Course: INFO 579: SQL/NoSQL Databases for Data and Information Sciences
Project: 1
Topic: Database Designing

Instructions

In this project, you will work on the design of a database design. The goal is to conceptualize a business idea that requires effective data management and design a database to support it. You will have to go through each step of the database design process, from the requirement analysis to developing the physical data model.

You must complete the following tasks:

1. Come up with a business plan for which you need to manage data and describe it in a requirements analysis no longer than half a page. You must present the requirements analysis in a pdf file named **requirements_analysis.pdf**.

2. Come up with some sample data about your business plan. The data must be presented in a single xlsx file named **data.xlsx** following the format of the file **data_template.xlsx**.

3. Develop the Conceptual Data Model following crow's foot nation for the requirements analysis describe in step one. The model must be presented in a png file named **conceptual_data_model.png**.

4. Develop the Physical Data Model based on the Conceptual Data Model from step 3. The model must be presented in a png file named **physical_data_model.png**.

Compress all the deliverables into a single zip file. Upload the file to the assignment of project 1 Dropbox in D2L. The name file must follow the format: **project01_groupcode.zip**

Requirements:

- Consider at least 5 non-associative entities.
- Consider at least 15 attributes excluding primary and foreign keys. You can distribute the attributes among the entities as you wish.
- Consider at least 50 records in total. You can distribute the records among the non-associative entities as you wish, but you must include at least 5 in every entity.
- Make sure you have at least one many-to-many relationship and you resolve it with an associative entity.

Achieving the requirements in each of the 4 tasks provides up to 22.5% of the final score, 90% in total. The remaining 10% can be obtained by introducing complexity into the proposed model (i.e. additional entities, additional many-to-many relationships, variety in the type of attributes and relationships, additional data records).

NOTE: Late submission will receive at most 70% of the maximum grade.