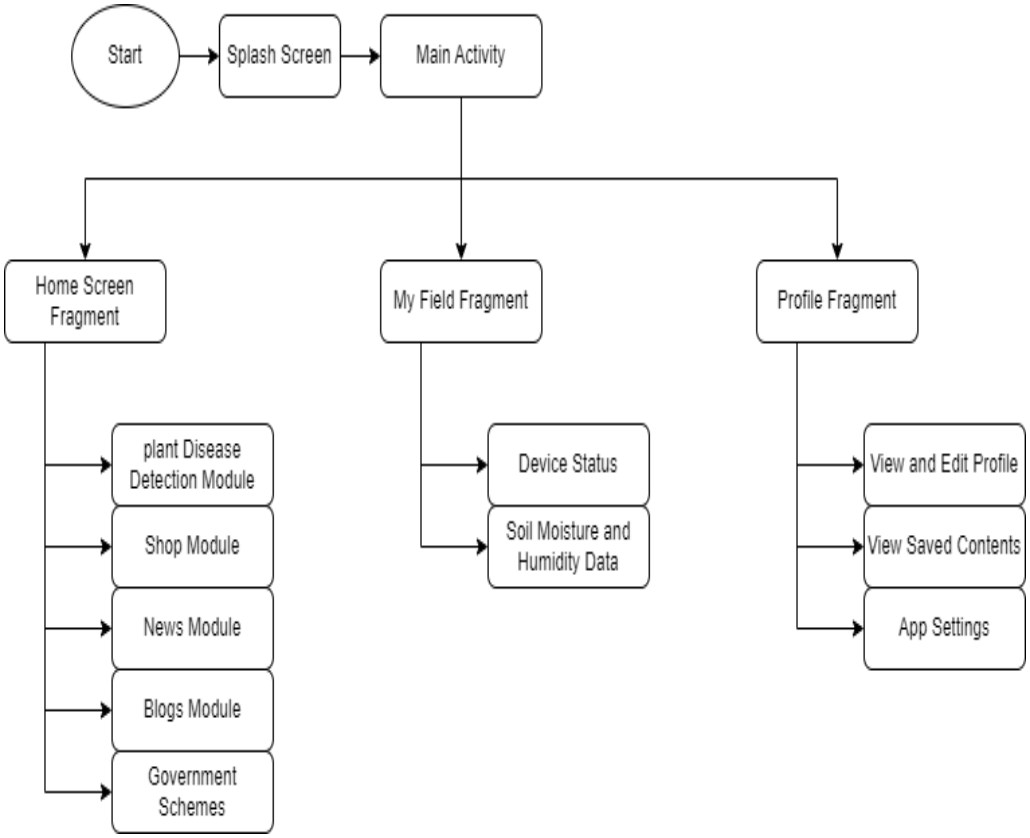
1. Title of Project idea: **Field Growth-Your Assistant in Your Fields**.

2. **Abstract:** There are various farming techniques available the in the market nowadays but so many farmers are not aware of them, so it has a very negative impact on agricultural production. To make farmers aware of those technologies we have made an android application on which farmers can access resources over the internet like news, blogs, and government schemes. Farmers can also use features like a plant disease detection system and field shop where farmers can explore various farming and agriculture products like fertilizers, seeds, etc. An IoT module is also implemented in the app so that farmers can have real-time updates on their fields. With the use of IoT. farmers can have real-time updates on soil moisture, intruder alerts, and many more from their farms

3. **Brief Description of project idea:**
   The aim behind Field Growth is to provide the best of agriculture services, with a focus on crop suggestions based on your soil data, keep you updated with the latest news, to help you understand and reach various government schemes which are beneficial for farmers, and provide some blogs on agriculture to read. All these features are accessible in one platform. Resources over the internet and other emerging technologies in the sector could further increase yields, improve the efficiency of water and other inputs, and build sustainability and resilience across crop cultivation and animal husbandry
   - **Live Weather Forecast**
   - **Crop Disease Prediction**
   - **Current Affairs and Blogs**
   - **Government Schemes**
   - **Field Growth Shop**
   - **IoT Module**

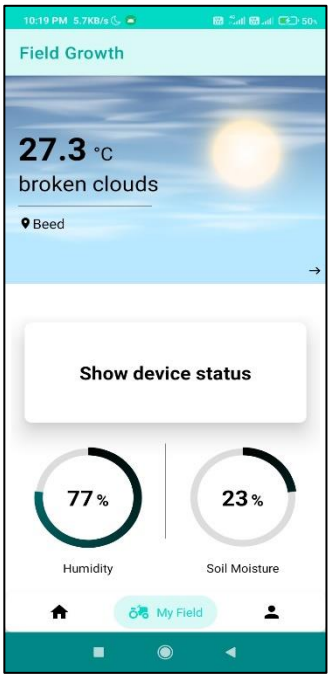
4. **Diagram:**

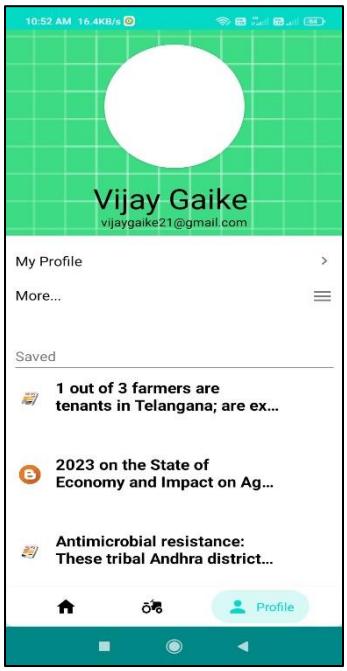


5. **Objectives of Project**: The aim behind Field Growth is to provide the best of agriculture services, with a focus on crop disease prediction, keep the user updated with the latest news, to help you understand and reach various government schemes which are beneficial for farmers, and provide some blogs on agriculture to read. All these features are accessible in one platform. The main objective of the application is to fill the gap between farmers and internet resources.

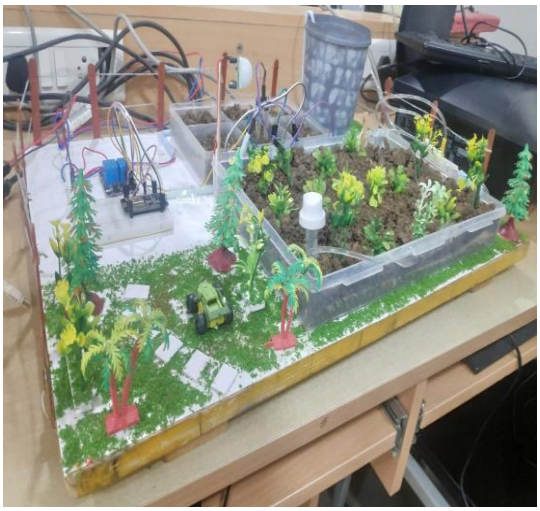
6. **The outcome of the Project:** Users will be able to see the name of the predicted disease, news feeds, blogs, government schemes, and various farm and agriculture products. In the lot module, the raw data from sensors is shown to the users after a few processing. The data includes the humidity of the field, soil moisture, temperature, and intruder alert. The user will have full control over the water pump and PIR sensor.

7. Screenshots:





8. Photos :



9. **Future scope of the project:** The accuracy of the plant disease prediction can be increased and a full report will be shown with some suggestions for the disease the news and blogs will be available in multiple languages. In IoT, the IVR module can be implemented so that the need for the Internet can be excluded. IVR will allow users to just dial the registered number and can operate sensors just using keys or text messaging.

10. Project

Our Mentors:

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We presented this project idea at various state-level and university-level competitions as,

1. Participated in : ANVESHAN 2022-23 Phase-1
2. Participated and Won in : Science Fair 2022-23 MGM University

Participated in ANVESHAN 2022-23 Phase-1

Participated and won 2nd price in Science Fair 2023-24 MGM University