GrocerEase: An Online Grocery E-commerce Platform

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Introduction

In the ever-evolving landscape of business and technology, the growth of E-commerce has been revolutionary. As consumers increasingly shift towards online shopping, it is inevitable for businesses to adapt, creating a demand for robust and user-friendly e-commerce platforms.

So here we come up with GrocerEase, an online E-commerce platform catering to the grocery needs of millions of customers throughout the country. It provides easy and quick access to quality fruits, vegetables, dairy, and other household and personal care items to our customers due to our easy-to-navigate interface, convenient payment options, and superfast delivery.

Before accessing the functionalities of our platform, the customers first need to create an account or log in to an already existing account. They are greeted with a user-friendly home page where they can view the commonly bought grocery items and the grocery items categorized under different categories. On the home page, they also get an option to buy their most repeated orders. Additionally, they can search for a specific product using the app's search bar. To make a transaction, the users need to add the desired items to an e-cart and then checkout with their order. To ease the user experience, they get different options for payment, such as cash on delivery, payment gateways like GPay and Paytm, credit and debit cards, and the inbuilt app wallet. They also get an option to rate their experience of different aspects of the app.

On the Admin end, the manager can keep track of the inventory and modify existing stocks based on previous transactions and preferences.

The development of this application uses various technologies. It uses MySQL for database management, Flask to manage the backend, and CSS-HTML-Javascript with ReactJS to build a responsive frontend experience.

Tech Stack

- **MySQL:** to be used for database management.
- **HTML:** to be used for the structuring of the web pages.
- **CSS:** to be used for styling and layout of the web pages.
- **Javascript (ReactJS):** to be used for building dynamic, interactive, and responsive UI.
- **Python (Flask):** to be used for managing the backend in the application and for backend-to-frontend connectivity.

Functional Requirements

User Management

- Creating and managing profile
- Adding Items to Cart
- Payment Gateway
- Repeat previous orders
- Rate user experience

Admin Management

- Searching Inventory
- Modifying Inventory
- Inventory History

Dispatch Management

- Calculating and managing delivery cost
- Location of the user

Stakeholders

- **Consumers:** Since the app is a B2C type, consumers play the most significant role as they are the ones who will use the app to purchase groceries.

- **Suppliers:** Again, since the app is a B2C type, suppliers are the ones who supply the product to our app offline stores, keep track of the inventory, and modify existing stock.
- **Delivery agents:** They act as the bridge between the consumers and suppliers and help ensure all products reach the consumers safely and timely.
- **Financial organizations:** They help in managing financial needs, such as helping the consumer purchase products, linking offers with their organization's credit card, etc.
- **Company managers:** They ensure no product is damaged, keep track of the inventory and ensure smooth functioning of the whole process.

Member Contribution

- **Anushka Srivastava (2022086):** Introduction.
- **Riya Gupta (2022410):** Deciding the stakeholders and their description.
- **Sujal Suri (2022514):** Figuring and deciding the functional requirements.
- **Vimansh Mahajan (2022572):** Deciding and describing the tech stack to be used for application development.

**All the group members discussed the basic idea and functioning of the app over several meetings and came to a unanimous conclusion about the overall structure of the app.*