CS 3500 — Exam 1 Part A

Instructions:

- *This is a do-it-all-by-yourself exam. You are not allowed to communicate with any current and past students of the course in any way during the exam.*
- *You are allowed to use an IDE, or any other text editor on your computer. The only online resources you are allowed to use are the course web page, and the official Java documentation by Oracle.*
- *Please submit on time. The times will be enforced strictly by the server. If you try to submit in the final seconds and are unable to due to a slow server response, you will not be able to submit anything! You cannot use any late days, or otherwise submit later for partial credit.*
- *If you have a question, please email your instructor privately over Teams (quicker) or email.*

Good luck!

Figure 1: Class and interface index

The questions on this exam are related to a set of classes and interfaces that implement the ticketing and reservations system for *Epsilon*, a new budget airline.

Write down if the statement is true or false ***for the implementation as given to you.*** Briefly explain all your answers.

Please submit your answers in Part A for your section on the submission server.

1. (3 points) Customers cannot directly or indirectly mutate the `flightManifest` of any existing `Flights` in an `Epsilon` object. T F

2. (3 points) There is no way for customers to obtain a `Reservation` object just by using `Epsilon`'s methods. T F

3. (3 points) It is an invariant of the `BasicFlight` class that `availableSeats` is between 0 and `capacity` (inclusive). T F

4. (3 points) It is possible for a user of `Epsilon` to change the destination of an existing flight. T F

5. (3 points) It is possible for a customer of `Epsilon` to create more empty seats on a flight by repeatedly canceling an existing confirmed ticket. T F