CMPUT 291 Winter 2018
Second Lab Exam
LAB H05 and LAB EH05

Please read the instructions in this page carefully.

- You can use any of the following resources during the exam: your notes, the textbook, and the SQLite and Python online documentation. No other resources are allowed (e.g., no Google or other search engines, and especially no resources that allow communication). The following links may be useful:
  - https://docs.python.org/3.5/library/index.html
  - https://docs.python.org/3.5/library/sqlite3.html

- Download the file lab_exam.py and save it in a directory of your choice.

- Download the file init.sql from eclass and save it **in the same directory** that you saved lab_exam.py in the previous step. You should use it to create the database.

- You should submit a single python file named *lab_exam.py*.

- The available time for the exam (including the time for uploading your solution) is 1 hour and 20 minutes.

- Write down your *full name* and *ccid* on the top of the *lab_exam.py* file.

- [Important] The file lab_exam.py provides the basic structure for your code. The functions main() and printMenu() were created for you. They are designed to help you to test your application. You should complete this file to answer the questions.

Schemas:

flight (flight_id, source, destination, departure_date_time, airline_name, current_capacity)

passenger (passenger_id, name, nationality, gender)

reserve (ps_id, fl_id, class, booking_date)

Tasks [ech 10 mark]:

➢ Once you run your program:

1. A user can introduce a new flight into the app. For each new flight, source, destination, departure_date_time, airline_name and current_capacity should be provided by the user. Flight_id should be generated automatically by the app.

2. A user can search flights by their destinations. The app should display complete information of each flight. (flight_id, source, destination, departure_date_time, airline_name and current_capacity).

3. A user can book a flight for a passenger. booking_date should be automatically entered by the app. (with current date)

4. Also the current capacity of a flight should be updated when a user reserves a flight for a passenger. A user cannot reserve a flight for which there are not available seats. (current_capacity=0).

5. A user can cancel a flight for a passenger. Given a passenger id and a flight id, the user must check whether the passenger has reserved that flight, if yes, the reservation must be deleted.