COMP 310
Project 2 - Database Design

Fall 2018

Abstract

For this project you'll designing a database and presenting your design in a written proposal.

Due by end of day on Wednesday 12/5. Submit a physical copy of your work.

The Problem

You are effectively carrying out exercises 16.19, 16.20, 16.21, 17.12, 17.13, 18.13, and 18.14. These exercises take you through the design and implementation of a database for the Wellmeadows Hospital discussed in appendix B, section 3. Your final implementation (exercises 18.13 and 18.14) should be done for the MySQL DBMS. Be certain that you read the exercises and the case study carefully before you proceed with the deign and implementation of your database.

The Proposal

In addition to submitting the required conceptual, logical, and physical data models, you must submit a 1-2-page (single spaced, 10pt font, and standard margins) document *for each model* that justifies the design choices and argues for the quality of the model. More specifically:

- *Conceptual Model Proposal* Explain how the model meets the user requirements and justify the quality and validity of the overall design.

- *Logical Model Proposal* Argue the validity of the model and show how data integrity constraints are represented in the model.

- *Physical Model Proposal* Explain how the logical model is mapped to MySQL and discuss any gaps that may exist between the logical model and the MySQL implementation.

Assume that you are submitting these documents along with your design to a technical audience that will decide which design from a group of submitted designs will be used by the Hospital. The reviewer is concerned with the overall integrity of the data and not cost. Your documents should ultimately make the case that your design is sound and well-reasoned. Sell technical quality not economy.

Grading

Your grade is based on how much of the project you complete and the overall quality of the work. Project progress determines the overall letter grade as described below.

- (D) Exercise 16.21 only (ER Model). No proposal document.

- (C) All of the chapter 16 and 17 exercises (complete Conceptual and Logical design). No proposal documents.

- (B) The C-level tier along with proposal documents.

- (A) The B-level tier along along with the chapter 18 exercises (Physical Model) and accompanying proposal document.

Where you grade falls within that letter grade range is determined by the quality of the work submitted. Really well done work that does not fully complete the tier requirements can earn a minus level grade in the partially completed tier. For example, a well done conceptual model and logical model with a proposal for the conceptual model could still earn a B- even though the logical model proposal is missing so long as the work is really well done. Similarly, a project that completes all of the B-level requirements but has errors, omissions, or is otherwise poorly done might only receive a C+.