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Software Requirements Specification for Agri-Pro

# Table of Contents

[Table of Contents 1](#_Toc394318375)

[Software Environment 2](#_Toc394318376)

[1. Application 2](#_Toc394318377)

[1. Database 2](#_Toc394318378)

[2. Web 2](#_Toc394318379)

[3. Mobile 2](#_Toc394318380)

[Capabilities: 3](#_Toc394318381)

[2. Interface 3](#_Toc394318382)

[3. GPS Capability 3](#_Toc394318383)

[4. Orchard layout 3](#_Toc394318384)

[5. Data storage 3](#_Toc394318385)

[Detailed Design 4](#_Toc394318386)

[1. GPS Capability 4](#_Toc394318387)

# Capabilities:

The following is a list of all the capabilities required by the software

## Interface

* 1. The application will be developed using the JAVA language in the Eclipse IDE.
  2. The software will make use of a GUI in order to interact with all of the capabilities of the software

## Data storage

* 1. All of the data will be stored in a database.
  2. The data base will be hosted in the cloud.
  3. The distance between each row as well as the distance between each tree will be recorded.
  4. The plant date of each row will be recorded.

## GPS Capability

* 1. The software will be able to use sets of coordinates in order to make certain calculations.
  2. Calculate the area under each set.
  3. The software will be able to import sets of coordinates from an iOS GPS enabled device.

## Orchard Management

### Orchard Layout

* + 1. The cultivar of each row in the orchard will be recorded.
    2. The number of rows and number of trees in each row will be recorded.
    3. The distance between each row as well as the distance between each tree will be recorded.
    4. The plant date of each row will be recorded.

## Crops Management

### TBD

* + 1. TBD

## Livestock Management

### TBD

* + 1. TBD.

# Detailed Design

## GPS Capability

* 1. Import sets of coordinates.

Each set will consist of an array of size 2 x 2n where n>0. The array will represent the latitude and longitude as shown below:

[“25,57,47,S” ; ”28,8,18,E”]

* 1. Calculate the area under each set.

The calculation for each set is performed using the formula: TBD