# Crop App

The application we plan to make is intended to be used by farmers to keep track of the crops to be cultivated.

The application can track when it is time to do weeding, replace resources (such as tractors and materials used during farming), and keep up with the list of previous customers with their personal information.

The app can also keep the list of seed suppliers to the farmer.

## STORY-OVERVIEW

#### 1.As a farmer,

I want to add customers to the system with their crop preference, so that I can track customer information, view their crop preference and easily access a list of all customers with a filtering option by name.

#### WIREFRAME

Dashboard	id	name	email	address	cropPreference
customers					
seed_supplie					
rs					
resources					
profile					

- The system must validate all required fields are provided and adhere to their constraints (e.g. valid email)
- If a customer with the given email exists, an error should be given "This customer already exists in the Database".
- Upon successful validation, the customer is added to system with the provided details.
- The system must return the newly created customer object. After a customer is added, the system must automatically update the frontend customer list to display the new customer.
- When a customer is selected, their crop preference details should be displayed.
- The farmer should have the option to filter the customer list by name to quickly locate specific customers.
- The system must support a many-to-many relationship between Customer and Crop, allowing each customer to have multiple crop preference and each crop to be associated with multiple customers.

### 2. As a farmer,

I want to view a list of the seed suppliers,

So that I can choose the most suitable seeds for my crops.

### **WIREFRAME**

Dashboard	Name	email	address	seedType
customers				
seedSupplier				
S				
resources				
profile				

- The seed suppliers list is accessible both on desktop and mobile devices
- The farmer can view a list of seed suppliers and the seed types they offer.

### 3. As a farmer,

I want to be able to track the growth of my crops, So that I can better plan and manage harvest times.

#### **WIREFRAME**

Dashboard	cropName	purchasePrice	marketPrice	yield	growthDuration	attention
customers						
seed_supplie						
rs						
resources						
profile						

- The farmer receives notifications when the crops are nearing harvest time.
- The farmer can view a list of crops with their current growth stage.

#### 4.As a user,

I am able to sign up with my personal data, so I can access the dashboard.

### **WIREFRAME**

Sign up
Name*:
Email*:
Age:
Farm size*:
Farm practice:

- A form requiring personal information is displayed
- Some fields must be required (mandatory)
- Place holder exists

#### 5. As a user,

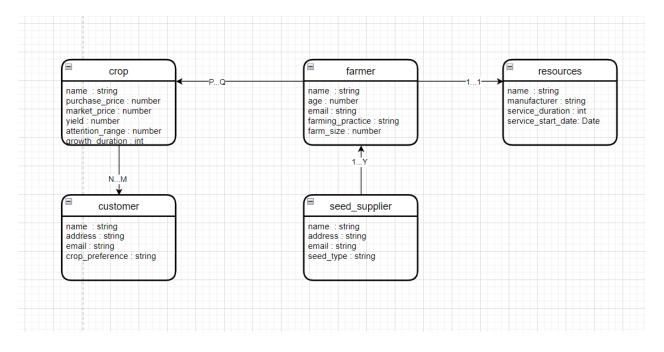
I am able to see list of resources, so that I can see what resources are available.

### **WIREFRAME**

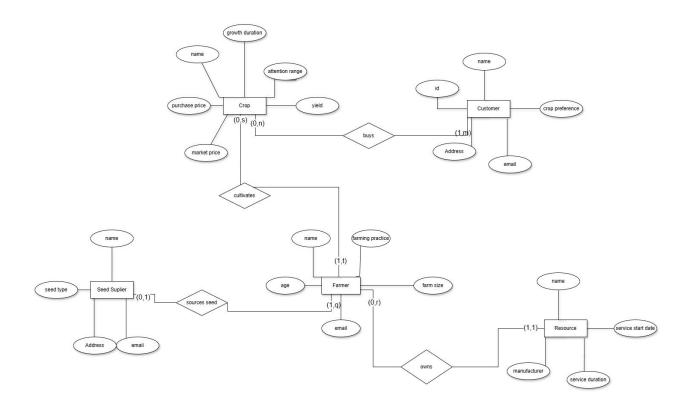
No	Name	Amount	Active
1	BY tractor	3	Yes
2	ZI Pesticide applicator	4	Yes

- Resource names are displayed with amount.
- If there is no resource "no resources available" must be shown.
- There must be an option to add a news resource.
- There must be an option to filter a specific resource by name.

# **DOMAIN MODEL**



# **CONCEPTUAL MODEL**



## LOGICAL MODEL

