PROJECT REPORT

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I am an enthusiastic learner and a driven individual who thrives on embracing challenges.

Introduction

According to the problem statement we are supposed to develop an application similar to an E-commerce website for purchasing grocery products. We have to create two ends - Admin and User. Admin can use CRUD operations on managing the sections and products. Users should be able to buy any product from the Section of their choice.

Technologies Used

- **Flask** (Web development Framework)
- **Flask sqlalchemy** (To work with Database)
- **Jinja2** (For templating and obtaining data from backend)
- **HTMLS** (Frontend)
- o **Bootstrap** (Frontend - Better UI)
- **SQLite3** (Database)

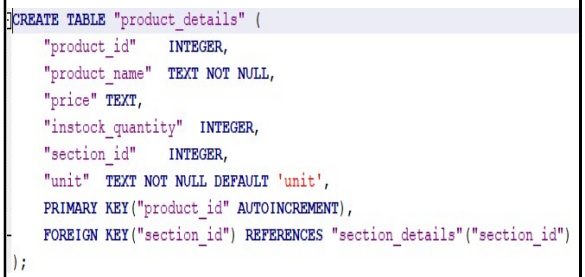
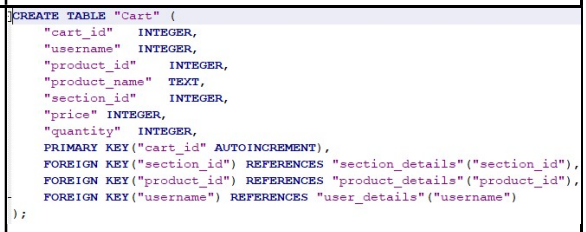
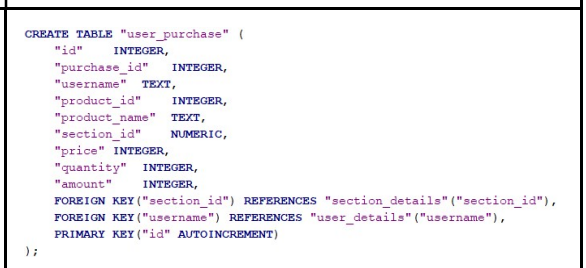
DB Schema Design

Table Name	Purpose	**List of attributes and constraints**

admin_details	It has admin Details
	Features
	Username must be unique. Hence using this as a primary key.
	Password must be minimum of 3 character and maximum of 12.
		`CREATE TABLE "admin_details" (`
		`"username" TEXT,`
		`"password" TEXT NOT NULL,`
		`"name" TEXT NOT NULL,`
		`"email" TEXT NOT NULL UNIQUE,`
		`PRIMARY KEY("username")`
		`);`

user_details	It has user Details
	Features
	Username must be unique. Hence using this as a primary key.
	Password must be minimum of 3 character and maximum of 12.
	Email and mobile no. is collected from user. Purchase column store the number of purchase made by user
		`CREATE TABLE "user_details" (`
		`"username" TEXT,`
		`"password" TEXT NOT NULL,`
		`"name" TEXT NOT NULL,`
		`"email" TEXT NOT NULL UNIQUE,`
		`"mobile_no" TEXT NOT NULL UNIQUE`
		`"purchase" INTEGER DEFAULT 0,`
		`PRIMARY KEY("username")`
		`);`

section_details	It has the list of section
	Features
	Section ID for each section entered. It is auto incremented.
	Section_ID is the primary key.
	Section_name gives the name of section
		`CREATE TABLE "section_details" (`
		`"section_id" INTEGER,`
		`"section_name" TEXT NOT NULL,`
		`PRIMARY KEY("section_id" AUTOINCREMENT)`
		`);`

product_details	It has the list of product **Features** Product ID for each product entered is created.It is auto incremented. Product_ID is the primary key. I haveused images only from the static folder. Section_id is a foreign key. I t refers to the section_id from the section_details table. There could be multiple product in multiple section. Instock_quantity is Available quantity with respect to each product.	
Cart	It shows list of items in cart added by user. **Features** User can add multiple products from multiple section to the cart with their required quantity. The cart of the particular user gets deleted when the user decides to checkout.	
user_purchase	It has the list of purchase made by users **Features** Whenever the user checkout from the cart, it gets added to this table.	

Architecture and Features

This project is uses on Model-View-Controller architecture. The Database is stored as database.db. The file **"models.py"** creates the classes for the Database using Python. The HTML templates reside in the "templates" folder. The Controller basically acts as a bridge between the two. We have **"Controller.py"** for the same reason. The static folder is used to store the images for a local copy. The configuration is written inside **"app.py"** which is used to run the app.

To get the output: Just running the **"app.py"** file will suffice

Features

- Login and Sign up for Users and Admin using WTF Forms
- **Admin side:** Products inside each Section. (CRUD on Products and Section , Statistics,Logout)
- **User side:** One can buy products from multiple Section and add to cart, search for using product name and Section name and mac price, go to their profile and check products they have bought etc.
- The project is mainly inspired from the Wireframe provided.

Video Link

https://drive.google.com/file/d/1DI-sk01WUdyG1268G1oWd-1j_MlODlNX/view?usp=sharing