Task1: Passenger Class

A **Passenger** class has the following attributes:

- First name
- Last name
- Gender (M/F)
- Passport number
- Nationality
- Has an entry VISA
- A static parameter for the number of created passenger objects.

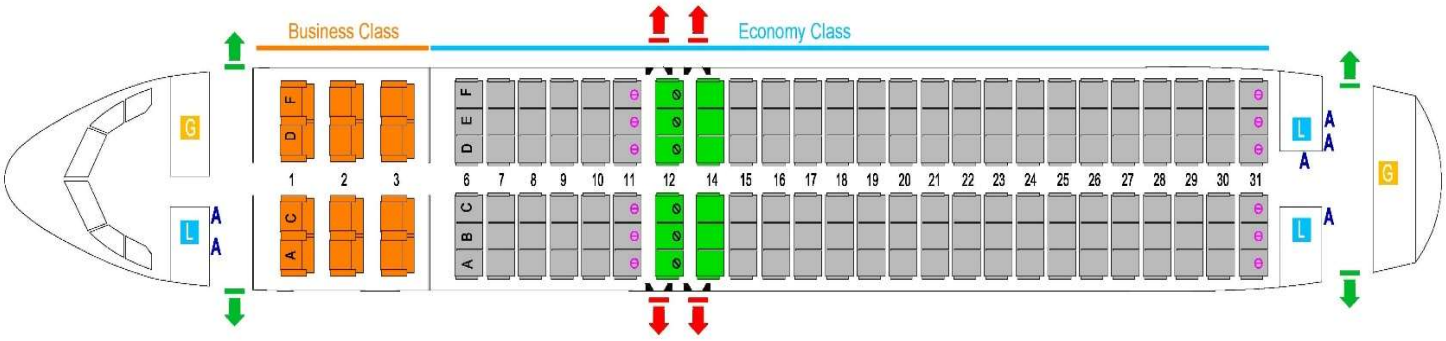
And the following behaviours:

- Setters and getters to all the above class attributes
- One constructor using all the instance attributes.
- One method call printPassengerInfo to print the passenger information.

1. Draw the UML diagram for the Passenger class. (use any free online tool to draw UML and save it as a PDF file. e.g. https://www.draw.io/)
2. Implement the class.

Task2: A320 Flight Seat Reservation System

The flowing figure shows the A320 flight seat Configuration:



- In this task, you need to create a 2D **ragged array** of Passenger seats with a length of 31 rows. The first 3 rows are reserved for the Business class seats as shown in the above figure. The rows from 6 to 31 are reserved for the Economy class seats. Rows 4, 5, and 13 has no seats. The seat number is consist of one character (A to F) and a number (1 - 31) (e.g. F17).

- Create a driver class that has the following:
  - At the beginning of execution, create and initialize the above mentioned array to null (i.e. flight is empty of passengers, all seats are available).
  - In an infinite loop show the following menu options:
    1) to reserve a new seat (business or economy) for a new passenger (if the provided seat number is empty)
    2) to display the passenger information for a specific seat (if the seat is not empty)
    3) to search for a passenger by first or last name.
    4) to search for passenger by passport number.
    5) to print a list of the passengers and there seat numbers.
    6) to exit execution
  - Adequately implement the previous options (from 1 to 6)

Good Luck!