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Render: https://yuki-shopping.onrender.com

1. Introduction

The purpose of this report is to outline the design and development process of a web application that displays a shopping website.

2. Website

Visitors are required to register to access the various features available for purchase. Users can view the site's products, search for what they want, add what they want to their shopping cart, make purchases and users can check the shipping location on the details page to confirm how many days the delivery will take to arrive. The administrator has all the rights to view user information, order information, stock and view price tracking charts to analyze where users are buying more in the price range.

3. Development

3.1 This code implements a simple e-commerce website, including user login and registration, home page display with search support, map display of shipping locations, adding products to the shopping cart and support for modifying product quantities, removing products from the shopping cart, statistical graphs for the administrator to view site sales, order page display, and error display on the error page.

3.2 The implementation of these functions is achieved using the Django framework. Pages are displayed using the render function, product information is queried using the Django model for database queries, shopping carts are added and removed using Django's session mechanism, statistical charts use Django's built-in template tags and template language, and user permissions are controlled using Django's built-in decorators.

3.3 For visitors, by accessing the site's URL, Django finds the appropriate view function based on the routing information in urls.py and passes the requested parameters to the view function. The view function executes the appropriate business logic based on the requested parameters, such as querying the database, adding a shopping cart, etc., and passes the data to be displayed to the template for rendering. The rendered HTML page is then returned to the user.

3.4 We also used https://www.chartjs.org to create the charts and https://leafletjs.com to create the maps. The map allows the user to see more clearly the shipping location on the map and the address of this shipping to confirm how many days it will take for their delivery to arrive. The charts are used to help the administrator to better track the price transactions on the site and to identify which price range users prefer.

4. Render Deployment

The application was deployed using Render. The deployment process involved creating a new Render service, connecting it to a GitHub repository containing the application code, and configuring the necessary settings for the Django framework and dependencies. The final deployed version of the application can be accessed at [insert deployment URL].

5. Conclusion

In summary, this report outlines the design and development process of a web application that serves as a shopping website. The application provides various features such as user registration, product search, shopping cart management, and statistical analysis for the administrator. The implementation of these functions is achieved using the Django framework

and various tools such as Chart.js and Leaflet.js. The application was deployed using Render. The final product is a fully functional e-commerce website accessible through a web browser.