COMP 3311: Database Management Systems

Task 1: Entity-Relationship Schema Design

Assigned: September18, 2020 Value: 10% of course grade
Due: 23:00 (11:00 p.m.), October 3, 2020

The course project description describes the requirements for a final year project (FYP) management system for the Department of Computer Science and Engineering (CSE). In this task you are to analyse the data requirements for the FYP management system and express those requirements as an entity-relationship schema using the entity-relationship model notation presented in class.

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 others, 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 FYP management system course project description. Your design should be presented as an E-R diagram using as many of the E-R model constructs as necessary to fully express 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. It is not necessary to specify the data type of each attribute.

A NOTE ABOUT DESIGN

In any design problem there are usually 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. While you will be graded mainly 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 name, student number and your E-R diagram for the FYP 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 should be shown in a legend in the upper left corner of your E-R diagram.

If necessary, also include in your task1.pdf document a listing of any assumptions on which your E-R schema design depends and your reasons for making each 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, October 3, upload your task1.pdf document 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.

GRADING

Item	Value
E-R diagram	95%
Presentation (i.e., readability, diagram layout)	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 the submitted questions and their replies will be posted on the *Project Q&A* course web page for Task 1, which can be accessed from the *Task Q&A* section of the *Project Information* course web page. ***You should check this web page on a regular basis for further clarification and amendment of project requirements.*** Any requirements added or amended in a *Project Q&A* web page become part of the course project requirements.