

KRISHI APP



Mobile Computing Project

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INTRODUCTION

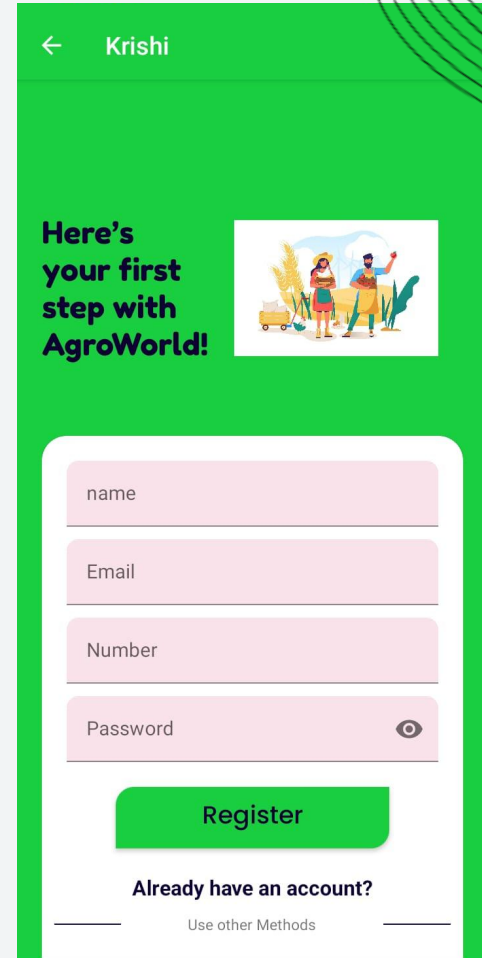
- ❖ Weather Tracking: Stay informed about local weather conditions and forecasts for better farming decisions.
- ❖ Crop Info: Access detailed data on crops, flowers, and fruits for optimal cultivation practices.
- ❖ Disease Control: Learn about common plant diseases, symptoms, prevention, and treatment.
- ❖ Skill Development: Explore educational resources to enhance farming techniques and stay updated on industry trends.
- ❖ Task Management: Schedule and receive reminders for essential farm activities for efficient plant care.



Best Guide and Helper for any Farmer. Provides various features at one place!

Registration Functionality

- **Firestore Authentication:** Handles user authentication using Firestore Authentication services, including email/password and Google Sign-In methods.
- **UI Setup:** Utilizes Data Binding to set up the activity layout and initialize views such as buttons and progress bars.
- **Email/Password Sign-Up:** Implements user registration with email and password, performing validation checks for input data before creating a new user account.
- **Google Sign-In Integration:** Integrates Google Sign-In functionality, allowing users to sign in with their Google accounts securely.
- **Input Validation:** Implements input validation for email, password, and phone number fields to ensure data integrity and security during user registration.



The screenshot shows a mobile app interface for 'AgroWorld'. At the top, there is a green header with a back arrow and the text 'Krishi'. Below the header, the main content area has a green background. On the left, it says 'Here's your first step with AgroWorld!'. On the right, there is an illustration of two farmers, a man and a woman, standing next to a yellow tractor and some crops. Below this, there is a white registration form with four input fields: 'name', 'Email', 'Number', and 'Password'. The 'Password' field has an eye icon to toggle visibility. Below the fields is a green 'Register' button. At the bottom, there is a link that says 'Already have an account?' with the text 'Use other Methods' below it.

← Krishi

Here's your first step with AgroWorld!

name

Email

Number

Password

Register

Already have an account?

Use other Methods



Login Functionality

- ❖ Google Sign-In Integration: Implements Google Sign-In functionality using Firebase authentication for streamlined user access.
- ❖ UI Initialization: Sets up the activity layout using Data Binding and initializes necessary views and components like buttons and progress bars.
- ❖ Google Sign-In Method: Defines a method to initiate the Google Sign-In process, launching the Google Sign-In intent for user authentication.
- ❖ Authentication Handling: Handles the result of Google Sign-In, authenticating with Firebase using obtained credentials and managing success and failure cases.
- ❖ Email & Password Sign-In: Implements user authentication via email and password, with validation checks for input data and handling authentication tasks using Firebase authentication methods.

Krishi

Already have an Account?

Email

Password

[Forgot Password](#)

Login

New user? Register Now

Use other Methods

Sign In



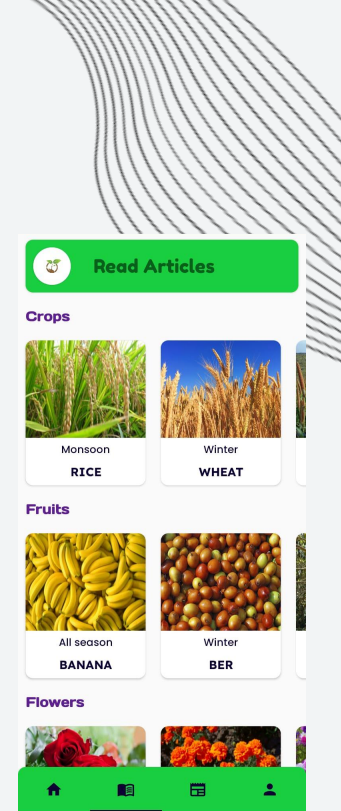
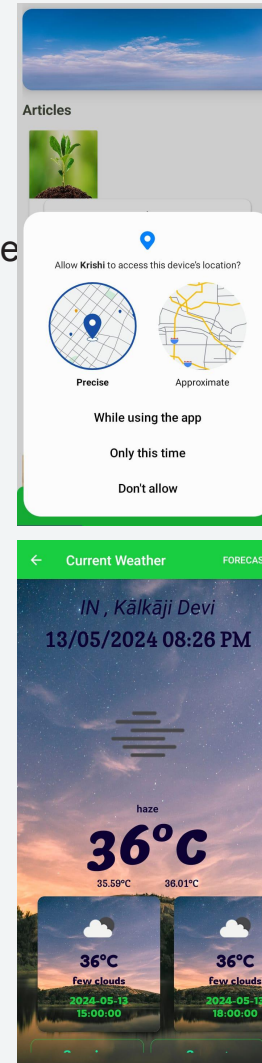
API Service Interface

→ Weather API:

- ◆ Used to fetch current weather data (get Weather Data) and weather forecast data (getWeatherForecastData).

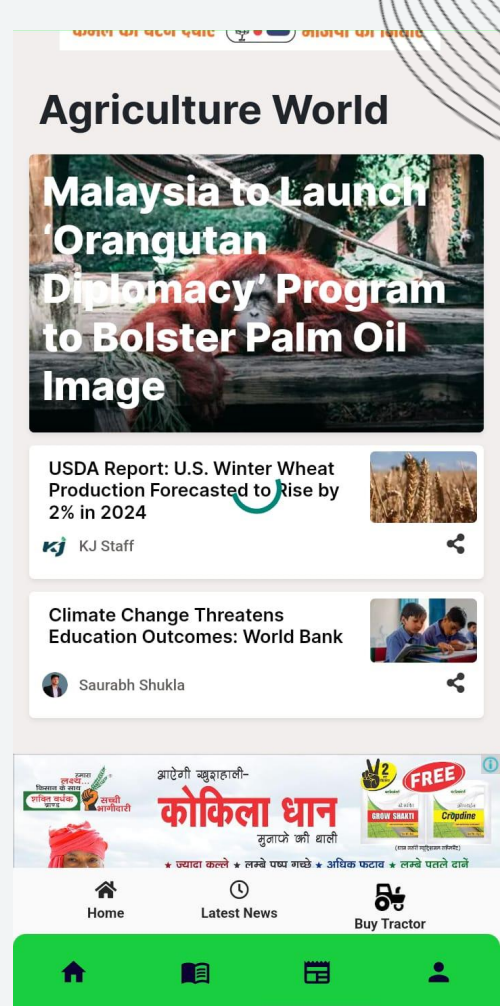
→ Agricultural Data API:

- ◆ Diseases API: Provides a list of diseases affecting crops (getDiseasesList).
- ◆ Fruits API: Offers information about various fruits (getFruitsFromDB).
- ◆ Flowers API: Provides details about different types of flowers (getFlowersList).
- ◆ Crops API: Supplies data about different crops (getListOfCrops).
- ◆ How-to-Expand API: Offers information on how to expand agricultural activities (getListOfHowToExpandData).
- ◆ Insect and Control API: Provides information on insects and their control measures (getInsectAndControlList).



News Functionality

- ❖ Sets up a WebView component to present news content within the fragment.
- ❖ Loads news content from specific URLs determined by the user's language preference.
- ❖ Implements a custom WebViewClient to handle URL loading and page navigation within the WebView.
- ❖ Enables users to navigate back within the WebView's browsing history by intercepting key events.
- ❖ Manages a progress bar to provide visual feedback on the loading status of the news content.





Add Task Activity

- ❖ Allows users to add tasks with specified date, time, description, and priority.
- ❖ Utilizes DatePickerDialog and TimePickerDialog for selecting date and time respectively.
- ❖ Implements ViewModel architecture for data handling and persistence using Room database.
- ❖ Sets up alarm reminders for tasks using AlarmManager and BroadcastReceiver.
- ❖ Provides options to set task priority via a popup menu and validates user input before saving tasks.

20:25 [Icons] 10%

Krishi

Create new routine

Date	Time	Priority
<input type="text" value="title"/>		
<input type="text" value="Product Description"/>		

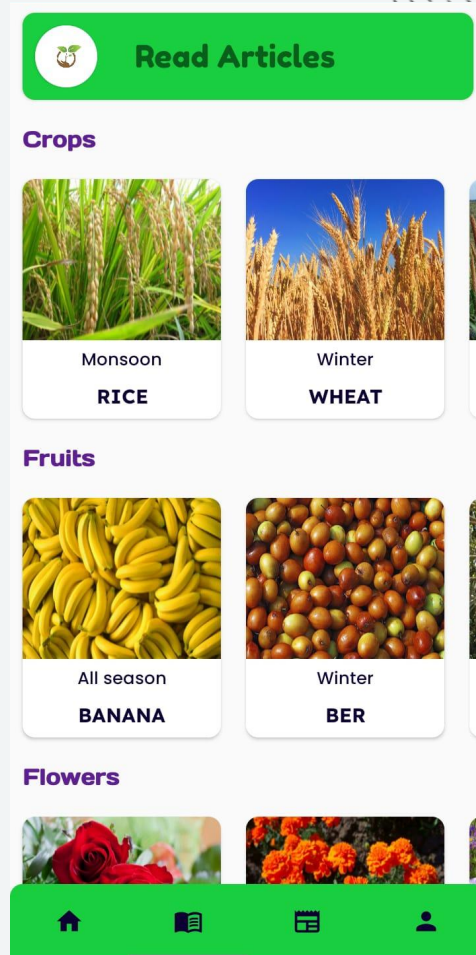
[Calendar Icon] [Clock Icon] [Flag Icon] DONE



Read Articles

Crops Activity:

- Retrieves crop data from an API and displays it in a RecyclerView.
- Implements a click listener interface to handle user interaction with crop items.
- Utilizes ViewModel architecture for data handling and separation of concerns.
- Provides navigation to a detailed view of selected crop items.
- Ensures a responsive UI with progress indicators for loading states.

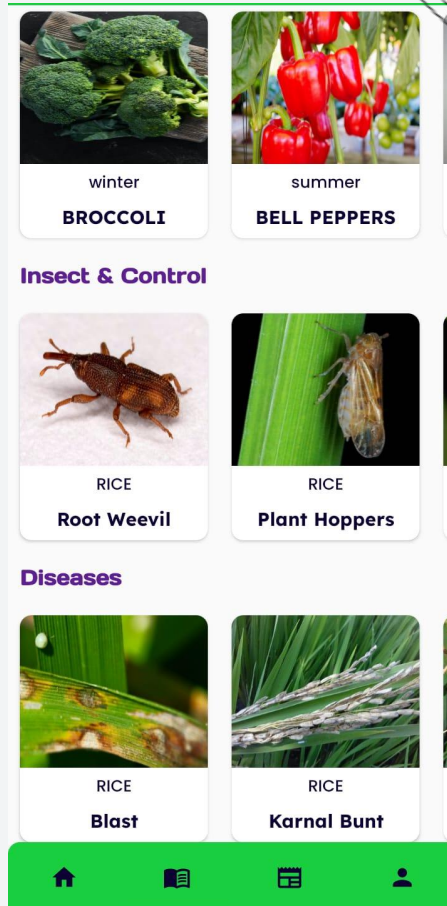




Read Articles

Disease Activity:

- Fetches diseases data from an API and exhibits it in a RecyclerView.
- Utilizes ViewModel for managing data and lifecycle-aware observation of data changes.
- Implements a click listener interface for responding to user interactions with disease items.
- Incorporates shimmer effect for loading visual feedback during data retrieval.
- Supports navigation to detailed information about selected diseases with `startActivityForResult`.

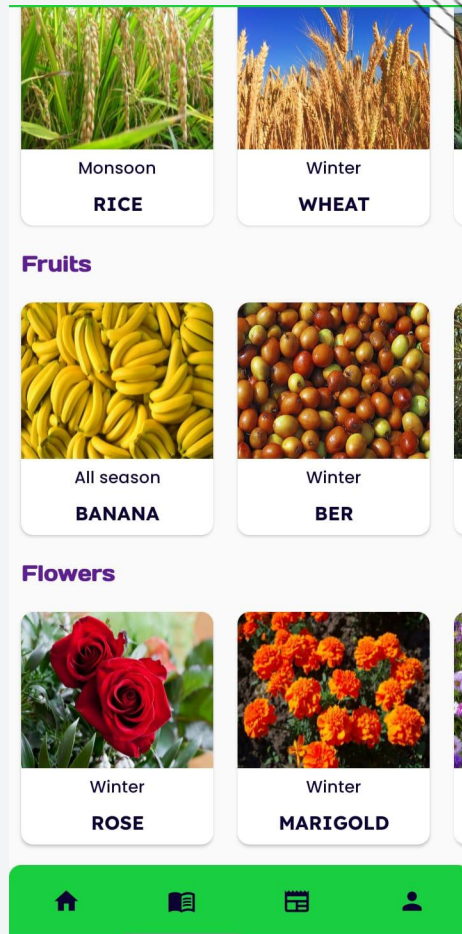




Read Articles

Flowers Activity:

- Fetches flower data from an API and displays it in a RecyclerView.
- Utilizes ViewModel architecture for data management and lifecycle-aware observation of data changes.
- Implements a click listener interface to handle user interaction with flower items.
- Ensures a responsive UI with progress indicators for loading states.
- Provides navigation to a detailed view of selected flower items.

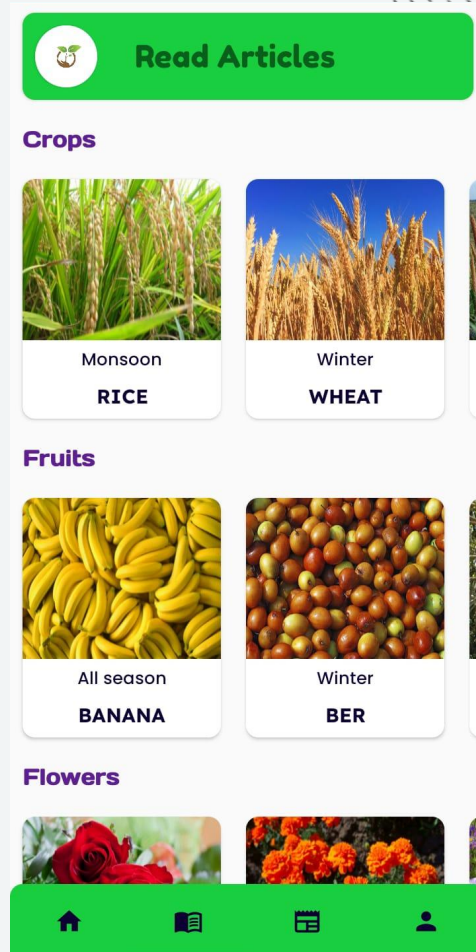




Read Articles

Fruits Activity:

- Retrieves fruit data from an API and exhibits it in a RecyclerView.
- Implements ViewModel for managing data and lifecycle-aware observation of data changes.
- Incorporates a click listener interface for responding to user interactions with fruit items.
- Utilizes a CustomMultiColorProgressBar for loading visual feedback during data retrieval.
- Supports navigation to detailed information about selected fruit items.





**THANK
YOU**

