

## **Assignment 3 (TCP - Reliable Data Transfer)**

**Due Date: 11th May 2021 (Demos when uni re-opens)**

### **Guidelines:**

- **This is a group based programming assignment and the submission will be based on 5 mins demo followed by a short viva.**
- **The student ID, names and section of all the group members (max 2) must be mentioned clearly during the demo.**
- **Plagiarism in any form will result in straight "F"**

In this assignment you have to develop reliable data transfer protocol used by TCP. You have to make sure the following functionalities are implemented:

- TCP pipelining at sender and receiver where multiple packet can be in flight.
- Sequence and Acknowledgement numbers will be based on number of bytes transferred.
- Fast retransmit functionality.

**Note:** You will have to extend your proxy server to provide reliable TCP transfer features between browser and Proxy Server. For the sake of simplicity consider only uni-directional data transfer, but the control information will flow on both directions. You can also assume a fix timeout period.