## **Airline Reservation System**

Use a command line argument to read the name of a file that holds information from a prior program run. If the file does not exist, the program creates one. Run the program on command prompt:

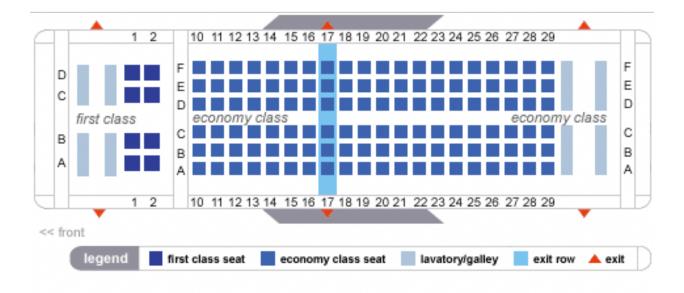
java ReservationSystem flightname

where flightname is the name of a file that holds information from a prior program run.

In Eclipse, follow Run-> Run Configurations -> Arguments, enter the command line argument, in our case flightname, in the box named Program Arguments, and run the program.

The user interacts with the program to make a reservation, and the user input is read from standard input (System.in). The user interface for this program is as follows. Prompt the user:

Add [P]assenger, Add [G]roup, [C]ancel Reservations, Print Seating [A]vailability Chart, Print [M]anifest, [Q]uit.



**Passenger Request** consists of the passenger name, a class of service, and a seat preference such as W(indow), C(enter), or A(aisle) seats. The reservation program either finds a matching seat (the search may start from the first row of the class) and reserves it for the passenger, or it fails if no matching seat is available. (For example, if the user's preference is a W(indow) seat and none is available, tell the user Window seat is unavailable and asks for another seat preference.)

**Group Request** consists of a list of passenger names and a class of service. (Groups cannot specify a seat preference.) The reservation program finds the first row of adjacent seats in a seat row that is sufficient to accommodate the group, or if no such seat row exists, finds the row with the largest number of adjacent seats in any seat row, fills it up with members of the group, and repeats that process (finding the row with the largest number of adjacent seats) until all members of the group have been seated. If there is insufficient space to seat all members of the group, none should be seated.

**Cancellation Request** consists of the name of one or more passengers. The seats that are occupied by passengers in the request are emptied; passengers in the request that are not seated are ignored.

**Seat Availability** chart shows the available seats of each row of each class.

**Manifest** list shows the occupied seats and the passengers seated in them.