CSC 355 Database Systems 501T-530 Winter 2023 Assignment 2 (01/25) – SQL Queries, Aggregate Functions, and Joins

Name:

Course Number:

Section: Date:

Movie rentals

SQL Queries

Part I - Queries on the Rental Movie Schema

RENTAL(<u>mId</u>, <u>cId</u>, rented, <u>duedate</u>, <u>num_rentals</u>)

CUSTOMER(<u>cId</u>, <u>fname</u>, <u>lname</u>, dob, email)

MOVIE(<u>mId</u>, title, <u>genreid</u>, duration, year, <u>directorid</u>)

DIRECTOR(<u>dId</u>, <u>fname</u>, <u>lname</u>, dob, email, <u>producerId</u>)

0. Download the File MovieRental.sql and run it in SQL Developer.

Then, write a script that contains the following SQL queries and DDL statements (in this order). Add a one-line comment before each question with the number of the question: e.g. - Question #1

- 1. Give the title, genreid, and duration of all movies from 2014 and 2016.
- 2. Modify the query from question 1 to add the name of the director's full name, as well as the genre description. For the genre you will have to: first, create a new table called GENRE that has two attributes: genreid (primary key whose data type must match the MOVIE.genreid) and g_description. Then, you will also have to populate the table with the following tuples: (RC, Romantic Comedy), (MU, Musical), (HR, Horror), (DR, Drama), (AC, Action), (DC, Documentary), (SM, Sport Movie), (CM, Comedy), (SF, SciFi), (AN, Animated). Last, create the corresponding FK constraint from MOVIE to GENRE. The FK constraint must be named FK_MOVIE_GENRE. The constraint must be created by altering the table. DO NOT modify the original script MovieRental.sql.
 - All these statements for Q2 must be present in the script. Be careful, you cannot add the FK before populating the GENRE table.
- 3. Give an alphabetical list of genre names and the movie titles of all movies with the word **enim** in their title. Both columns must be included in the sort, first genre, then title.
- 4. Give the title, genreid, year, and duration of all movies directed by Kimberley Marshall that last less than 10 hrs., listed from most recent to less recent released.
- 5. For each genre, give the description of the genre and the number of movies in that genre, ordered from the genre with the fewer movies to the genre with the most movies. Genres with no movies must appear in your result. The column for the number of movies should be named accordingly.
- 6. For each customer that has rented at least one movie, give the customer ID and the number of movies rented, and the most recent movie year. (Sort the output by the customer ID.)
 - Limit the result to customers that have rented more than 15 movies

- 7. Give all the director names and last names of those that released movies between 1975 y 1980. If a director releases more than one movie, must appear once.
- 8. List, in alphabetical order, the titles of all movies rented by the customer whose email is **K.Kane_02@movie.com**. (Note: Your query should use the email don't look up the customer ID by hand to use it in your query.). Display also the rented date in case a movie has been rented twice so it does not look like a duplicate.
- 9. For each genre, give the number of movies rented no sooner than November 2, 2022, the year of the oldest movie rented in this period, and the longest duration. (If no one has rented a particular movie yet for a gender, do not include that gender in the result set.)

Part III - Script and OUTPUT

- Clear the script output Window and then run the complete script and save the complete contents of the script output window, including the displayed tables, to a text file. Save it as HW03 OUTPUT YOURNAME.txt
- Include a comment at the top of your script file giving your name, the course number and section number, the assignment number, and the date of submission (i.e., fill in the appropriate values for name, and submission date in a comment such as the one below):

```
/*
YourName
CSC 355 Section SectionNumber
Homework 3
SubmissionDate
*/
```

Do not forget the semicolons after each statement. Do not forget your commit statement;

Save your script as HW03_SCRIPT_YOURNAME.sql

Part III - Script and OUTPUT

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YourName
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Submission

- Submit two files to the Homework 3 submission folder:
 - 1) your HW03_SCRIPT_YOURNAME.sql script file and
 - 2) the text file HW03_OUTPUT_YOURNAME.txt, containing the complete output that was generated by running your script.

Remarks

- 1. It is your responsibility to make sure that the files you have uploaded are readable and in the correct locations. You should verify that you can successfully download them from the submissions folder after submitting them to be sure that they have been uploaded correctly.
- 2. Remember that all work must be completed individually and without copying, either entirely or in part, from any examples posted or from anyone else's work. Do not post this assignment to any website in search of answers, and do not consult posted answers on any website while completing the assignment.