**CS 5348 Project 3 Summary**

The purpose of this project was to simulate Sockets for communication between processes by writing a client and a server. For the Client/Server Demonstration protocol we demonstrated a message posting system where client connects to the server to interact and support all the message choices simple messages, where each line was a separate message. The server will maintain messages posted by clients, which clients can retrieve and view.

Neither the server nor client were difficult to implement. The server code accepts a port number as a command line argument and accepts connections from clients. Setting up the client threads was easy, and reading client commands and returning server replies wasn’t a problem either. The messages were stored for each user and server was configured to support multiple different clients at the same time and preventing multiple connection of the same user at the same time. The client code handles other things like errors and incorrect user inputs like preventing clients to directly interact with each other and limiting the message length to less than 80 characters. I wrote some convenience functions to accept a machine name and port number to connect to as command line arguments. We send the user name, present the required message choices to the user and interact with the server to support the menu choices

We started working on this Project in the First weeks of April. Initially the design and algorithm of the Project was done. We finished the code for both Client and Server side by the end of April 13th. Yashas was given the task to ensure that messages were less than 80 characters and ensure mutual exclusion for Server threads. He worked mostly on the Client code. I worked on the portion of the code which involved communication of sockets especially the Server side. In the server side, one issue was faced. The hash map was not being loaded properly. I solved that issue. Another issue came into picture where messages were not sent to all currently connected users properly but after careful debugging and teamwork the bugs was quickly resolved.

Overall, I feel that this project was the easiest one of all the projects in the course. We got to practice the Java language and concepts of sockets was also clear from this project.