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Description

The Grocery Store App is a multi-user application designed for purchasing groceries. It facilitates the buying of various grocery products by users. The application includes two types of users - the admin and regular users.

Technologies used

The following technologies were used in the development of the Grocery Store App:
Flask: Used for rendering templates, URL redirection, flash, request and session management.
SQLAlchemy: Utilized for creating and managing the database.

DB Schema Design

The database schema consists of the following tables:
User
id (Primary Key): Unique identifier for each user.
name: User's name.
username (Unique): User's username for authentication.
password: Securely hashed user password.
Product
id (Primary Key): Unique identifier for each product.
name: Name of the product.
mfg_date: Manufacturing date of the product.
price: Price of the product.
quantity: Quantity of the product available.
unit: Unit of measurement for the product.
category_id (Foreign Key): Links to the Category to which the product belongs.
Category
id (Primary Key): Unique identifier for each category.
name: Name of the product category.
products: Relationship to Product table, allowing multiple products to belong to a category.
Cart
id (Primary Key): Unique identifier for each item in the user's cart.
user_id (Foreign Key): Links to the User who added the item.
product_id (Foreign Key): Links to the Product added to the cart.
quantity: Quantity of the product added to the cart.
Order
id (Primary Key): Unique identifier for each order.
user_id (Foreign Key): Links to the User who placed the order.
product_id (Foreign Key): Links to the Product included in the order.
quantity: Quantity of the product in the order.
Price: Total price of the order
order_date_time: Date and time when the order was placed.Architecture and Features

Application Structure

Controllers are located inside app.py file
Database related code is found in models.py file
Templates for rendering are placed in the templates folder within which there are two folders:

User templates: Consists of all the user related html files
category&product: Consists of category and product management html files

Features: The grocery store app offers the following features:
User management: sign-up for users and admin
User and admin logging: user and admin logout
Admin functions: create update and delete product categories & create update and delete products
User functions: browse and search for product by category name and other criteria
add products to the shopping cart and place order for the items in the cart.

Application demo : https://drive.google.com/file/d/1BG1G90q-GMWrJjbT5T1_coQ7u8L3Ows8/view?usp=sharing