Note for Code:

SeatServerMain is the Main Central Server  
SeatServerSecondary is the Secondary Servers  
SeatClient is the Client

Race Conditions

To solve this the main server method to assign seats is synchronized. It also checks if the seat is available before assignment. So if two different users try to assign the same seat number at the same time by chance, whichever is quicker will get the seat and the other will be let known the seat is no longer available. The Secondary Servers assigning method is also synchronized for users on the same secondary server.

Fault Tolerant

This is solved in the client’s file. After each round of commands (print seats -> take seat number -> take name ->), the client will call a test method on that server. If the method is successful, continue on. If not, the code will unbind the disconnected server and reassign the client to an open server.