

## Author

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## Description

The project involves design and implementation of a Grocery Store Web-Application, which involves database design, login/register new users and manage products and categories.

## Technologies used

Flask – sessions (for login), render template, request, urlfor, and redirect

Flask-SQLAlchemy – For Database design and SQLite3 for storage

Jinja – for conditional rendering.

HTML – for structure and Templating

CSS/Bootstrap – for front-end Aesthetics

## DB Schema Design

The backend System relies on Flask, SQLite, Flask-SQLAlchemy and ORM (Object-relational Mapping)

### **Tables used:**

**User:** The user table stores user information such as username and password, could also be extended to store phone number, email, etc.

**Categories:** Categories table stores category name and id, and products.

**Products:** This table stores product information such as name, stock, price, units, expiry date.

There is a One-to-many Relationship between categories and products, as a category can have multiple products but a product can belong to only one category.

**Cart:** This table is independent, It stores user id and product information like price, quantity, grand total.

## Architecture and Features

I have used MVC (Model-View-Controller) architecture, model and controller are in the code folder and templates are in the Template folder in the root directory. I have used a virtual environment to install all the required packages.

Login framework based on session cookies, CRUD operations by manager and User using HTML verbs. Conditional rendering using Jinja.

## Video

[https://drive.google.com/file/d/1skynDB7b8zypMF1vVzn6wPN\\_PLzxuma7/view?usp=sharing](https://drive.google.com/file/d/1skynDB7b8zypMF1vVzn6wPN_PLzxuma7/view?usp=sharing)