

Project: Final Report

40pts

Due Date: May 26, 11:59 pm

Overall Project Objective

The objective of this second part is to analyze the data and information about the chosen organization, develop a **project-level** model for your database as well as a set of SQL queries performing the tasks of building your tables, loading data into them and a minimum of 5 data retrieval queries (SELECT). There is no specific requirement for those last queries, but you are expected to use some of the various SQL elements covered in class (condition, sorting, grouping, multi-table queries). You are free to use the relational database management systems of your choice. (MySQL Workbench is recommended) Part of your submission will consist in presenting a list of those SQL statements as well as the results returned when performed. In addition, remember that you are required to have a minimum of 6 entities and it is recommended that each of them possesses at least 5 attributes

Advice:

- Make sure that each part of your report **is consistent with each other**. (For example, you should not have new entities or attributes not mentioned in your EER diagram but appearing in your SQL statements.
- **You are welcome to modify your final report based on feedback made during your project presentation.**

In addition to the final report (one submission pre group) , **each group member is required to submit an additional file** (doc, docx or pdf) with a short paragraph describing how each member contributed to the project. It is expected for each member to equally contribute to the project. I may deduct points to any member who had no or very little contribution to the project.

Part 2 Instructions

For the final part of this project you are required to submit **a complete report** of your project as **a doc, docx or pdf** document with the following information, in the presented order.

Some of the following information may have been submitted in part 1. It is however possible that a few changes were made since then. This final submission must therefore contain an updated version of those elements.

1. An introductory paragraph with information about the organization including (3 pts):
 - a. Its name
 - b. Its specific business sector
 - c. A short description of the organization and the area that you focus on
 - d. An explanation about how you obtain the data, in case of real data.
 - e. Optional: Why did you pick this organization?

2. A list of all the entities and a short description for each. (3 pts)

3. A list of ALL the Business Rules used by your organization. (5 pts)
Those rules should be represented in your ER diagram.

4. An ER diagram (or EER diagram if needed). (5 pts)

You are free to use any design software such as **Diagrams.net**, **Lucidchart** or **Microsoft Visio** (Not MySQL Workbench) .

Your diagram should look “professional” and included in your doc, docx or pdf submission.

5. A relation model (normalized 3 NF) based on your ERD (5 pts)

1NF or 2NF relations are not required, but you must be sure you have 3NF relational model. Once again, your model should look “professional”. I therefore recommend that you use Diagrams.net or any other good design software.

6. A second ER Diagram using the Model feature of **MySQL Workbench**. (3 pts)
This diagram should be based on your relational model.

7. (14 pts)

A list of SQL statement that you used to:

a. **Create all your tables** (3 pts)

b. **Load data in your tables** (2 pts)

You are expected to have enough data to perform various information retrieval queries.

c. **Retrieve information from your table.** (9 pts)

- As stated earlier, you are expected to use a minimum of 5 data retrieval queries (SELECT). There is no specific requirement for those last queries, but **you are expected to use some of the various SQL elements covered in class** (condition, sorting, grouping, multi-table queries). (3 pts)
 - For each of those queries, indicate the purpose of the queries. (Example: We want to list the name of all the customers who bought shoes; We want a list of all the transfer students) (3 pts)
 - For each of those queries display the results returned. Depending on the DBMS you use, you may have a table screenshot or a text file listing all the results. (3 pts)
8. As conclusion, a paragraph indicating (2 pts)
- a. The benefits you gained from this project (example: better understanding of database, knowledge about an organization structure)
 - b. The eventual challenges you may have encounter during this project and how you face them.

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