Database Project

Group Name: 404

Group Participants:

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Technology Stack:

Backend:

- FastAPI
- SQLAlchemy
- PostgreSQL

Frontend:

- React

Problem Specification:

To allow an E-Commerce Shop to keep track of orders, suppliers and customers, a Data Management System will be built to solve this problem. In the following you will find the requirements (may be subject to change) that the database must meet:

- The management system keeps track of all available products. For every product, a unique item number, a name, the price for a single product, a category, and a reference to the supplier for that product.
- Every category has an identifier, name, and description.
- Every supplier is assigned a unique identifier. Its name, phone number, email address, country, region, postal code, street name and house number are saved in a table.
- When something is ordered, an order is created, which references a unit of order details. The order details reference a product and an order, and contains information about the quantity of the product, the price for a single unit and information about a possible discount.
- Every order entity is assigned a unique ID and references a customer. Additionally, the status of the order, the order date, the target county, region, postal code, street name and house number are kept track of, and the responsible employee and shipping service are referenced.
- A customer is assigned a unique customer number. Their salutation, first name, last name, email address, phone number, default payment method, country, region, postal code, street name and house number need to be kept track of.
- Employees are assigned a unique employee number. Their salutation, first name, last name, unique social security number, job title, department, a reference to the warehouse they are working at, phone number, email address, country, region, postal code, street name and house number are kept track of.
- Every shipping service is assigned a unique identifier. Its name, phone number, email address, country, region, postal code, street name and house number are saved in a table.
- The assignment of postal codes to cities, towns or villages is kept track of.

- Invoices are assigned a unique number, reference a customer and an order, invoice status, invoice date and due date.
- For every warehouse, a unique identifier, phone number, email address, country, region, postal code, street name and house number are saved.
- At last, there needs to be a table listing how many of each product are in stock at which warehouse.