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My name is Aman Katiyar. I am a student of Diploma level at Indian Institute of Technology, Madras. I have keen interest in Machine Learning, Deep Learning and Artificial Intelligence.

Description :

Grocery shopping app, is a grocery shopping application. In this application, users can buy groceries in their locality. Also, store administrators can create new categories, products for the user. Multiple users and single administrators can work on grocery applications simultaneously.

Technologies used :

flask: Flask is a web framework which is used as backend server for this application
flask_login: flask_login module is used to control user access to application through proper login framework
flask_SQLAlchemy: flask_SQLAlchemy is a flask extension that uses SQLAlchemy to connect to the database server
flask_bcrypt: Flask-Bcrypt is a flask extension that provides hashing functionality to our applications
HTML/CSS/JINJA/BOOTSTRAP: Bricks for this application. We are using these to create our frontend for our application.

DB Schema Design

Database used for this application has 5 tables - admin,cart,category,product,user . Each table is used to store information as their name suggests.

The "User" table is a representation of user data within a database. It has the following columns:

- user_id: An auto-incrementing integer used as the primary key to uniquely identify each user.
- name: A non-nullable string column (up to 100 characters) to store the user's full name.
- username: A non-nullable string column (up to 80 characters) to hold the user's chosen username.
- email: A non-nullable string column (up to 120 characters) used to store the user's email address. This column enforces uniqueness to ensure each email is associated with only one user.

- password: A non-nullable string column (128 characters) intended to store hashed passwords for user authentication.
- phone_number: A string column (up to 15 characters) to store the user's phone number, which is optional.

The "StoreManager" table is used to store information about administrators or managers of a store or business. It has the following columns:

- manager_id: An auto-incrementing integer that serves as the primary key to uniquely identify each store manager.
- manager_name: A non-nullable string column intended to hold the name of the store manager.
- manager_pass: A non-nullable string column used to store a password associated with the store manager. This column likely stores the hashed or encrypted password for security reasons.

The "Category" table is designed to organize and categorize items or products within a database. It consists of the following columns:

- category_id: An integer column serving as the primary key to uniquely identify each category.
- category_name: A non-nullable string column (up to 100 characters) used to store the name of the category.
- category_image_url: A string column (up to 200 characters) which potentially holds a URL pointing to an image associated with the category. This column is optional.

The "Product" table is designed to store information about products within a database. It includes the following columns:

- product_id: An integer column serving as the primary key to uniquely identify each product.
- product_name: A non-nullable string column (up to 200 characters) used to store the name or title of the product.
- price: A non-nullable float column representing the price of the product.
- product_image: A string column (up to 200 characters) which potentially holds a URL or file path pointing to an image associated with the product. This column is optional and likely used for displaying product images.

- quantity: An integer column indicating the total quantity of the product available in stock. It is non-nullable and used to manage inventory.
- remaining: An integer column representing the current remaining quantity of the product in stock. This column is optional and might be used to keep track of the quantity that has not yet been sold.
- product_category_id: An integer column that serves as a foreign key referencing the `category_id` in the "Category" table. This establishes a relationship between products and their respective categories. It indicates which category the product belongs to.

The "Cart" table is designed to store information about items added to a user's shopping cart within a database. It consists of the following columns:

- cart_id: An auto-incrementing integer column serving as the primary key to uniquely identify each cart entry.
- user_id: An integer column that potentially holds the user ID of the user who owns the cart. It signifies the user associated with this cart entry.
- cname: A non-nullable string column (up to 100 characters) intended to store the name of the user or customer.
- pname: A non-nullable string column (up to 200 characters) used to store the name or title of the product added to the cart.
- cquantity: An integer column that represents the quantity of the product in the cart. It has a default value of 1 if not specified.
- cart_total: A non-nullable integer column that stores the total cost of the items in the cart. This column likely represents the cumulative cost of the products in the cart.

Architecture and Features:

This project has a python file named “main.py” that launches the applications.. The admin app has a separate folder structure within the “admin” folder, where all the controllers and login functionality are located. Admin functionalities include creating new categories, new products, and tracking user transactions. The main Flask app is responsible for user functionalities and all relevant python files such as user login,buying products, viewing product and category list are placed in the “application” folder located in the root directory . Overall the project is structured in a way that separates admin and user functionalities, allowing for easier maintenance and modularity.

Video:

Video link:
https://drive.google.com/file/d/1YRkv3DLHDj0JqGE369s5TnMis7S11FUc/view?usp=sharing