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I am a final year electronics engineering student with a strong interest in data science and machine learning, working towards becoming a data scientist.

Description:

This project is a platform for selling grocery items where users can register, login, buy and search for different products and categories using their names or price range. Manager and admin can create and manage category and products.

Technologies used:
1. Flask - for API
2. VueJS CLI - for UI.
3. Jinja2 templates - sending mails
4. Bootstrap
5. SQLite and SQLAlchemy for data storage.
6. Redis and Celery for Batch jobs

DB schema design:

a. The database has several models/tables created: **Login, Category, Product, and Admin_Request**. Each table has different attributes and helper functions.

b. The database is designed to store user information, product details and their images, like, name and stock details and relationships between them for the smooth functioning of the application.

c. Structure and details of the columns:
1. **User:** This table stores information about the users of the application, including their unique id, eamil, password_hash, role, timestamp, cart_items, previous_order .
2. **Category:** This table stores information about the different category and their id.
3. **Product:** This table stores information about the products like, its name, id, expiry, rate, category_id, quantity, stock, unit, image_link.
4. **Admin_Request:** This table stores the relationship between the admin and the store manager, it includes requests sent by the manager to change, edit, delete or create any Category.

Architecture and Features:

a. Features implemented include:

1. User and Manager registration and login (using username and password) - implemented using JWT (token-based authentication)

2. What user can do:
   - ☑ Ability to buy multiple products from one or multiple sections.
   - ☑ Ability to search multiple products or categories based on their name or price.
   - ☑ Ability to see out of stock products that are not available.
   - ☑ Ability to see the total amount to be paid for the transaction.

3. What Store Manager can do:
   - ☑ Ability to add or edit multiple products from one or multiple Categories.
   - ☑ Ability to remove a product with a conformation.
   - ☑ Request admin to add new, edit or delete multiple categories.

4. What Admin can do:
   - ☑ Ability to add new, edit or delete multiple categories.
   - ☑ Ability to accept or remove any Store manager request relate to category management.

5. Daily Reminder Jobs
   - ☑ Reminders using email.

6. Scheduled Job - Monthly Engagement Report
   - ☑ Send monthly progress report using mail

7. User Triggered Async Job
   - ☑ Export blog details as CSV
   - ☑ Send an alert when done.

8. Performance and Caching
   - ☑ Add cache to increase performance
   - ☑ Add cache expiry

Additional features:

1. Handling images:
   - ☑ Automatically getting new images when creating a new product.

2. Well-designed PDF reports
   - ☐ HTML or PDF reports

3. Styling and Aesthetics - done

Video:

Drive link →

https://drive.google.com/file/d/1pJ5UlyDxUD9tStSfQC1vjvgam1F7IHY0/view?usp=sharing