
New Roots for Restoration

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Overview of project

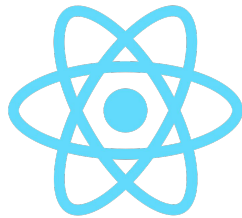
- Problem: field measurements are difficult to organize - there is no standardization.
- Goal: Design an application that streamlines this process.



Figure 1: An example of a QR that the app would scan.

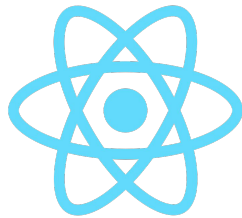
Basic Requirements

1. An app
2. Ability to capture QR codes
3. Display survey
4. Image upload option
5. Reliable, modifiable database
- 6. EASE OF USE**



Framework

- We were given the choice of making an IOS app, or a cross platform app.
- React Native
 - Built/maintained by Facebook.
 - Is a cross-platform mobile development framework written in JavaScript.
 - Components wrap existing native code and interact with native APIs via React's declarative UI paradigm and JavaScript.



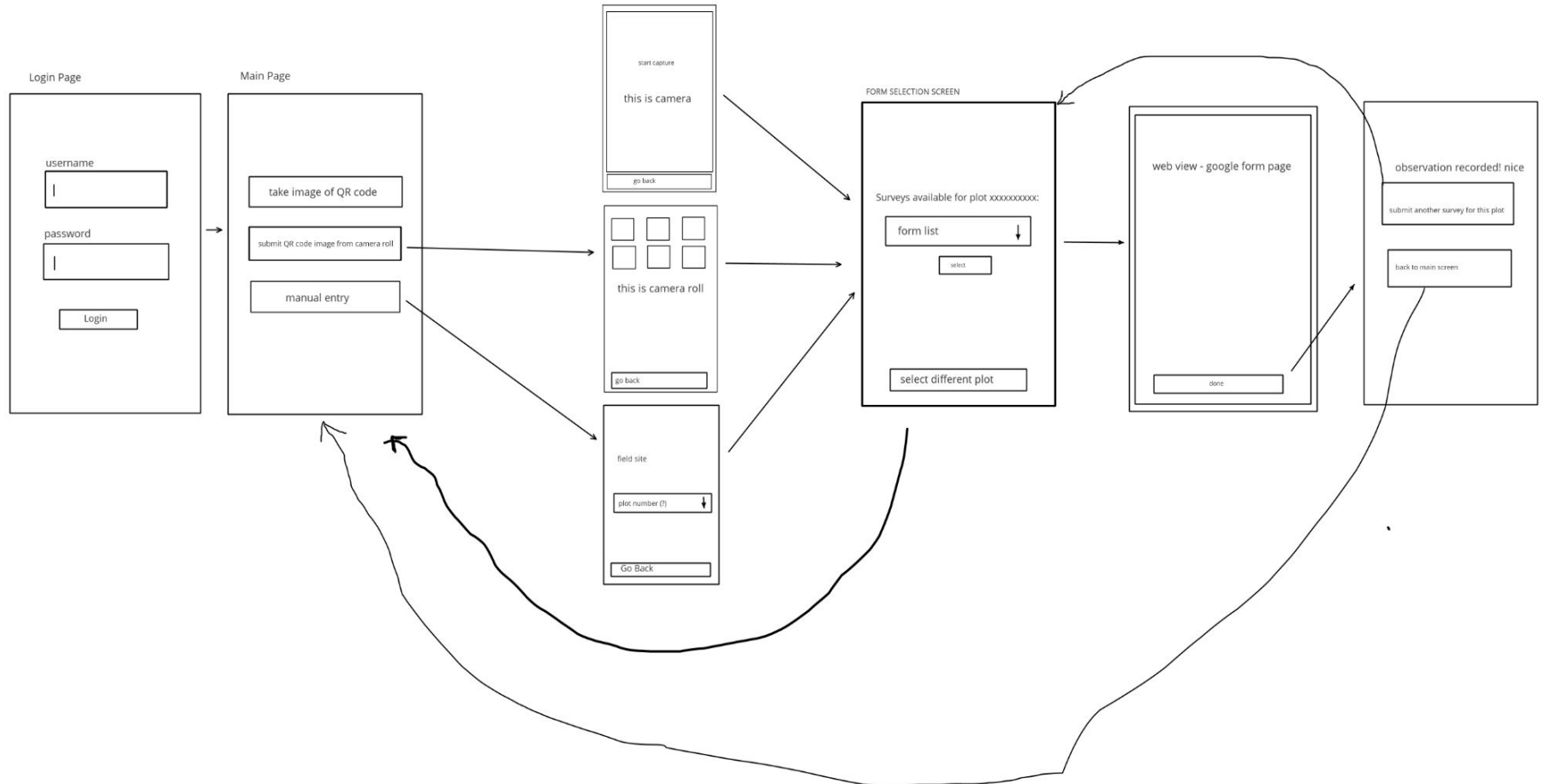
Framework

- With React Native you can always drop down to native code.
 - This is incredibly helpful sometimes but it comes at a cost: you need to send people your binaries if you want them to test them.
 - Can't develop for IOS without having a Mac.
- Expo
 - A set of tools built on top of React Native.
 - Provides a seamless way of deployment and debugging.
 - Allows you to develop cross-platform mobile apps without having the needed pieces of equipment to do so.

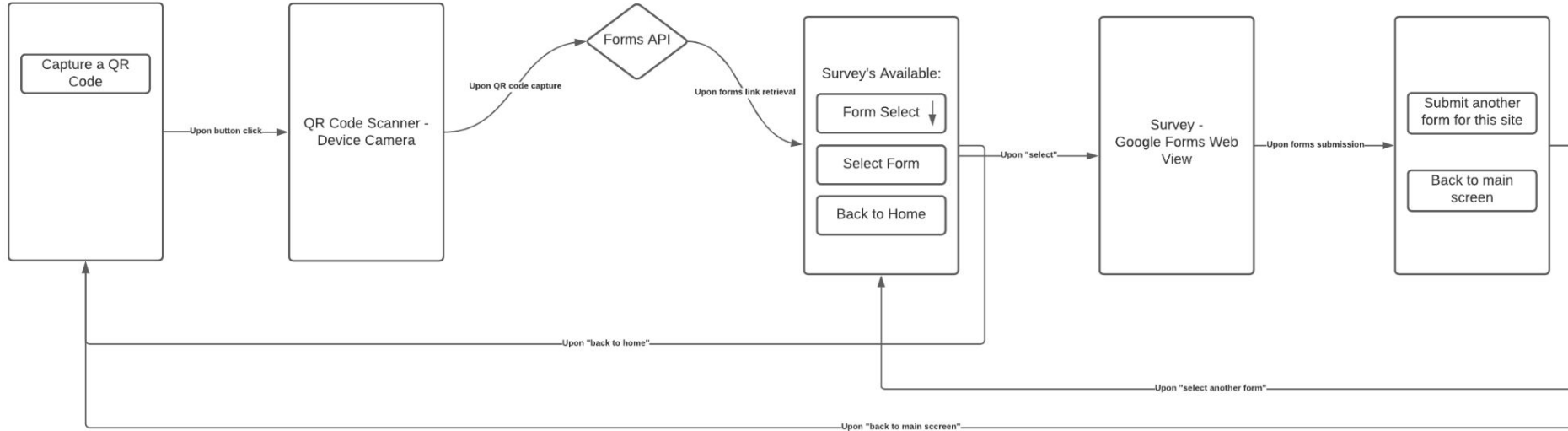
Survey and Database Options

- Google Forms
 - Easy to create and manage.
 - Allows pre populated fields.
 - Links to Google Sheets
- Google Sheets
- SQL
- NoSQL

Wireframes (Rough Draft)

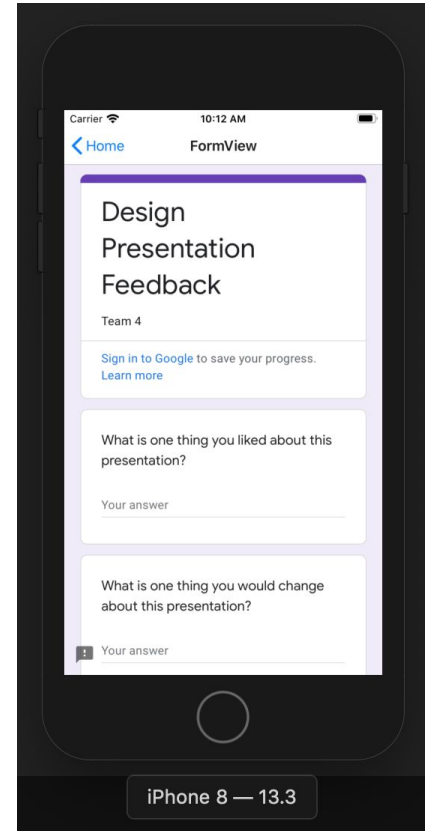


Wireframes (Refined)



QR Code Scanning & Google Forms Implementation

- QR scanning: expo-barcode-scanner
- Google forms: react-native-webview



Simple webview of Google Forms opened within app

Live Demo?

App Screenshots (iOS)



Deliverable

1

- Decide on survey method
- Decide database
- Choose framework
- Wireframes (drawn and basic page implementation)

Deliverable

2

- Ability to scan a QR code
- QR code scan leads to a web view
- QR code leads to identification of surveys available

Deliverable

3

- Preliminary working version of the app
- Connect database to app
- Preliminary feedback collection

Deliverable

4

- Iterate on user feedback
- Bug-free fully functional application
- Potentially: offline mode, image upload