**Course Project Guidelines**

**Airline Reservations**

This program will allow the user to keep track of airline reservations. The program should display the seating chart for the airplane. It will use an \* to indicate a seat is taken and the # to indicate the seat is available. The program will also display a menu which provides the user with several options. There will be two types of seats in the airplane: first class and coach, each of which will have a different cost. The program must make use of files, arrays and functions.

The airplane will have 5 rows in the first class section with 4 seats in each row, 2 on each side of the aisle and 10 rows in the coach section with 3 seats on each side of the aisle. The prices for all the first class seats will be the same. The first 5 rows of coach will be more expensive than the last 5 rows. The prices for the seats will be stored in a file called SeatPrices.txt . The program should read these values from the file and store the values in an array of doubles. This is an example of the seating chart:

|  |  |  |
| --- | --- | --- |
|  | 1  2 | 3  4 |
| Row 1 | #  # | #  # |
| Row 2 | #  # | #  # |
| Row 3 | #  # | #  # |
| Row 4 | #  # | #  # |
| Row 5 | #  # | #  # |
|  | 1  2  3 | 4  5  6 |
| Row 6 | #  #  # | #  #  # |
| Row 7 | #  #  # | #  #  # |
|  | Etc. |  |

The menu will provide choices to reserve a seat(s) and display the total number of seats sold (indicating first class and coach), the total number of seats empty in a row, the total number of seats empty in the plane (indicating first class and coach), and the total amount of sales (in dollars).

Validation: The seat requested by the user is a valid row and seat number. The program should also make sure the seat is not already taken.

*CISS 241: Programming I*