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DESIGN AND DEVELOPMENT REPORT

INTRODUCTION

The Bomia laptop store project is an e-commerce store developed using Django Python-based open-source online framework. This application was built on a subset of an open-source data from Kaggle which includes 2466 laptops records out of 5026 records available. The application offers convenient platform for users to explore and purchase laptops. Git serves as a version control system for efficient code management, whereas Chrome Driver is used for testing.

DATA AND PROCESSING

A script/command 'parseCSV.py' which I developed was used to populate the database tables by processing the dataset and adding records into the appropriate database tables. The Faker library was also utilized to generate additional values where necessary. The database architecture was implemented using SQL and ORM relations, providing an organized approach to data management.

WEB STRUCTURE AND IMPLEMENTATION

The webpage I designed includes a homepage which displays all products and category of the products for easy navigation, search page is where user can easily check for specific product of interest, empty/cart page is where user can place their orders and logout page to ensure secure session closure. Regular users can explore all features while guests can search, view and add products to cart but would need to login to complete a purchase. Admins have access to a dashboard displaying sales charts, customer lists, and order details. For the assessment purposes I created the following dummy credentials:

- Admin (Username: admin, Password: admin)
- Customer (Username: Dex, Password: Enjoylife)

DEPLOYMENT

The web application was successfully deployed using Render. I choose this platform because it is free and allows for easy deployment. Render automatically creates a webhook that redeploys the live website when there is a push to the Github repository.

- Render URL: https://bomia.onrender.com https://bomia.onrender.com/admin

CONCLUSION

Bomia laptop store web app provides a user-friendly platform for browsing and purchasing laptops. This report details the development process, data processing, web structure creation and Render deployment. This website is designed to restrict access to certain pages based on roles.