**Test-Driven Development Journal: Canine Care**

*Parum Misri, Aran Punniamoorthy, Varun Wescott, Pinakin Kanade*

**September 30th, 2020:**

We’re in a pretty good spot at the moment. We have a pretty solid project spec that hopefully covers all of the deliverables, and we’ve broken down the project into testable components that’ll hopefully prove helpful as we continue into the future.

**October 3rd, 2020:**

After having reviewed the feedback from our mentor, we’ve made the corresponding changes to the project spec and are proceeding with learning the skills we need to complete the project. We’re planning on coding the app in Android App Studio, which is a widely used tool for creating Android apps, although a couple of our group members have suggested alternatives that we may look into. Varun and Aran are currently learning the basics of app structuring, while Parum is looking up ways to utilize plugins to achieve some of the more complex deliverables.

**October 7th, 2020:**

Aran suggested using Flutter as an alternative to Android Studio, and is currently researching it to find out if it’ll be more useful for our project goals. The main downside of Flutter is that it’s written in the programming language Dart, while normal Studio apps are written in Java, and obviously we’re all a lot more familiar with Java, especially since Dart is relatively new. However, it doesn’t seem like it’s going to be too hard to learn, which is why we’re considering it as a viable alternative.

**October 9th, 2020:**

We haven’t decided yet whether we’re going to proceed with Android App Studio or Flutter, but Aran’s currently leaning towards using Flutter, and as the lead developer, he has the most say in the matter. We’re probably going to end up using Flutter, but since we haven’t formally decided yet, the rest of the team is working on things that don’t necessarily require knowledge of either app-making tool specifically, such as app structure and user flow.

**October 14th, 2020:**

We’ve finalized our decision to shift the project to Flutter instead of the default Android App Studio. The key difference here is the level of complexity - Android App Studio, using Java, requires a higher degree of tinkering with base components, whereas in Flutter, using Dart, a good amount of the grunt work is refactored and simplified. This should allow us to spend more time on more complex features, like graphs and charts and user profiles, rather than spending considerable time fiddling with smaller details.

**October 16th, 2020:**

Parum has started learning the programming language Dart, so that he can help Aran with the debugging and implementation of the Flutter app’s code. Parum and Aran are also working on researching and organizing potential Flutter plugins to help make the development process a bit easier.

**October 19th, 2020:**

Varun and Pinakin have started constructing a more detailed mockup of the app, which will allow Aran to build the app skeleton more in line with our project spec’s design. Aran has started putting together the app skeleton, testing basic features like page navigation and buttons for simple user input. So far, we’ve mostly been following structured tutorials, so there haven’t been any major issues.

**October 21st, 2020:**

Varun and Pinakin are continuing their work in the mockup of the app. Aran and Parum are working on implementing Google Firebase as a profile system for the app, as the first plugin to implement with the main app. At first, Firebase wasn’t saving across different sessions, but after further research was conducted, we discovered that we needed to enable certain online support features of our Flutter app, and got a simple Firebase profile to work properly. Regarding the mockup, Varun and Pinakin have experimented with UI layouts. Originally, the plan was to have a single page containing most of the health data, but after testing, we’ve decided to break it into multiple parts and pages.

**October 22nd, 2020**:

Aran reports some issues with the Android emulator he’s using to test the Flutter app. Until he gets it fixed, testing is going to be a lot more inconvenient, since the lead developer currently isn’t able to quickly and easily see the results of his code. The app is built for Android devices, and Aran only has access to iOS, which means that to test the code, other group members are going to need to run it on their own android devices. Parum’s also having some glitches with git, where clicking the links to any repository redirects to a 404 page, and is currently uncertain why that’s the case. Varun and Pinakin are experimenting with page design. Originally projected as being somewhat similar to Instagram, to improve the user experience for dog owners specifically, the app has been broken into a couple more segments. Trial and error with the user design has proven to be exceptionally useful in streamlining the development logic process.

**October 23rd, 2020:**

We have our customer meeting scheduled for October 30th, which is good because we definitely needed a few more days to get our project in a workable state. Without a good way for the lead developer to test the code they’re writing, progress is considerably slowed. Regarding the UI mockup, Varun and Pinakin have mostly completed it, and are testing out how a tag search feature would work visually.

**October 26th, 2020:**

The group came together today and set up a plan for deliverables for the customer meeting, taking into consideration recent setbacks. We had to scale down our plans a bit, but we should still be able to have an app skeleton ready to present for the meeting on Friday, assuming nothing further goes wrong. The app mockup from PowerPoint is now pretty much completed, which means that we’ll be able to proceed pretty well.

**October 28th, 2020:**

Aran’s emulator still isn’t working. Parum has mostly resolved his problems with git, although he didn’t really do anything, so it could’ve conceivably been a server-side problem. Aran is continuing work on the skeleton to the best of his ability. Varun and Pinakin are working on the presentation for tomorrow’s customer meeting.

**October 29th, 2020:**

We’re working to put together a solid structure of the app for the demo tomorrow. Unfortunately, Aran still hasn’t been able to fix his issues with the Android emulator, which he needs for rapid-fire testing purposes. Varun and Pinakin are finalizing tomorrow’s presentation to the customer. Parum is organizing various project assets, working to reestablish test-driven development procedures as soon as possible.

**October 30th, 2020:**

We had our customer meeting today, and we got a lot of useful feedback which we’re planning on implementing going forward. Better git management is one of the key things we’re going to have to keep in mind, but we’re also going to need to figure out how charts work and can be implemented.

**November 4th, 2020:**

We’re in the process of adjusting our project spec to meet the new requirements, while Aran continues to work on the main app structure. After having some trouble with widget structure from a template, he’s building it back from the ground up.

**November 6th, 2020:**

Pinakin has started learning how to use Google Firebase for account authentication. Parum is working on using the charts\_flutter library to create dynamic graphs for displaying user-inputted values.

**November 9th, 2020:**

Pinakin is continuing to learn Firebase, while Parum is continuing to work on implementing graphs.

**November 11th, 2020:**

The final touches of the app are coming together. Pinakin has figured out Google Firebase for both authentication and cloud database storage (the full issue logs for Firebase can be found in the repository), while Parum has figured out dynamic graphs via the charts\_flutter library. Aran is currently stitching together the various pieces, while Varun is editing for final design.