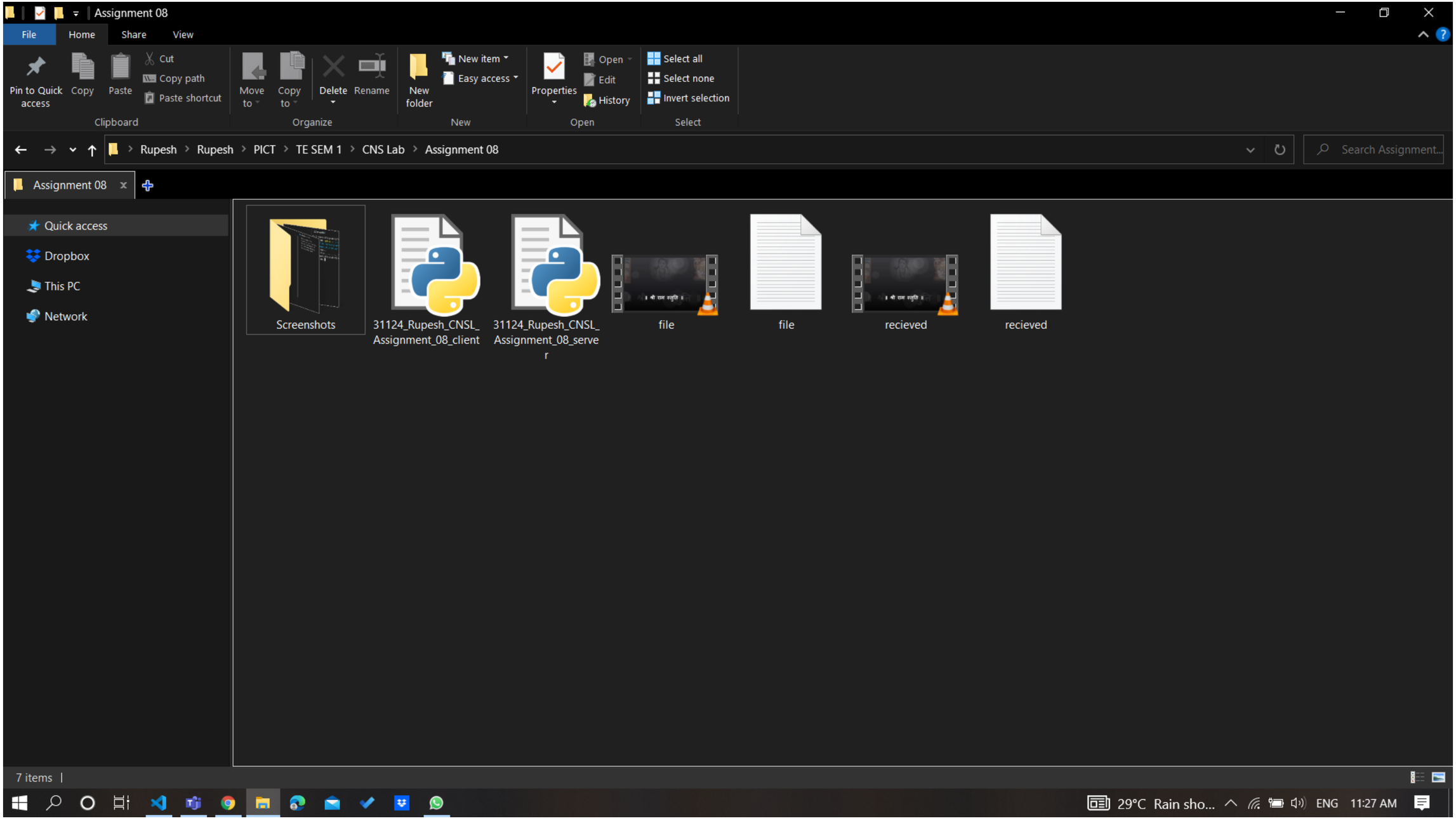
```
python
Windows PowerShell
Copyright (C) Microsoft Corporation. All righ
ts reserved.

Try the new cross-platform PowerShell https:/
/aka.ms/pscore6
/aka.ms/pscore6

PS C:\Users\HPpython -u "c:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assi
gnment 08\31124_Rupesh_CNSL_Assignment_08_server.py"
Server Binded
Waiting for data...
Hello world
Recieving..........................................................
.....................................File recieved
PS C:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assignment 08>
```

```
python
Windows PowerShell
Copyright (C) Microsoft Corporation. All righ
ts reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6
    python -u "c:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assignment 08\
31124_Rupesh_CNSL_Assignment_08_client.py"ignment 08>
Sending data...
Sending file..........................................................
.....................................File sent
PS C:\Users\HP\Rupesh\PICT\TE SEM 1\CNS Lab\Assignment 08>
```


Assignment 08
File
Home
Share
View
Pin to Quick access
Copy
Paste
Cut
Copy path
Paste shortcut
Clipboard
Move to
Copy to
Delete
Rename
Organize
New folder
New item
Easy access
New
Properties
Open
Edit
History
Open
Select all
Select none
Invert selection
Select
Rupesh › Rupesh › PICT › TE SEM 1 › CNS Lab › Assignment 08
Search Assignment...
Assignment 08
Quick access
Dropbox
This PC
Network
Screenshots
31124_Rupesh_CNSL_Assignment_08_client
31124_Rupesh_CNSL_Assignment_08_server
file
file
recieved
recieved
7 items
29°C Rain sho...
ENG
11:27 AM