Exp 8: To Perform File Transfer in Client & Server Using TCP/IP.

CODES:

Client side:

```
import socket

IP = socket.gethostbyname(socket.gethostname())
PORT = 4455
ADDR = (IP, PORT)
FORMAT = "utf-8"
SIZE = 1024

def main():
    client = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
    client.connect(ADDR)

    file = open("Data/yt.txt", "r")
    data = file.read()

    client.send("yt.txt".encode(FORMAT))
    msg =
    client.recv(SIZE).decode(FORMAT)
    print(f"[SERVER]: {msg}")

    client.send(data.encode(FORMAT)) msg =
    client.recv(SIZE).decode(FORMAT)
    print(f"[SERVER]: {msg}")

    file.close()
    client.close()

if __name__ == "__main__":
    main()
```

Server side:

```
import socket

IP = socket.gethostbyname(socket.gethostname())
PORT = 4456
ADDR = (IP, PORT)
SIZE = 1024
```

```
FORMAT = "utf-8"

def main(): print("[STARTING] Server is
    starting.")

    server = socket.socket(socket.AF_INET,
    socket.SOCK_STREAM) server.bind(ADDR)

    server.listen() print("[LISTENING]
    Server is listening.")

    while True:
        conn, addr = server.accept() print(f"[NEW
        CONNECTION] {addr} connected.")

        filename = conn.recv(SIZE).decode(FORMAT)
        print(f"[RECV] Receiving the filename: {filename}")
        conn.send("Filename received.".encode(FORMAT))

        with open(filename, "w") as file:
            while True: data =
                conn.recv(SIZE).decode(FORMAT) if not
                data:
                    break
                file.write(data)
                conn.send("Data received.".encode(FORMAT))

        print(f"[FILE RECEIVED] File {filename} received from {addr}.")
        conn.close() print(f"[DISCONNECTED] {addr} disconnected.")

if __name__ == "__main__":
    main()
```

OUTPUT:

```
PS C:\Users\ravir\OneDrive\Desktop\MC_Exp_8> python -u
"c:\Users\ravir\OneDrive\Desktop\MC_Exp_8\server.py"
[STARTING] Server is starting.
[LISTENING] Server is listening.
[NEW CONNECTION] ('192.168.1.133', 56567) connected.
[RECV] Receiving the filename: yt.txt
[FILE RECEIVED] File yt.txt received from ('192.168.1.133', 56567).
```

[DISCONNECTED] ('192.168.1.133', 56567) disconnected.