AppDev I : Project Report

Date : 13-03-2023

- **Introduction :**
  →This application is made using Flask, SQLAlchemy, Database and table using DB browser for sqlite3.
  →The primary objectives of the Grocery Store Management App include:

  Providing customers with a user-friendly platform to browse and purchase products online.

  Empowering store owners to efficiently manage their inventory, orders, and customer interactions.

- **Features and Functionality :**
  →The app is built upon Flask, a Python-based micro web framework known for its simplicity and flexibility. Flask serves as the backbone of the application, handling routing, database interactions, and business logic. The frontend is developed using a combination of HTML for structuring content, CSS for styling, and JavaScript for enhancing interactivity.
  →Manager(Admin) can add categories, products corresponding to categories, product details such as price, unit, quantity etc.
  CRUD operations on category, products helps manager easily manage his/her stock.
  →User can buy, add to cart, manage things in cart such as change quantity added to cart etc.
  →Every time stock is changed by manager, changes are reflected on user's dashboard. Similarly, every order placed by user will reflect change in manager's stock database.

- **Development Process :**
  →Two databases i.e. manager_db and user_db are made to handle data of user and manager differently.
  Tables:
  Manager_db – {category : (c_id, category_name)}
                        {product : (p_id, c_id, product_name)}
                        {stock : (s_id, p_id, unit, rate_per_unit, quantity)}
  User_db – {user_details : (u_id, u_name, u_password)}
                  {cart : (u_name, category_name, product_name, unit,
                          rate_per_unit, quantity, ct_id, price_total)}

- **Future Improvements :**
  →Future enhancements for the Grocery Store Management App may include:
  1. Implementing personalized user accounts for customers to save preferences and order history.
  2. Introducing a recommendation system to suggest products based on past purchases.
  3. Enhancing the store management dashboard with advanced analytics and reporting capabilities.

- **Conclusion :**
  →In conclusion, the Grocery Store Management App represents a successful fusion of technology and commerce.
  →It contributes to transition of offline grocery store managing to digitalize it.

- **References :**
  1. Flask Documentation: https://flask.palletsprojects.com/
  2. JavaScript MDN Web Docs: https://developer.mozilla.org/en-US/docs/Web/JavaScript
  3. Responsive Web Design Principles: https://www.w3schools.com/css/css_rwd_intro.asp