

**CS3431-A19 Wong**  
**Assignment 1: Basic SQL**  
**Parts 1 and 2: Creating Tables**

Due Date: R 8-29 at 11:59pm.

Late Policy: 10% off until F 8/30 at 5pm. 0 points afterwards. Maximum grade is 100 points.

Submission: submit a single Cruise.sql file for Parts 1, 2, and 3 to Canvas using the Assignment 1 link.

Note: Instructions for Part 3 is in a separate file.

The homework is to be done individually. You may speak to your classmates about the assignment but cannot exchange information on the actual SQL code that needs to be written.

Use LiveSQL.oracle.com to do this assignment. You will be creating a database to keep track of Cruise that vacationers have reserved. The data is located in the spreadsheet attached to the assignment, CS3431-A19 Assignment 1.xlsx. There are 5 tables, one on each spreadsheet tab: Reservation, Customer, Cruise, TravelAgent and Company. The 6<sup>th</sup> tab is an example of how to automatically generate the insert statements so you do not have to manually type every line. Remember double quotes are used in Excel for strings. Single quotes are used in SQL for strings.

Use a text editor to create Cruise.sql that will include all of your SQL commands:

1. The first commands will delete the Reservation, Customer, Cruise, TravelAgent and Company tables so you can run your Cruise.sql file over and over without needing to reset your session. Note that you will need to drop the tables in a specific order because of integrity constraints. Do NOT use the following command for this assignment: drop table <TableName> cascade constraints;  
Also delete the sequences that you will create for the primary keys (read next section).
2. (30 points) Write the SQL commands to create the five tables following the instructions below. All constraints should be named! Note that due to referential integrity constraints, you will need to be careful about the order you create the tables and insert records into them.
  - a. For each table, the field name and datatypes are given in the spreadsheet. Use the EXACT given table and field names.
  - b. For the field names that are supposed to auto increment, create the field as a number data type and use sequences. Do NOT manually enter these values.
  - c. The first column of each table is the primary key. Make each one a named constraint.
  - d. In the Company table, the stock symbol is a candidate key but not a primary key. Make this a named constraint.
  - e. In the Customer table, the phone field must be non-null. The combination of first name, last name, and phone number is a candidate key, but not a primary key. Use named constraints. Hint: for the phone field, use a value check.
  - f. The Reservation table contains 3 foreign keys each referencing another table. The Cruise table has one foreign key referencing the Company table.
  - g. In the TravelAgent table, the title is constrained to be Assistant, Agent, and Manager.
  - h. For the Customer, Cruise, and TravelAgent tables, the referential integrity should be set so if a record in one of those tables that is referenced by the Reservation table is deleted, then the record in Reservation will also be deleted.
  - i. If a Company is deleted, then the referential integrity should be set so the Company field in Cruises referencing it will be set to null.