

ITERATION - 2 : Report

CSCE 606

Mar 27, 2022

Team AgriHelp

Team Members

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1. Customer meeting date to demo this iteration.

9:30 AM CST : March 26, 2022

Minutes of the meeting:

- Status update on the progress of the stories
- Discuss about the UI design and consistency
- Database design in terms of storing tank data and plot data(since multiple entries could be there per user)

2. User stories implemented in this iteration:

- Landing Page: Post Login: <https://www.pivotaltracker.com/story/show/181551234>

Feature: Landing Page: Post Login

As a user

So as to navigate to different functionalities/view them

I should be able to land on pages for rainfall data, irrigation schedule, tank input, statistics, get available water report, plot input on logging in

- Tank Shape Input: <https://www.pivotaltracker.com/story/show/181470284>

Feature: Tank Shape Input

As a user

So as to calculate the volume of water stored and capacity of tank

I should be able to select tank shape from a drop down (trapezoid, rectangular, spherical)

- Tank Dimensions Input: <https://www.pivotaltracker.com/story/show/181470312>

Feature: Tank Dimensions Input

As a user

So as to calculate the volume of water stored and capacity of tank

I should be able to enter tank dimensions according to shape option selected from the drop down (trapezoid, rectangular, spherical)

- Automating Irrigation Schedule - User input:

<https://www.pivotaltracker.com/story/show/181470314>

Feature: Automating Irrigation Schedule - User input

As a user

So as to be able to schedule irrigation so as to keep the farms regularly irrigated

I should be able to enter time and date intervals and frequency (Ex: 9:00AM IST to 11:00 AM IST every Monday)

- Rainfall Data Input: <https://www.pivotaltracker.com/story/show/181470276>

Feature: Rainfall Data Input

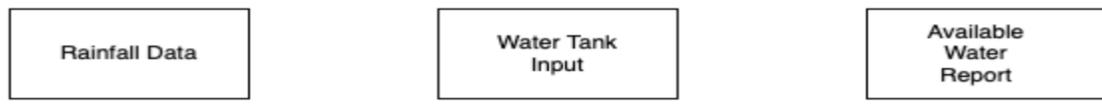
As a user

So as to capture rainfall information and for further analysis/visualization

I should be able to input rainfall in centimeter at any given point of time (could be daily or weekly or at random), need to capture timestamp

3. Design Diagram for this iteration

Landing Page



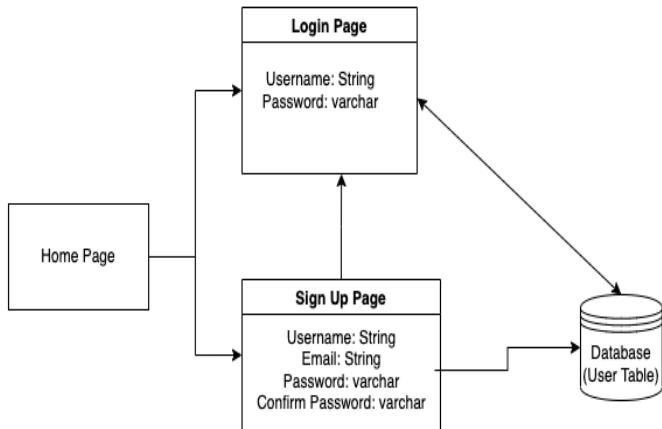
Plot Input		
Plot Name/Id	Plot size (in hectares)	
1. <input type="text"/>	<input type="text"/>	<input type="button" value="+"/>
2. <input type="text"/>	<input type="text"/>	<input type="button" value="+"/>

Irrigation Schedule				
Plot Name	Start Date	Start Time	End Time	Frequency
Plot 1	<input type="button" value="Calender Input"/>	<input type="text"/>	<input type="text"/>	<div style="border: 1px solid #ccc; padding: 2px;">Weekly ▾</div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px;">Biweekly</div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px;">Monthly</div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px;">Customize</div>
Customize Frequency	<input style="width: 100%; height: 30px; margin-bottom: 5px;" type="text"/> <p>Days</p> <input type="text"/>			

Rainfall data	
Date <input type="button" value="Calender Input"/>	Measurement (cm) <input type="text"/>
<hr/>	
Water Tank Input	
Tank Name	<input type="text"/>
Tank Shape	<input type="radio"/> Trapezoidal <input type="radio"/> Triangular <input checked="" type="radio"/> Circular/Cylindrical <input type="radio"/> Rectangular
<hr/>	
<u>Tank Dimensions</u>	
Height	<input type="text"/>
Width/Diameter	<input type="text"/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	
<hr/>	
Available Water Report	
Tank Name	Available Water (in litres)
1. Tank 1	<input type="text" value="100"/>
2. Tank 2	<input type="text" value="220"/>
3. Tank 3	<input type="text" value="50"/>

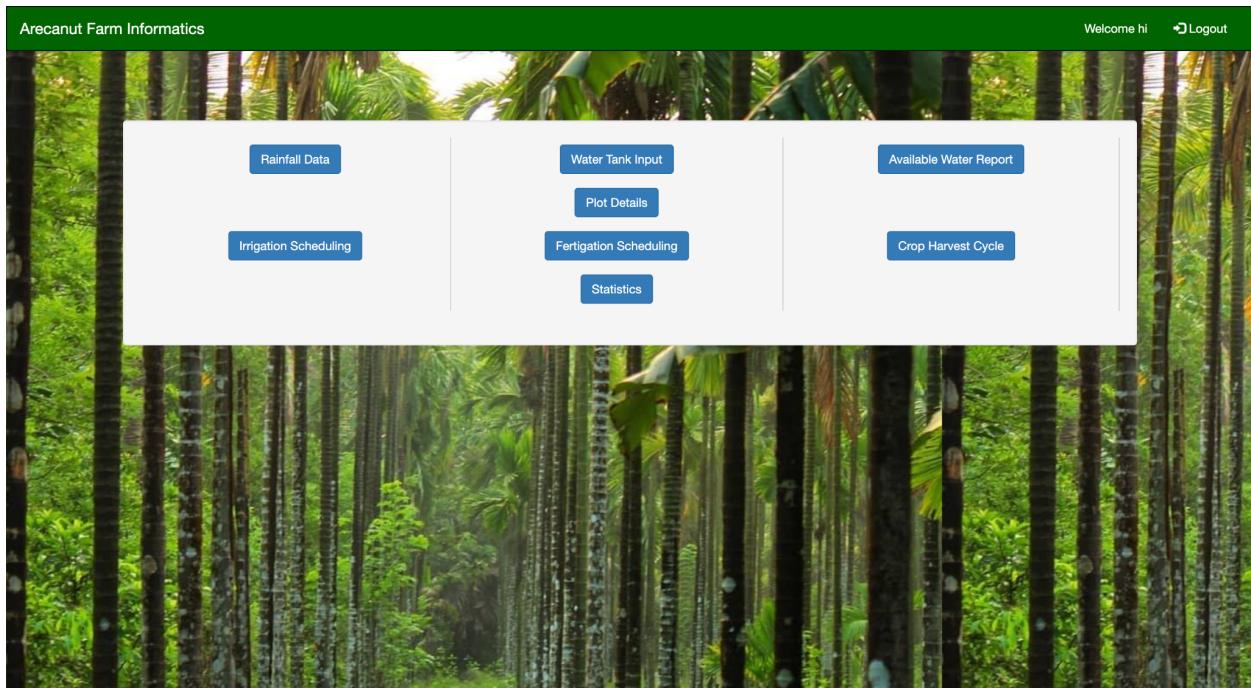
4. UML Diagram

UML Diagram



5. ScreenShots of User Stories implemented

Landing Page: Post Login



Landing page will display all the options to add parameters. By clicking on any of the displayed buttons, users will be redirected to the forms to add data. We have also added the options to display the name of the user and a logout option. Here our test user's name is "hi".

Plot Input

Agricultural Plot Information

Plot Name/ID	Plot Size(in hectare)
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Add Plot Save and Proceed

This page is displayed by clicking on “Plot Details”. The purpose of this form is to add details of plots such as name to identify the plot and its size.

Tank Input

Tank Details

Tank Name

Shape of the tank:

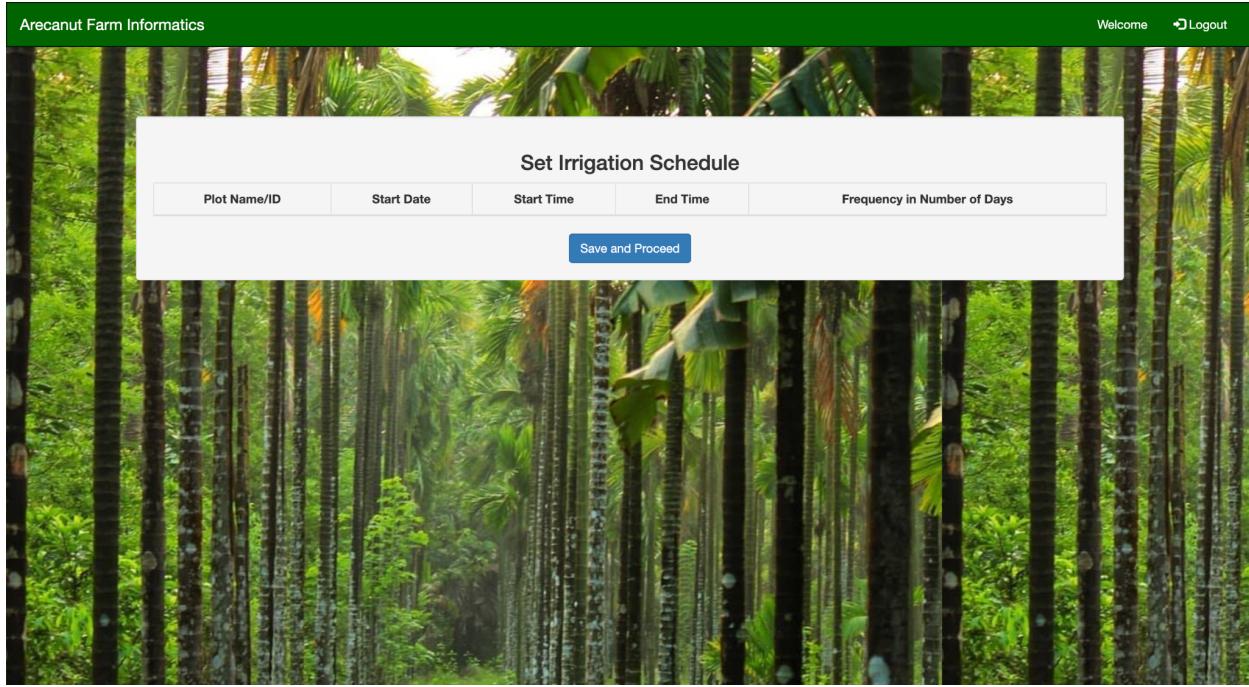
Rectangle
 Trapezoid
 Circle

Save

Cancel

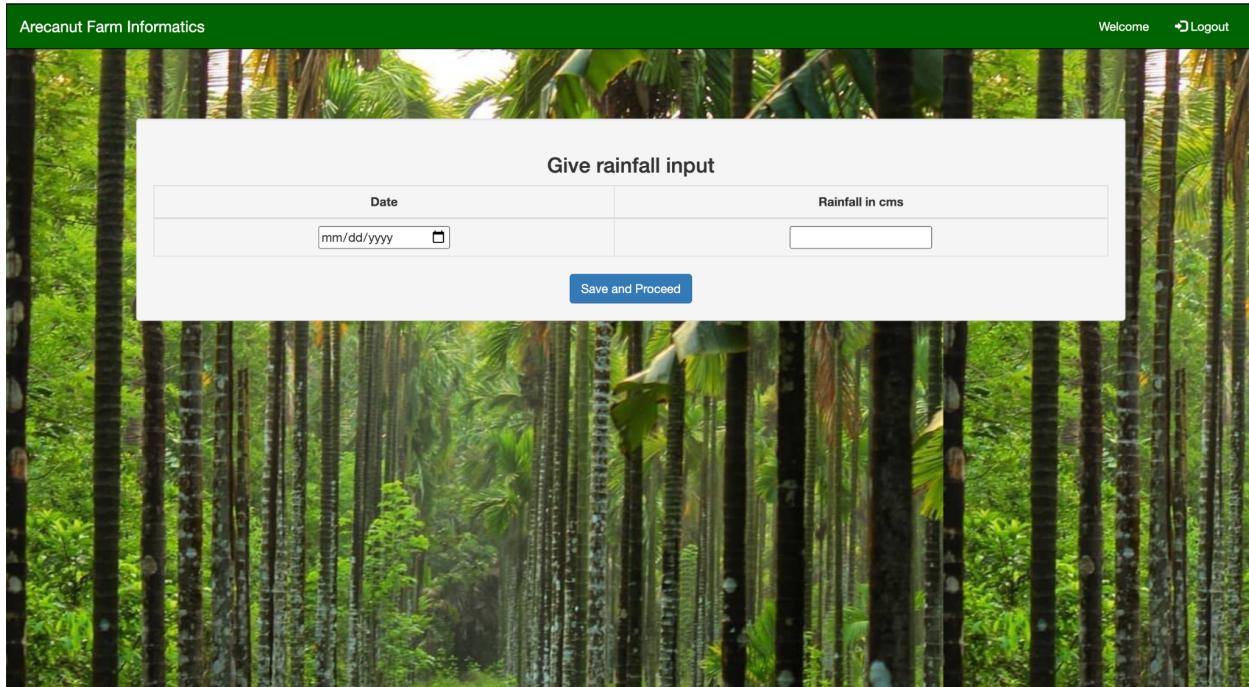
This page is displayed by clicking on the ‘Water Tank Input’ button. In this page, users can add tank details and it will be saved in the database. If the fields are empty it won’t be saved.

Irrigation Scheduling



This page is to set the schedule for irrigation. After the plot details are entered, this page displays all the plots against which the user can set the start date, start and end time and frequency of irrigation.

Rainfall Data Input



This page is displayed by clicking on the “Rainfall data” button. The user can add details about the amount of rainfall and the date.

6. Unit Testing

- Checking status code for redirection for all pages
- Checking form fields for login and signup forms
- Checking redirection from other pages to landing page and vice versa

```
cherry@LAPTOP-FTAOJBLF:~/school/ArecanutFarmInformatics/AgriHelp$ python3 testapp_AFI.py
...
-----
Ran 3 tests in 0.018s
OK
```

7 . Project Links

- **Github:** <https://github.com/feraskhemakhem/ArecanutFarmInformatics>
- **Heroku:** <https://arecanutfarminformatics.herokuapp.com/>
- **Pivotal Tracker:** <https://www.pivotaltracker.com/n/projects/2555651>