**CSE 3241 Project Checkpoint 04**

**SQL and More SQL**

Names Date

**Submitted to the Carmen Dropbox**

1. Provide a current version of your ER Diagram and Relational Model as per Project Checkpoint 03. **If you were instructed to change the model for Project Checkpoint 03, make sure you use the revised versions of your models.** You must highlight and indicate the corrections/modifications.
2. Given your relational schema, create two different text files. Name them Create.txt and Populate.txt. Create.txt should contain the SQL code to create your database schema. The Populate.txt should contain the SQL code to populate your database with at least 20 sample records for each different table that does not contain data provided in the original project documents.
3. Given the database schema you generated in question 2, create the third txt file and name it Queries.txt. It should contain the SQL code for following queries. If your schema cannot provide answers to these queries, revise your ER Model and your relational schema to contain the appropriate information for these queries:
   1. Find the titles of all tracks by ARTIST released before YEAR
   2. Give all the movies and their date of their checkout from a single patron (you choose how to designate the patron)
   3. List all the albums and their unique identifiers with less than 2 copies held by the library.
   4. Give all the patrons who checked out a movie by ACTOR and the movies they checked out.
   5. Find the total number of albums checked out by a single patron (you choose how to designate the patron)
   6. Find the patron who has checked out the most videos and the total number of videos they have checked out.
4. For Project Checkpoint 02, you were asked to come up with **three** additional interesting queries that your database can provide. Give what those queries are supposed to retrieve in plain English, as relational algebra and then as SQL. Your queries should include joins and at least one should include an aggregate function, and they should be the same as the queries you outlined for Worksheet 02. If you were instructed to fix the queries in Checkpoint 02, make sure you use the fixed queries here. These queries should be provided in a plain text file named “ExtraQueries.txt”.
5. For your database, propose **at least two** interesting views that can be built from your relations. These views must involve joining at least two tables together each and must include some kind of aggregation in the view. Each view must also be able to be described by a one or two sentence description in plain English. Provide the code for constructing your views along with the English language description of what the view is supposed to be providing. Name the txt file “Views.txt”.

Once you have completed all of the questions, create a ZIP archive containing the binary SQLite file and the three text files and submit this to the Carmen Dropbox. **Make sure your queries work against your database and provide your expected output before you submit them!**

No syntax error should exist in the submission. If the grader cannot construct and populate the database with your code, then he will be unable to give you feedback.

1. Each team member, individually, needs to fill out the Peer-evaluation form provided and submit it to Carmen.

Please DO NOT zip the report file when you submit so that the grader can give you detailed feedback in Carmen.