

Project Report On

Grocery Store

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My name is Baishali Das. Currently, I am pursuing this course full time. Before, I worked for a textile company as a laboratory chemist. I enjoy learning new things and taking on challenges, which is why I enrolled for this course.

- **Overview:**

Grocery Store is a web application that enables administrators to manage categories, products, and users while allowing users to add multiple products from multiple categories simultaneously. The application is built using Flask and SQLAlchemy for the backend and HTML, CSS for the user interface design.

- **Technologies Used:**

- HTML, CSS, Bootstrap – for designing templates and layout of the application.
- Flask, jinja – for application and rendering templating
- SQLite – for database storage

- **System Module:**

- Signup: A new user first registers themselves with their name, email, user name, and password.
- Login: User who already registers themselves they redirect to login page where they can login with their username and password
- Admin Management: Administrators can add, edit, and delete category and product.
- category Management: Admin can manage category by adding, editing, and deleting category details.
- product Management: Admin can create product for each category.
- Cart: User can add to cart products, and remove product from the cart.
- Flask-Validations: The application utilizes Flask-Validations to ensure data integrity and validate user inputs.
- Database Integration: Flask SQLAlchemy is used as an ORM (Object-Relational Mapping) tool to interact with the database

- **DB Schema Design:**

Table Name	Columns & Constraints
User Data	user: id INTEGER NOT NULL, name VARCHAR (40) NOT NULL, email VARCHAR (40) NOT NULL, username VARCHAR (40) NOT NULL, password VARCHAR (60) NOT NULL, PRIMARY KEY (id), UNIQUE (email), UNIQUE (username), UNIQUE (password)

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Category Data	category: id INTEGER NOT NULL, name VARCHAR (50) NOT NULL, PRIMARY KEY (id), UNIQUE (name)
Product Data	product: id INTEGER NOT NULL, name VARCHAR (50) NOT NULL, unit VARCHAR NOT NULL, price INTEGER NOT NULL, quantity INTEGER NOT NULL, category_id INTEGER NOT NULL, PRIMARY KEY (id), UNIQUE (name), FOREIGN KEY (category_id) REFERENCES category (id)
Cart Data	cart: id INTEGER NOT NULL, quantity INTEGER NOT NULL, product_id INTEGER NOT NULL, user_id INTEGER NOT NULL, category_id INTEGER, PRIMARY KEY (id), FOREIGN KEY (product_id) REFERENCES product (id), FOREIGN KEY (user_id) REFERENCES user (id), FOREIGN KEY (category_id) REFERENCES category (id)

- Video Link:
https://drive.google.com/file/d/1PxwetKh3WzTXnKor6rPH_WuHoYRZYORp/view?usp=sharing