

## QUIZ 1

**Subject:** Introduction to Java

**Due Date:** 13.10.2023/ 23.59

### Problem

Write an *Object-Oriented Program* that allows users to manage passengers for a single bus with the plate “06 HUBM 06”.

The program should store the information about the passengers of this bus, such as name, surname, gender, his/her seat number, etc.

The menu of the program should be like this.

Menu

- 1-Book a seat
- 2-Cancel booking
- 3-Print all passengers
- 4-Print available seats
- 5-Print all seats
- 6-Search passenger
- 7-Exit



Create a ***Phone*** class with:

- Four attributes: countrycode, code (city or mobile operator), number (7 digits), type (home, office or mobile)
- Two constructor methods
  - One that receives all parameters
  - One that assigns countrycode +90 as default and receives other parameters
- Get / Set methods
- Display method

Create a ***Passenger*** class with:

- Attributes: name, surname, gender, *Phone* etc.
- One constructor method which receives all parameters
- Get / Set methods
- Display method

Create a ***Seat*** class with:

- Several attributes: int seatID, boolean status, *Passenger*
- One constructor method which receives all parameters
- Get / Set methods
- Display method

Create a ***Bus*** class with:

- Several attributes: plate, seatCount, *Seat[]* seats, etc.
- One constructor
- Get/Set methods
- *bookSeat (Passenger p, int seatID)* method
- *printAllPassengers()* method
- *printAllAvailableSeatIDs()* method
- *search* method  
(search a passenger according to name surname and display his/her phone number)

Write a **main method** that

- Bus bus=new Bus("06 HUBM 06", 42);
- displays menu
- According to the user selection, the program should take parameters from the user and it should call related methods.

*The menu of the program should be like this:*

```
1-Book a seat
2-Cancel booking
3-Print all passengers
4-Print available seats
5-Print all seats
6-Search passenger
7-Exit
Enter your choose:
```

*Sample output of program:*

```
1-Book a seat
2-Cancel booking
3-Print all passengers
4-Print available seats
5-Print all seats
6-Search passenger
7-Exit
Enter your choose: 1
Enter seat id:5
Enter name:bahar
Enter surname:gezici
Enter gender:K
Enter country code:TR
Enter code:+90
Enter number:1234567
Enter type:MOBILE
```

```
Enter your choose: 3
Seat: 5 Status: Reserved
bahar gezici (K)
MOBILE Phone:TR +90 1234567
```

```
Enter your choose: 6
Enter name:bahar
Enter surname:gezici
bahar gezici (K)
MOBILE Phone:TR +90 1234567
```

*If you try to book a seat that is already reserved, you need to give an error message:*

```
Enter your choose: 1
Enter seat id:5
Enter name:bahar
Enter surname:gezici
Enter gender:k
Enter country code:90
Enter code:tr
Enter number:23456
Enter type:home
The seat has already reserved!
```

## Notes

- Do not miss the submission deadline.
- Save all your work until the quiz is graded.
- You can ask your questions via Piazza and you are supposed to be aware of everything discussed on Piazza.
- You must submit your work with the file hierarchy as stated below:
  - <student\_id. zip>
  - Main.java
  - \*.java