Assignment 3 - FlutterCaloriesCalculator App

Department of Electrical, Computer and Software Engineering

SOFE 4640U: Mobile Applications Development

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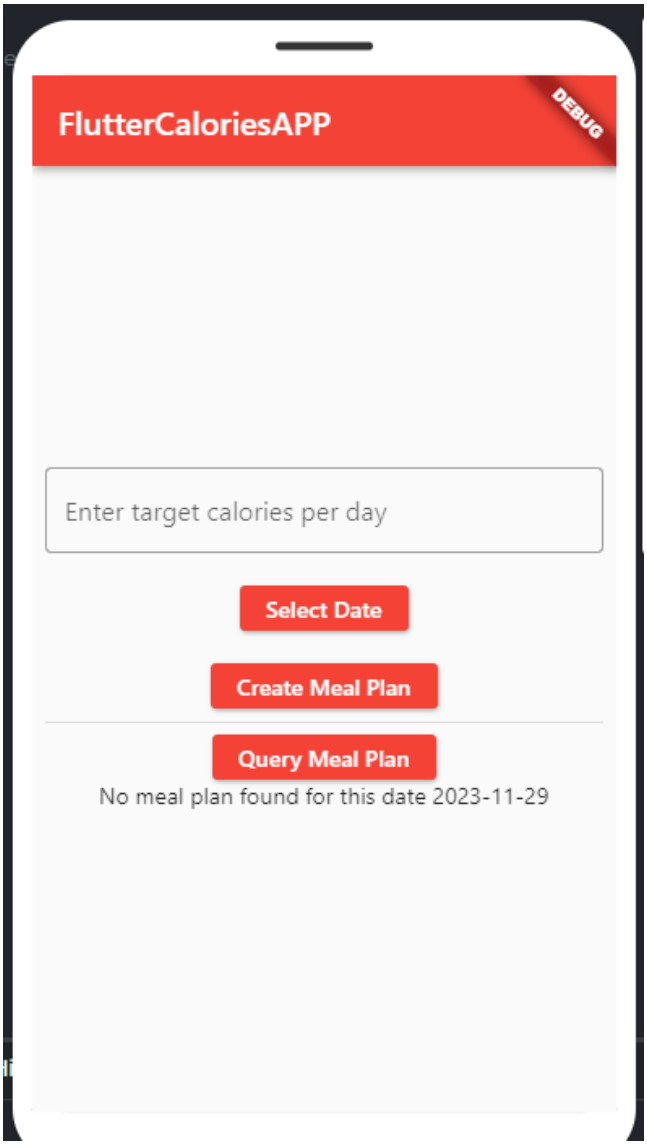
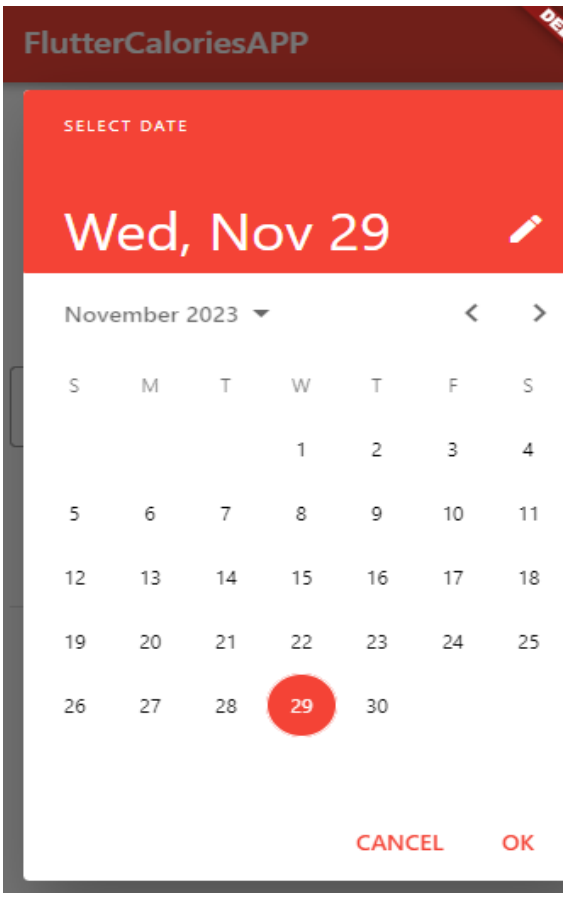
Thank You

Link to github :

Introduction

An app was created for calculating calories based on 22 food items stored in a database. Each step of the application that was implemented is explained in this report. The food items are in a food item calorie pair. Where each food item has an associated calories amount. A database in a databasehelper file was created in order to store these food items. The user will select a target calories per day, and the food items they select can not exceed the target calories they have selected. The user will then be able to save this meal plan to the database after providing the date. In addition, the user can query a meal plan and the meal plan will be displayed if that selected date has an associated meal plan that is found in the database. This app allows users to keep track of their calories, and be able to maintain a healthy meal plan. Proper naming was used when developing the app. The methods are also based on what they are responsible for, this is the proper techniques we have learned in class.





A built in android calendar was used in order for the user to easily select a date. A textfield was used in order for users to set their target calories. The food items retrieved from the database were fetched and displayed to the user. Once the user saves their meal plan, it is stored/added in the meal plan database where it can be retrieved with a date. Once the user has set the target calories, the food items that do not exceed that target calories, as well as the date. The user will save that meal plan. Once that meal plan is saved it can be queried and updated easily. The database stores food item calorie pairs, as shown below.

```
List<FoodItem> foodItems = [
  FoodItem(name: 'Apple', calories: 59),
  FoodItem(name: 'Banana', calories: 151),
  FoodItem(name: 'Grapes', calories: 100),
  FoodItem(name: 'Orange', calories: 53),
  FoodItem(name: 'Pear', calories: 82),
  FoodItem(name: 'Peach', calories: 67),
  FoodItem(name: 'Pineapple', calories: 82),
  FoodItem(name: 'Strawberry', calories: 53
  FoodItem(name: 'Watermelon', calories: 50
  FoodItem(name: 'Asparagus', calories: 27),
  FoodItem(name: 'Broccoli', calories: 45),
  FoodItem(name: 'Carrots', calories: 50),
  FoodItem(name: 'Cucumber', calories: 17),
  FoodItem(name: 'Eggplant', calories: 35),
  FoodItem(name: 'Lettuce', calories: 5),
  FoodItem(name: 'Tomato', calories: 22),
  FoodItem(name: 'Beef', calories: 142),
  FoodItem(name: 'Chicken', calories: 136),
  FoodItem(name: 'Tofu', calories: 86),
  FoodItem(name: 'Egg', calories: 78),
```

The user will be able to select the foods from the database in order to design their meal plan and add it to the database with the associated date for that meal plan. In addition, delete entries(eg meal plans) as well. Overall, this assignment has greatly helped understand mobile application development using Flutter and Dart. In addition, the best

practices for developing mobile apps, as well as best practices for the Android platform were adhered to, as outlined in the course lectures. as well as proper naming was used when developing the app. Thank You.