

Author

Dripto Bhattacharyya

21f3001428

21f3001428@ds.study.iitm.ac.in

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Description

"7 to 11" is a simple online grocery shopping website, with common e-commerce features. A proper database management system, well-built functions, and a clean UI provide a seamless shopping experience. Along with that, there are advanced features like caching data and mailing.

There exists role-based

Technologies used

1. Python (Flask framework and sqlite3 package)

The combination of Python and Flask enabled the development of a scalable backend that could handle concurrent user requests and provide real-time updates.

2. SQLite Database (with the help of DB Browser)

SQLite ensured efficient data management, enabling seamless storage, retrieval, and manipulation of product details, orders, inventory, and more.

3. HTML, CSS, Bootstrap

HTML, CSS, and Bootstrap facilitated the creation of an intuitive and responsive user interface.

4. Vue JS

Vue js was the bridge between the Flask backend and the user, offering an interactive user experience.

5. Redis

Along with caching with set time-outs in a Redis database, Redis server allowed the usage of celery worker and celery beat.

6. Celery

Celery was used for backend jobs, like sending daily reminders and monthly reports by mailing all users.

7. Mailhog

Mailhog served as the mailing service host, facilitating the mailing done by celery beat.

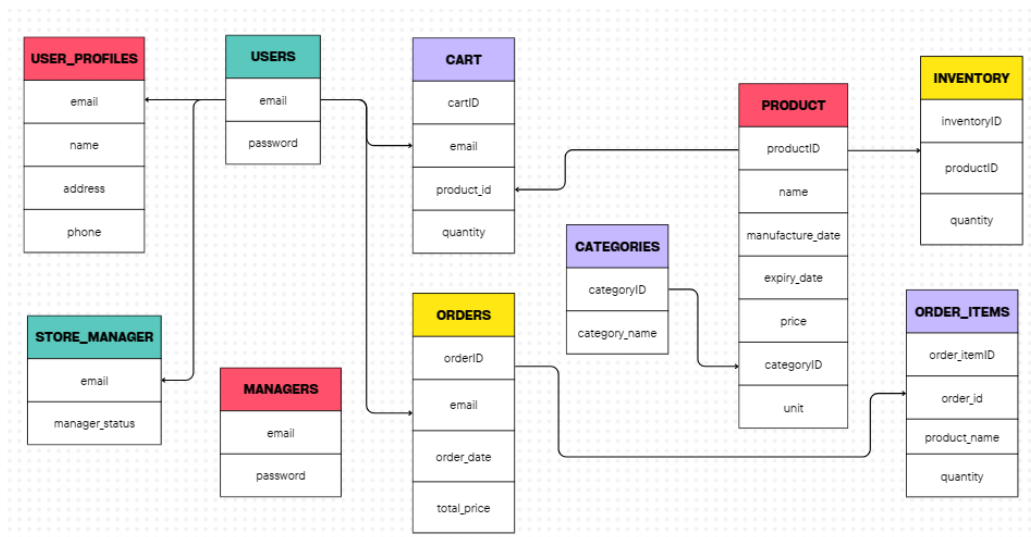
Project Structure

Controller Files: The controllers are responsible for handling the routing and logic of the application. They define the various routes and connect the users' and manager's actions to the appropriate functions.

Function Files: There are various function files that group the important functions according to their functionalities. For instance, the cart-related functions are in a file “cart_functions.py”.

Front-end: The front-end folder contains the Vue CLI project. The “components” have small components, like the Navbars, and the “views” folder has larger files, like entire webpages. The index.js file contains all the information about the routing in the frontend.

DB Schema Design



Features Implemented

User-end

Authorization and Security: The users and manager can register and log in securely. The passwords are hashed using the SHA-256 cryptographic hashing algorithm before being stored in the database. For authentication, JSON Web Tokens were used.

Searching and Filtering: Users can search for products using keywords and apply filters based on price, manufacture date, and expiry date.

Shopping Cart: Users can add products to their shopping carts, update quantities, and remove items. The shopping cart functionality is designed to provide real-time feedback to users and ensure a smooth checkout process.

Reminders and Reports: Daily reminders and monthly reports will be mailed to users

StoreManager-end and Admin-end

Product Management: Admins and Managers are granted the authority to not only add new products to the system but also update existing product details, such as prices, quantities, manufacturing dates, and expiry dates.

Download Report: Admins and Managers can download sales reports in CSV format.

Video

<https://youtu.be/zf8DfPSzJ3o>