

COMP 360-01 Programming Languages Fall 2022

Project 3

Due Date: December 1

- Boolean
- one day
- no GUI required

Java Exception and Security Project

Objective: Java language provides some mechanisms to support security. Exception is one of these language structures. Using exception can increase the reliability of software products and handle unexpected errors. In this project students will apply object-oriented and exception techniques to the assigned problems.

Project Assignment

Design and implement a Green Airplane Ticket Purchase System for Green Company. This company operates two airplanes on daily basis. The airplane Green 100 has 21 seats. It departs from Greensboro at 6:00 AM and arrives Newark at 7:30 AM. The airplane Green 400 has 60 seats. It departs from Greensboro at 4:00 PM and arrives Seattle at 11:30 PM. A person must purchase a ticket before taking the airplane. The ticket should include a person's name, flight number, travel date and time. The Green Airplane Ticket Purchase System must satisfy the following requirements:

- 1) A constructor sets the number of seats.
- 2) A method AirplaneFull to check if there are any seats available.
- 3) A person purchases a ticket via BuyTicket method. This method returns an integer indicating the row number and a character indicating the seat that could be A, B or C. If a customer tries to buy a ticket but all tickets are sold out an AirplaneFullExcep exception will be thrown.
- 4) AirplaneFullExcep must have an exception handler that should display "The airplane is full!".
- 5) If a customer bought a ticket the person's name, flight number, travel date, time and seat number should be displayed.
- 6) If a customer returned a ticket this seat will be available.

Requirements:

This

- a) This can be one person or two person team project.
- b) The project should use department programming standard.
- c) The program must execute correctly.
- d) Email your program to Yang Liu, his email address is yliu2@aggies.ncat.edu.