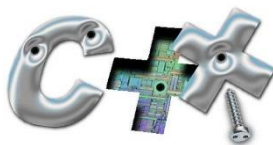


CSCI122 C++ PROGRAMMING II

Chapter 8 Assignment Directions

Due: the date and time are listed under the Chapter Assignments link in Blackboard

ASSIGNMENT	PAGE(S)	SPECIAL NOTES / INFORMATION
Read Chapter 8	521-591	Textbook: <ul style="list-style-type: none"> Please read the chapter
View the Chapter Resources		Blackboard: <ul style="list-style-type: none"> Chapter 8 (link) Chapter Resource Information (link)
Programming Exercise 19: Airline Seating Program Important Note: <i>follow the book directions <u>exactly</u> along with coding the output to look like the print screens (pages 2-5) to receive full credit</i>	609	Blackboard & Textbook: <ul style="list-style-type: none"> Chapter 8 (link) Assignment & Quiz Information (link) C8Ex19: Airline Seating Program Upload (link)
Additional Requirements: Include the following functions – you decide on parameters and you can change the data return type: <pre>//function prototypes void initialzeSeatPlan void showSeatAssignments void assignSeat void showMenu bool isFirstClassFull bool isBusinessClassFull bool isEconomyClassFull void selectSeatNumber void assignSeatFirstClass void assignSeatBusinessClass void assignSeatEconomyClass</pre> Two-dimensional array		
Quiz		Blackboard: <ul style="list-style-type: none"> Chapter 8 (link) Assignment & Quiz Information (link) Chapter 8 Practice Quiz (link) <i>optional</i> Chapter 8 Quiz (link)



PROGRAMMING EXERCISE 19 OUTPUT:

```
D:\C++ Code Examples\Project1\Debug\Project1.exe
***** Airline Seating Program *****

This program assigns seats for a commercial airplane.
The current seat assignments are as follows.

      A B C  D E F
Row 1  * * *  * * *
Row 2  * * *  * * *
Row 3  * * *  * * *
Row 4  * * *  * * *
Row 5  * * *  * * *
Row 6  * * *  * * *
Row 7  * * *  * * *
Row 8  * * *  * * *
Row 9  * * *  * * *
Row 10 * * *  * * *
Row 11 * * *  * * *
Row 12 * * *  * * *
Row 13 * * *  * * *
* -- available seat
X -- occupied seat

Rows 1 and 2 are for first class passengers.
Rows 3 through 7 are for business class passengers.
Rows 8 through 13 are for economy class passengers.

To reserve a seat enter Y/y(Yes), N/n(No): y

Enter ticket type: F/f (first class); (B/b) (business class); E/e (economy class): f
Enter row number 1 - 2:      2
Enter seat number (A - F): b

This seat is reserved for you

      A B C  D E F
Row 1  * * *  * * *
Row 2  * X *  * * *
Row 3  * * *  * * *
Row 4  * * *  * * *
Row 5  * * *  * * *
Row 6  * * *  * * *
Row 7  * * *  * * *
Row 8  * * *  * * *
Row 9  * * *  * * *
Row 10 * * *  * * *
Row 11 * * *  * * *
Row 12 * * *  * * *
Row 13 * * *  * * *
* -- available seat
X -- occupied seat

Reserve another seat Y/y(Yes), N/n(No): y
```

After typing a 'y' and pressing the Enter key (print screen shown on page 2), the screen clears, the menu displays with the reserved seat marked with an 'X', prompts the user again for the ticket type, row, and seat, and redisplay the menu with both reserved seats marked with an 'X':

```
D:\C++ Code Examples\Project1\Debug\Project1.exe
***** Airline Seating Program *****

This program assigns seats for a commercial airplane.
The current seat assignments are as follows.

  A B C D E F
Row 1 * * * * *
Row 2 * X * * *
Row 3 * * * * *
Row 4 * * * * *
Row 5 * * * * *
Row 6 * * * * *
Row 7 * * * * *
Row 8 * * * * *
Row 9 * * * * *
Row 10 * * * * *
Row 11 * * * * *
Row 12 * * * * *
Row 13 * * * * *
* -- available seat
X -- occupied seat

Rows 1 and 2 are for first class passengers.
Rows 3 through 7 are for business class passengers.
Rows 8 through 13 are for economy class passengers.

Enter ticket type: F/f (first class); (B/b) (business class); E/e (economy class): e
Enter row number 8 - 13: 8
Enter seat number (A - F): f

This seat is reserved for you

  A B C D E F
Row 1 * * * * *
Row 2 * X * * *
Row 3 * * * * *
Row 4 * * * * *
Row 5 * * * * *
Row 6 * * * * *
Row 7 * * * * *
Row 8 * * * * * X
Row 9 * * * * *
Row 10 * * * * *
Row 11 * * * * *
Row 12 * * * * *
Row 13 * * * * *
* -- available seat
X -- occupied seat

Reserve another seat Y/y(Yes), N/n(No):
```

The following screen displays if the user enters the same ticket type, row, and seat reservation:

```
D:\C++ Code Examples\Project1\Debug\Project1.exe
***** Airline Seating Program *****

This program assigns seats for a commercial airplane.
The current seat assignments are as follows.

  A B C D E F
Row 1 * * * * *
Row 2 * X * * * *
Row 3 * * * * *
Row 4 * * * * *
Row 5 * * * * *
Row 6 * * * * *
Row 7 * * * * *
Row 8 * * * * * X
Row 9 * * * * *
Row 10 * * * * *
Row 11 * * * * *
Row 12 * * * * *
Row 13 * * * * *
* -- available seat
X -- occupied seat

Rows 1 and 2 are for first class passengers.
Rows 3 through 7 are for business class passengers.
Rows 8 through 13 are for economy class passengers.

Enter ticket type: F/f (first class); (B/b) (business class); E/e (economy class): f
Enter row number 1 - 2: 2
Enter seat number (A - F): b

***** This seat is occupied *****
Make another selection

  A B C D E F
Row 1 * * * * *
Row 2 * X * * * *
Row 3 * * * * *
Row 4 * * * * *
Row 5 * * * * *
Row 6 * * * * *
Row 7 * * * * *
Row 8 * * * * * X
Row 9 * * * * *
Row 10 * * * * *
Row 11 * * * * *
Row 12 * * * * *
Row 13 * * * * *
* -- available seat
X -- occupied seat

Enter row number 1 - 2:

Enter row number 1 - 2: 2
Enter seat number (A - F): c

This seat is reserved for you

  A B C D E F
Row 1 * * * * *
Row 2 * X X * * *
Row 3 * * * * *
Row 4 * * * * *
Row 5 * * * * *
Row 6 * * * * *
Row 7 * * * * *
Row 8 * * * * * X
Row 9 * * * * *
Row 10 * * * * *
Row 11 * * * * *
Row 12 * * * * *
Row 13 * * * * *
* -- available seat
X -- occupied seat

Reserve another seat Y/y(Yes), N/n(No):
```

After the screen above displayed, I typed in the row and seat number (print screen on the right →

The following screen displays if the user enters an incorrect row number for the ticket type:

```
Enter ticket type: F/f (first class); (B/b) (business class); E/e (economy class): b
Enter row number 3 - 7: 9
Enter row number 3 - 7: 3
Enter seat number (A - F): a

This seat is reserved for you

  A B C  D E F
Row 1  * * *  * * *
Row 2  * X X  * * *
Row 3  X * *  * * *
Row 4  * * *  * * *
Row 5  * * *  * * *
Row 6  * * *  * * *
Row 7  * * *  * * *
Row 8  * * *  * * X
Row 9  * * *  * * *
Row 10 * * *  * * *
Row 11 * * *  * * *
Row 12 * * *  * * *
Row 13 * * *  * * *
* -- available seat
X -- occupied seat

Reserve another seat Y/y(Yes), N/n(No):
```

The same screen should display if the user enters an incorrect seat number except “Enter seat number (A-F): “ will display instead.

The following error message should display if all of the First Class seats are taken. The same message should display for Business Class and Economy Class:

```
cout << "Sorry!!! First Class is Full" << endl;
cout << "Press Y/y to continue: ";
```

DOCUMENTATION – TOP OF SOURCE CODE:

```
//Programmer: Your full name
//Due Date: Date the program is due
//Assignment: Chapter 8, Exercise 19, Page 609
//Description: Brief description of the program
```