Project Report: Nutricart.com

Project Title : Nutricart.com
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Video link - https://drive.google.com/file/d/1rxGXgyep5q1qJ5pluiKbSqpEWSd9K26P/view?usp=sharing

Project Overview

Nutricart.com is a web application developed by Rohit Kumar that serves as an online grocery shopping platform. The application is designed to offer two main user roles: Admin and User. Admin users can manage grocery product categories, add products to categories, perform CRUD operations on products, while User users can browse products, add them to the cart, and make purchases.

Purpose and Scope

The purpose of Nutricart.com is to provide a convenient and user-friendly platform for users to purchase groceries online. The scope of the project includes creating a functional web application with separate login interfaces for Admin and User roles, implementing cart functionality, and utilizing various technologies to achieve these goals.

Technologies Used

The Nutricart.com web application is built using the following technologies:

- Flask: A micro web framework used for creating routes, handling requests, and managing the backend logic.
- Jinja2 Templating: Used to render dynamic content in HTML templates.
- Bootstrap: Provides CSS styling and responsive design for improved user experience.
- SQLite: A lightweight, embedded relational database management system used to store product information and user data.

Functionalities

Admin Panel

The Admin panel includes the following functionalities:

- Login: Admin users can log in using their credentials.
- Category Management: Admins can create new product categories.
- Product Management: Admins can add, edit, and delete products within categories.

User Interface

The User interface offers the following features:

- Login: Users can log in to their accounts.
- Product Browsing: Users can view product categories and individual products.
- Product Details: Users can see detailed information about each product.
- Search: Users can search products either by using category name or product name.
- Purchase: Users can add products to their cart and proceed to checkout.

Database Design

The SQLite database contains the following tables:

- User: Stores user information.
- Category: Stores product categories.
- Product: Stores product details including name, rate, unit, and expiry etc.
- Car: Stores product added to the cart by user.

Important routes

- “/” the welcome page of the website containing the login & signup routes.
- “/register” page to register for new user.
-”/admin_dashboard” (login required) the dashboard of the admin.
- “/user_dashboard” (login required) the dashboard of the user.

How to Use

To access as ADMIN, the username is rk@gmail.com and password is 11.
To access as USER, the username is rohit@gmail.com and password is 0000.

Challenges Faced

During the development of Nutricart.com, some challenges were encountered, including:

- Learning Curve: Acquiring proficiency in Flask, Jinja2, and integrating different technologies.
- Database Management: Designing an efficient database structure for products, categories, and users and learning flask-sqlalchemy.

Conclusion

Nutricart.com is a functional web application that provides users with the convenience of online grocery shopping. By effectively utilizing Flask, Jinja2, Bootstrap, and SQLite, the application offers an intuitive interface for both Admin and User roles. The cart functionality enhances the user experience.
Making this application using Flask has been a great learning experience, I have thoroughly enjoyed the process of creating the application and learning new things. This kind of application can be extremely useful for various kinds of grocery stores and also can be scaled to make it more user friendly.