Android app (mostly front end). Front end/user interface – XML Java.

iOS app - Objective C/Swift.

Web development front end (this is like the page where the admin guys add info etc) - Html, CSS, JavaScript, Bootstrap (maybe for better GUI).

The backend (server)- Firebase.

Database - Firebase.

**Roles (from 28/03 to 04/04):**

Kevin – UI design for both apps (28/03 to 30/03), Android app (Measure yield, by combining a clocking system with yield data, through the input view of the mobile interface (this is the button).)

Teboho – UI design for both apps (28/03 to 30/03), Android app (Measure yield, by combining a clocking system with yield data, through the input view of the mobile interface (this is the button).))

Shaun – UI design for both apps (28/03 to 30/03), iOS app (Measure yield, by combining a clocking system with yield data, through the input view of the mobile interface (this is the button).)

Letanyan – set up database (28/03 to 29/03), iOS app (Measure yield, by combining a clocking system with yield data, through the input view of the mobile interface (this is the button).)

Sizo – Web interface (Do administrative tasks through the web interface. Enter and save detailed information about produce at a block/orchard such as cultivar, year planted etc.)

John – Web interface (Do administrative tasks through the web interface. Enter and save detailed information about produce at a block/orchard such as cultivar, year planted etc.)

The above is to be completed within the given date the given dates.

Further this to notes: The UI needs to be the same for both apps; thus, we need to settle on it before we can break off into the different apps. The web interface will handle all the input from the user. It is best to have a similar design for the app and the website; thus, most of the design we conclude on for the app will be similar to the website.

To be done in future: Make use of GPS data and based on weight and location assumptions, give approximate yield estimates not only for each orchard, but for each approximate location where the data was entered, through the mobile interface. Display data on a heat map through the summary view of the web interface. Track foreman in real time through the GPS on the farmer’s phone/tablet through the admin web view interface.

**Requirement dependencies (the numbers correspond to the ones in the project scope)**:

Requirement 1 needs requirement 6 just for admin e.g. details of foremen (requirement 2 can used to compare current yield with past yield).

Requirement 2 needs requirement 1 and 4 (needs some logic in the area of calculations and statistics).

Requirement 3 needs requirements 1, 2 and 4 (needs some logic in the area of calculations and statistics).

Requirement 4 can work without other requirements.

Requirement 5 can work without other requirements.

Requirement 6 can work without other requirements.

Note: dependencies are mostly in terms of data needed.

**Priority of Requirements (the numbers correspond to the ones in the project scope):**

Requirement 6.

Requirement 4.

Requirement 1.

Requirement 2.

Requirement 3.

Requirement 5.

**Requirements in Project Scope:**

1) measure yield, by combining a clocking system with yield data. 2) The app must be able to make use of GPS data and based on weight and location assumptions, the app should be able to give approximate yield estimates not only for each orchard, but for each approximate location where the data was entered. 3) The app, either on the phone or on a web interface must be able to display data on a heat map. 4) Farmers must be able to enter and save the different block / orchard names with detailed information such as cultivar, year planted etc on the farm.

5) Farmers must be able to track the foremen in real time in the luxury of their office using the phone’s GPS in order to determine where the workers are, without having to contact them. It would be an added bonus if the path of where the phone had been for the past day / week etc could be displayed. 6) A web interface will be necessary, especially to do administrative tasks such as adding worker’s names, block names and details. Finally, a functional application which would be available on the Google Playstore and/or the Appstore.

**Important:** consistent communication is required at all times (at this stage communication on the UI and functionality of the both apps).