

# COMP 3311: Database Management Systems

## Task 1: Entity-Relationship Schema Design

Assigned: June 23, 2022

Value: 10% of course grade

Due: 23:00 (11:00 p.m.), July 9, 2022

The course project description describes the requirements for a software system to manage data for Reelflics Movie Streaming Service LLC. This task requires you to analyse the data requirements for the movie streaming management system and to represent those requirements as an entity-relationship (E-R) schema.

### IMPORTANT REMINDER

***This is an individual task.*** The E-R schema that you submit should be *your own work*. While you may discuss general design issues with other students, you are not allowed to collaborate with other students (past or present), to come up with a common design, to share designs or to copy someone else's design. Copying, sharing and collaborating will be severely penalized. All those involved in a copying/sharing/collaborating case will automatically receive a grade of 0 and may be reported for further disciplinary action.

### ENTITY-RELATIONSHIP SCHEMA DESIGN FORMAT

Design an E-R schema based on the movie streaming management system course project description. Your design should be presented as an E-R diagram using the E-R model notation presented in class and as many of these E-R model constructs as necessary to fully represent the data requirements of the application. In particular, entities, relationships, attributes (of entities and relationships), generalizations and constraints on relationships and generalizations should be included in your design as required by the application. For constraints on entities, it is only necessary to specify which attributes are keys or discriminators, if any, and which attributes have unique values, if any. It is not necessary to specify the data type of each attribute.

### A NOTE ABOUT DESIGN

In any design problem there are normally design choices that the designer can make leading to several possible solutions. Thus, for this task it is important not only to produce an appropriate design for the problem, but also, where there is a design choice, to explain and justify your design choice if it is not clear or obvious why a choice was made. While you will be graded primarily on the quality and adequacy of your design, explanation and justification of any design choices you make may aid the teaching team in determining whether to accept your design choice as reasonable.

### WHAT TO SUBMIT

Submit a PDF document named task1.pdf containing your E-R diagram for the movie streaming management system.

#### Notes

1. You must use Oracle Data Modeler to construct your E-R diagram. ***Any other form of E-R diagram is not acceptable and will not be graded.***
2. Your name and student number must be shown in a legend in the upper left corner of your E-R diagram.

If necessary, also submit either in your task1.pdf document or as a separate PDF document, any non-obvious assumptions on which your E-R schema design depends and your reasons for making each such assumption (i.e., why do you believe that the assumption is valid and reasonable).

### HOW TO SUBMIT

By 23:00 (11:00 p.m.) on Saturday, July 9, upload your task1.pdf document as well as a PDF document containing your assumptions, if any, to Canvas by selecting *Task 1* in the Assignments section of Canvas and then selecting the **Submit Assignment** button. To check your submission, select the **Submission Details** button. For help, select the **Help** button.

**It is your responsibility to ensure that your task1.pdf file is correctly uploaded to Canvas.  
Under no circumstances will late submissions or submissions by email be accepted.**

## GRADING

<u>Item</u>	<u>Value</u>
E-R diagram representing <i>your</i> E-R schema design for the movie streaming management system	95%
Presentation (e.g., readability, layout of diagram)	5%

## CLARIFICATION AND AMENDMENT OF PROJECT/TASK REQUIREMENTS

You can ask clarification questions regarding the requirements stated in the course project description. ***All questions should be submitted to the teaching team by email at 3311rep@cse.ust.hk.*** In addition to being answered individually, if appropriate, a submitted question and its reply will be posted on the *Project Q&A* course webpage for Task 1, which can be accessed from the *Task Q&A* section of the *Project Information* course webpage. ***You should check this webpage on a regular basis for further clarification and amendment of project requirements.*** Any requirements added or amended in a *Project Q&A* webpage become part of the course project requirements.