ANDROID DEV

android

Milktea-Tracker

In a world increasingly driven by data... people increasingly seek to gather quantifiable information about their own lives. For this project, I am building

An (just for fun) app that will

allow the user to record observations about a single aspect of their own lives.

That is...drinking milk tea!

WHAT ARE THE USER STORIES?

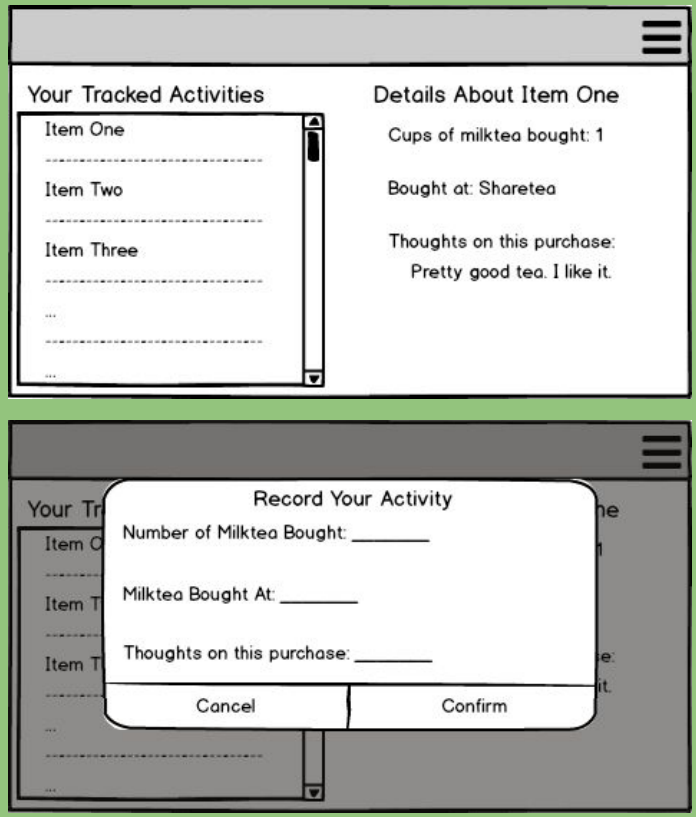
The user stories of the Milktea-Tracker app are:

As a user, I want to...

- ➔ Record an event that occurs in my life.
- ➔ View events that I have previously recorded.
- ➔ Browse a history of observations so that I can make inferences about my life.
- ➔ See a summary of my observations so that I can quickly describe my behavior.

Layout & Appearance (Landscape)

- ➔ Left: A “master” scrollable list of observations/records with short text descriptions
- ➔ Right: A dynamically changing panel that shows different fragments
  - ◆ A “detail” fragment for a specific observation
  - ◆ A “summary statistics” fragment for events recorded so far
- ➔ Extra: A “view” pop-up dialog fragment for recording observations



Using SQLite

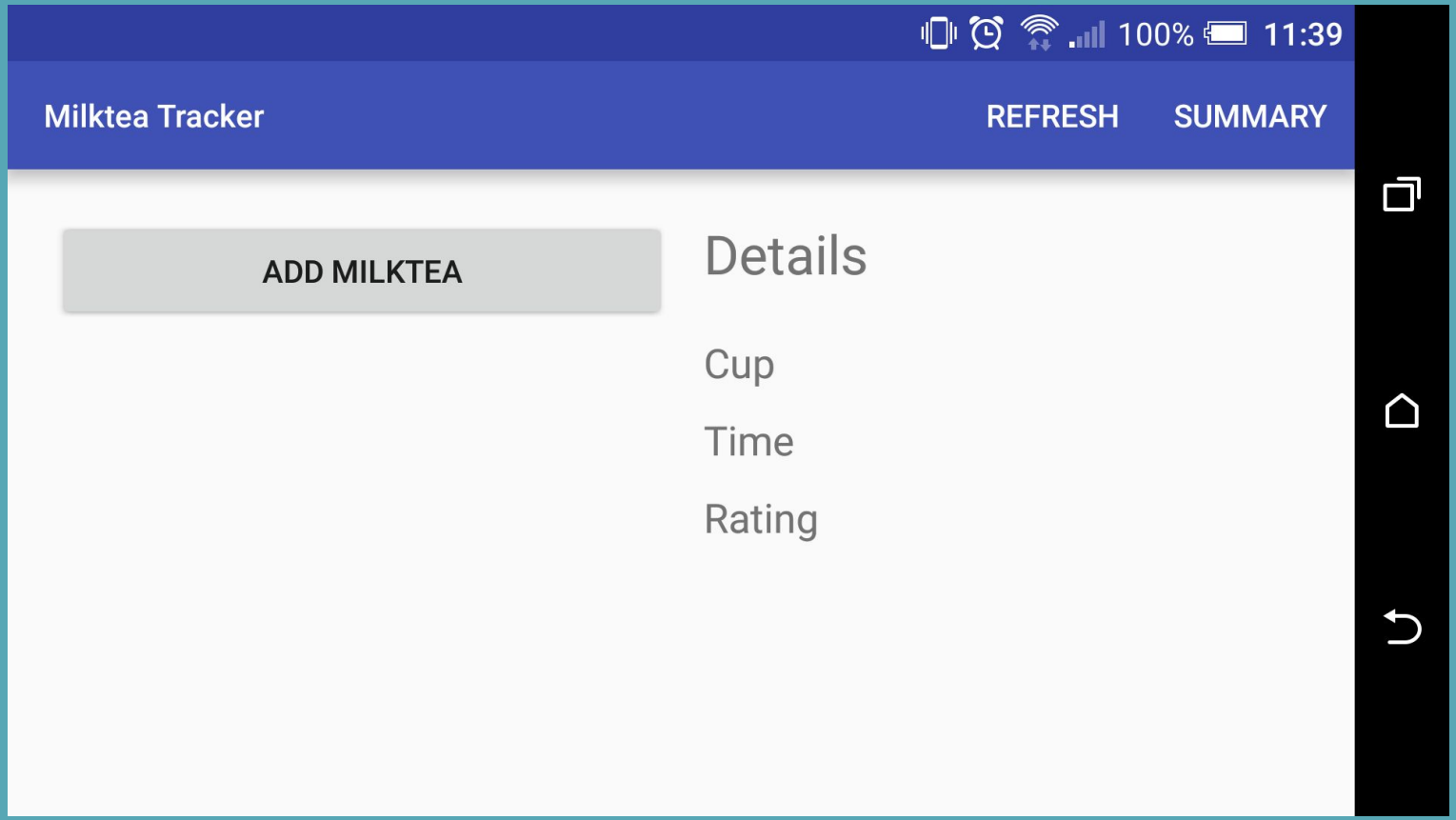
➔ This app is developed with SQLite, and the data is stored locally.

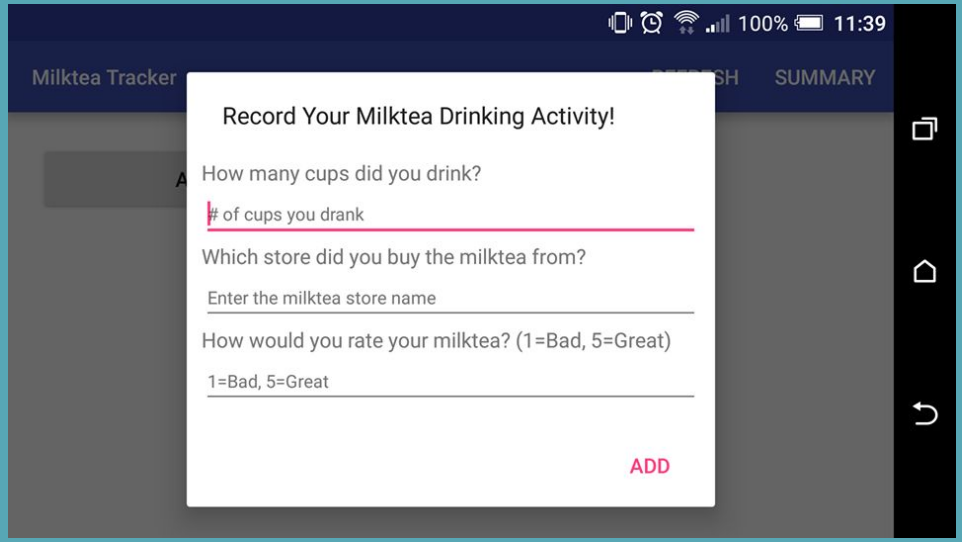
Here's how it works:

1. SQLite commands are pre-written (brute-force style).
2. These commands (Create table, Select, etc) are then executed when the user first initiates the app.

```
25      //empty constructor so cannot be called (so no new database will be created)
26      public MilkteaDatabase(){}
27
28      //defines the schema
29      public static abstract class MilkteaEntry implements BaseColumns {
30          //_ID = "_id"
31          public static final String TABLE_NAME = "milktea";
32          public static final String COL_TITLE = "title";
33          public static final String COL_CUP = "cup";
34          public static final String COL_TIME = "time"; //actual stored info is changed to Store Name
35          public static final String COL_RATING = "rating";
36          public static final String COL_TIMESTAMP = "timestamp";
37      }
38
39      //constant String for creating the milktea table
40      public static final String CREATE_MILKTEA_TABLE =
41              "CREATE TABLE " + MilkteaEntry.TABLE_NAME + "(" +
42                      MilkteaEntry._ID + " INTEGER PRIMARY KEY" + "," +
43                      MilkteaEntry.COL_TITLE + " TEXT" + "," +
44                      MilkteaEntry.COL_CUP + " INTEGER" + "," +
45                      MilkteaEntry.COL_TIME + " TEXT" + "," +
46                      MilkteaEntry.COL_RATING + " INTEGER" + "," +
47                      MilkteaEntry.COL_TIMESTAMP + " TEXT" +
48                      ")";
```

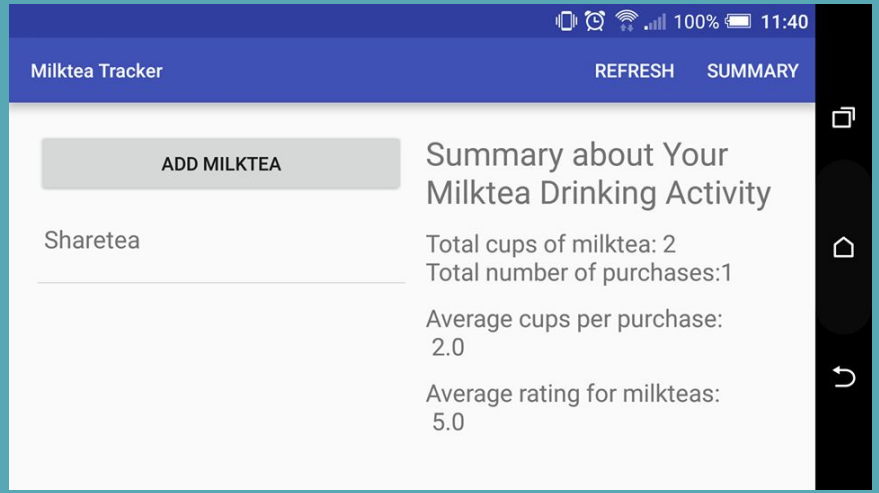
Default View

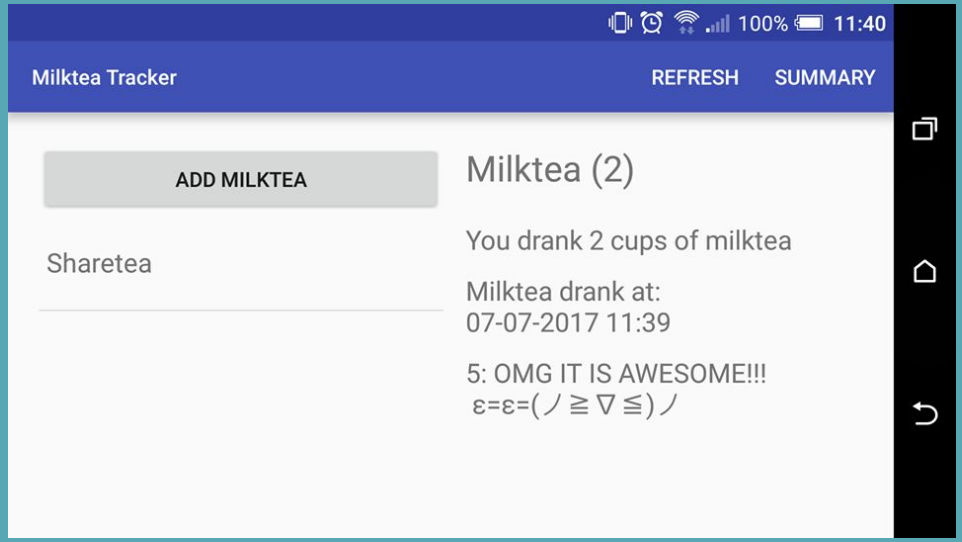




A pop-up dialog fragment for adding an observation of milk tea drinking activity

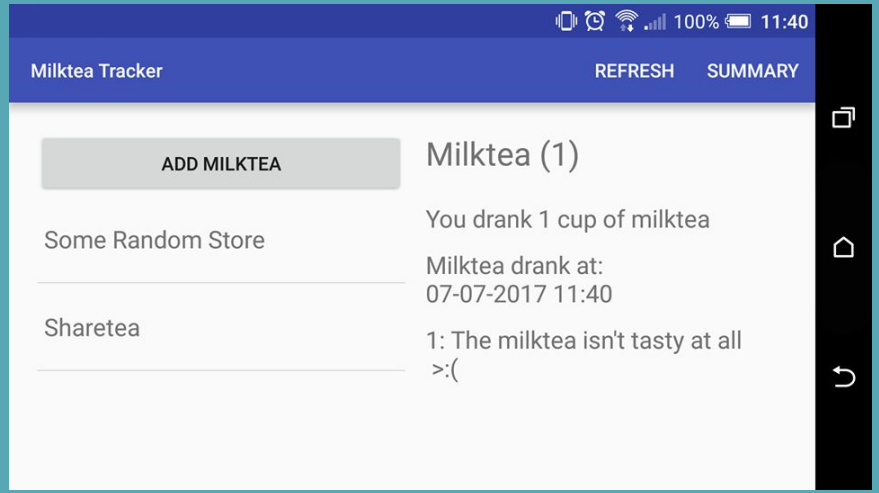
Data is stored using SQLite, and they are retrieved and parsed to create a meaningful summary report.





Details of an observation are displayed in the right panel by selecting an observation from the scrollable list in the left panel.

Based on the user input for rating, the short message changes accordingly.



WHAT SKILLS HAVE I DEMONSTRATED?

Through completing this project, I've demonstrated the following skills:

- ➔ **Using fragments** to implement a multi-pane Activity
- ➔ Dynamically changing displayed fragments
- ➔ Managing a history of screens and tasks in an app
- ➔ Creating and displaying **pop-up dialogs**
- ➔ Storing and retrieving data using **SQLite**

HOW MIGHT THE APP BE FURTHER DEVELOPED IN THE FUTURE?

Next-step features to improve usability for the Milktea-Tracker may include:

- ➔ Analyzing the user's' activity pattern (i.e. time of the day) and notifying the user to perform the activity at a certain time
- ➔ Storing the data in the cloud instead of locally
- ➔ Providing a portrait mode layout

THANKS!

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