CSCI 2141
Winter 2013
Project

Due: April 8, 2013 (9:35 am)
Final submission instructions: TBD

In this project, you will take a problem domain of interest to you (please avoid the standard examples used throughout the slides and texts) and go through the process of developing a database to support tasks in your problem domain.

During this process you will:
1. Describe the problem domain, including the important aspects of the real world scenario that you will be modeling and any constraints on the information.
2. Describe 4-5 task scenarios that your database should support.
3. Construct the conceptual model of the domain with an ER-diagram. Make sure to indicate the cardinality/modality of the relationships, the primary keys, and all of the important attributes. There should be at least 5 entities in your model.
4. Convert your design into the relational model. Create the schema for the database tables, including specifying the table name, primary key(s), foreign keys, attributes (and their domains), and provide 3-4 sample rows for each table showing what the data will look like.
5. Provide a discussion/analysis of the normalization of your database Justify your table structure and any decisions that you made about its structure according to how it will support your particular task scenarios.
6. Implement your database in MySQL in your account on the cs faculty's server (https://www.cs.dal.ca/services/support/faq/connecting-mysql). *Note: I will organize a tutorial and provide sample code for the web connection aspect of this project.* Create your tables and populate them with data. Your tables should be a reasonable size (~20 rows).
7. Provide some samples of MySQL queries that would be useful for your task scenarios. Provide a web interface that the TA will use to submit the queries to your database and view the results. The TA will also submit other queries of his own choosing.
8. The final submission will include:
    a. A report that includes the various components described above.
    b. A link to your web interface for the TA to conduct live testing.

Note: as we progress through the course, further details about specific components will be provided. Feel free to add items that you think are important to showcase your project – doing a decent job of fulfilling the basic requirements as noted above will earn a mark of 80%. The other 20% is reserved for those who want to add some more bells and whistles or go beyond the most basic interpretation of the requirements.

If you want feedback about any of the components, make an appointment to see the TA or come see me during office hours.