**ANKARA UNIVERSITY**

**COM101B**

**Summer Lab3 2018-19 Term**

**Date: 02/08/2019**

**Duration: 45 minutes**

(Airline Reservations System): A small airline has just purchased a computer for its new automated reservation system. The president has asked you two program the new system. You are to write a program to assign seats on each flight of the airline’s only plane (capacity: ten seats).

Your program should display the following menu of alternatives:

Please type 1 for “first class”

Please type 2 for “economy”

If the person type 1, then your program should assign a seat in the first class section (seats 1-5). If the person type 1, then your program should assign a seat in the economy section (seats 6-10). Your program should then print a boarding pass indicating the person’s seat number and whether it is in the first class or economy section of the plane.

Use a single-subscripted array to represent the seating chart of the plane. Inıtialize all the elements of the array to 0 to indicate that all seats are empty. As each seat is assigned, set the corresponding element of the array to 1 to indicate that the seat no longer available.

Your program should, of course, never assign a seat that has already been assigned. When the first class section is full, your program should ask the person if it is acceptable to be placed in the economy section (and vice versa). If yes, then make the appropriate seat assignment. If no, then print massage “Next flight leaves in 3 hours”.

**Input :**

**For example:**

1 2 2 1 1 1 2 1 1 N 1 Y 2

**Output:**

Please type 1 for "first class"

Please type 2 for "economy"

Your seat assignment is 1 in first class

Please type 1 for "first class"

Please type 2 for "economy"

Your seat assignment is 6 in economy

Please type 1 for "first class"

Please type 2 for "economy"

Your seat assignment is 7 in economy

Please type 1 for "first class"

Please type 2 for "economy"

Your seat assignment is 2 in first class

Please type 1 for "first class"

Please type 2 for "economy"

Your seat assignment is 3 in first class

Please type 1 for "first class"

Please type 2 for "economy"

Your seat assignment is 4 in first class

Please type 1 for "first class"

Please type 2 for "economy"

Your seat assignment is 8 in economy

Please type 1 for "first class"

Please type 2 for "economy"

Your seat assignment is 5 in first class

Please type 1 for "first class"

Please type 2 for "economy"

The first class section is full.

Would you like to sit in the economy

section (Y or N)

Next flight leaves in 3 hours.

Please type 1 for "first class"

Please type 2 for "economy"

The first class section is full.

Would you like to sit in the economy

section (Y or N)

Your seat assignment is 9 in economy

Please type 1 for "first class"

Please type 2 for "economy"

Your seat assignment is 10 in economy

All seats for this flight are sold.

**Testing:**

The example input and output files are given. If your .exe file name is Lab3, you can run your program with following command. Later compare your myoutput.txt file with given output.txt.

**>./Lab3<input.txt>myoutput.txt**

Please make sure that the content of myoutput.txt is same as the content of output.txt

**Suggestion:**

Please test your program thoroughly before submission. Good luck 

SUBMISSION: **Upload your cpp file using the related link on Moodle as studentNumber.c.**