**TCP – Congestion Control Algorithms Network programming in C**

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**1.1 System Overview**

‘TCP – Congestion Control Algorithms Network programming’ - like the  
name of the assignment our program reflects the communication between sender and receiver according to two congestion control algorithms (cubic, reno) while sending the file.

The Sender will send a message in this message will be a file, with at least 1MB size of a file, and the Receiver will receive it and measure the time it took for his program to receive the file . The receiver doesn’t really care about saving the file itself (or its content). He just cares about the Data-Frame that he gets.

The file will be sent in two parts first half and second half, each half will be sent according to one of the CC algorithms we learned in the lectures.   
The first half will be sent according to cubic algorithms and second half will be sent according to reno algorithm. By this, and because the size of the two half is the same, we can see based on the result which algorithm is better for this present purpose.

In addition, we will use packet lost tools on Linux which is known as TC. We can see the communication and the packet lost by using Wireshark.

**1.2 System Functionality**

Receiver function: