

TEAM SPRUCE JR. PROJECT DESIGN DOCUMENT

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Change Log

Who	What Changed	Date
Fro, Kyle	Added Sprint 9	15-MAY-2020
Colin, Fro, Jared	Added Sprint 8	24-APR-2020
Jared, Fro, Colin	Added Sprint 7	07-APR-2020
Jared, Fro	Added Sprint 6	21-FEB-2020
Fro, Jared, Colin, Kyle	Added Sprint 5, UML Diagram, Updated Dart/Flutter Versions	31-JAN-2020
Colin, Fro, Jared	Added Sprint 4	14-JAN-2020
Colin, Jared	Imported changes from old design doc	12-JAN-2020
Colin	Updated Documentation for Checklists	9-NOV-2019
Jared	Added Checklists	8-NOV-2019
Colin	Initial changes	30-OCT-2019

Team Details and Links

Azure: <https://dev.azure.com/TeamSpruce/>

Team Name: Spruce

Team Organization / Project(s): Team Spruce

Project Code:

https://dev.azure.com/TeamSpruce/_git/JR%20Project?path=%2F&version=GBmaster&_a=contents

Project Tests:

https://dev.azure.com/TeamSpruce/_git/JR%20Project?path=%2F&version=GBUnit_Tests&_a=contents

Product Summary

Vision

- A convenient recipe finder and calorie tracker that prioritizes the user's time and gives them an elegant user experience.

Target Users

- Admin user: A flag will be able to be set on a user account to enable admin access to delete data through the app.
- Target users: Young adult to middle-aged individuals (ages 20 to 50).

Features

- Recipe finding
- Nutrition tracking
- Meal reporting
- Food stock tracking
- Barcode scanning to easily get nutrition data
- Automatically syncing user data between multiple devices

Twists:

- Scanning nutritional facts label using Google AI Kit
- Combining all features above into one app

5-Star review example:

This app is everything I need for keeping track of my diet. The nutrition tracking is easy, barcode scanning is quick, and keeping track of my food stock is awesome! The nutrition facts scanner is also super useful so if the app doesn't recognize a barcode I can easily get all the nutrition facts from the Nutrition Facts Label instead of entering them all individually.

- Anon

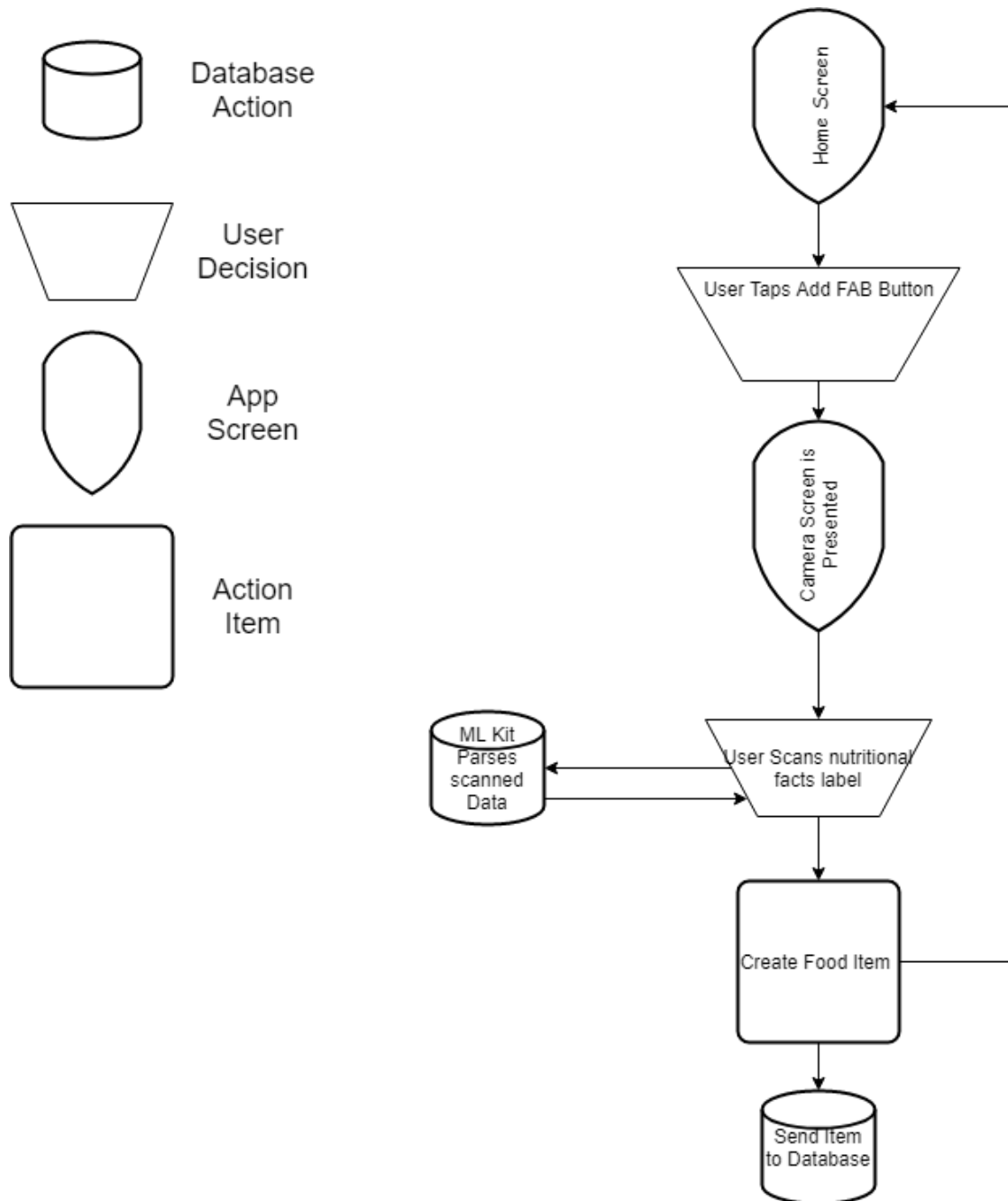
Architecture

Technology / Layer	Tool / Version
Database	Firebase - Cloud Firestore (NoSQL) v. 0.13.0+1
Mobile Platform	iOS + Android using Flutter (v1.12.13) with Dart (version 2.7.0) ¹
AI / Stretch Technology / Camera API	Google - ML Kit v 0.9.3+5

¹ Updated Flutter and Dart to latest stable versions

Feature Designs

This UML diagram shows the user experience for scanning nutrition facts and adding them to the database.



Detailed Design

Sprint 4

1. What changes to the high-level design occurred last sprint?
 - We changed nothing, we are continuing to follow our already laid out design.
2. What is your strategy for this sprint?
 - Focus on UI design, figure out Flutter unit tests, and further our knowledge of Flutter and Firebase.
3. Describe any trade-offs and alternatives that you expect to encounter.
 - The main trade-off is less functionality implemented this sprint, for a more visual representation of our app.
4. How will you maintain team code ownership?
 - Pull requests and code reviews. We are also pairing, and grouping up members of our team to work together on the same story, so that multiple members can work on any part of our project at any given time.
5. Other questions that you add based on your domain.
 - No questions for now.

Sprint 5

1. What changes to the high-level design occurred last sprint?
 - None.
2. What is your strategy for this sprint?
 - Work on crucial features and make sure unit tests get done.
3. Describe any trade-offs and alternatives that you expect to encounter.
 - Unit testing might be more difficult than expected and could take many people to work on it in order to complete it.
4. How will you maintain team code ownership?
 - Regular commits, branch management, pairing (multiple people working on the same stories), mobbing, and scheduled code meetings.
5. Other questions that you add based on your domain.

- No questions.

Sprint 6

1. What changes to the high-level design occurred last sprint?
 - No high-level design changes
2. What is your strategy for this sprint?
 - Focus on App Features Development and beginning admin app
3. Describe any trade-offs and alternatives that you expect to encounter.
 - No trade-offs expected
4. How will you maintain team code ownership?
 - Regular commits, branch management, and continued scheduled team meetings.
5. Other questions that you add based on your domain.
 - No questions.

Sprint 7

1. What changes to the high-level design occurred last sprint
 - Administrator page created and login page through the existing app.
2. What is your strategy for this sprint?
 - To finish up important features and decide upon what gets pushed to prod.
3. Describe any trade-offs and alternatives that you expect to encounter.
 - We encountered an issue that requires an alternate approach to the user inventory screen.
4. How will you maintain team code ownership?
 - We will continue the pull request approval and merge process to enforce team code ownership.
5. Other questions that you add based on your domain.
 - No questions.

Sprint 8

1. What changes to the high-level design occurred last sprint?
 - Added a collection for food items that have been eaten
2. What is your strategy for this sprint?
 - Finish up inventory work, barcodes and nutritional fact scanning
3. Describe any trade-offs and alternatives that you expect to encounter.
 - None.
4. How will you maintain team code ownership?
 - We will continue the pull request approval and merge process to enforce team code ownership as well as, continuing to communicate about nuanced aspects of our assigned stories.
5. Other questions that you add based on your domain.
 - No questions.

Sprint 9

1. What changes to the high-level design occurred last sprint?
 - Food Reporting via user input.
2. What is your strategy for this sprint?
 - Polish up existing features and implement the remainder of necessary features (i.e. remove eaten foods from home screen).
3. Describe any trade-offs and alternatives that you expect to encounter.
 - Planning to sacrifice certain features due to time constraint.
4. How will you maintain team code ownership?
 - We will continue the pull request approval and merge process to enforce team code ownership as well as, continuing to communicate about nuanced aspects of our assigned stories.
5. Other questions that you add based on your domain.
 - No questions.