**Kavin Rathinam M – 23MX211**

**SQL Query or ORM Abstraction Implementation**

This application uses Flask-SQLAlchemy ORM to interact with the SQLite database. Below are some examples:

1. **SQL Equivalent Query for Fetching Offerings**:

Sql

SELECT \* FROM Offering;

**ORM Implementation**:

python

offerings = Offering.query.all()

1. **SQL Equivalent Query for Adding a New Flavor**:

sql

INSERT INTO Offering (flavor, is\_seasonal) VALUES ('Vanilla', 1);

**ORM Implementation**:

python

new\_offering = Offering(flavor='Vanilla', is\_seasonal=True)

db.session.add(new\_offering)

db.session.commit()

1. **SQL Equivalent Query for Deleting an Item from Cart**:

sql

DELETE FROM cart WHERE id = <item\_id>;

**ORM Implementation**:

python

cart = [item for item in cart if item['id'] != item\_id]

## ****Code Documentation****

1. **Offering**
   * Represents the ice cream flavors.
   * Fields:
     + id (Primary Key)
     + flavor (Name of the flavor)
     + is\_seasonal (Boolean to mark seasonal flavors)
2. **Inventory**
   * Tracks ingredients and their quantities.
   * Fields:
     + id (Primary Key)
     + ingredient (Name of the ingredient)
     + quantity (Quantity available)
3. **Suggestion**
   * Stores customer suggestions and allergen details.
   * Fields:
     + id (Primary Key)
     + name (Name of the flavor)
     + allergen (Allergen details)

### ****Routes****

1. **Homepage (/)**
   * Fetches and displays all flavors.
   * Handles customer flavor suggestions.
2. **Manage (/manage)**
   * Allows admin to add new flavors or update inventory.
3. **Cart (/cart)**
   * Displays selected items.
   * Allows users to remove items from their cart.
4. **Add to Cart (/add\_to\_cart/<int:offering\_id>)**
   * Adds a flavor to the cart.
5. **Remove from Cart (/remove\_from\_cart/<int:offering\_id>)**
   * Removes a flavor from the cart.

## ****How to Run****

1. Install dependencies:

Bash

pip install flask flask\_sqlalchemy

1. Run the application:

Bash

python app.py

1. Open the browser and navigate to http://127.0.0.1:5000.