Group E: Iteration 4

My Health & Fitness - Mobile App

Iteration 4 Improvements

-Incremental improvements to sleep tracking, UI tweaks and bugfixes

-Improvements to Google Fit integration including auto-updating bar graphs

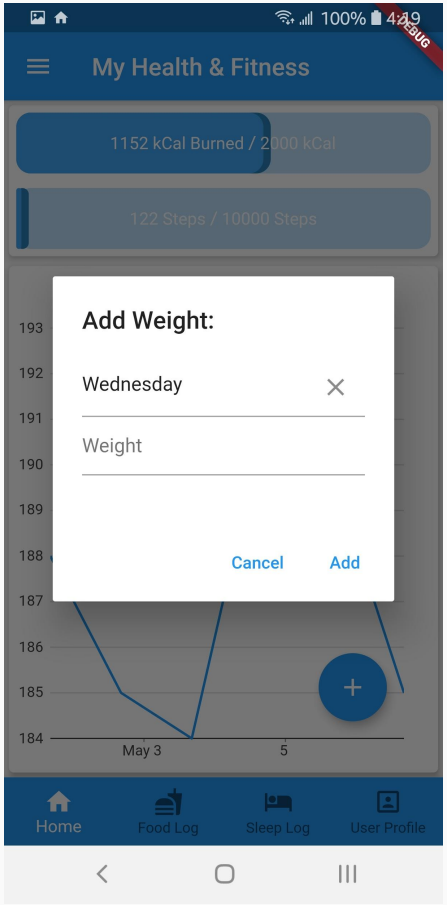
-Weight tracking support including a graph on the home page

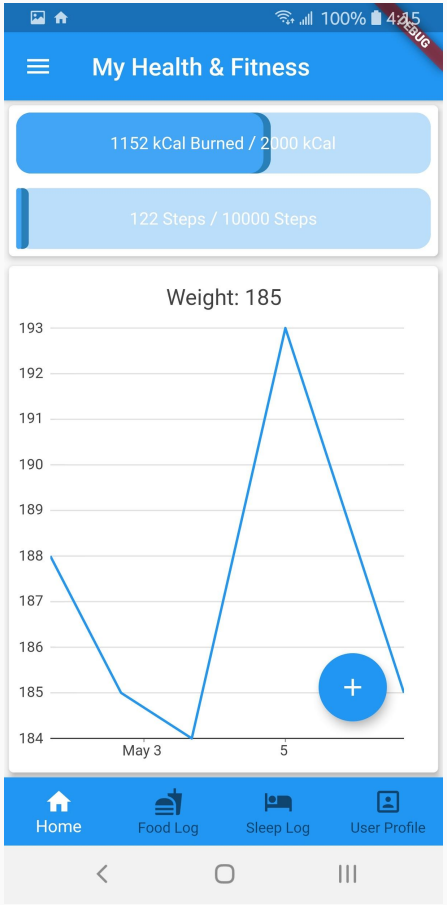
-Health guides for users

-Updated the backend database code to support BMI information

Weight Tracking

- Weight is displayed in a chart on the home page.
- User can log their weight at any time by using the floating action button.
- Calories burned and daily steps are displayed at the top.
- Calories burned and step counts will automatically update whenever the home page is viewed if Google Fit integration is enabled.





Health Information Charts

-Added body mass index and healthy diet charts

-Access them through the appbar

-Allows users to view current BMI and calorie intake and helps them determine health goals

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D

Default User
BMI: 24.8

- BMI Chart
- Diet Chart
- Settings
- About Us
- Help Center

29

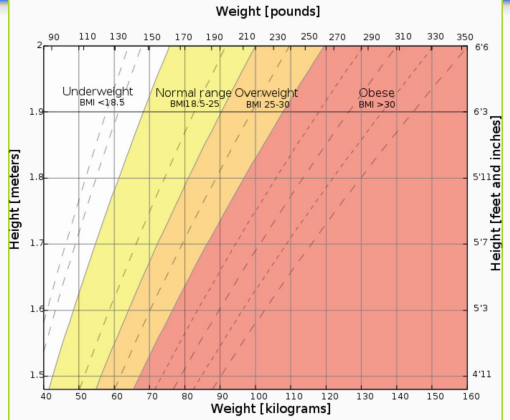
Home | Food Log | Sleep Log | User Profile

3:14

Body Mass Index Chart

Weight that is higher than what is considered as a healthy weight for a given height is described as overweight or obese. Body Mass Index, or BMI, is used as a screening tool for overweight or obesity.

BMI: 24.8



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Healthy Diet Chart

In order to lead a healthy life, it is essential to follow a balanced diet. Balanced diet is associated with good health, prevention of diseases and recovery from illnesses.

Below is a healthy diet chart for adults.

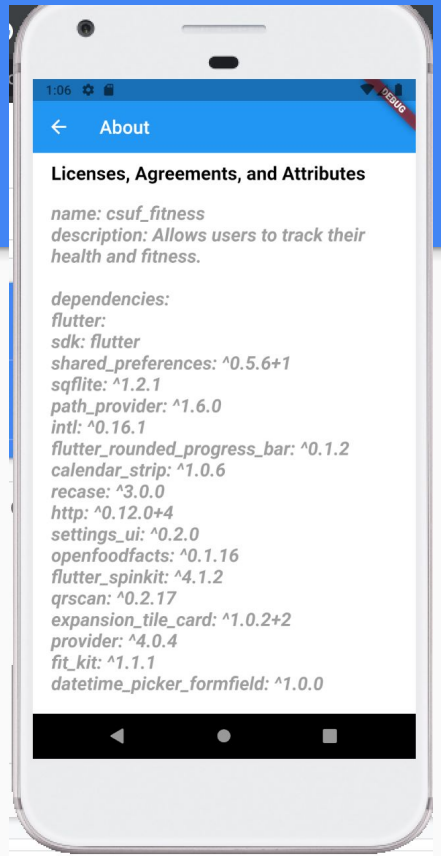
2320Kcals			
Food Groups	g/Portion	Sedentary	
		Man	Woman
Cereals &Millets	30	12.5	9
Pulses	30	2.5	2
Milk &Milk products	100ml	3	3
Roots & Tubers	100	2	2
Green Leafy Vegetables	100	1	1
Other Vegetables	100	2	2
Fruits	100	1	1
Sugar	5	4	4
Oils & Fats	5	5	4

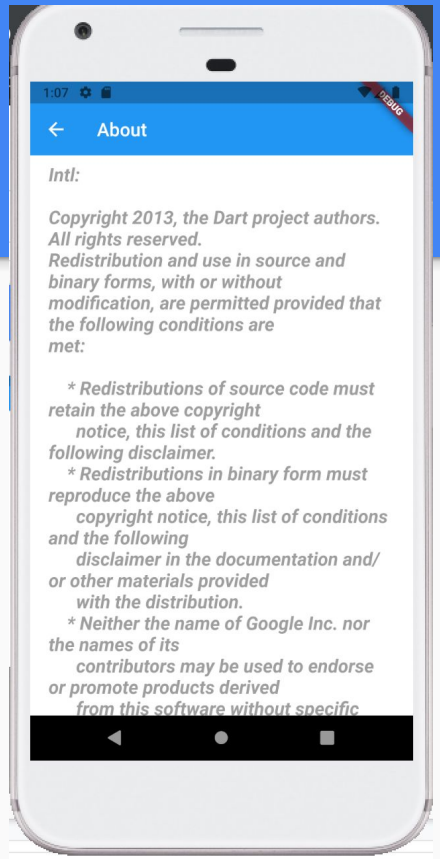
Completed Licenses and Agreements

If you navigate to our about us on the dashboard you will find the full licenses and agreements from our application.

After navigating through documents to find copyright files, I took them and implemented them into our about us page.

Early on I had trouble overloading the pixels from all the information being imported so I created a scroll down widget to compensate for that.


1:06
DEBUG
About
Licenses, Agreements, and Attributes
name: csuf_fitness
description: Allows users to track their health and fitness.
dependencies:
flutter:
sdk: flutter
shared_preferences: ^0.5.6+1
sqflite: ^1.2.1
path_provider: ^1.6.0
intl: ^0.16.1
flutter_rounded_progress_bar: ^0.1.2
calendar_strip: ^1.0.6
recase: ^3.0.0
http: ^0.12.0+4
settings_ui: ^0.2.0
openfoodfacts: ^0.1.16
flutter_spinkit: ^4.1.2
qrscan: ^0.2.17
expansion_tile_card: ^1.0.2+2
provider: ^4.0.4
fit_kit: ^1.1.1
datetime_picker_formfield: ^1.0.0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About
Intl:
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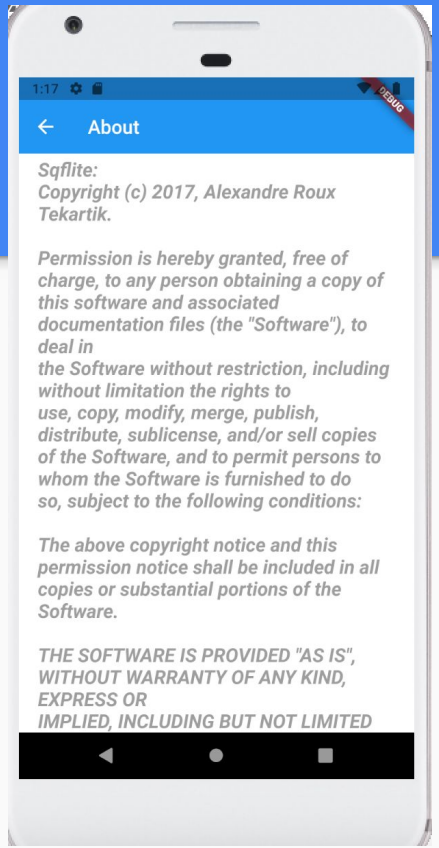
1:17
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About
Sqflite:
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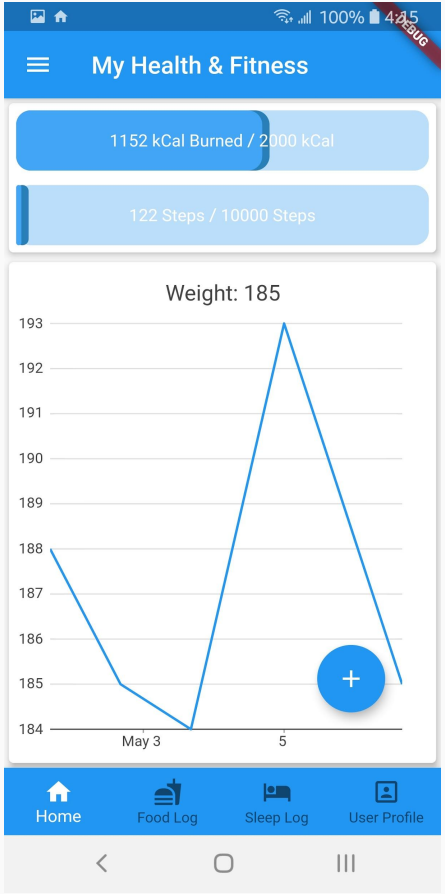
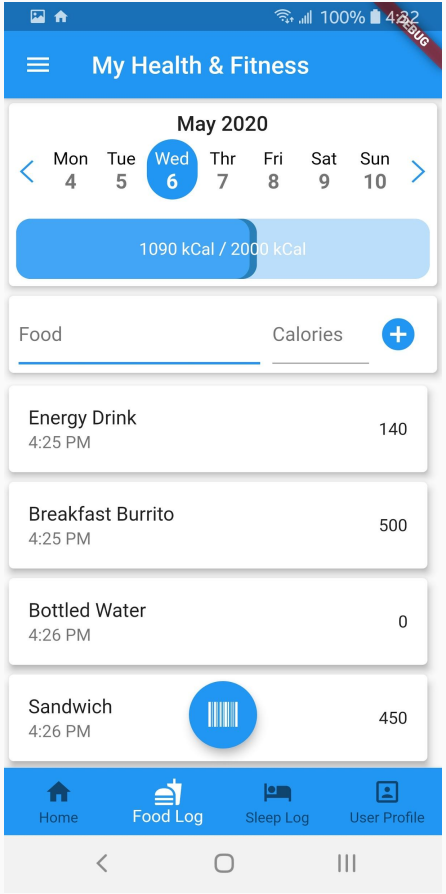
The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.
THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED

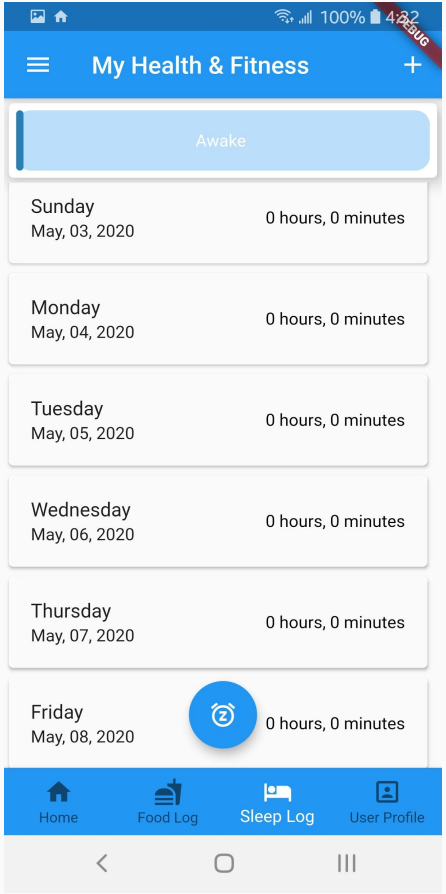
Database

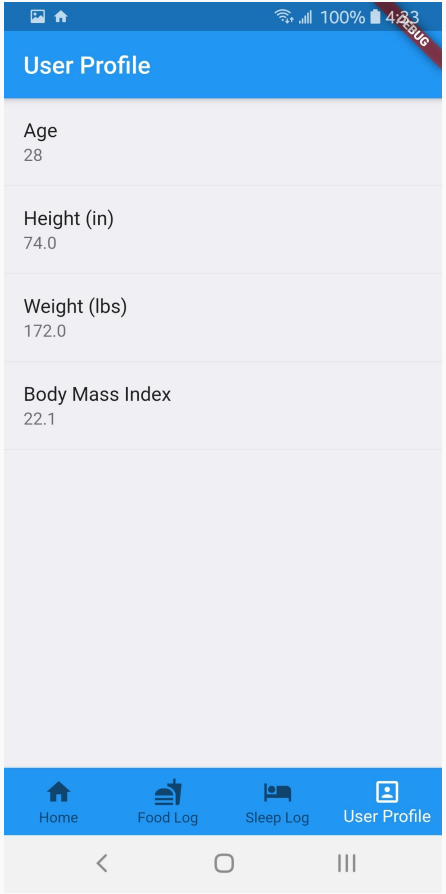
```dart
class BMILogStorageProvider extends StorageProvider<BMILog> {
  @override
  void delete(BMILog item) async {
  }

  @override
  void write(BMILog item) {
      UserDatabase.instance.insert(item);
  }

  @override
  void writeAll(List<BMILog> items) {}

  @override
  Future<List<BMILog>> read(DateTime date) {
    Future<List<BMILog>> temp;
    return temp;
  }

  static BMILogStorageProvider get instance => BMILogStorageProvider();
}
```

```dart
  // initialize database helper function for opening and creating database
  _initDatabase() async {
    Directory documentsDirectory = await getApplicationDocumentsDirectory();
    String path = join(documentsDirectory.path, _databaseName);
    return await openDatabase(path,
        version: _databaseVersion, onCreate: _onCreate);
  }

  // helper function to create SQL table
  Future _onCreate(Database db, int version) async {
        await db.execute('''
            CREATE TABLE $tableName (
                $columnId INTEGER PRIMAY KEY
                $columnAge INTEGER NOT NULL,
                $columnHeight REAL NOT NULL,
                $columnWeight REAL NOT NULL,
                $columnBMI REAL NOT NULL,
                $columnTimestamp INTEGER NOT NULL,
            )
        ''');
  }
  Future<int> insert(BMILog bmilog) async {
    Database db = await instance.database;
    Map<String, dynamic> row = {
      columnAge: '${bmilog.age}',
      columnHeight: '${bmilog.height}',
      columnWeight: '${bmilog.weight}',
      columnBMI: '${bmilog.bmi}',
      columnTimestamp: '${bmilog.time}'
    };
    return await db.insert(tableName, row);
  }
}
```









Screenshots