Author

Name: Nandan Keshav Hegde
Roll number: 21f1001372
Email ID: **21f1001372@ds.study.iitm.ac.in**
About me: I currently work as a Data Science Consultant @Tredence Analytics and have been associated with the BS degree program from the very first batch. The program has immensely help me in transitioning from analyst role to more of an engineering role with solid confidence and has reassured faith in my own abilities.

Description

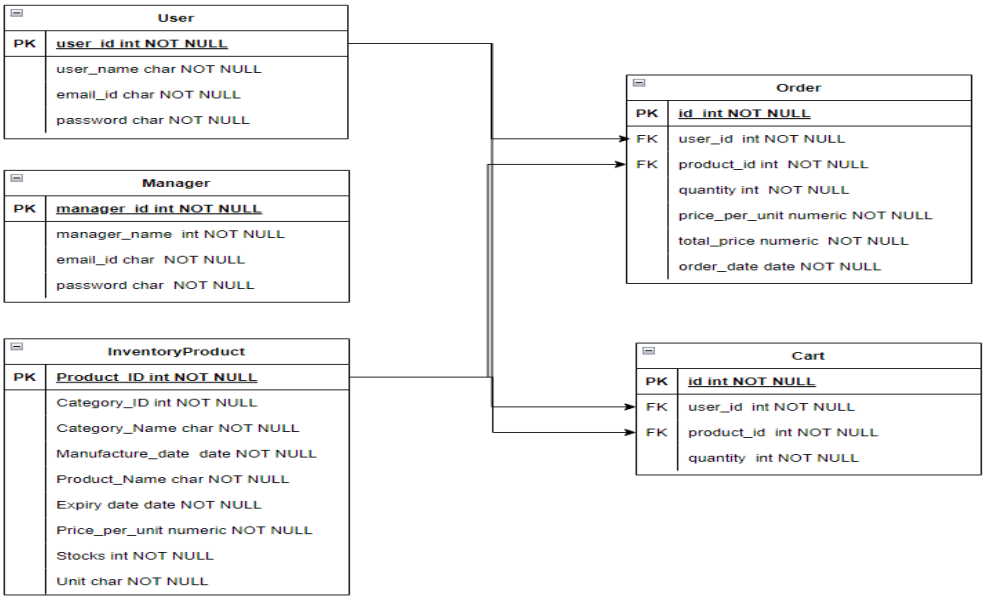
The project is mainly concerned with development of a web application for a retailer store [per se] or an e - commerce platforms like platforms - Jio Mart, Big Basket for interacting with their products from as a customer and for effective inventory management as a store manager through Customer and Manager level dashboards.

Technologies used

a. Flask modules: **flask** - to create the application instance, **render template** – to render the HTML template, **redirect** – mostly to return to home page after successful action, **url_for**- to refer to the controller function name for the routes, **session** – to store the POST request values in a session for further manipulation of the session values
b. **flask_sqlalchemy** - used to create database object, query information stored in the database and manipulate the same [similar to sqlite3 DBMS]
c. **Datetime** - used for logging the order dates of different customers
d. **Matplotlib** – general purpose library used for generating graphical summary
e. **DB Browser** – client GUI for DB management
f. **os -** used for handling the file paths effectively across application files

Additional dependency packages and template engine like jinj2 [comes inbuilt with flask was used and requirements.txt file could be referenced for additional details]

DB Schema Design



The above entity-relationship diagram represents the data models with that was used to build the Grocery Store application

Architecture and Features

The project contains four directories + {Requirements.txt, Readme.txt, Project_documentation.pdf, schema diagram} along with a main.py file. The directories are application, dB directory, static and templates. The application directory contains the necessary python files such as controller, database, models and config. The dB directory is to store the database files. The static directory contains files related to styling and graphs are stored as images in this location. The templates directory contains all the HTML files pertaining to the application.

a. The web app can broadly be divided into User dashboard and Manager/admin dashboard which can be viewed with their respective login credentials.
b. User Dashboard – The main idea of this dashboard is to allow the customers to view their previously bought items from the store, allow buying of new products and submit the orders post reviewing the orders in the cart page.
c. Manager Dashboard – The main idea of this dashboard is to allow the manager to add, delete, edit new and existing products to the Inventory and view high level summaries of activities logged when the user interacted with the app.
d. The data models and controller function defined in the app will make sure all the session data is in sync with the database and normal external and inline styling has been used across the different dashboards.

Video

https://drive.google.com/file/d/1_YKM72pz5Zo2hKFy6Nv08_aVuTbXiAYW/view?usp=sharing