CS 166: Project Description

March 1, 2020

1   Phase 3 Description

In this phase, you are given scripts to create a database schema that implements a slightly simpler version of the ER diagram given to you in phase 2 of the project. Additionally, you are given a set of dummy data, scripts to load the data in DB, and some Java code that can be used to build your client application.

Your client application must implement the following functionality using the given schema:

- Add Plane: Ask the user for details of a plane and add it to the DB

- Add Pilot: Ask the user for details of a pilot and add it to the DB

- Add Flight: Ask the user for details of a flight and add it to the DB

- Add Technician: Ask user for details of a technician and add it to the DB

- Book Flight: Given a customer and flight that he/she wants to book, determine the status of the reservation (Waitlisted/Confirmed/Reserved) and add the reservation to the database with appropriate status.

- List number of available seats for a given flight: Given a flight number and a departure date, find the number of available seats in the flight.

- List total number of repairs per plane in descending order: Return the list of planes in decreasing order of number of repairs that have been made on the planes.

- List total number of repairs per year in ascending order: Return the years with the number of repairs made in those years in ascending order of number of repairs per year.

- Find total number of passengers with a given status: For a given flight and passenger status, return the number of passengers with the given status.

Groups that implement systems with user-friendly interfaces, extra functionalities will receive extra credit. Any additional functionality must be explicitly described in the README file and pointed out to the TA during demo to receive extra credit.

2   Submission

You should submit the documentation and final source code on iLearn. **Please note, you must demo your code to the TA either during lab on March 13th or during office hours in Week 10).** We may extend demos to finals week if we run out of time during week 10 but projects must be turned in to iLearn by Friday March 13th (last class meeting of Week 10).

Rubric: 120 points completeness and correctness, 15 points for error handling (for example, handle incorrect data input), and 15 points documentation (readme file and comments).