Project Documentation

Author:

Harshita Miranda
21f3002906
21f3002906@ds.study.iitm.ac.in

Description :

The objective at hand was to create a Grocery shopping web application.

My project strategy revolved around the utilization of the Agile methodology. At first, I referred to the wireframe and guideline documents and categorized the requirements into three distinct parts:

1) Database

2) User-side basic requirements
- Login/Register
- Add to cart
- Place order

3) Manager basic side requirements
- Login
- Add product/category
- Delete product/category
- Edit product/category

For effective progress tracking and visualization, I chose to concurrently handle front-end and back-end tasks in order of priority, making improvements as and when needed.

Technologies used:

Pycharm IDE - *integrated development environment.*
- User-friendly

Bootstrap - *html,css,javascript framework.*
- Responsive
- Time saving

DB browser - *sqlite view/editor tool.*
- Easy to use

Flask - *Python Library that aids web development.*
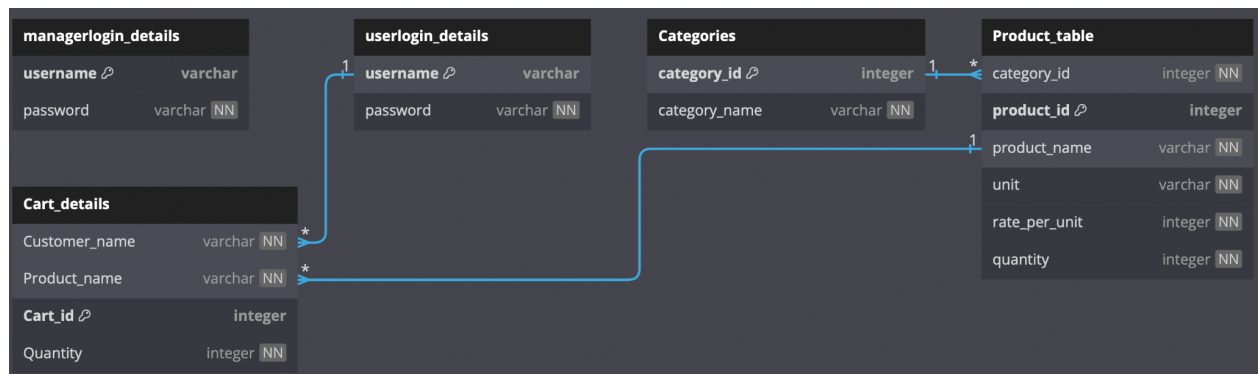- Fast debugger
- Inbuilt server

Jinja2 - *template engine in python.*
- Convenient
- Dynamic design

Sqlalchemy - *python library for python & database link.*
- Smooth & effective.

DB Schema Design:

- The categories and products are put as separate tables and a one to many relationship is established between them to reduce redundancy of data.
- Relationships among user table, product table and cart table has been derived inorder to let different users add items to their own cart.

API Design:

Separate API endpoints have been created for the following function
1. Creating a category
2. Editing a category
3. Deleting a category
4. Creating a product
5. Editing a product
6. Deleting a product
7. Manager/User login
8. Add product to cart
9. Delete product from cart
10. Place order
11. Search/Filter

Architecture :

All the controllers and models are developed and are present in the app.py file in the root folder. The html template files are present in the templates folder. The database file database.sqlite3 is present in the root folder.

Video Presentation link:

https://drive.google.com/file/d/17xfJW4cjGQS5eK73hf_YuhYHI3TxHCM_/view?usp=sharing