



ADNAN MENDERES UNIVERSITY

CSE 203 Object-Oriented Programming

Lab 02

- You should submit **ONLY solutions of Homework**. Submit **whole java project file in zipped format** and named project file as *NameSurname_studentNo_LabX*. The X is number of your current Lab, for this lab: Lab2.
- Do your homework in **ECLIPSE IDE**.
- Do not use Turkish Characters(ç,ğ,ı,ö,ş,ü) for naming project, methods, classes.
- Late submissions are not allowed.
- You should do homework **YOURSELF**. Group working is not allowed.
- Copy homework will be evaluated as 0.
- **DO NOT upload a screenshot or something else.**
- Use Google Classroom for your questions.

HOMEWORK

Write a program to assign seats on a flight of the airline's only plane (capacity: 10 seats).

Program should display the following alternatives: **Please type 1 for Buying First Class Ticket** and **Please type 2 for Buying Economy Class Ticket** and **Please type 3 for Ticket Validation**

If the user types 1, your program should assign a seat in the **first-class section (seats1–5)**.

If the user types 2, your program should assign a seat in the **economy section (seats 6–10)**.

Program should then display person's seat number and whether it is in the first-class or economy section of the plane.

If the user types 3, your program should take seat ID from user and validate whether the seat is sold or not.

Program also indicate **"the plane is now full"** when all seats are sold.

Once the system starts, it will not stop.

Use a **one-dimensional array of primitive type boolean to represent the seating chart of the plane**. Initialize all the elements of the array to false to indicate that all the seats are empty. As each seat is assigned, set the corresponding elements of the array as true to indicate that the seat is no longer available.

Your application should never assign a seat that has already been assigned. When the economy section is full, your application should ask the person if it is acceptable to be placed in the first-class section (and vice versa). If yes, make the appropriate seat assignment. If no, display the message **"Next flight leaves in 3 hours."**

- Use at least 2 functions. (ex: *isPlaneFull()*, *validateTicketBySeatID(int seatID)*).
 - One of them should be void and takes input parameter:
`public static void validateTicketBySeatId(int seatID)`
 - One of them should have return type and takes no input.
`public static boolean isPlaneFull()`



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Sample Run:

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 1
First Class Ticket is bought. Seat #1

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 1
First Class Ticket is bought. Seat #2

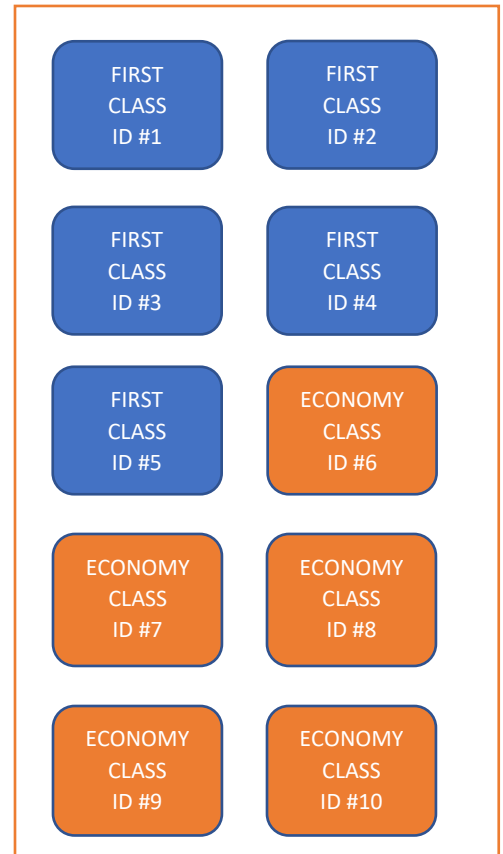
Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 1
First Class Ticket is bought. Seat #3

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 1
First Class Ticket is bought. Seat #4

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 1
First Class Ticket is bought. Seat #5

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 1
First Class is full, Do you prefer Economy Class?
1. Yes, 2. No. Your choice: 1
Economy Class Ticket is bought. Seat #6

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 2
Economy Class Ticket is bought. Seat #7





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Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 2
Economy Class Ticket is bought. Seat #8

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 2
Economy Class Ticket is bought. Seat #9

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 2
Economy Class Ticket is bought. Seat #10

The plane is now full.
Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 3
Enter seat ID which will be validated 4
Ticket is sold

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: 3
Enter seat ID which will be validated 11
There is no seat with this id

Please type 1 for Buying First Class Ticket
Please type 2 for Buying Economy Class Ticket
Please type 3 for Ticket Validation
choice: