FCN

Project 3

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This Data transfer is achieved using a two-way handshake using the UDP protocol. First, a packet is created that contains an SYN flag which is initially set to 1, and a sequence number 0 which is set by default. It also contains source, destination, and data length as a part of the handshake packet. Then, the Client waits for an ACK from the server-side confirming the use of that sequence number, once it receives it from the server, the handshake is completed and data transfer can be started. On the server-side, it receives the initial client handshake and sends an ACK in response.

The first step in data transfer, dividing the large bytes of data into smaller chunks and then setting the FIN flag to 0 initially to ensure all packets are transferred. Before the last packet is sent from the client end, we set the FIN flag to 1 indicating the end of transmission, and the same is acknowledged at the receiver end ensuring the end of transmission. The server receives client data packets and consolidates the packets into a suitable jpg format.