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Description

Building a grocery store app from scratch might seem like a complex task, I broke down my entire project into 3 segments: Shop, manager & user, worked on each segment one by one, adding functionality after building the basic core features like submission etc

Technologies used

Flask Framework: Requirement

Datetime module: To input datetime wherever needed into the backend DB

Random module: to generate random 12-digit barcodes

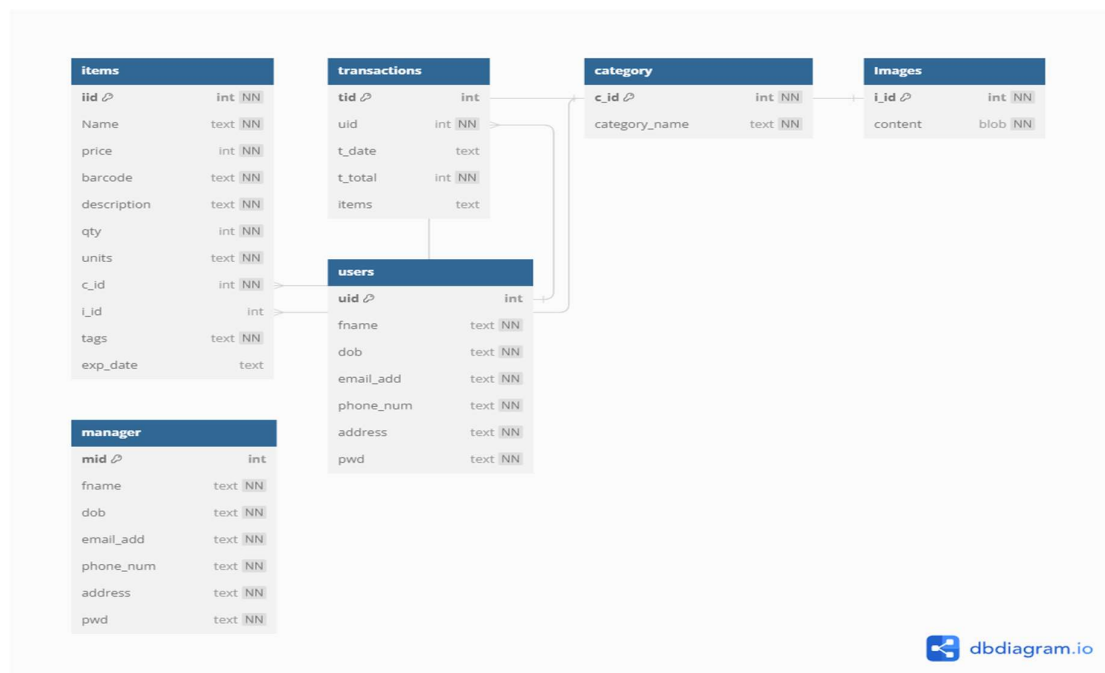
OS module: to get current working directory and to join paths to access DB

Re module (regex): for custom validation of texts

SQLite 3 module: To access the DB and perform CRUD operations

Base64 Module: to convert images to binary data

DB Schema Design



The database schema has 6 tables, These tables include 'items,' holding details about products, 'transactions,' recording purchase activities, 'category,' containing product classifications, 'Images,' storing associated images, 'manager' and 'users,' holding user profiles.

API Design

The API that I have used, is for fetching categories and featured products, and adding items to the cart. It adheres to REST principles, offering endpoints for each task **/api/categories** and **/api/products_home** offering data retrieval, and **/api/add_to_cart** enabling cart updates, returning relevant responses and status codes.

Architecture and Features

The Project is Organized into an app.py, all the codes are in app_contents folder, that consist of all the main codes __init__.py for initialising the app object & session time, routes_manager.py, routes_user.py, routes_market.py consisting of all the routes & their respective functions of Manager operations, User operations & Market operations respectively. Functions.py has all the additional functions that are needed by routes for validation, DB Access etc, API.py has the API information

The Project has all the features necessary to work as a fully-blown online Grocery shopping application that can be deployed on a cloud. It has all types of form Validation, Minimal & Clean UI with a dark theme (easy-on-the eyes), Easy to use functionality, Relevant Flash Messages, Manager Page has additional insights about sales data and the ability for users to edit their details & the ability for the manager to edit categories & all products details.

Video

<https://youtu.be/QDkbHYFHq-E>