Final Project (SQL Server)

General Instructions:

Your assignment should be an SQL program. It will involve designing, implementing, and querying a database using the SQL language. This project will use what we have learned so far, including creating databases, designing tables, inserting data, and performing queries. You may also utilize the Internet as an additional resource for SQL functions and concepts. Ensure your work is original; identical submissions will result in zero points for all parties involved.

Instructions in Detail:

1. **Read the SRS and Plan the Relevant Tables to be Created:**
    - Carefully read the entire Warehouse SRS (Software Requirements Specification) document. Plan out the relevant tables that need to be created to support the functionality described in the SRS.
2. **Design and Implementation**

1. Create ERD (Entity-Relationship Diagram) Using Draw.io:

- Use draw.io to design an ERD based on the Warehouse SRS. This diagram should clearly define the entities (tables), their attributes (columns), and relationships (keys) between them.

2. Create Database:

- Write SQL statements to create a new database for the project.

3. Create Tables with Relevant Keys:

- Based on your ERD, write SQL statements to create tables. Ensure that each table has a primary key and that foreign keys are defined where necessary to enforce relationships.

4. Populate Tables with Sample Data:

- Insert data into your tables using SQL INSERT statements. This data will be used to test your queries.

5. Write SQL Queries According to the Specifications:

- Based on the Warehouse SRS, write SQL queries that utilize, SELECT, JOIN, WHERE, ORDER BY, GROUP BY, HAVING etc., and other SQL

clauses to retrieve the necessary information. Your queries should cover various aspects such as data retrieval, filtering, and combining data from multiple tables.

Bonus Section:

Integrate SQL Queries with Node.js Server

- **1. Integration:**
  - Integrate all the relevant SQL queries with a Node.js server. This will involve writing JavaScript code to interact with the SQL database, execute the queries, and handle the results.
- **2. Repository:**
  - Use the following Node.js server repository on GitHub: https://github.com/israelTechCa/SQL_NODE.git
  - Clone the repository, and follow the setup instructions to install the necessary prerequisites, such as Node.js and any required packages.
- **3. Implementation:**
  - Implement the SQL queries within the Node.js server, ensuring that the queries are executed and the results are processed or returned as necessary.
  - Test the server to ensure that it correctly interacts with the database and handles the SQL queries.
- **4. Deploy:**
  - Push the updated code, including the integrated SQL queries and any additional modifications, to the GitHub repository.

Good Luck