**PF Assignment 4**

**Due date:26th JUNE 2021 (Saturday) 8:00 pm**

**Note:   
*Its an individual Assignment  
Make use of multiple functions to separate each task on in order to score 100% marks.  
You are not allowed to use String data type instead use CSTRING if required.  
Submissions will be on portal under folder named ASSIGNMENT 4 SUBMISSIONS, Late submissions are allowed in FOLDER NAMED ASSIGNMENT 4 LATE SUBMISSIONS but only one day late.  
Non-plagiarism cases will get the favor of 2 marks in the assignment.***

**Problem statement:** Write a program to assign passengers seats in an airplane. Input number of rows and seats in a plane from user. For example if there is an airplane with 13 rows and each row has six seats .Row 1 to 2 are first class, row 3 to 7 are business class and row 8 to 13 are economy class. Your program must prompt the user to enter the following information:

a. Ticket type (first class, business class, economy class)  
b. Desired seat

Initialize a text file with 13 rows and 6 calls all filled with \* to represent all seats are available.  
After user entered its desired input , read from file the entire record in 2d array and search if the seat available , if yes then reserve it by mark it X else display appropriate messages and action if no seat available in that class , or reserve some other seat in that class , airplane is full etc. After any update write the updated record back to file before the next reservation.

Output the seating plan in the following form:

A B C D E F

1 \* \* X X \* \*

2 \* \* \* X \* \*

3 \* X X X \* \*

4 X \* X X \* \*

5 \* \* \* \* \* \*

6 \* \* X \* \* \*

7 \* \* X \* X \*

8 \* \* X X \* X

9 \* \* X X X X

10 X X X X \* \*

11 \* \* \* \* X \*

12 \* \* X \* \* \*

13 X \* X \* \* X

here \* indicates the seat available, X indicates the seat occupied . Make a menu driven program with the following options to show the user the choices and allow making appropriate choices.

1. Print seating chart

2. Reserve a seat

3. Un-reserve/cancel a seat

4. Reset seating chart (back to empty)

5. Exit program