CMPE322 – PROJECT 2

Hasan Öztürk
2017400258

A Brief Explaination of the Project

Here I will briefly discuss how I approached to the project and what kind of algorithm and data structures I used. There are 2 classes: Seat and main. The essential part is implemented inside the “main.cpp” file whereas Seat class just includes the necessary fields for a seat and a constructor.

In the main function client and server threads are created. Besides the vector which hols the available seats are filled. The synchronization problem is handled using **mutex locks**. After each client sleeps a random time, the client which takes the lock picks a seat and gives the turn its server and releases the lock.

Server threads do busy waiting, which means that until the client gives the turn to the server, server checks whether the turn is come. If turn passes to server, server logs the reservation information to the output file. Another mutex lock is used here to avoid race conditions.

Development Platform

I wrote the project in Sublime Text editor in Ubuntu 18.04. I used C++ language and compiled the source code with g++ compiler.

How to Run

make

./out <seat number>

(Seat Number must be between 50 and 100)