

Ryan Lee

PA2B

Sender

I assumed that the sender knows how many receivers it will have. Also all senders are stored within a hash map with their address as the key and their acknowledgment as the value. I will wait until the hash map is filled to that size before proceeding to start sending the data. The sender will only send the next packet if there are no more nacks within the hash map which are presented with a 0 for an ack and 1 for nack. If the receiver does not respond the sender will send the previous packet and if the receiver does not respond after three times the sender will assume the receiver is offline. I did this by putting a timeout of 5s on the socket.

Receiver

The receiver will wait until it receives the first packet that contains the file extension before continuing to receive data packets. The receiver will only send a nack if the sequence number is not the next number the receiver is expecting or it's a dropped packet.