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Introduction:

With the popularity of the Internet and the rapid development of e-commerce, shopping websites have become an integral part of people's daily lives. With this system, we aim to bring a more personalised and intelligent shopping experience to users.

Design:

In the initial stage of the project, I designed a modular design for the requirements and designed the product, product_csv, order, user, product_admin modules.The Amazon.csv was screened on the kaggle platform and the database was designed, divided into product, review, user, shopping cart and order tables. We chose sqlite3 as the database. And use Navicat tool to manage.

website frontend:

1. Public header and footer section: contains public navigation bar, about us anchor, fuzzy search query by product name, registration, and login and logout functions. The shopping cart and my orders can be viewed. It is worth noting that if you are not logged in, clicking on the shopping cart and my orders will jump to the login page.2. Home page: The home page contains 5 types of product recommendations, which can be clicked through the pictures to the corresponding detail page.3. List page: You can go through the categories to view the products in different categories. You can click through the pictures to the corresponding detail page.4. Details page: contains product images, product categories, product names, product prices, product ratings, product user reviews and other information, and recommends four other products in as many categories as the user wants. You can click to add to the shopping cart.

5. Shopping Cart: Each time you add a product to the shopping cart, it will be added to the shopping cart list page and can be deleted at the same time.6. My Orders: The My Orders page shows the orders of the currently logged in user.

website Admin:

A total of 1. login and logout 2. order management page 3. chart page 4. user management page .User level is divided into: 1. super administrator (admin) only one 2. ordinary administrator 3. ordinary user, which registered through the front are ordinary users, is unable to log into the background. It is necessary for the super administrator to give permission in the "user management page" to view it.

Development:

I have implemented a shopping website that values the user experience while achieving 0% JavaScript usage. I added detailed comments to improve the readability of the code. A beautiful page was implemented using the Bootstrap framework and Django's security methods were used to ensure user passwords were secure. I wrote Behave test cases to ensure the site functioned correctly, used the is_admin and username fields to differentiate between users with different roles, and used the Plotly library to create charts to help administrators better understand the site's operations. I also ensured that the search parameters were retained on the url when selecting categories on the search and list pages to ensure functional integrity.

Render:

https://cs551q-solo-assignment.onrender.com   https://cs551q-solo-assignment.onrender.com/admin

Codiobox:

https://aprilpicnic-bronzefilm-8000.codio-box.uk   https://aprilpicnic-bronzefilm-8000.codio-box.uk/admin

Admin account:

username: admin   password: 123456