Hacettepe University Computer Science and Engineering Department

Name and Surname : SEYMA CİVAN

Identity Number : 21627078

Subject : BBM203 PROGRAMMING LAB. ASSIGNMENT

Problem Definition: In this assignment, we are expected to implement a basic flight ticket sales automation program using C programming language. In this application, I created the empty seats in the stack structure, and the passengers waiting for sales in the qeueu data structure. All operations in the file are requested with dynamic memory allocation functions.

Solution: I first read the adseat command and create a stack flight if it hasn't occurred before. I added to the seatStack according to the parameters in the addseat command. Then I created a separate queue struct for each flight and added the passengers to the queues according to the type of seat they want.   In the other commands, as described in the assignment.pdf. I did the desired operations on the queues and stacks I created earlier.

Functions:

-ADDSEAT: I first read the adseat command and create a stack flight if it hasn't occurred before. I added seats with push function to seatStack according to the parameters in the addseat command.

- ENQUEUE: In the enqueue function I create a passenger queue for the previously created flight.

-SELL: Sell is performed until the number of seats in the class or the number of passengers waiting in the queue is zero. In these operations, I call pop for stack and dequeue for queue.

-CLOSE: When I create the flight, the default status value is 1. status controls flight off. status is 1 if the flight is not closed, 0 if the flight is closed. If the flight is off,addseat, enqueue and sell functions are not performed.

-REPORT: I have printed the seat information sold on the desired flight with the report command.

-INFO: I have printed the passenger's flight number, the class of seats sought and sold with the info command.