**ECE59500 Database Management Systems – Spring 2017**

**Assignment 1 – Due Tuesday Feb 14th (11:59pm – night time)**

**Submit on Canvas**

**Name:**

**Student ID:**

**Assignments are to be your own work. If you have questions, you can ask your Instructor.**

*Your task is to complete this report using Word and a DBMS (SQL server or Oracle or MySQL) and to submit the complete word document on Canvas.* **Submit using Canvas. Make sure you double check that the file has been added to Canvas. Please specify which DBMS was used for your assignment.**

**To gain full points on each of the questions, you will need to include the SQL scripts, and following the instructions.**

**Name Convention for Assignment Files**: Please name your assignment file as firstname\_lastname\_assignment1.sql, where firstname and lastname are your first and last name, respectively, and "\_" is underscore. The file naming convention will be enforced throughout this semester. Five (5) points will be taken off if the file is not named according to the convention.

A movie film library has four entities ‘movie’, ‘actor’, ‘director’, ‘movie company’. The attributes of ‘movie’ are ‘movies id’, ‘movie name’, ‘movie type’, ‘dialogue language’, and ‘year’; the attributes of ‘actor’ are ‘actor employee number’, ‘movie company’, ‘name’, ‘year of birth’, ‘gender; the attributes of the ‘director’ are ‘director employee number’, ‘name’, ‘year of birth’, ‘gender’; the attributes of the ‘movie company’ are the ‘company name’ and ‘Country of origin’.

The links between these entities and their properties are:

A movie can have one and more than one actors. A movie has one and only one director. A movie belongs to one and only one movie company. A director can work for more than one movie companies. A director can direct zero or more movies.

**Task 1.** Draw an ER diagram that specifies the primary key of the entity, the constraint type of the association, and the key constraint. (20 points)

**Task 2.** Convert the ER diagram to a relational model by creating the tables (Please write the SQL scripts. Please specify which DBMS you used.) (10 points)

**Task 3.** Insert records into the tables (Please write the SQL scripts and inserting 10 records to each table.) (10 points)

**Task 4.** Use SQL to express the following query, respectively (30 points)

1. Query the name of the actors who was born in 1957 or before

2. Find out the name of the movies and the director's name of the movie that were produced by Universal Company in 2000

3. Find out the movie that director of which has last name “smith” and he/she is also an actor of the movie