CIT 21400 FINAL PROJECT
Total Points: 150

Design and create a relational database containing information on a collection of items, field of study, hobby, or special interest you may have. Before you start implementing the project you have to write a proposal and it needs to be approved. Once your proposal is approved, you could start working on it.

Proposal Requirements:
Due date: March 28th, 2024

Your proposal should contain the following information:

- Name of the domain for which you will design and implement this project (e.g. Warehouse management system).
- With the time constraint, you might not be able to cover the whole domain. So, in this project, you could focus on a sub-part of your problem domain (e.g. Purchase order processing for Warehouse management system). In the proposal, please specify which parts of the domain you are planning to implement.
- Briefly describe the set of requirements (or functionalities) of your problem domain (or sub-domain) your project will support. For example, functionalities for the Purchase order processing for Warehouse management system could be: store customer information; store item information; place a purchase order; update inventory once the items are received from against a purchase order. One small paragraph could be sufficient.

Project Requirements:
Due Date: April 28th, 2024

Part A. Database Creation

Your database should have a minimum of 4 tables and include both one-to-many and many-to-many relationships. Be sure to include some numeric and/or date fields. Define all appropriate constraints, using the proper naming conventions (see Structure Notes below).

Populate your database with at least 30 records in the main table(s), and whatever is needed in related tables.

Submit the following:

- a short description of the purpose of the database and what the data & relationships mean
- an Entity Relationship Logical Data Model of your data
- the DBDL used to create our database

Part B. Queries

Create queries that include the following. You may use more than one of the listed conditions in the same query.

1. Retrieve subset of columns.
2. Uses a simple condition.
3. Uses a compound condition.
4. Uses the LIKE, IN, or BETWEEN operator.
5. Uses an aggregate function.
6. Uses the GROUP BY clause.
7. Uses joins to retrieve data from more than one table.
8. Use the IN or EXISTS operator.
9. Use a subquery.
10. Performs an inner or outer join.
11. Uses ALL or ANY operators.

For each query, submit the following:

- Question the query is trying to answer (e.g. similar to the questions in your book like 'What is the price of the most expensive item?')
- The SQL for the query that answer the question

STRUCTURE NOTES:

- Use the proper naming convention for your constraints: Example: Constraint TableName_FieldName_ConstraintID (Customer_CusNum_PK)
- Set up the Primary Keys for each table with Constraints listed.
- Add Your Foreign Keys for each table with Constraints listed.
- Make the Data Types for all the Primary Keys and their corresponding Foreign Keys Varchar(4).