



A

**Report on**

**Agriculture Guide (AgroGuide app)**

**Submitted by**

Name of student	Enrollment No.
Vitthal Shendre	2201340345
Swapnil Supekar	2201340349
Aditya Bhoye	2201340353
Vijay Nirpal	2201340356

**In guidance of**

Mr. Santosh Korde

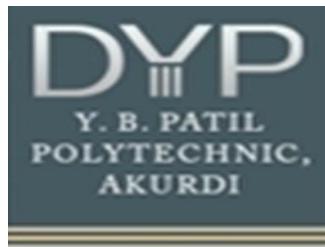
Diploma in Computer Engineering

2023-2024(Semester-6)

Y. B. Patil Polytechnic, Akurdi, Pune

Third Year, Department of Computer Engineering

(Affiliated to MAHARASHTRA STATE BOARD OF  
TECHNICAL EDUCATION, Mumbai)  
Department of Computer Engineering 2023-2024



## CERTIFICATE

This is to certify that the project report entitled  
**“Agriculture Guide (AgroGuide app)”**  
submitted by

Sr. No.	Name of Student	Enrollment No.
1	Vitthal Shendre	2201340345
2	Swapnil Supekar	2201340349
3	Aditya Bhoye	2201340353
4	Vijay Nirpal	2201340356

Of Sixth Semester of Diploma in Computer Engineering of Institute **Y. B. Patil Polytechnic** have successfully completed the work under the guidance and supervision of **Mr. Santosh Korde** (Project Guide, Capstone Project Planning) in the four walls of the institute, for the course **Capstone Project – Execution & Report Writing (22060)** in the Academic Year **2023-2024**.

Date:

Place: Akurdi, Pune

**Mr. Santosh Korde**  
**(Project Guide)**

**Mrs. Pooja Ahuja**  
**(H.O.D)**

**Dr. A. S. Kondekar**  
**(Principal)**

**(External Examiner)**

## **DECLARATION**

I hereby declare that the project report entitled “**AGRICULTURE GUIDE**” submitted by my group members mentioned below in Y. B. Patil Polytechnic,

Akurdi, Pune,

for partial fulfillment of the requirement for the award of Diploma in Computer

Engineering is a record of project work carried out by my group under the guidance of Mr. Santhosh Korde (Project Guide, Capstone Project Planning). I and my group further declare that the work reported in this project has not been submitted for the award of any other degree or diploma in this institute or any other institute or university.

Place:

Date:

Name	Place	Signature
Vittthal Shendre		
Swapnil Supekar		
Aditya Bhoye		
Vijay Nirpal		

## **ACKNOWLEDGEMENT**

It is a matter of great pleasure and privilege to be able to present the project on “**AGRICULTURE GUIDE**” under the valuable guidance of Mr. Santosh Korde (Project Guide, Capstone Project Planning) for their valuable guidance and constant inspiration to our work. Also, here we would like to thank our honorable Principal Dr. A. S. Kondekar for making available college premises.

We are also thankful to all our teachers and our non-teaching staff for the great support. It has been great fun to work together with the members of the group and solve problems related to the project. A deep sense of gratitude to our group members for their patience and encouragement among us.

### List of Group Members

1. Swapnil Supekar
2. Vitthal Shendre
3. Aditya Bhoye
4. Vijay Nirpal

## **ABSTRACT**

The agricultural sector stands to benefit significantly from technological advancements, particularly in data management and decision-making processes.

This paper presents AgroGuide, a mobile application designed to facilitate efficient agro-data management using Java and XML, with seamless integration to Firebase, a real-time database platform.

AgroGuide aims to empower farmers, agronomists, and stakeholders in the agricultural domain by providing a user-friendly interface for data input, analysis, and retrieval.

The application employs Java programming language for the backend logic, ensuring robustness, scalability, and compatibility across various platforms.

XML (Extensible Markup Language) is utilized for data structuring, offering flexibility in representing diverse types of agricultural information.

Firebase serves as the backend infrastructure for storing and retrieving data, enabling real-time synchronization across multiple devices.

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# **CHAPTER I**

# **INTRODUCTION**

## 1.1 BACKGROUND

AgroGuide emerges as a groundbreaking solution at the intersection of agriculture and technology, aiming to revolutionize the way farmers interact with crucial agricultural information. In response to the persistent challenges faced by farmers worldwide, including access to timely guidance, market trends, and sustainable practices, AgroGuide emerges as a beacon of innovation. Leveraging the power of mobile technology, AgroGuide provides a comprehensive platform designed to empower farmers with the knowledge and tools necessary to optimize their agricultural practices and enhance overall productivity.

## 1.2 PROBLEM STATEMENT

Despite the vital role agriculture plays in global food security and economic stability, farmers often encounter numerous obstacles that hinder their efficiency and success. Access to reliable information regarding crop management, pest control, weather forecasts, and market trends remains a significant challenge for many farmers, particularly those in remote or underserved regions. Additionally, the lack of personalized guidance tailored to specific crops, soil conditions, and local contexts further exacerbates these difficulties. In light of these persistent challenges, there exists a pressing need for a comprehensive agricultural solution that bridges the gap between traditional farming practices and modern technological advancements. AgroGuide aims to address these critical issues by providing farmers with an intuitive mobile application that offers real-time guidance, data-driven insights, and personalized recommendations, thereby empowering them to make informed decisions and maximize agricultural yields.

## 1.3 OBJECTIVES

1. Enhancing Agricultural Knowledge: AgroGuide aims to empower farmers with expert advice, best practices, and educational resources to address challenges and seize opportunities in farming operations.
2. Facilitating Decision-Making: The app provides personalized recommendations based on real-time data, enabling farmers to make informed decisions on planting, irrigation, fertilization, and pest management.
3. Promoting Sustainable Practices: AgroGuide encourages the adoption of environmentally friendly approaches such as soil health management, water conservation, and biodiversity conservation to ensure long-term agricultural viability.
4. Fostering Market Access: By offering insights into market trends and connecting farmers with buyers, AgroGuide facilitates market access, enhancing competitiveness and profitability for farmers.

## 1.4 IMPLICATION

AgroGuide is seamlessly implemented through a user-friendly mobile application, designed to be accessible to farmers of all technological backgrounds. Leveraging intuitive interfaces and straightforward navigation, the app ensures ease of use and quick adoption. Its implementation encompasses robust backend infrastructure for data storage, analysis, and real-time updates, ensuring reliability and scalability. Furthermore, AgroGuide integrates cutting-edge technologies such as artificial intelligence and machine learning algorithms to deliver personalized recommendations and insights tailored to each user's specific needs and local conditions. Through continuous updates and user feedback mechanisms, AgroGuide remains dynamic and responsive, evolving to meet the evolving challenges and opportunities in agriculture.

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### **1.5 GOAL OF THE PROJECT**

AgroGuide's overarching goal is to revolutionize agriculture by leveraging technology to empower farmers with knowledge, data-driven insights, and market access, ultimately enhancing productivity, sustainability, and profitability in the agricultural sector.

## **CHAPTER II**

## **LITERATURE REVIEW**

## 2.1 BRIEF REVIEW

The literature review conducted for AgroGuide app provides a comprehensive overview of existing research and technologies in the field of agricultural guidance and mobile applications. It encompasses studies on various aspects such as crop management, pest control, weather forecasting, market trends, and sustainable practices. Key findings highlight the importance of providing farmers with timely and accurate information to optimize agricultural operations and improve yields. Additionally, the review identifies gaps in current solutions and opportunities for innovation, emphasizing the need for personalized guidance tailored to local conditions and the integration of advanced technologies like artificial intelligence and data analytics. Overall, the literature review serves as a foundational framework for the development of AgroGuide, guiding its design and features to address the pressing challenges faced by farmers and enhance agricultural productivity.

## 2.2 COMPARISON TABLE

Features	AgroGuide App	Competitor A	Competitor B	Competitor C
Crop Information	✓	✓	✓	✓
Weather Forecasting	✓	✓	✓	✓
Market Trends	✓	✓	✓	✓
Artificial Intelligence	✓	✓	✓	✓
User-Friendly Interface	✓	✓	✓	✓
Data Security	✓	✓	✓	✓
Customer Support	✓	✓	✓	✓

## **CHAPTER III**

## **REQUIREMENT ANALYSIS**

### **3.1 SOFTWARE REQUIREMENTS**

The Mobile app will need following software's to run:

- Operating System : Windows 10/11
- Andriod Operating System : Andriod 10/ 11/12
- Server : Firebase Database
- IDE : Android Studio
- Front-End : Xml
- Back-End : Java and Firebase

### **3.2 HARDWARE REQUIREMENTS**

The application will need following hardware's to run:

- System Processor : Modern multi-core processor for efficient running.
- RAM : 2GB
- Network : High Internet Speed.

## **CHAPTER IV**

## **PLATFORM CHOICE**

## **4.1 XML:**

XML (Extensible Markup Language) is a versatile and widely-used markup language primarily designed to store and transport data. It utilizes tags to define the structure and content of data in a hierarchical format. XML is platform-independent, making it suitable for exchanging data between different systems and applications. It is commonly used for configuration files, web services, data interchange, and representing structured data in various domains such as finance, healthcare, and telecommunications. XML is human-readable and can be easily parsed and processed by computers, making it a popular choice for storing and transmitting structured data.

## **4.2 JAVA:**

Java is a widely-used programming language known for its simplicity, portability, and versatility. It was developed by Sun Microsystems in the mid-1990s and is now owned by Oracle Corporation. Java is renowned for its platform independence, thanks to the Java Virtual Machine (JVM), which allows Java programs to run on any device or operating system. It's commonly used for building a variety of applications, from web and mobile apps to enterprise software and large-scale systems. With features like automatic memory management and strong support for multi-threading, Java is a popular choice for developers across industries.

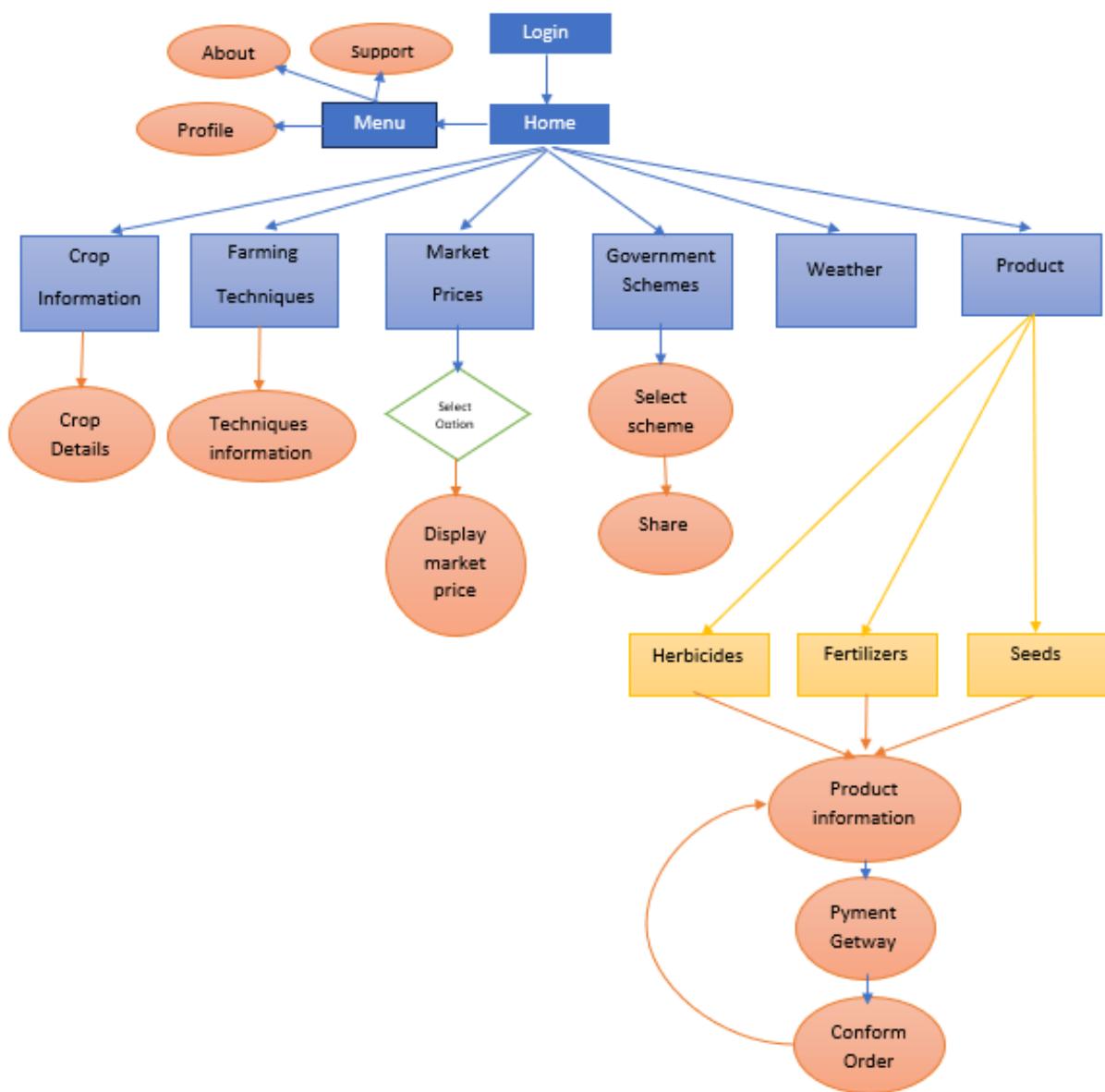
## **4.3 FIRBASE SERVER:**

Firebase is a comprehensive mobile and web application development platform developed by Google. It offers various services, including authentication, real-time database, cloud storage, hosting, and more. Firebase provides a scalable and reliable backend infrastructure, allowing developers to build and deploy apps quickly without managing servers. It offers features like user authentication, data storage, and server-side logic, making it a popular choice for building modern applications. Additionally, Firebase provides analytics and monitoring tools to track app performance and user engagement. Overall, Firebase simplifies app development by providing a unified platform for backend services.

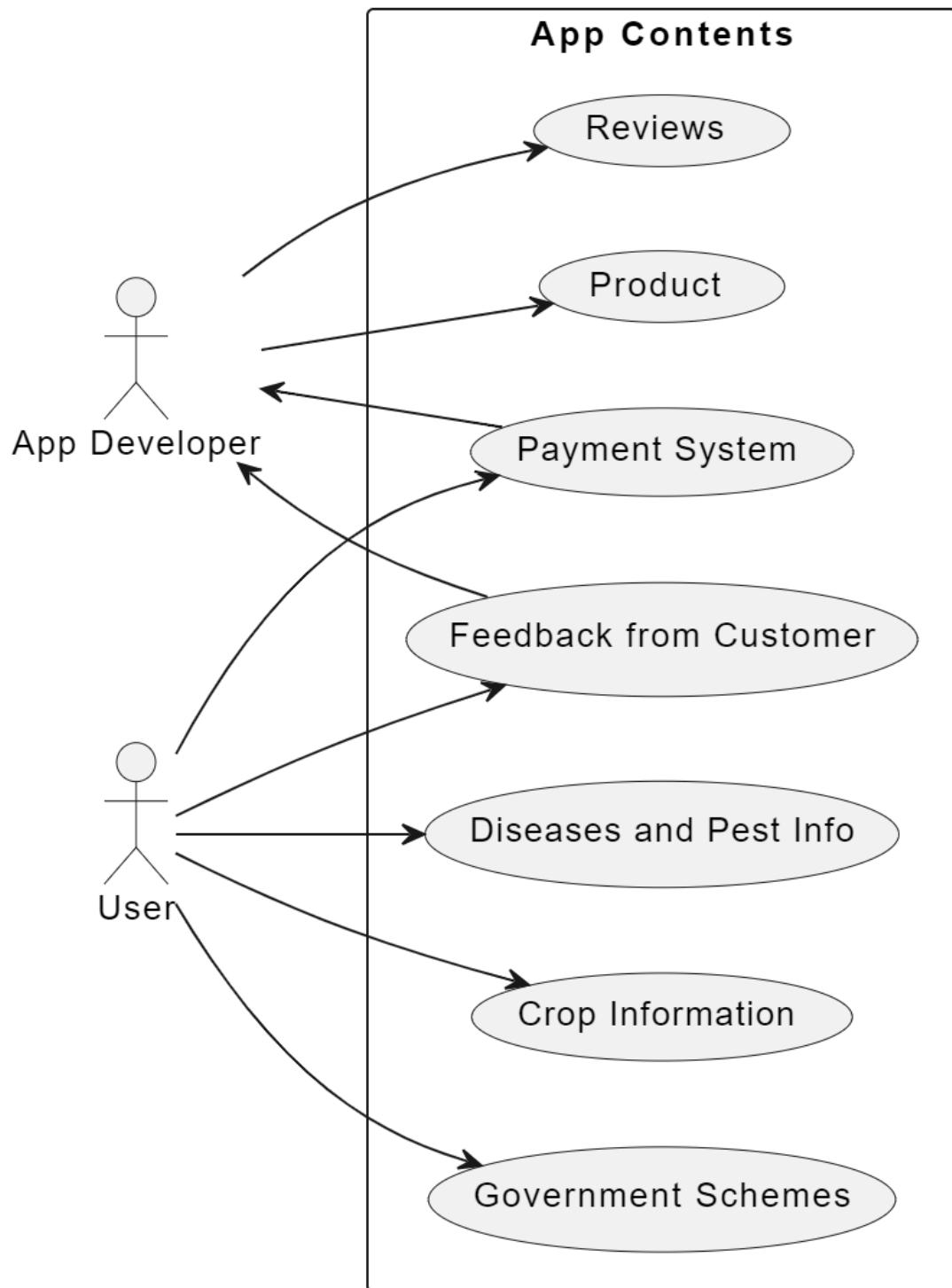
## **CHAPTER V**

## **SYSTEM DESIGN**

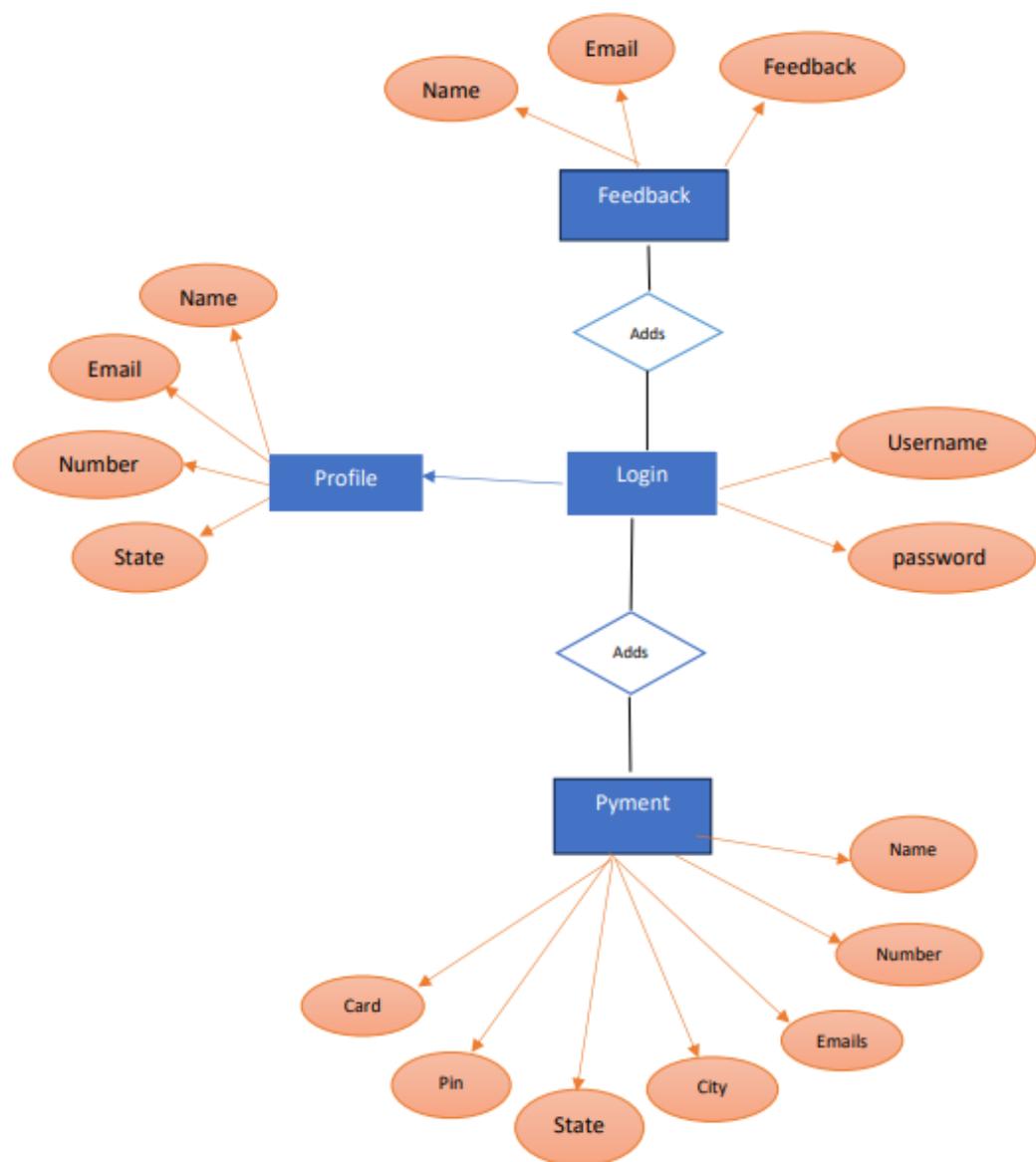
## 5.1 DATA FLOW DIAGRAM



## 5.2 USE CASE DIAGRAM



## 5.3 E-R DIAGRAM



## **CHAPTER VI**

## **IMPLEMENTATION**

## 6.1 MODULE 1: SIGNUP/LOGIN PAGE

Sin-Up page typically requires user to provide their personal information such as their name, email address and a password that will be used to secure their account.

If any of the required information is missing, an error message will be displayed to the user, indicating that they need to fill out all required fields. Once the user has filled out all the required information, a success message will be displayed, indicating that their account has been created successfully.

The user's information is then stored in a database, typically a Firebase database, under the "USERS TABLE". The table will have columns for each of the user's details such as username, email, password, number and profile picture. If the user has uploaded a profile picture, the picture will be saved in the database. Otherwise, a default picture will be assigned to the user.

Once the user has created their account, they can proceed to the Log-In page to access their account. On the Log-In page, the user is prompted to enter their username and password. If the user's credentials match those stored in the database, the user is logged into their account and can process to use the service.

## 6.2 MODULE 2: CROP INFORMATION PAGE

### Crop Overview:

The crop information page begins with an overview of the selected crop, including its common name, scientific name, and any other relevant identifiers.

This section may also include a brief description of the crop, highlighting its importance, growing conditions, and typical uses.

### Growing Conditions:

Detailed information about the optimal growing conditions for the crop is provided, including climate requirements, soil type, pH levels, and sunlight exposure.

Users can learn about the ideal planting season, temperature range, and humidity levels conducive to successful crop growth.

### Cultivation Practices:

This section offers guidance on cultivation practices such as land preparation, seed selection, planting techniques, and spacing requirements.

Users can access information on irrigation methods, fertilization schedules, and weed control strategies tailored to the specific crop.

### Pest and Disease Management:

Comprehensive details on common pests and diseases affecting the crop are provided, along with preventive measures and control strategies.

Users can learn to identify symptoms of pest infestations or diseases and take appropriate action to mitigate their impact on crop health.

### Harvesting and Post-Harvest Handling:

Guidance on the optimal timing and techniques for harvesting the crop is provided, along with recommendations for post-harvest handling, storage, and transportation.

Users can access information on harvesting tools and equipment, as well as best practices to minimize post-harvest losses and maintain crop quality.

## 6.3 MODULE 3: WEATHER PAGE

### Current Weather Conditions:

The page displays real-time data on temperature, humidity, wind speed, and precipitation for the user's location or selected farming area.

Users can quickly assess the current weather conditions to make immediate decisions regarding agricultural activities such as planting, irrigation, or crop protection.

### Hourly and Daily Forecasts:

Hourly and daily forecasts for the next several days are provided, offering insights into expected weather patterns and fluctuations.

Users can plan their farming activities accordingly, taking into account forecasted temperatures, rainfall, and wind conditions.

### Weather Alerts and Warnings:

The app may include alerts or warnings for severe weather events such as storms, frost, heatwaves, or droughts that could impact crop health or productivity.

Users are notified in advance of potential weather hazards, allowing them to take preventive measures to protect crops and mitigate risks.

Crop-Specific Recommendations:

Based on the forecasted weather conditions, the app may offer crop-specific recommendations or advisories to help farmers make informed decisions. Users can receive guidance on irrigation scheduling, pest management strategies, and other agronomic practices tailored to the forecasted weather conditions.

## 6.4 MODULE 4: GOVERNMENT SCHEMES PAGE

The Government Schemes page in the AgroGuide app serves as a comprehensive resource for farmers to access information about various agricultural schemes and programs offered by government agencies. On this page, farmers can find details about different schemes including their objectives, eligibility criteria, benefits, application process, and contact information for relevant government departments. Each scheme is described in detail, providing farmers with a clear understanding of the support and assistance available to them. Additionally, the page may include updates and notifications about new scheme announcements or revisions to ensure farmers stay informed about changes in scheme guidelines and deadlines. Overall, the Government Schemes page in the AgroGuide app aims to empower farmers by providing them with the necessary information to access government support and enhance their agricultural practices.

## 6.5 MODULE 5: FARMING TIPS PAGE

The Farming Tips page in the AgroGuide app offers concise and practical advice to farmers to improve their agricultural practices. It provides tips on various aspects of farming, including crop cultivation, pest management, soil health, irrigation, and harvesting techniques. Users can access valuable insights and recommendations to optimize their farming methods and enhance crop yields. The tips are presented in an easy-to-understand format, making it accessible to farmers of all experience levels.

Additionally, the page may include user-generated content, allowing farmers to share their own tips and experiences with the community. Overall, the Farming Tips page serves as a valuable resource for farmers to continuously learn and adapt their practices for greater efficiency and success.

## 6.6 MODULE 6: MARKET PRICE PAGE

The Market Price page in the AgroGuide app provides farmers with up-to-date information on agricultural commodity prices. Users can access current market prices for various crops, livestock, and other agricultural products, helping them make informed decisions about selling their produce. The page may include price trends, historical data, and regional variations to give users a comprehensive view of market dynamics. Additionally, users can customize their preferences to receive price alerts and notifications for their specific crops or regions. Overall, the Market Price page serves as a valuable tool for farmers to monitor market trends and maximize their profits.

## 6.7 MODULE 7: PRODUCT PAGE

The Product Page in the AgroGuide app provides users with detailed information about agricultural products, such as seeds, fertilizers, pesticides, and farming equipment. Users can browse through a variety of products, view their specifications, pricing, and availability. Additionally, the page may include user reviews and ratings to help users make informed purchasing decisions. Users can also access recommendations and tips for using the products effectively in their farming operations. Overall, the Product Page serves as a convenient platform for farmers to explore and purchase essential agricultural inputs.

## **CHAPTER VII**

## **TESTING**

Software testing is a critical element of software quality assurance and represents the ultimate review of specification, design and code generation.

## 7.1 TESTING OBJECTIVE

Testing is a process of executing a program with the intent of finding an error. Having a good test case is one that has a high probability of finding an as yet undiscovered error.

We have tested all the features of our Application, tested it's user-friendliness and it's easy navigation, it's many other features to ensure user data is protected, tested to check whether it is loading quickly and as well as performing smoothly, etc.

## 7.2 TEST CASES

### 7.2.1 LOGIN/SIGNUP PAGE

Sr. No	Test Case ID	Test Objective (Specification)	Test Cases	Expected Result	Actual Result	Status
1.	TC-1	To check whether the login page takes username and password or not.	1. Does the login page takes username. 2. Does the login page takes password.	1. Login page should take username. 2. Login page should take password.	1. Login page takes username. 2. Login page takes password.	Pass

## AGROGUIDE

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2.	TC-2	To check whether the “Login Button” takes us to dashboard page or not.	Does the dashboard page opens once we click on “Login Button”.	Dashboard page should be displayed once the “Login Button” is clicked.	On clicking “Login Button” the dashboard page opens.	Pass
3.	TC-3	To check whether the signup page takes the user information.	1. Does signup page takes username. 2. Does signup page takes email id. 3. Does the signup page takes password.	1. Signup page should take username. 2. Signup page should take email id. 3. Signup page should take password.	1. Signup page takes username. 2. Signup page takes email id. 3. Signup page takes password.	Pass
4.	TC-4	To check whether the user account is successfully created or not.	User's account is successfully created or not.	User's account should be successfully created.	User's account is successfully created.	Pass

## 7.2.2 HOME PAGE

Sr. No	Test Case ID	Test Objective (Specification)	Test Case	Expected Result	Actual Result	Status
1.	TC-1	Crop information	Click on Crop information	Shall we display crop information	Display crop information of others crops	Pass
2.	TC-2	Farming Techniques	Click on Farming Techniques	Shall we display Farming Techniques	Display Farming Techniques an other techniques	Pass
3.	TC3	Market Price	Click on Market Price	Shall we Display Market Price and select the options	Display Market price an others Select the options	Pass
4.	TC5	Weather	Click on Weather	Shall we display On weather website	Display the weather website	Pass
5.	TC6	Government Schemes	Click on Government Schemes	Shall we display Government schemes	Display the Government Schemes an others schemes	Pass

### 7.2.3 NAVIGATION BAR

Sr. No	Test Case ID	Test Objective (Specification)	Test Case	Expected Result	Actual Result	Status
1.	TC-1	Navigation Bar	Click on navigation bar.	Shall we display Navigation bar.	Display the navigation bar.	Pass
2.	TC-2	Support	Click on Support.	Shall we display Contact and feedback.	Display the contact and feedback .	Pass
3.	TC-3	Admin Location	Click on Location.	Shall we display Admin location.	Display the admin location.	Pass
4.	TC-4	Phone Number	Click on the phone numbers .	Shall we display Dial pad and call the admin.	Display the dial pad and call the admin.	Pass
5.	TC-5	Feedback	Enter the details and your feedback.	Shall we display Details and feedback.	Display the details and feedback.	Pass

6.	TC-6	Submit	Click on the submit.	Show the message “submit Your feedback”	Display the message “submit your feedback”	Pass
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#### **7.2.4 PRODUCT DETAILS**

Sr. No	Test Case ID	Test Objective (Specification)	Test Case	Expected Result	Actual Result	Status
1.	TC-1	Product	Click on product.	Shall we display products.	Display products and others product.	Pass
2.	TC-2	Product details	Click on any product.	Shall we display product information.	Display product Information.	Pass

## AGROGUIDE

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3.	TC-3	Order Now	Click on the order now.	Shall we display payment information.	Display the payment information.	Pass
4.	TC-4	Fill the information	Fill the all information.	Click on the confirm order.	Click on the confirm order.	Pass
5.	TC-5	Confirm order	Click on the confirm order.	Shall we display Payment successfully.	Display the payment successfully.	Pass

## **CHAPTER VIII**

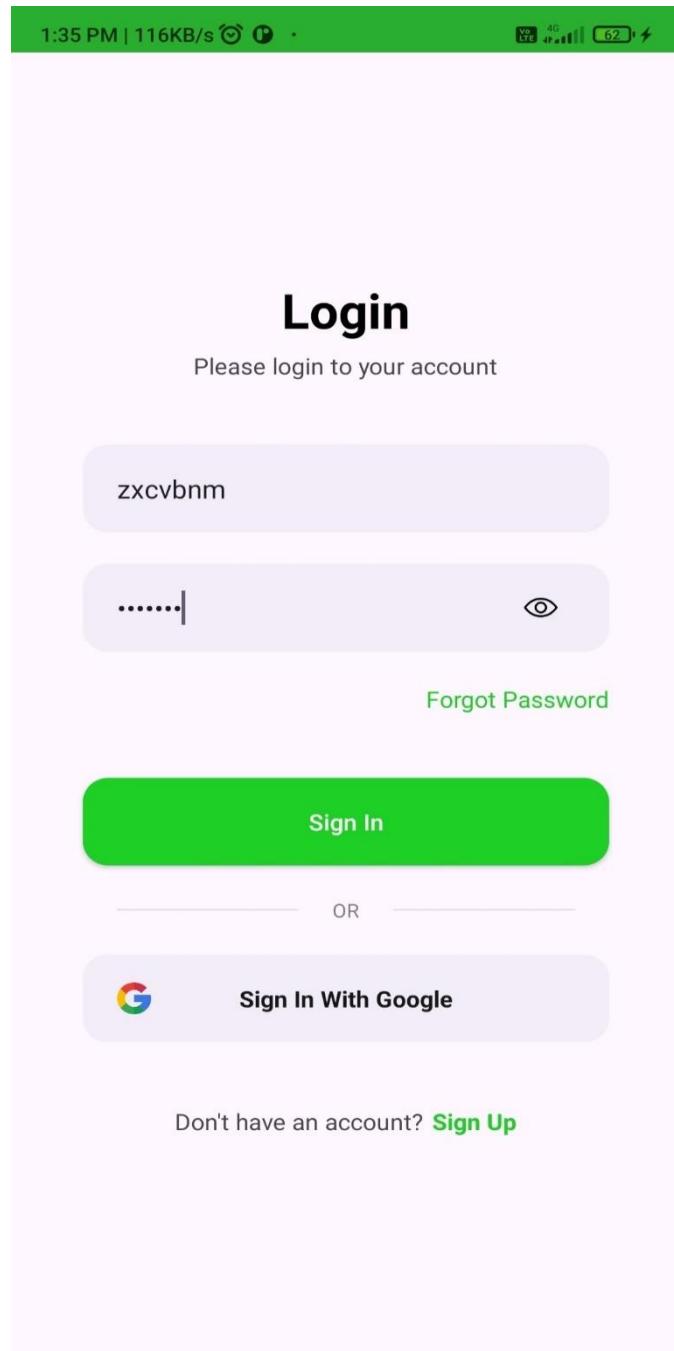
## **SNAPSHOTS**

## 8.1 OUR APP

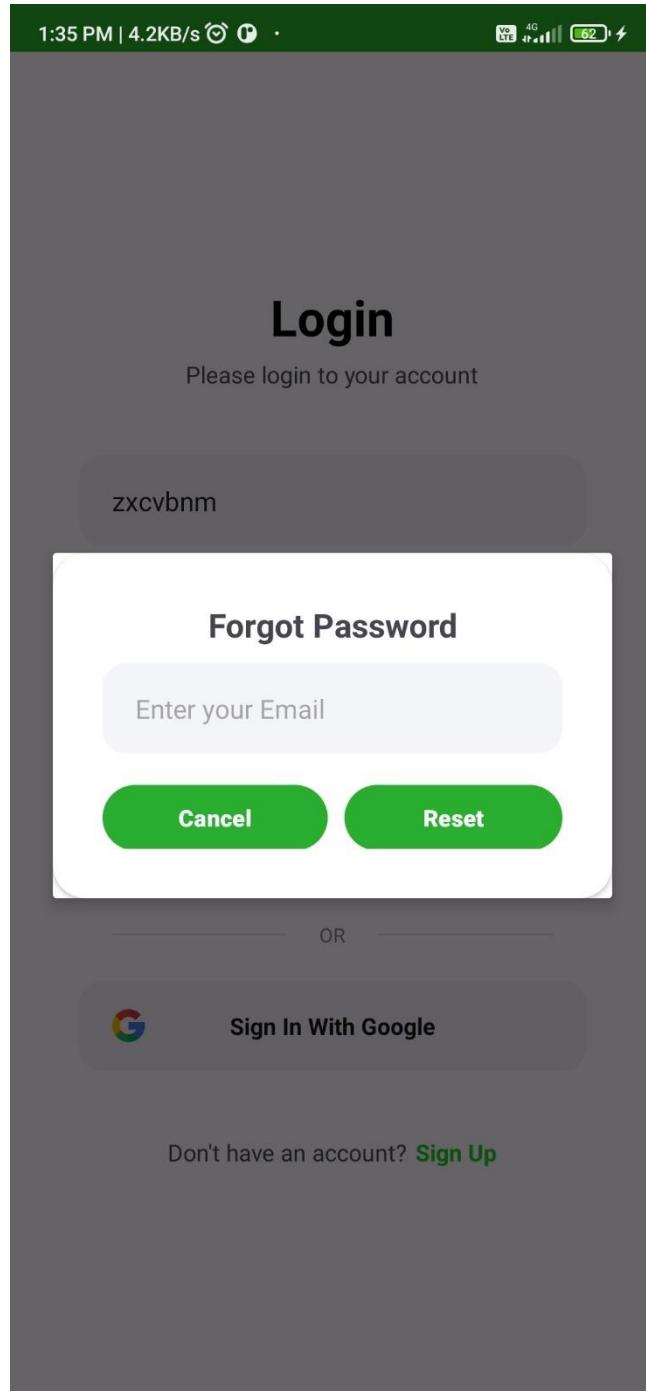
### 8.1.1 APPLICATION LOGO



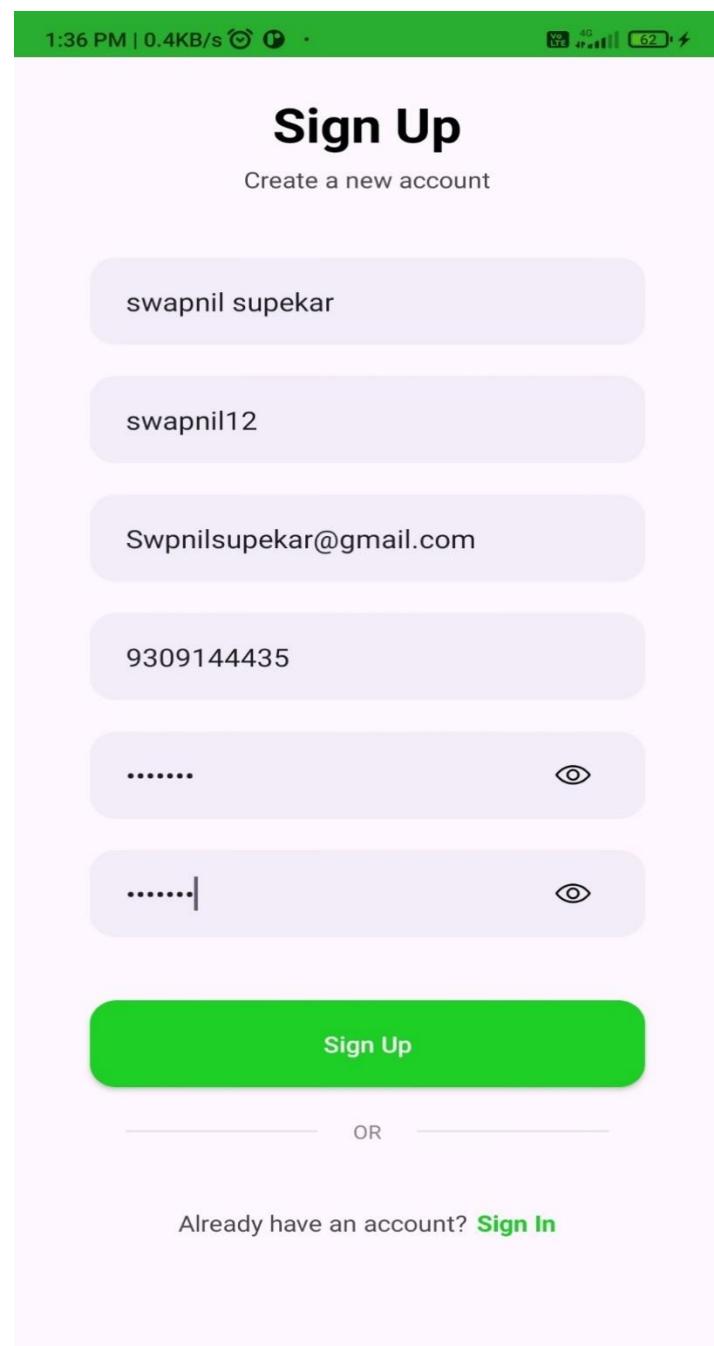
## 8.1.0 LOGIN PAGE



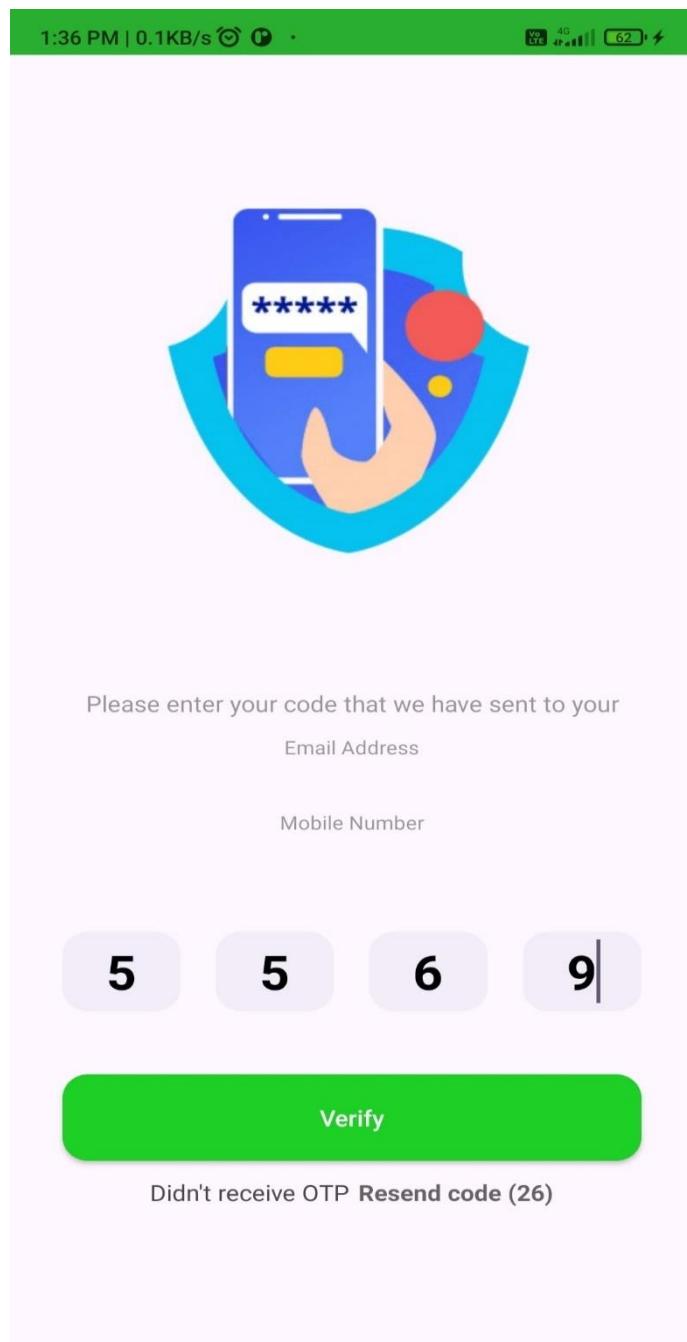
## 8.1.3 FORGOT PASSWORD



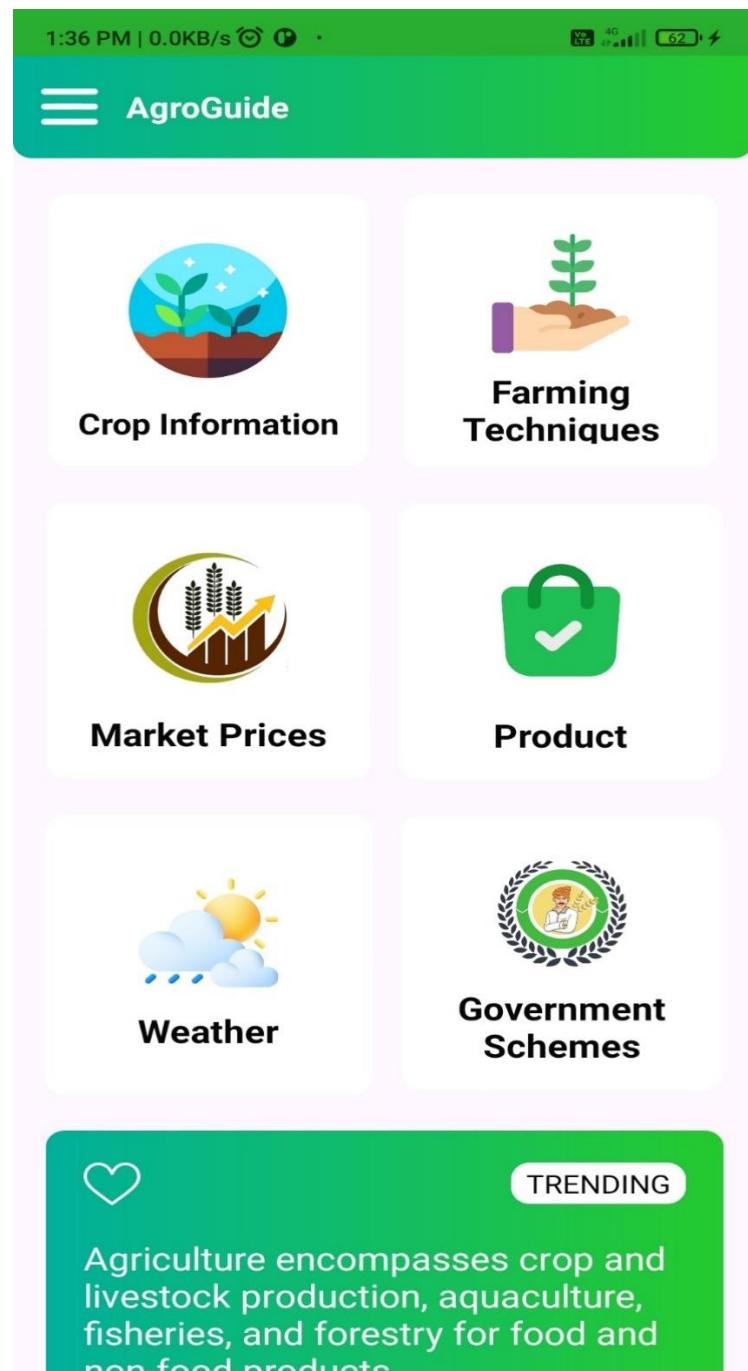
## 8.1.4 SIGN UP PAGE



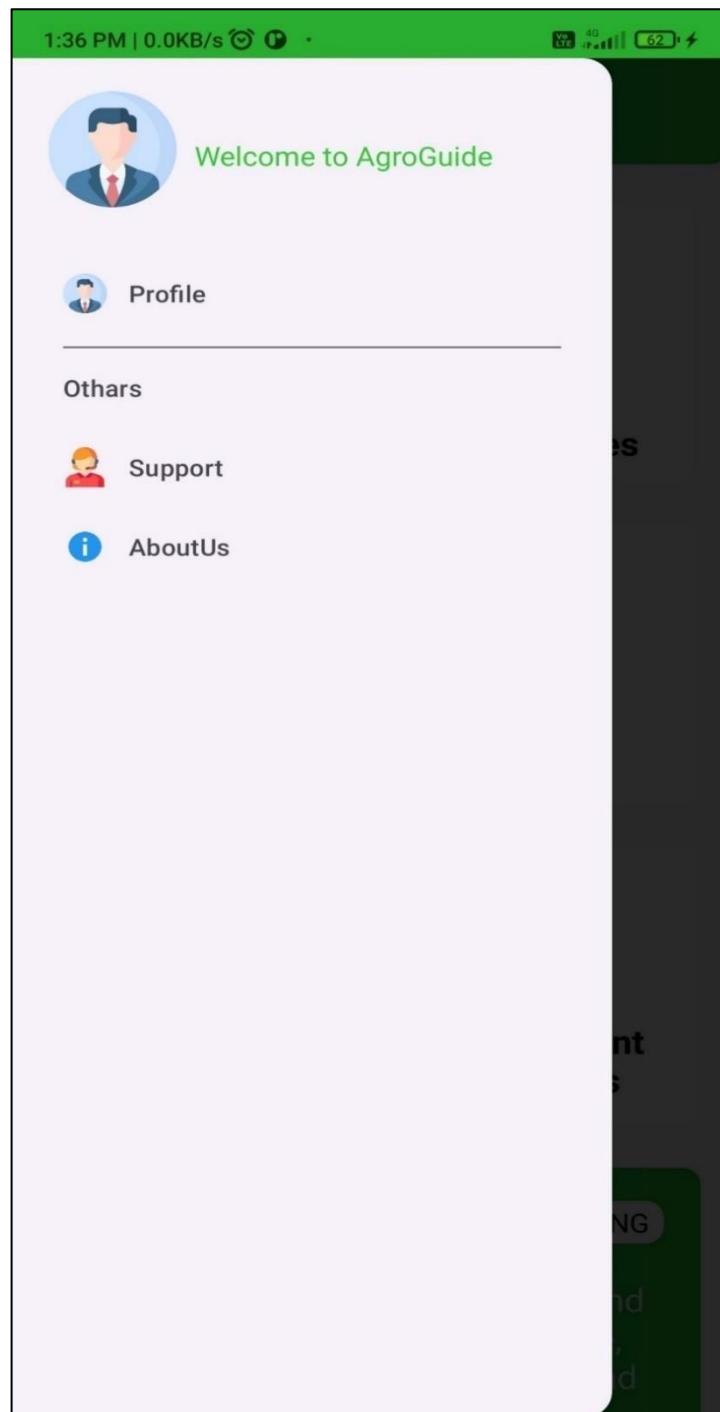
## 8.1.5 OTP PAGE



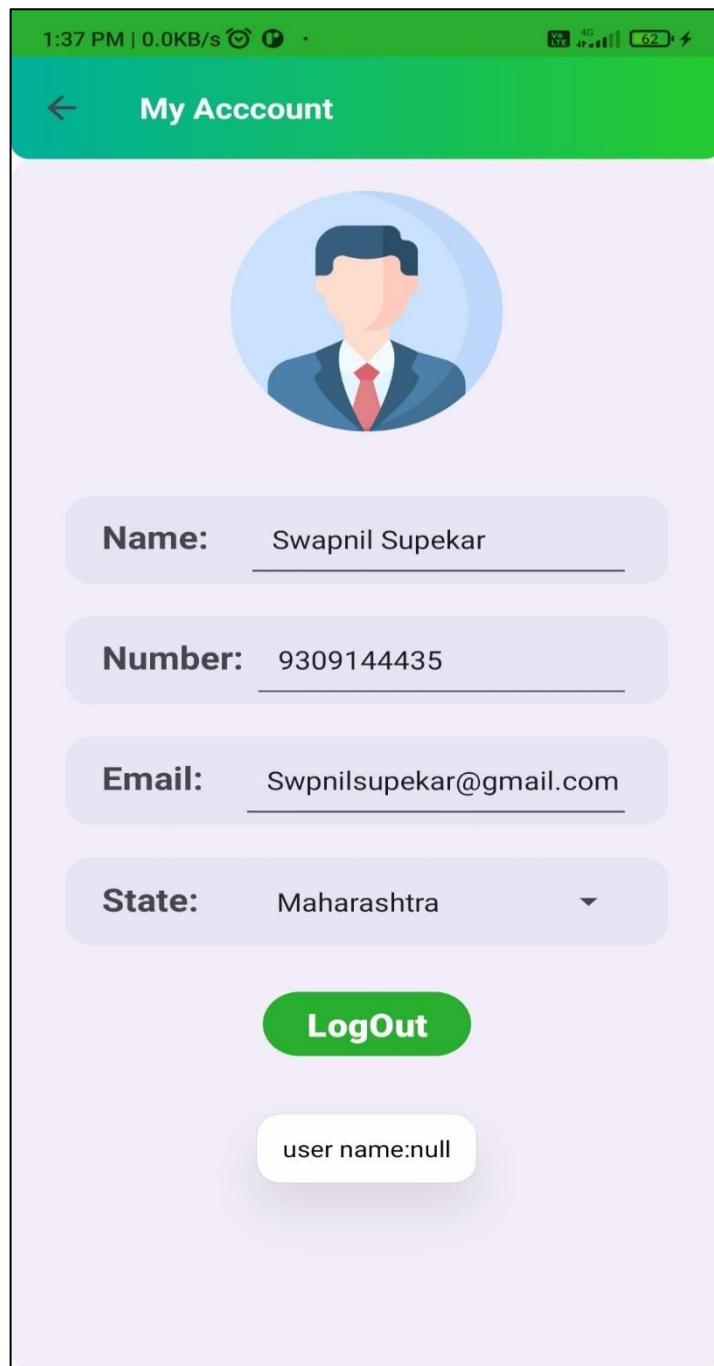
## 8.1.6 HOME PAGE



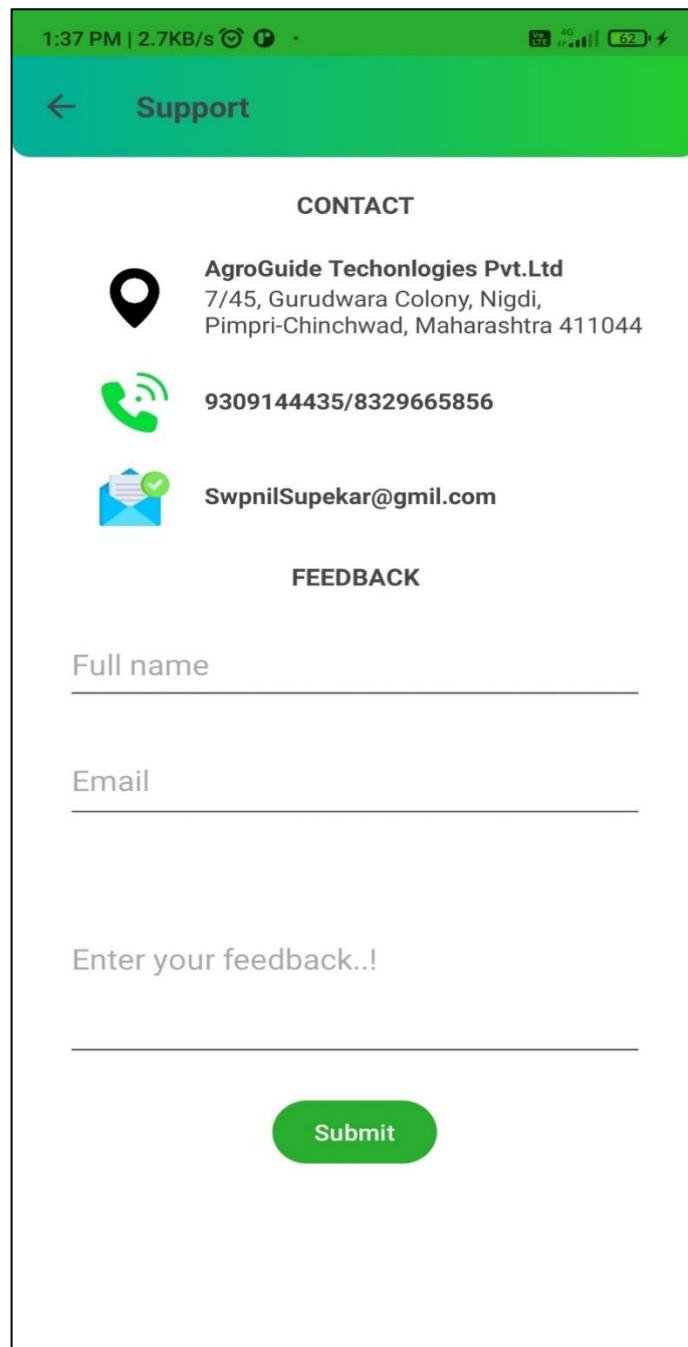
## 8.1.7 NAVIGATION MENU



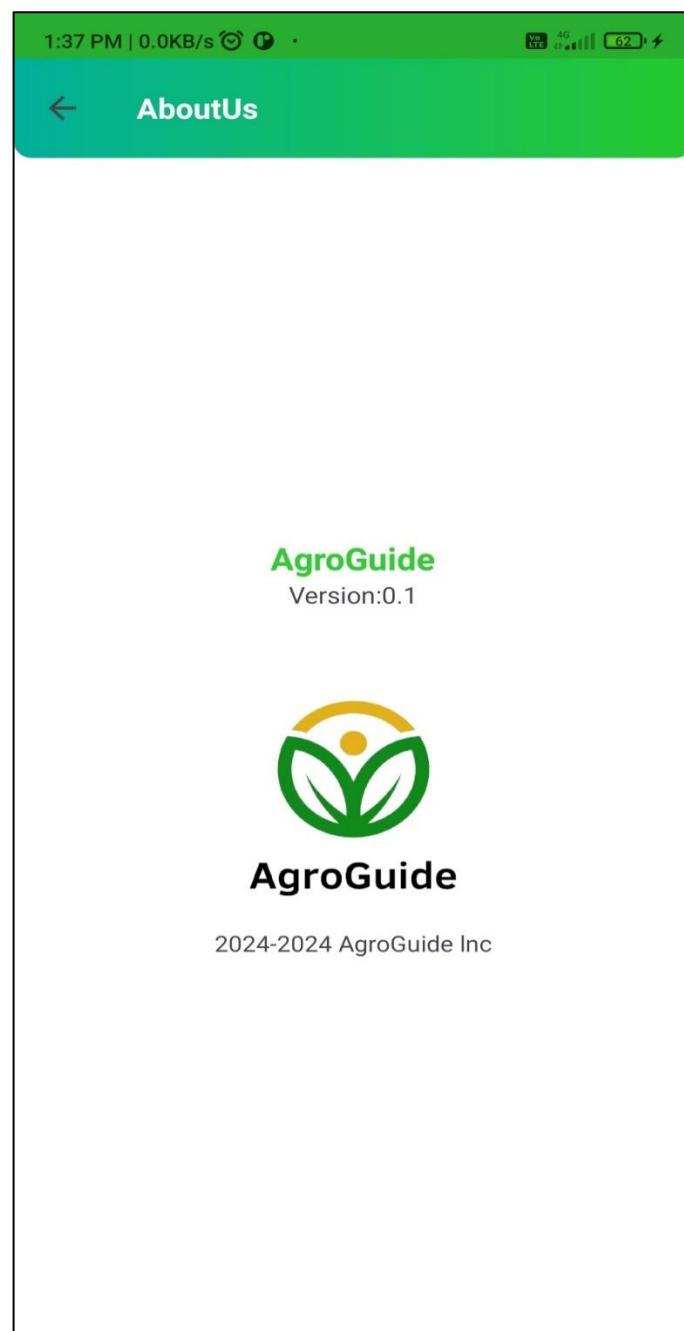
## 8.1.8 USER PROFILE PAGE



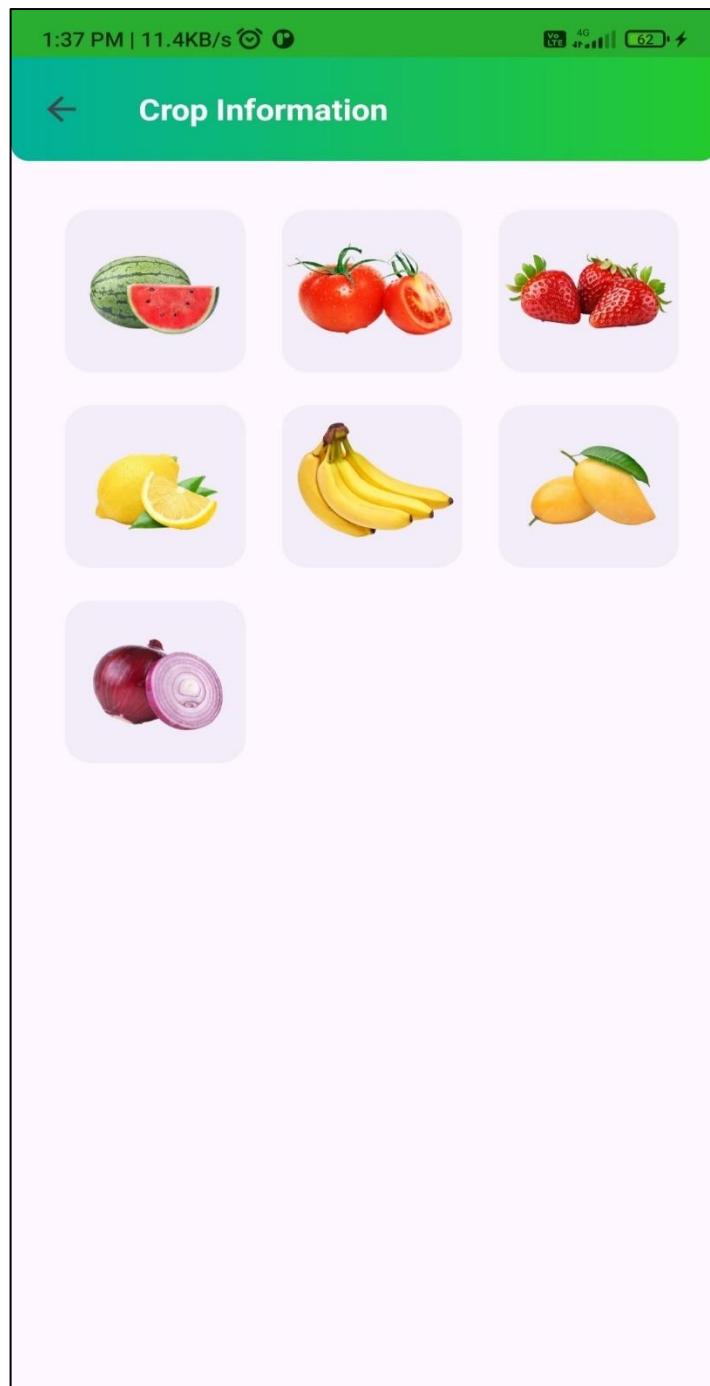
## 8.1.9 SUPPORT AND FEEDBACK PAGE



## 8.1.10 ABOUT PAGE



## 8.1.11 CROP INFORMATION PAGE



## 8.1.12 BANANA CROP INFORMATION

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### Banana

**Description**  
A banana is an elongated, edible fruit – botanically a berry – produced by several kinds of large herbaceous flowering plants in the genus *Musa*



**Types and Varieties**

Apple Banana: Native to Southeast Asia, these bananas have a hint of apple flavor

Barangan Banana: Grown primarily in Malaysia, these small and sweet bananas are both popular locally and exported. Unfortunately, they're challenging to find for sale in the United States.

Blue Java Banana: With a blue peel and white flesh, Blue Java bananas are grown in Southeast Asia and Hawaii.

Bluggoe Banana: These large, starchy bananas are native to Ecuador. Although more expensive than the common Cavendish variety, Bluggoe bananas are often used for cooking.

Cavendish Bananas: The most popular type, making up 95% of all bananas eaten in the USA. They're widely available and sold everywhere.

Gros Michel: Before the rise of Cavendish bananas, Gros Michel was the predominant variety. However, it faced challenges due to Panama disease.

**Climatic Requirements**  
Temperature: Higher temperatures during fruit development and maturity



1:37 PM | 0.7KB/s ⓘ 4G 62 ⚡

### Banana

**Climatic Requirements**  
Temperature: Higher temperatures during fruit development and maturity yield better-quality fruits.



Rainfall: An annual rainfall range of 890-1,015 mm is considered ideal for mango cultivation. However, mangoes can be grown in regions with both heavy (2,540 mm) or scanty (254 mm) rainfall

Relative Humidity: Mango trees prefer a relative humidity of 70% to 90% during the growing season.

Soil: Well-drained, deep, and fertile soil is essential for healthy mango trees. Sandy loam or loamy soil with a pH range of 5.5 to 7.5 is ideal.

Sunlight: Mango trees require full sunlight for optimal growth and fruit production.

**Common Diseases**  
Trees are susceptible to a variety of diseases that can damage or even kill them. The most common types of tree diseases are fungal diseases, bacterial diseases, and virus-caused diseases. Fungal diseases are the most common, and can be caused by fungi that attack the roots, leaves, branches, or bark.

**Pesticides**  
Chlorpyrifos: An insecticide, acaricide and miticide, used on many crops throughout the world.  
Thiabendazole: A fungicide and parasiticide.

## 8.1.13 FARMING TECHNIQUES PAGE

The image shows a smartphone screen displaying a mobile application titled "Farming Techniques". The screen has a green header bar with a back arrow and the title. Below the header are five cards, each representing a different farming technique:

- Organic Farming**: An ancient farming technique that uses natural organic wastes and green manure, and avoids artificial fertilizers. It protects soil fertility through soil microorganisms and nitrogen self-sufficiency.
- Hydroponics**: A soil-less farming technique that can increase crop yields while reducing water usage and chemical inputs.
- Precision farming**: An emerging field in India that can help improve the productivity, profitability, and sustainability of farming practices.
- Aeroponics system**: A soil-less farming technique that involves growing plants in a misty environment without soil. This technique is becoming popular in India because it can help with water conservation, higher crop yields, and growing crops in limited spaces.
- Aquaponics**: A food production system that can provide a livelihood for marginal farmers and unemployed youths.

The phone's status bar at the top shows the time as 1:37 PM, signal strength, battery level at 62%, and a lightning bolt icon indicating it's charging.

## 8.1.14 ORGANIC FARMING TECHNIQUES PAGE

The image shows a smartphone screen displaying the 'Organic Farming' section of the AGROGUIDE app. The top status bar indicates the time as 1:37 PM, signal strength, battery level at 62%, and other standard icons. The main header 'Organic Farming' is centered above a large, vibrant green photograph of a lettuce field under a greenhouse structure. Below the image, a descriptive text box defines organic farming as a holistic, sustainable method that avoids synthetic pesticides and fertilizers, focusing on soil health, biodiversity, and environmental conservation. To the right of this text are five expandable sections: 'SOIL MANAGEMENT', 'WEED MANAGEMENT', 'PEST AND DISEASE MANAGEMENT', 'FERTILIZATION', and 'WATER MANAGEMENT', each preceded by a downward-pointing arrow.

Organic farming is a method of crop and livestock production that involves much more than simply avoiding synthetic pesticides and fertilizers. It focuses on holistic, sustainable practices that promote soil health, biodiversity, and environmental conservation.

**SOIL MANAGEMENT** ▾

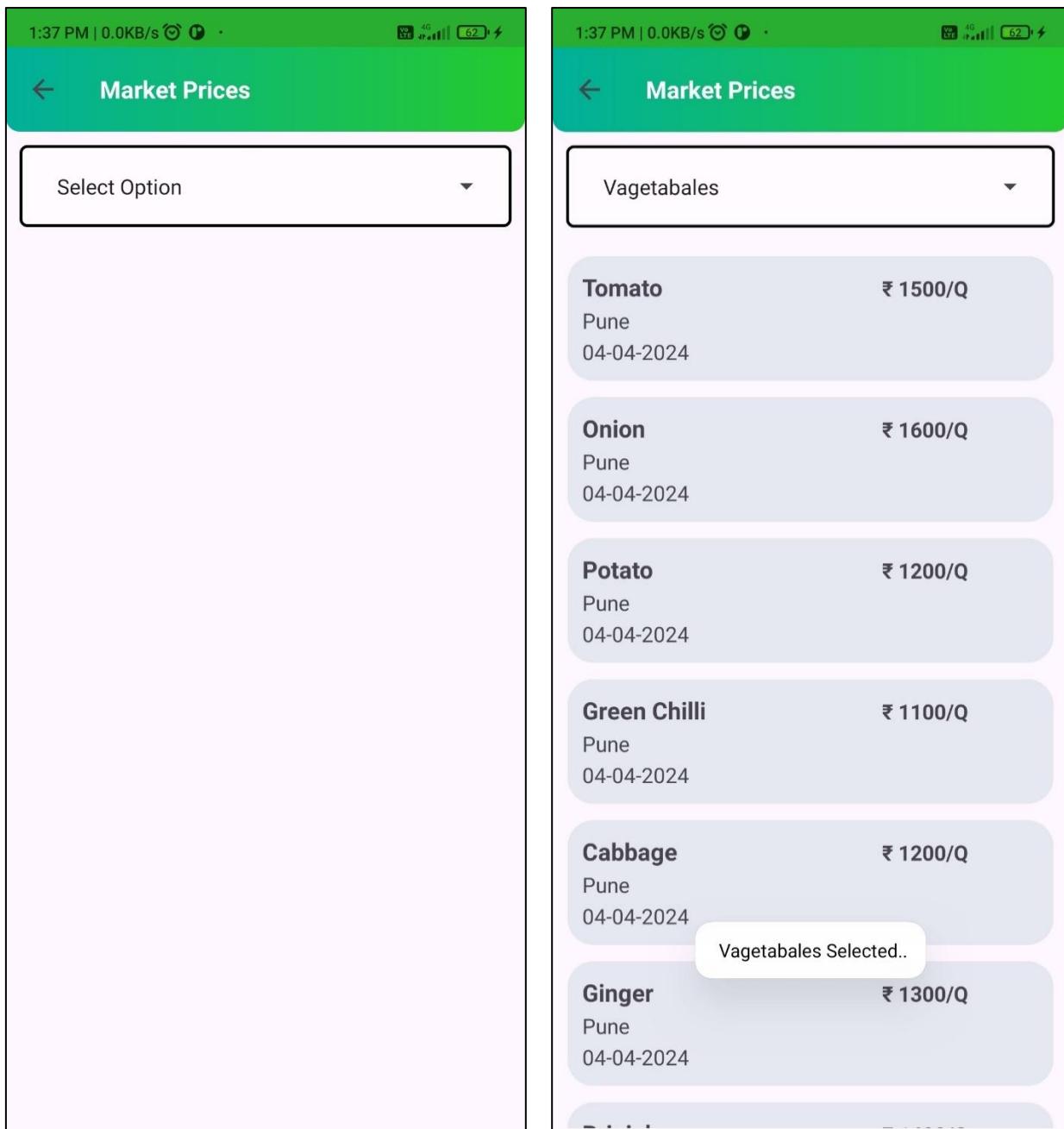
**WEED MANAGEMENT** ▾

**PEST AND DISEASE MANAGEMENT** ▾

**FERTILIZATION** ▾

**WATER MANAGEMENT** ▾

## 8.1.15 MARKET PRICES



## 8.1.16 PRODUCT PAGE

1:37 PM | 0.1KB/s 4G 62%

### Herbicides

	
<b>Vivaya</b> Price:- ₹1,550.00 1 LTR	<b>Impyre</b> Price:- ₹1,000.00 1 LITRE
	
<b>Tynzer</b> Price:- ₹920.00 2 SKU	<b>Topper 77</b> Price:- ₹80.00 100g
	
<b>Targa Super</b> Price:- ₹180.00 4 SKU	<b>Strike</b> Price:- ₹220.00 500g

1:38 PM | 0.2KB/s 4G 62%

### Vivaya



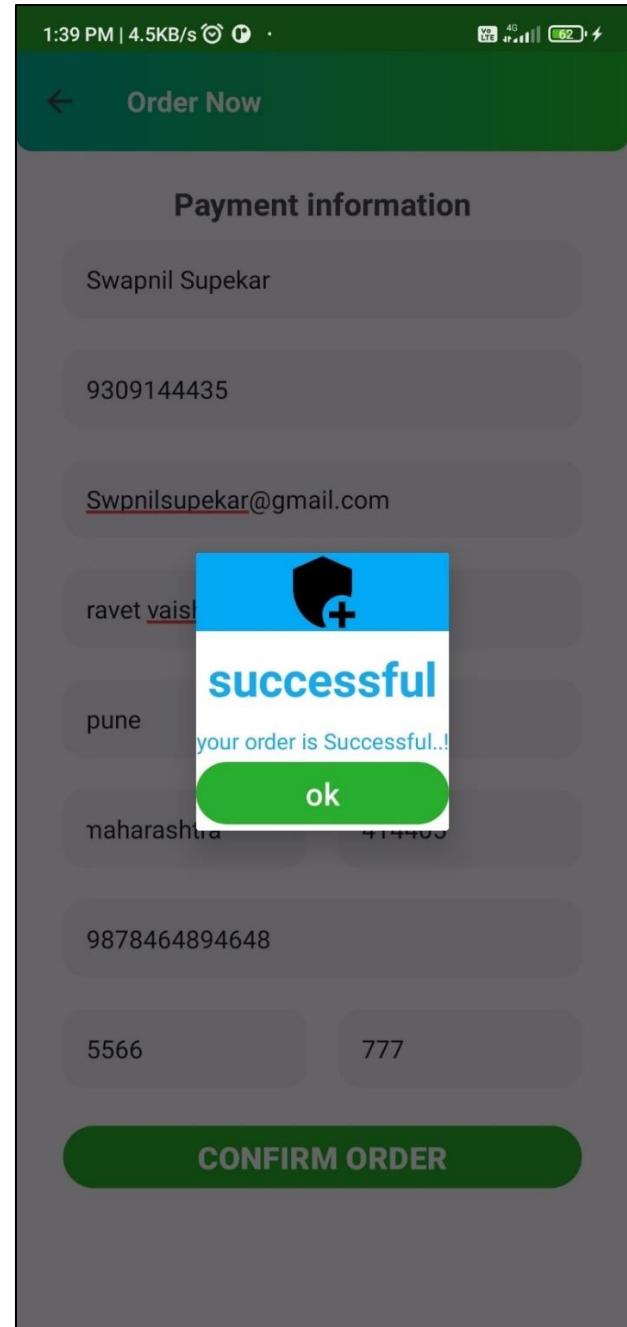
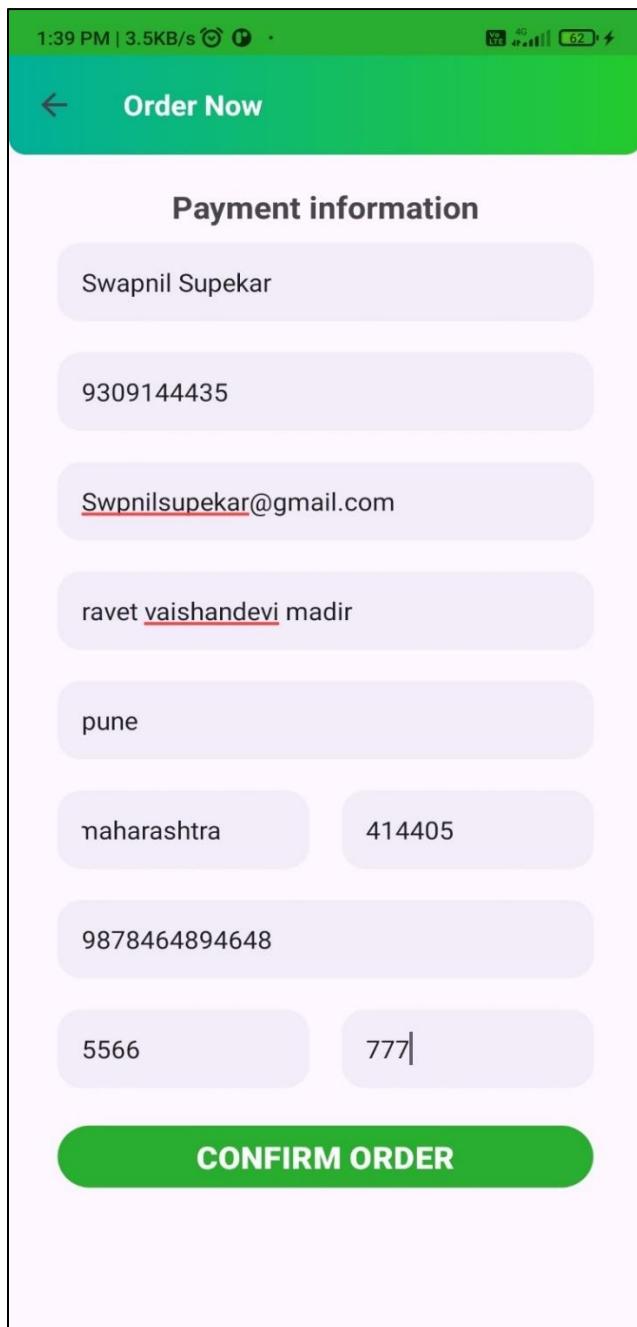
**VIVAYA**  
**Price:- ₹1,550.00**  
by Insceticides India Ltd.  
Category: Herbicides  
**Choose size to see price**

**1 L**

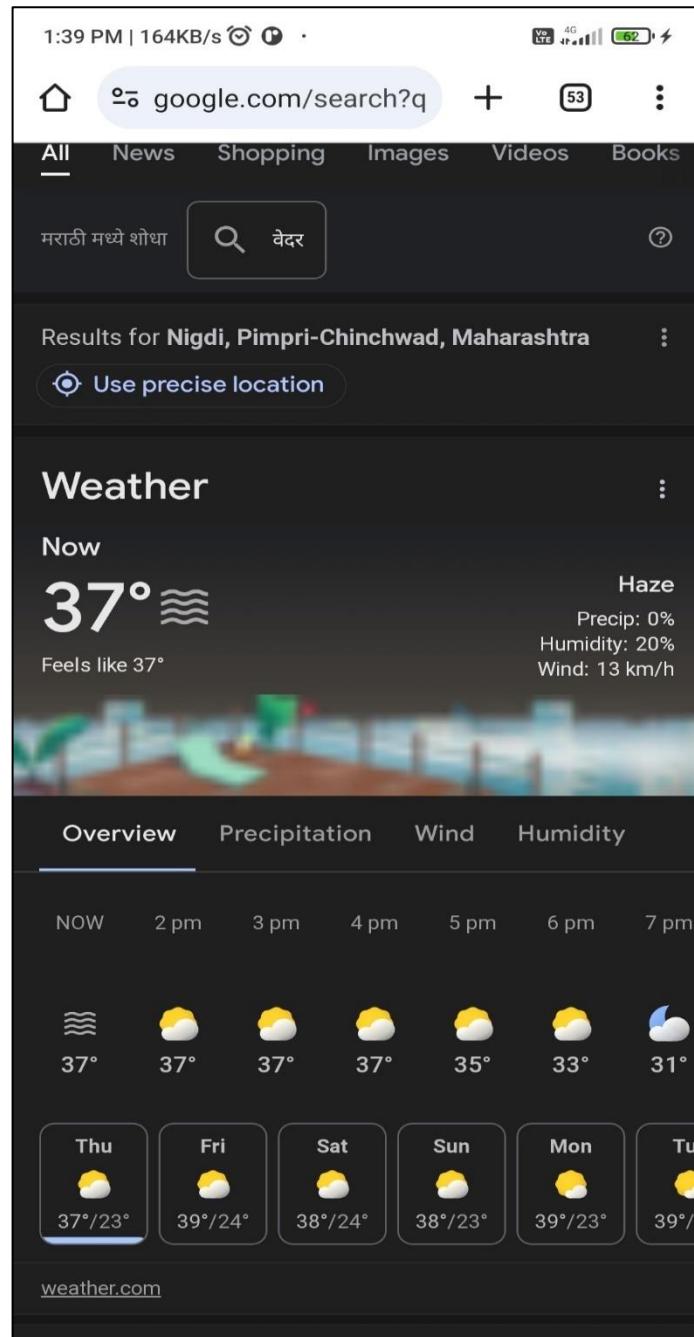
**Product Description**  
It is a pre emergence herbicide which prevents the emergence of most of the grassy and broad leaf weeds. It is also used as early post emergence application at 2-3 leaf.

**Order Now**

## 8.1.17 ORDER PAGE



## 8.1.18 WEATHER PAGE



## 8.1.19 GOVERNMENT SCHEMES

1:39 PM | 108KB/s 4G 62%

← Government Schemes

GOVERNMENT OF INDIA  
MINISTRY OF AGRICULTURE  
AND FARMERS WELFARE

मोदी सरकार की गारंटी,  
किसानों को हर साल ₹6000  
पौराने किसान सम्मान निधि योजना के

5 साल  
बेमिसाल

2.80 लाख करोड़ से अधिक किसानों को दस्तावेज़  
11 करोड़ से अधिक लापारी किसानों को दस्तावेज़

Pradhan Mantri Kisan Samman Nidhi

Pradhan Mantri Kisan Samman Nidhi (PMKISAN, translation: Prime Minister's Farmer's Tribute Fund) is an initiative by the government of India that give farmers up to ₹6,000 (US\$75) per year as minimum income support. The initiative was announced by Piyush Goyal during the 2019 Interim Union Budget of India on 1 February 2019.

SCHEME DETAILS

Organic Farming Incentive Scheme

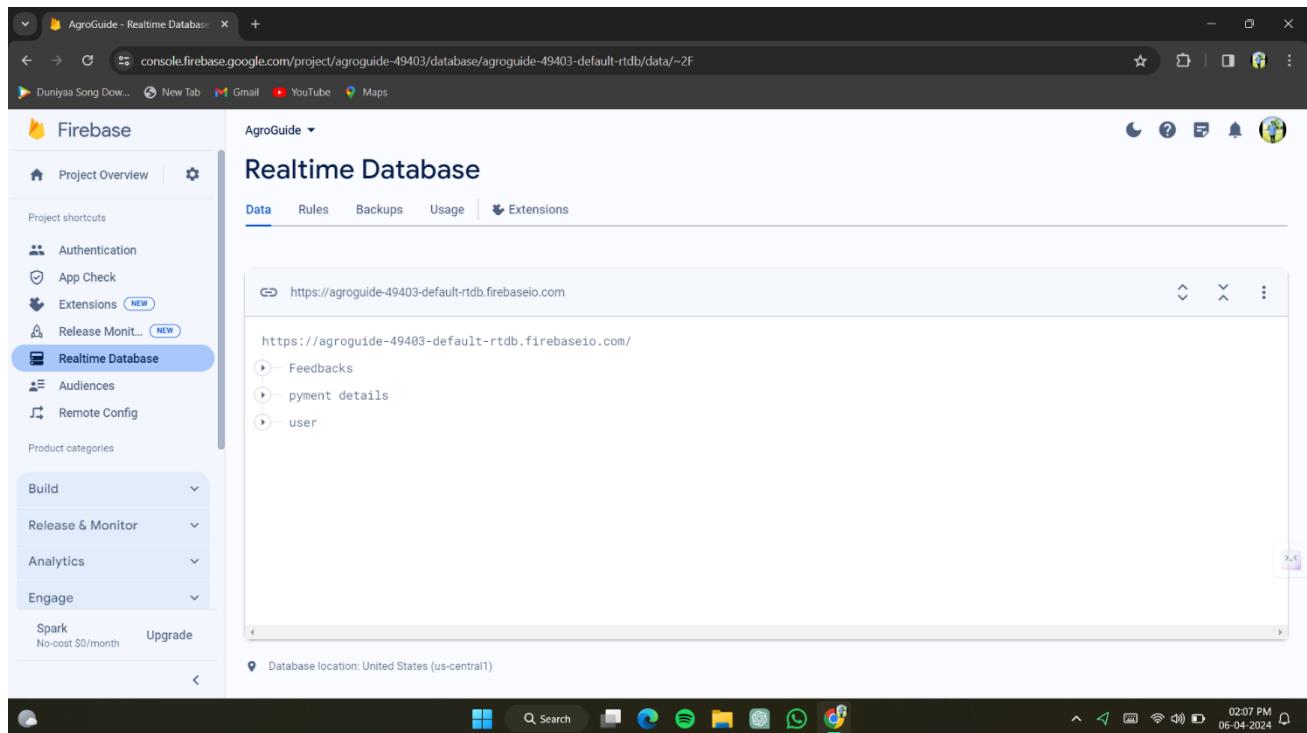
This scheme promotes cluster-based organic farming with Participatory Guarantee System (PGS) certification. Farmers receive assistance of ₹25,000 per hectare for three years for organic inputs, including organic manure and bio-fertilizers.

### **8.1.19 SHARE GOVERNMENT SCHEMES**

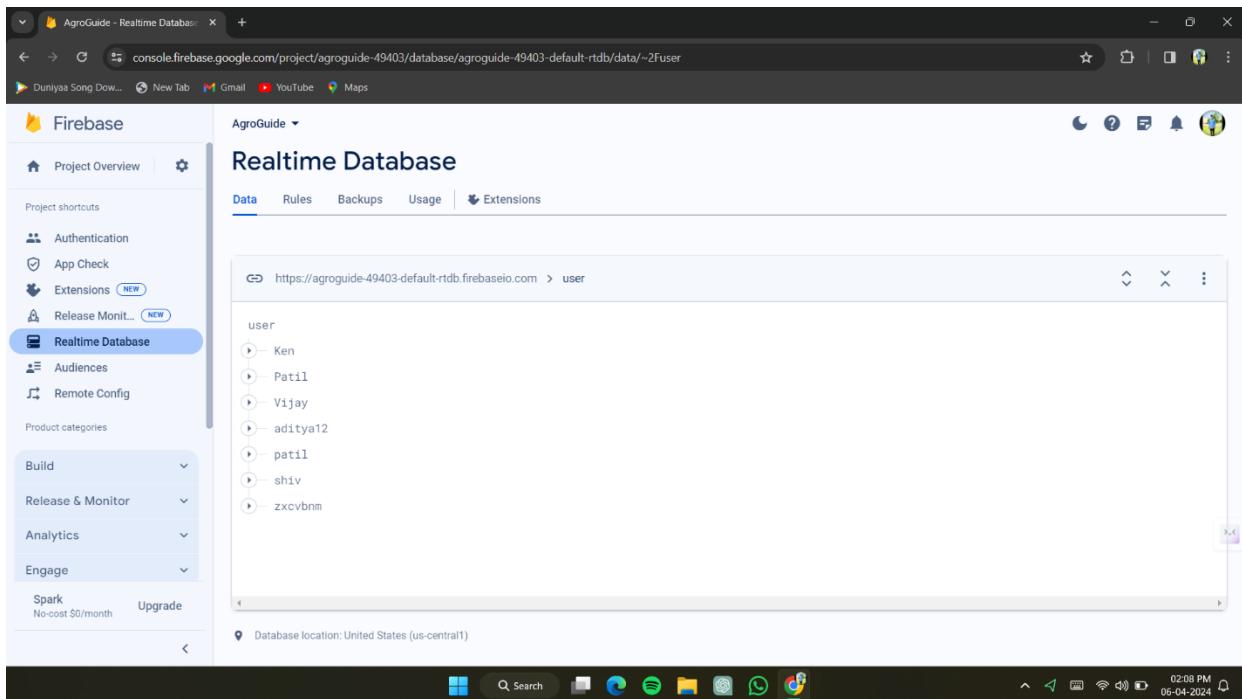


## 8.2 DATABASE

### 8.2.1 MAIN TABLE



## 8.2.2 USER

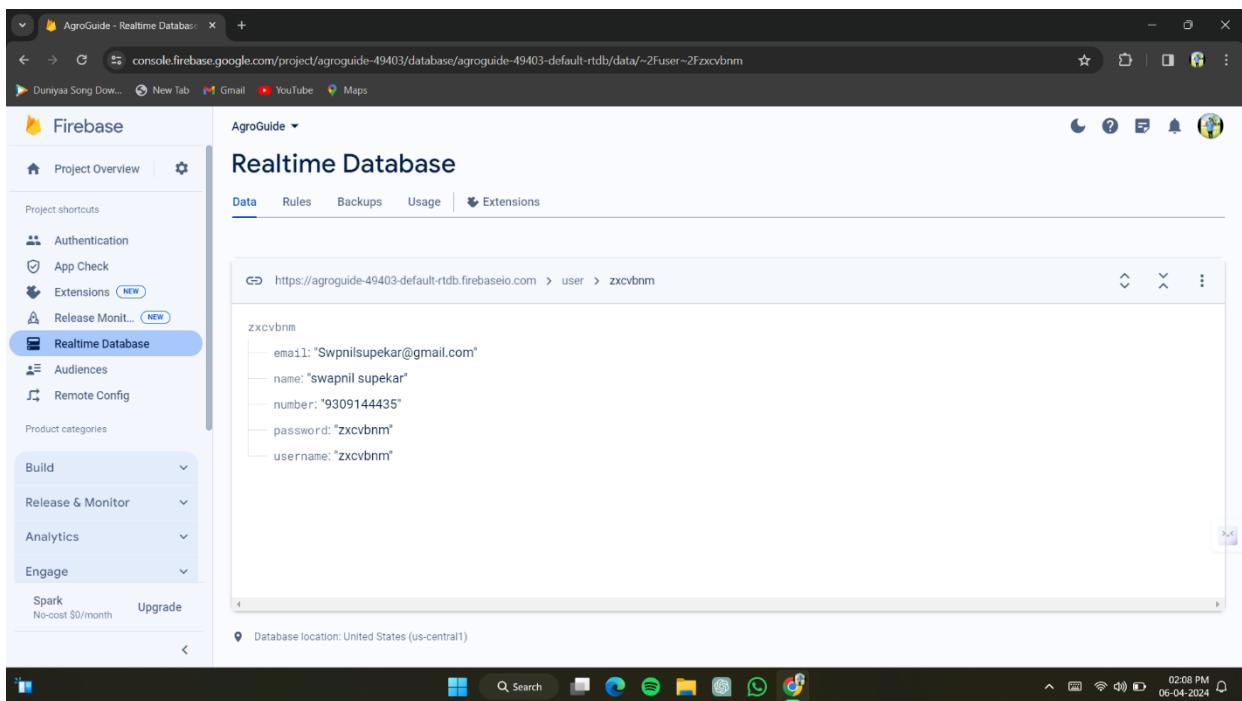


The screenshot shows the Firebase Realtime Database console for the project "AgroGuide". The left sidebar has "Realtime Database" selected under "Project shortcuts". The main area displays the database structure under the "user" node:

```
user
  - Ken
  - Patil
  - Vijay
  - aditya12
  - patil
  - shiv
  - zxvcvbnm
```

The status bar at the bottom indicates the database location is "United States (us-central1)" and the time is "02:08 PM 06-04-2024".

## 8.2.3 USER INFORMATION



The screenshot shows the Firebase Realtime Database console for the project "AgroGuide". The left sidebar has "Realtime Database" selected under "Project shortcuts". The main area displays the detailed information for the "zxvcvbnm" user node:

```
zxvcvbnm
  email: "Swpnilsupekar@gmail.com"
  name: "swpnil supendar"
  number: "9309144435"
  password: "zxvcvbnm"
  username: "zxvcvbnm"
```

The status bar at the bottom indicates the database location is "United States (us-central1)" and the time is "02:08 PM 06-04-2024".

## 8.2.4 PAYMENT DETAILS

The screenshot shows the Firebase Realtime Database interface. The left sidebar is collapsed. The main area displays a tree view of data under the path `payment details`. The data structure is as follows:

```
payment details
  Aditya bhoye
  Swapnil Supekar
  Vijay Nirpal
  karan
```

At the bottom of the database view, it says "Database location: United States (us-central1)". The browser's address bar shows the URL `https://agroguide-49403-default.firebaseio.com/project/agroguide-49403/database/agroguide-49403-default-rtbd/data/~2Fpayment%20details`.

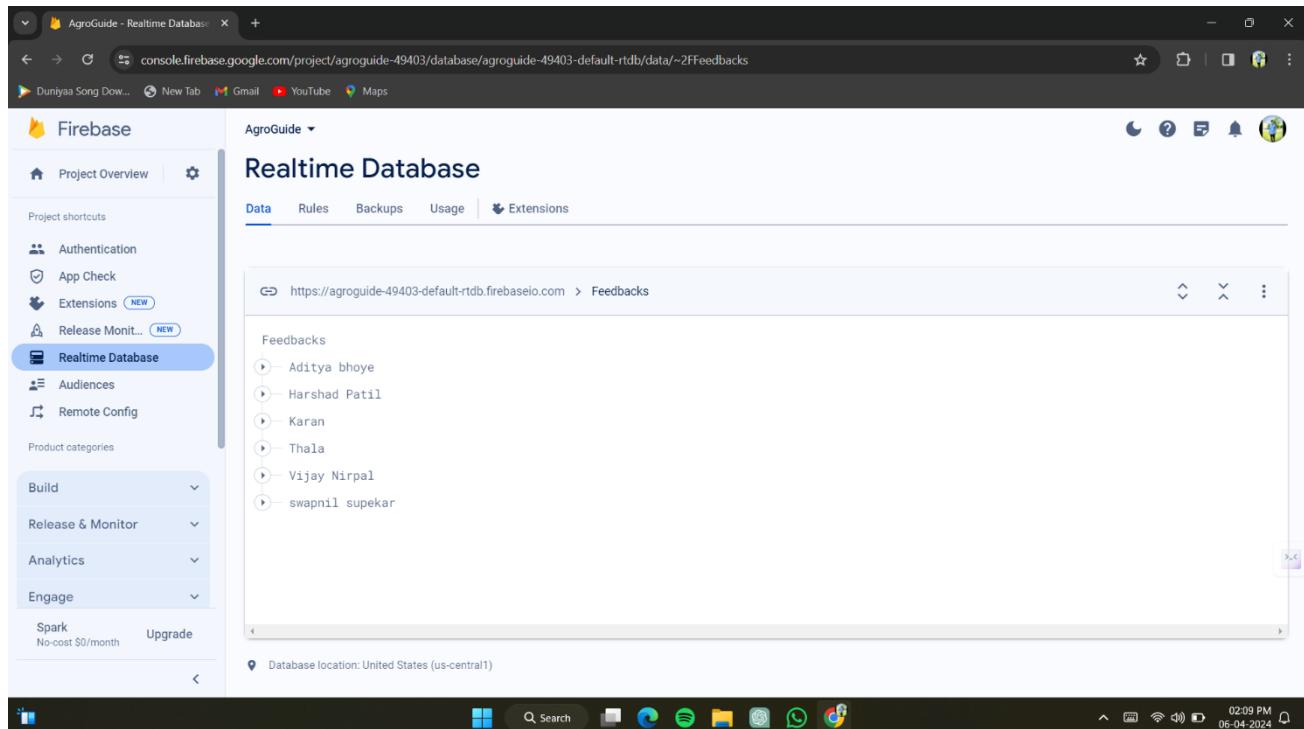
## 8.2.5 PAYMENT INFORMATION

The screenshot shows the Firebase Realtime Database interface. The left sidebar is collapsed. The main area displays a tree view of data under the path `payment details/Swapnil Supekar`. The data structure is as follows:

```
Swapnil Supekar
  card_number: "8464848849"
  city: "pune"
  cvv: "546"
  email: "Swpnilsupekar@gmail.com"
  mm_yy: "5585"
  name: "Swapnil Supekar"
  number: "9309144435"
  pincode: "414405"
  price: "1000 | 1L"
  product_name: "Impry"
  state: "maharashtra"
```

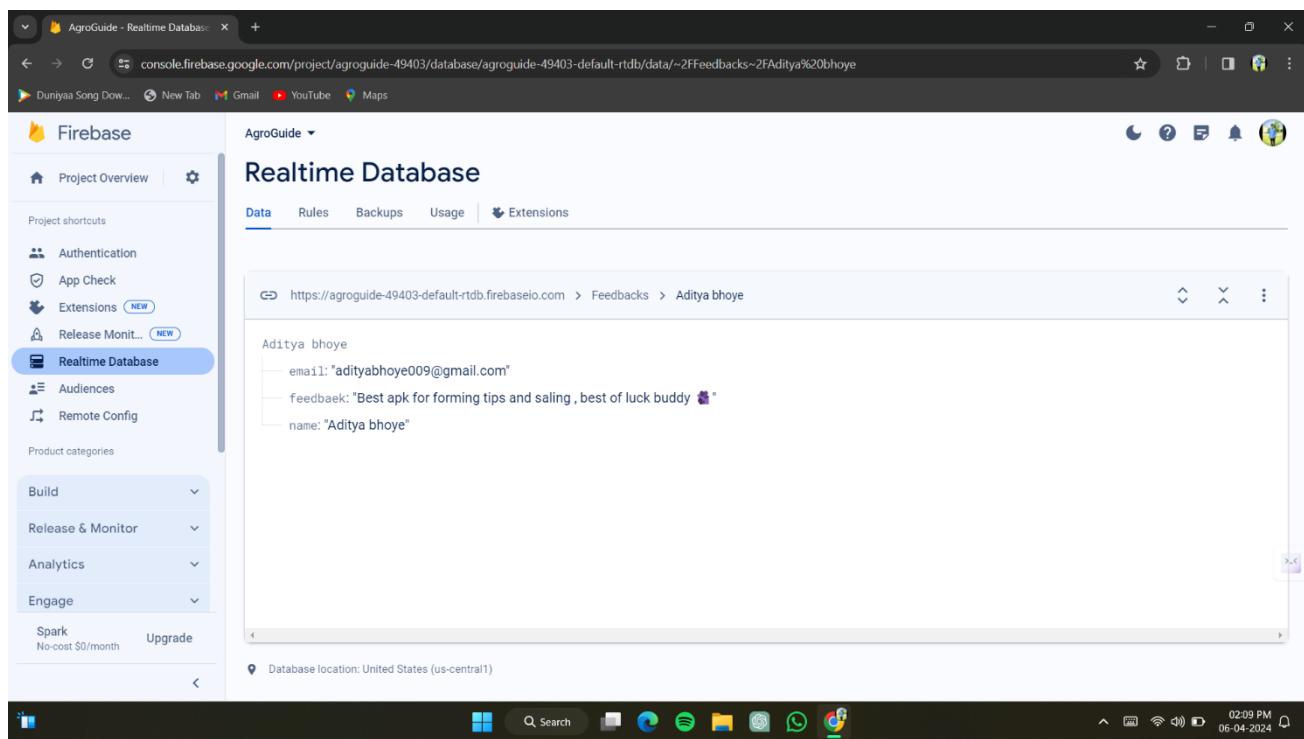
At the bottom of the database view, it says "Database location: United States (us-central1)". The browser's address bar shows the URL `https://agroguide-49403-default.firebaseio.com/project/agroguide-49403/database/agroguide-49403-default-rtbd/data/~2Fpayment%20details/~2FSwapnil%20Supekar%20`.

## 8.2.6 FEEDBACK



The screenshot shows the Firebase Realtime Database console for the project 'AgroGuide'. The left sidebar has 'Realtime Database' selected. The main area shows a tree view under 'Feedbacks' with nodes for users: Aditya bhoye, Harshad Patil, Karan, Thala, Vijay Nirpal, and swapnil supekar.

## 8.2.7 FEEDBACK INFORMATION



The screenshot shows the Firebase Realtime Database console for the project 'AgroGuide'. The left sidebar has 'Realtime Database' selected. The main area shows a detailed view for the feedback entry under 'Aditya bhoye'. The data includes:

- email: "adityabhoye009@gmail.com"
- feedback: "Best apk for forming tips and saling , best of luck buddy 🍀"
- name: "Aditya bhoye"

## **CHAPTER IX**

## **ADVANTAGES & LIMITATIONS**

## 9.1 ADVANTAGES

- Comprehensive Agricultural Information: AgroGuide provides farmers with a wide range of agricultural information, including crop cultivation techniques, pest management strategies, weather forecasts, market trends, and government schemes.
- Personalized Recommendations: The app offers personalized recommendations based on user preferences, location, and farming practices, helping farmers make informed decisions tailored to their specific needs and circumstances.
- Real-time Updates: AgroGuide delivers real-time updates on weather conditions, market prices, and agricultural news, enabling farmers to stay informed and adapt their farming strategies accordingly.
- Easy Access to Resources: With its user-friendly interface, AgroGuide makes it easy for farmers to access valuable resources such as farming tips, market prices, product information, and government schemes, all in one place.
- Enhances Productivity and Profitability: By providing timely information and recommendations, AgroGuide helps farmers optimize their agricultural practices, improve crop yields, and maximize profitability.

## 9.2 LIMITATIONS

- Limited Accessibility: Accessibility may be hindered in regions with poor internet connectivity or where smartphones are not widely used.
- Language and Localization: The app may not support all languages or provide content tailored to local agricultural practices, potentially limiting its usefulness for farmers in diverse regions.

**CHAPTER X**  
**PROJECT RELEVANCE**

### 10.1 CONTRIBUTION TO SOCIETY

AgroGuide contributes to society by empowering farmers with valuable knowledge and resources to improve agricultural productivity, sustainability, and livelihoods. By providing access to agricultural information, market prices, government schemes, and farming tips, the app helps farmers make informed decisions, optimize their farming practices, and maximize crop yields. This not only benefits individual farmers but also contributes to food security, economic development, and environmental conservation at the community and societal levels. Additionally, AgroGuide fosters community engagement by facilitating knowledge exchange and collaboration among farmers, creating a supportive network for collective learning and advancement in agriculture. Overall, AgroGuide's contribution to society lies in its efforts to empower farmers and enhance the resilience and sustainability of agricultural systems for the greater good of society.

### 10.2 ETHICS & CONCLUSION

- Data Privacy: AgroGuide ensures user data privacy by securely storing information and complying with data protection regulations.
- Transparency: The app maintains transparency in its operations, providing clear information about features, functionalities, and terms of use.
- Fair Treatment: AgroGuide offers equal access to resources and services, treating all users fairly regardless of demographics.
- Accuracy: The app prioritizes accuracy in information, verifying sources and updating content regularly for reliability.
- User Consent: AgroGuide respects user consent, seeking permission before collecting or sharing personal data.

In conclusion, AgroGuide app stands as a transformative tool in the agricultural sector, empowering farmers with valuable resources, information, and support to enhance their productivity, sustainability, and livelihoods. By leveraging technology ethically and responsibly, AgroGuide not only benefits individual farmers but also contributes to societal well-being by promoting food security, economic growth, and environmental conservation. With its commitment to transparency, fairness, and data privacy, AgroGuide exemplifies ethical practices in its operations, ensuring a positive and inclusive user experience for farmers worldwide.

## **CHAPTER XI**

## **CONCLUSION & FUTURE SCOPE**

## 12.1 CONCLUSION

In conclusion, the AgroGuide app stands as a transformative solution in the agricultural sector, empowering farmers with essential resources and support to enhance productivity, sustainability, and livelihoods. By leveraging technology responsibly, AgroGuide contributes significantly to societal well-being by promoting food security, economic growth, and environmental conservation. With its commitment to transparency, fairness, and data privacy, AgroGuide exemplifies ethical practices, ensuring a positive and inclusive user experience for farmers worldwide. As a comprehensive platform, AgroGuide plays a pivotal role in revolutionizing agriculture, driving innovation, and fostering community engagement among farmers.

## 12.2 FUTURE SCOPE

- **Integration of Emerging Technologies:** AgroGuide plans to integrate emerging technologies such as artificial intelligence (AI), machine learning (ML), and Internet of Things (IoT) to provide more advanced and predictive agricultural insights. This integration can help in optimizing farming practices, predicting crop yields, and mitigating risks associated with weather fluctuations and pest outbreaks.
- **Enhanced User Engagement:** AgroGuide aims to enhance user engagement by fostering a vibrant community within the app. This could involve implementing features such as discussion forums, expert Q&A sessions, and user-generated content sharing. By promoting knowledge exchange and collaboration among farmers, AgroGuide can become a hub for continuous learning and improvement in agricultural practices.

## **CHAPTER XII**

## **BIBLIOGRAPHY**

Watched YouTube for creating a APPLICATION :

Referred From:- <https://www.youtube.com/>

Took Wikipedia's reference for building our Application as well as to gain knowledge :

Referred From:- <https://www.wikipedia.org/>

Charts are built using an AI:

Referred From:- <https://developers.google.com/chart> Tutorials

helped us with some part of our Application :

Referred From:- <https://console.firebaseio.google.com/project/agroguide-49403/database/agroguide-49403-default-rtdb/data/~2F>