Assignment 4, CPSC 441, Winter 2021, Lachlan Moore

In my program if an ACK is received from the server at the same time a timeout occurs both the timeout task runs as well as the main loop of the stop and wait function. As a copy of the last sent packet is stored in the timeout function, in case there is a timeout, that copy would be retransmitted to the server with the same sequence number as the packet the server ACK'd. Therefore being ignored by the server as an ACK for that packet was already sent. As something was received from the server in the main method it is acknowledged the sequence number is increased and the while loop continues by creating a new segment and packet to send. Since both the sequence number and packet is copied to the timer task an extra transmission to the server does not create a race condition and the program continues with an extra transmission.