CS 377: Database Systems

Project #2

March 3, 2016 at 11:59 pm

SUBMISSION: Please submit the project electronically via Blackboard before 11:59 pm. Any submissions afterwards will be marked late and deducted accordingly unless you create a README file that specifies that you are using one of your 2 late assignment exceptions. You should use one file for each portion of the problem and follow these guidelines:

- If you have comments in your SQL query, use C style comments using $/* < \text{comment} > */$

- Any text that is not within the comment brackets will be assumed to be part of your SQL command, and if the file does not execute properly, points will be deducted.

- Each file should be named as "<netID>-project1-<problem>-<part>.sql". For example, the instructor's answer to part b of question 2 would have the file "jho31-project2-2-b.sql".

- At the top of each of your submitted SQL files should be the honor code.

  ```
  /* THIS CODE IS MY OWN WORK.
  IT WAS WRITTEN WITHOUT CONSULTING CODE WRITTEN BY OTHER STUDENTS.
  _Your_Name_Here_ */
  ```

1. **Online Bookstore** (40 points): This problem is based in the Online Bookstore exercise from Homework #1 and Project #1. Please include your creation and insertion queries into the first file (part a) so we can replicate your queries properly.

   (a) Find the total numbers of books that each costumer has bought of each publisher.

   (b) Update the ISBN number of one of the books and the email account of a customer you inserted. Verify that your updates were propagated to the other tables (no mismatches). Show the queries for the updates and the verifications (show the tables that reference these values with corresponding changes).

   (c) Delete one of the publishers that you have inserted that has published a book.

   (d) Create a view for the director of sales which contains a list of customers with their name, email, phone, the total number of books in their shopping cart (assuming that everybody orders just 1 copy of the book), and the total cost of their shopping carts.

2. **IMDB Database** (60 points): We will answer more sophisticated questions from our course's version of the IMDB database. Please see Project #1 and Piazza for the database details (either accessing your local copy or the server one). Write SQL queries to answer the following questions. Each file should be named as "<netID>-project2-2-<part>.sql".

   (a) (10 points) List all actors by their first and last name, sorted by the last name from A to Z, who have played in at least 10 different movies in 2004.

   (b) (10 points) List the movies and the year where Matt Damon, George Clooney, and Brad Pitt have all played a role.

(c) (10 points) Who are the top 100 directors who have directed the most movies from 2005 to 2010, in descending order of the number of movies they have directed? Output their first name, last name, and number of movies directed.

(d) (15 points) Which actor(s) has only been in Steven Soderbergh's movies?

(e) (15 points) For each year, count the number of movies in that year that had only female actors (and at least one actor).