1 Overview

In this assignment you will continually practice using SQL to write more advanced SQL queries.

1.1 Use SQL to more advanced queries

Note that you should have the movie database created for the previous assignment. The movie database has three relations, with the schema listed below.

Movie (MovieID, Title, Year, Score, Votes)

Actor(ActorID, Name)

Casting (MovieID, ActorID, Ordinal)

1.1.1 Loaded database

Note that the three tables should have data loaded in the previous assignment using the given SQL script *tuples.sql*. The script is a sequence of insertion operations. The data is from the Internet Movie Database. There are 910 tuples in the Casting table, 807 Actors, and 58 movies.

1.1.2 Queries to write

You need to create a file called *morequeries.sql*, which is a text file containing your queries for each of the questions given below. Each query will be (at least one) SELECT statement.

1. (5 points) List the movieid value of movie Titanic.

2. (5 points) List the actorid value of actor Kevin Bacon.

3. (5 points) List the average movie score in the movie database

4. (5 points) List the title of movies that have scores greater than the average score in the movie database

5. (10 points) List the names of actors who were cast in movie with movieid = 4

6. (10 points) List the titles of movies that cast the actor Kevin Bacon.

7. (10 points) List the actorid values of actors that were cast in any movie that has votes between 3000 and 4000.

8. (10 points) List the names of actors, if any, that were cast in any movie that has votes between 3000 and 4000.

9. (10 points) List the titles of movies that have a higher score than some movie in the database. (Don't hardcode "some" movie as any specific movie such as "Titanic".)

10. (10 points) List the highest score of movies in the database

11. (10 points) List the titles of movies that have the highest score in the database.

12. (10 points) Find the IDs of actors who were cast in more than one movie.

13. (10 points) List the titles of movies that have a cast of more than 5 actors.

14. (10 points) For each year, list the best score held by the movies made in that year.

15. (10 points) For each year, list the title of the movie with the most votes.

16. (10 points) List the titles of both the movie with the highest score and the movie with the second highest score.

17. Arnold Schwarzenegger was cast in many movies. In some years he was cast in two or more movies. For each year in which he was cast in at least two different movies, list the year and the number of movies in which he was a cast member.

18. (10 points) List the names of actors, if any, that were cast in **all** the movies that have votes between 3000 and 4000.

19. (10 points) List the names of actors that have appeared in more than ten movies.

20. (10 points) From among the actors that have appeared in more than ten movies, list their name and the average score of all the movies they

were cast in.

The *morequeries.sql* file should have the following format (note, two dashes '–' at the start of a line indicates a comment). Please add other comments as needed.

```
-- Query 1
-- List the titles of all movies
-- Other comments if you want
SELECT ...
FROM ...

-- Query 2
-- List the actor table
--
```

Be sure to include the number for each query, the English text describing the query and the SQL text for the query. If the query does not work or is incomplete, please comment out the SQL text and put in appropriate comments as to why the query does not work.

Note that good programming style is always important. Your code should be clear, concise, and have appropriate comments.