



Open-ended Capstone, Step Two

Naser Hosseini

Overview

The project works to handle bakery data such as received orders, available materials in inventory, needed materials based on upcoming orders and inventory, customers information, employee data and records.

Goals

1. Which materials are needed for upcoming orders
2. Inventory status
3. Purchase list based on needed material and inventory status
4. Which orders are close to delivery date
5. List of customers and their updated contact information
6. List of employers and their history of contact information

Specifications

For handling this organization, one database is needed for storing the information with proper schema.

Beside that, one OOP must be used in order to generate proper queries for:

- Adding or updating orders
- Adding or updating employees
- Adding or updating customers information
- Adding or updating inventory
- Create alarms for upcoming orders
- Create alarms for needed materials based on inventory and upcoming orders.

The list of orders, materials, and customers are prepared by various CSV files (EXTRACT) which can be updated through the time.

Before appending the new extracted data to the database, it needs to be compatible with database schema, for example the Material CSV list has a tabular structure that each item is placed in specific columns, but the database schema has a pivot table that has a each material has its own foreign key to link to material tables, in this case, the the database can store unforeseen material too, then the code must append the new data to the database and avoid importing duplicate records (LOAD).

Also based on the needed structure, the database must have at least 3 fact tables:

- Orders
- Employee contact info
- Inventory

And 5 dimensional tables:

- Employee
- Orders types
- Materials
- Customer
- Position

At final destination the OOP should report (TRANSPORT):

- Periodic expenditure (monthly and annually)



- Upcoming orders
- Needed materials based on inventory and upcoming orders