

## **File Transfer using TCP sockets**

Server:

- We create a server using socket library.
- We connect the server and the client using bind function. (Same host and port number required).
- We accept the connection and get the client hostname and port number
- Receive the file extension for easy sharing of data and file size.

Client:

- Create a new server socket and connect it to the server using localhost and port number. The port number used in the code is 9101.
- We open the file and get the file size
- We share it across the socket to the server and share the file extension so that the server knows what type of file is getting transmitted.

Note: First run the server file first and then the client.

Output of the program:

```
In [*]: 1 server = socket.socket(socket.AF_INET, socket.SOCK_STREAM) #Creating a se
2
3 server.bind(("127.0.0.1", 9101)) #Connecting the socket and the server us
4 server.listen()
5
6 client, addr = server.accept() #Accepting the connection and getting the f
7
8 #Receiving the file name type for easy sharing
9 file_name = client.recv(1024).decode()
10 print(file_name)
11 #Receiving the size of the file
12 file_size = client.recv(1024).decode()
13 print(file_size)
14
15
16 #Opening the file and receiving the bytes.
17
18 file = open(file_name, "wb")
19 file_bytes = b""
20
21
22 while True:
23     data = client.recv(1024)
24     if file_bytes[-5:] == b"<DONE>":
25         break
26     else:
27         file_bytes+= data
28
received_file.txt
41
```

Chaitanya Srikanth

SE20UARI038