

Phase # 4

Objectives:

1. To read data from a file using the **Scanner** classes.
2. To explore the advantages of using exception handling.
3. To write a simple JavaFX program and understand the relationship among stages, scenes, and nodes.
4. To create user interfaces using panes and shapes.

Specification

Submission: **Online through ITC.**

What to submit: Your **own** well-structured and well-commented JAVA files (.java) and PDF file

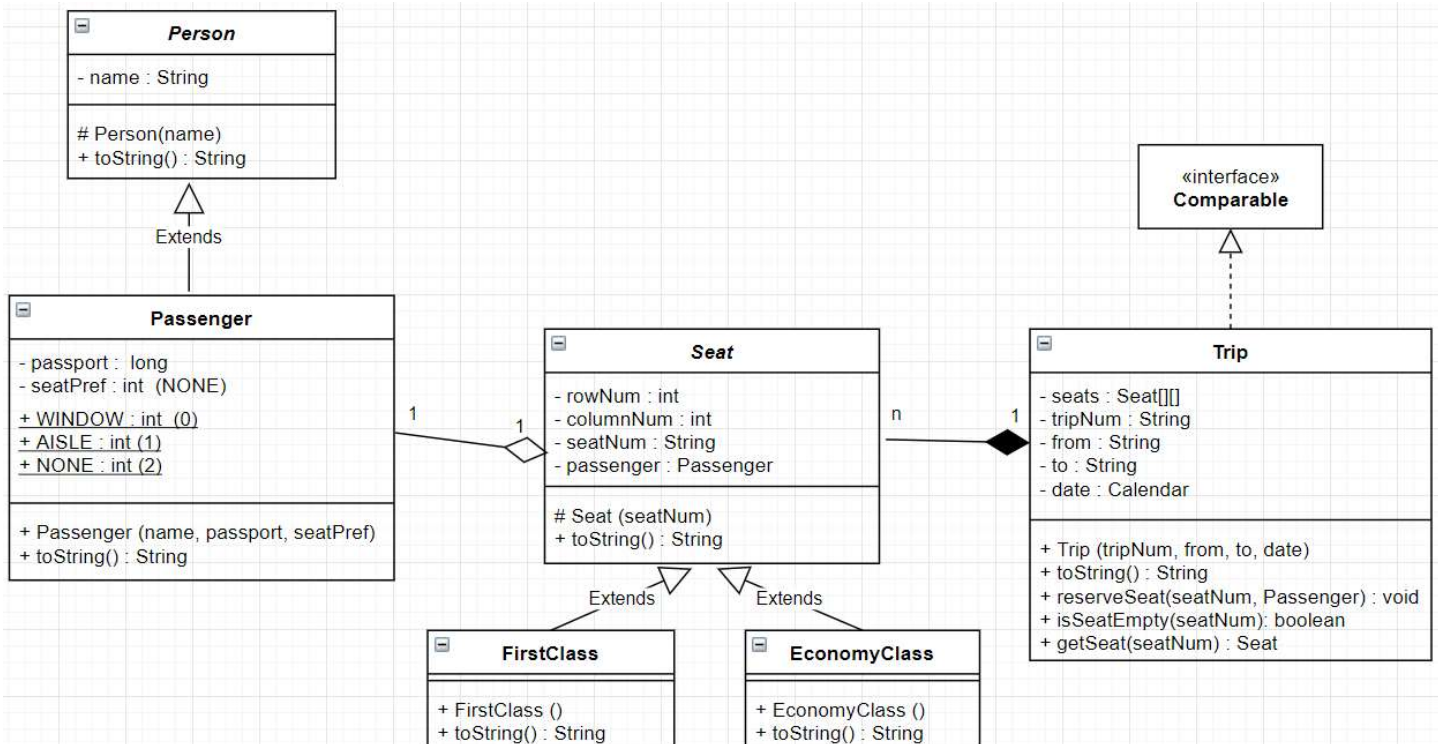
Deadline: **30/8/2021** by 8pm. (The online submission will be disabled after this time).

Task: A320 Flight Trip Reservation System –enhanced version-

Task1: Phase 3 revise

Make sure phase 3 is fully implemented and revised according the following UML:

Note: add setters and getters as needed.



Task2: Reading Trips file

- Consider the attached file “trips.txt” that contains trips details.
- Each line in the file contains the details of one trip using the following format:
Trip number/From airport /To airport /Departure date

e.g. → **T123/Amman (AMM)/Tokyo (NRT)/30-8-2021**

Task3: Reading Passengers file

- Consider the attached passengers file “passengers.txt” that contains passengers info in each trip.
- Each line in the file contains the details of one passenger using the following format:
Trip number/Name/Passport#/Seat#

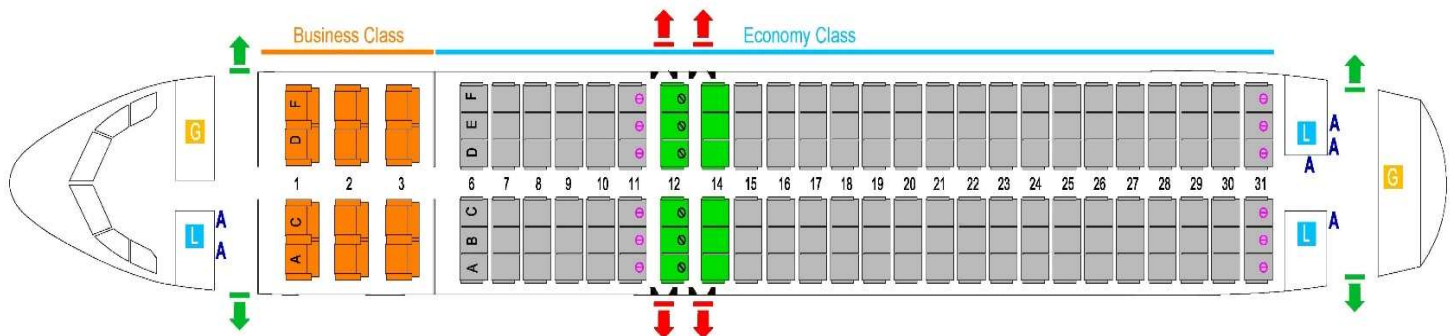
e.g. → **T123/Mamoun Nawahdah/123456/F1**

Task4: A320 Flight Trip Reservation System: GUI

Create a JavaFX driver with a GUI to handle the following functions:

- At the beginning, load the trips from the file into the ArrayList of trips. Moreover, load the passengers from the file to each trip.
- Add a new trip.
- Reserve a new empty seat (first class or economy) for a new passenger into a specific trip.
- Display the passenger information for a specific seat (if the seat is not empty) in a specific trip.
- Print to a file (trip#.txt) a list of the first class seat's passengers and the economy seat's passengers sorted by seat numbers in a specific trip first by seat row then by seat column (Row 1 is less than Row 2, Seat A is less than seat B and so on).

The flowing figure shows the A320 flight seat Configuration for your reference:



Good Luck!