

## Description

The topic is Online Grocery Store. As the topic speaks for itself, the project consists of different databases which need to be managed. The project is a multi-user application. Admin could manipulate the product data while the user can buy the products. Users also play a small role in the manipulation of product data. There are a variety of categories which contain a variety of products. Each category has its own pages which display its products. There is also a cart option in which the user could add his selected products and purchase out.

## Technologies used

- Flask - used as application code
- Jinja2 and Bootstrap - templates
- SQLAlchemy - abstraction and processing of databases
- SQLite for database and DB Browser for direct manipulation of database
- Pillow - image processing and cropping

## DB Schema Design

- User - Contains both Admin and Customer. It contains user\_id, username, password and usertype.
  - The reason for going with 2-in-1 was the efficiency and ease of accessibility.
- Product - Contains product id, name, price, stock, category, offer rate.
- Cart - Contains user id, product id, name, price, quantity, category.
  - This helps in tracking the selected products of the customer.
- Sold - Contains the cart items when they are purchased.
  - This dataset is for the summary of the sold products.
  - It does not take user's data.

## Architecture and Features

The project is a multi-user online grocery store web application. It has two types of users - Admin and Customer. Both classes are organised into one dataset "User". Admin can manipulate the product dataset entirely such as adding a new product, editing an existing product, deleting an existing product while the customer, on other hand, can only buy products.

The customer adds his products to his cart and the cart collects all the selected products. After final purchasing, it deletes the products in the cart, which then manipulates the stock of the product by decreasing with respect to the quantity user purchased.