Digital Farming App

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Abstract - The project is an Android application built using Java in Android Studio, designed specifically for farmers. It includes several features that aim to enhance crop management, provide daily useful articles, update farmers about government schemes, offer various crop insurance plans, provide useful videos, and enable farmers to connect with professionals and get their questions answered. The crop management feature allows farmers to create a record page where they can enter any date with details about what they did on the farm that day, including the pesticides used. All this information is stored as notes, which can be easily accessed and managed. The crop management feature is particularly useful as it allows farmers to keep detailed records of their farm activities. This information can help them make better-informed decisions and improve their crop yield.

Key Words: *Farming app, Agriculture App, Krushi app*

1. INTRODUCTION

Agriculture is the backbone of many countries' economies, and farmers play a critical role in ensuring food security for the population. However, farming can be a challenging profession, with farmers facing various issues such as unpredictable weather patterns, pests and diseases, and changing market demands. In today's modern era, technology can be a significant ally for farmers, helping them manage their crops effectively and efficiently. Farming is the Prime Occupation in India, nowadays each and every one are involved in farming system. Farming is the one and only one source of income for the major population that live in rural areas. Moreover while 58% of Indian households still depend on agriculture as their most eminent source of livelihood, it's time to give more focus on Digital Agriculture for a growing and prosperous India.

Our system has been developed to overcome the problems of diffusion in manual systems of practice. This application is supported to remove and, in some cases, reduce the burden on this existing system. Besides this system is designed according to the specific needs of the company's work smooth and effective way.

The application is minimized as much as possible to avoid errors when entering data. It also provides an error message when invalid data is entered. No formal knowledge user must use this system. Thus, it proves that it is user friendly farm A proposed system, as described above, can be error free, safe, and reliable and a management system this can help the user to focus on their other activities instead, focus on record keeping. this will help in improving the farming. Use of resources every organization, be it big or small, has to overcome and manage challenges, information on crops, farms, pesticides, equipment, pesticides each area.

Farm management systems have different needs, so we design specifically personnel management systems that meet your managerial needs.

2. LITERATURE SURVEY

Crop management: A study by the Food and Agriculture Organization (FAO) highlights the importance of crop management practices in increasing agricultural productivity and reducing losses due to pests, diseases, and weather-related events. The study emphasizes the need for providing farmers with access to up-to-date information and professional advice on crop management practices.

Government schemes: A study by the National Bank for Agriculture and Rural Development (NABARD) highlights the role of government schemes in supporting small and marginal farmers in India. The study identifies challenges faced by farmers in accessing and utilizing government schemes, such as lack of awareness and bureaucratic procedures.

Crop insurance: A study by the International Food Policy Research Institute (IFPRI) emphasizes the importance of crop insurance in mitigating the risks faced by farmers due to weather-related events, pests, and diseases. The study highlights the need for providing farmers with customized crop insurance plans that meet their specific needs.

Digital solutions for farmers: A study by the Indian Council for Research on International Economic Relations (ICRIER) highlights the potential of digital solutions in improving the livelihoods of small and marginal farmers in India. The study identifies challenges faced by farmers in accessing digital solutions, such as lack of infrastructure and technical know-how.

Based on these findings, the Android application developed in this project aims to address the challenges faced by farmers by providing them with a comprehensive platform that can provide them with up-to-date information, professional advice, and guidance on managing their crops effectively. The application also aims to help farmers understand government policies and schemes and access customized crop insurance plans. Overall, the literature survey highlights the importance of digital solutions in improving the livelihoods of farmers and the potential impact of the Android application developed in this project.

3. PROPOSED METHODOLOGY

Development of a User-Friendly Agricultural Information System for the World WideWeb

Satisfy the needs of agricultural aspirants.

Provide all information to research institutes, buyers, growers, and investors.

The database can be updated by authenticated users on the research institute's Internet.Most reference information for farmers and decision-makers in Sri Lanka's agriculture sector. Ex. Latest Fertilizers, Specialty Chemicals.

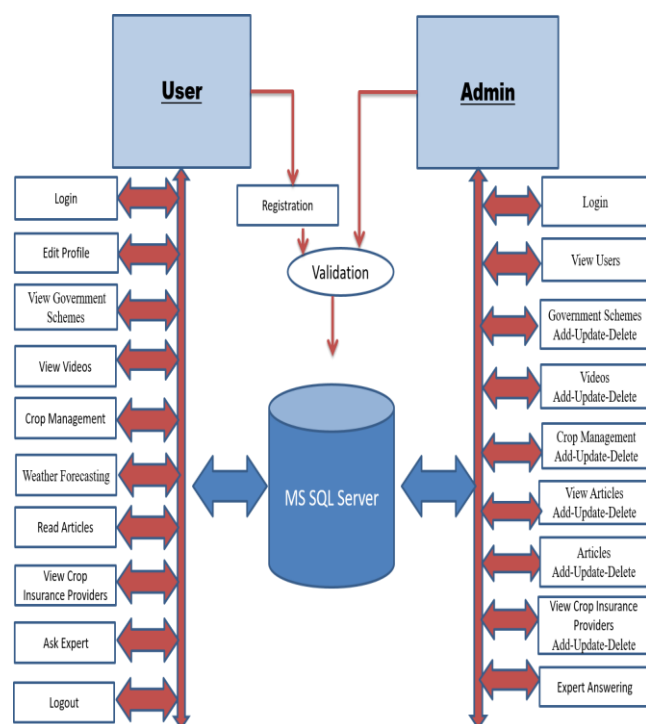Monitoring and baking of database and user details for future use.

Fig 3.1. Architecture Design

Existing System: --

Kisan Suvidha: This Android application provides farmers with up-to-date information on weather forecasts, market prices, agricultural machinery dealers, and government schemes. It also includes a section for farmers to post queries and get expert advice.

AgriApp: This Android application provides farmers with information on crop management practices, weather forecasts, market prices, and government schemes. It also includes a section for farmers to sell their produce directly to buyers.

mKrishi: This Android application provides farmers with information on crop management practices, weather forecasts, market prices, and government schemes. It also includes a section for farmers to post queries and get expert advice.

FarmGuru: This Android application provides farmers with information on crop management practices, weather forecasts, market prices, and government schemes. It also includes a section for farmers to get expert advice on pest and disease management
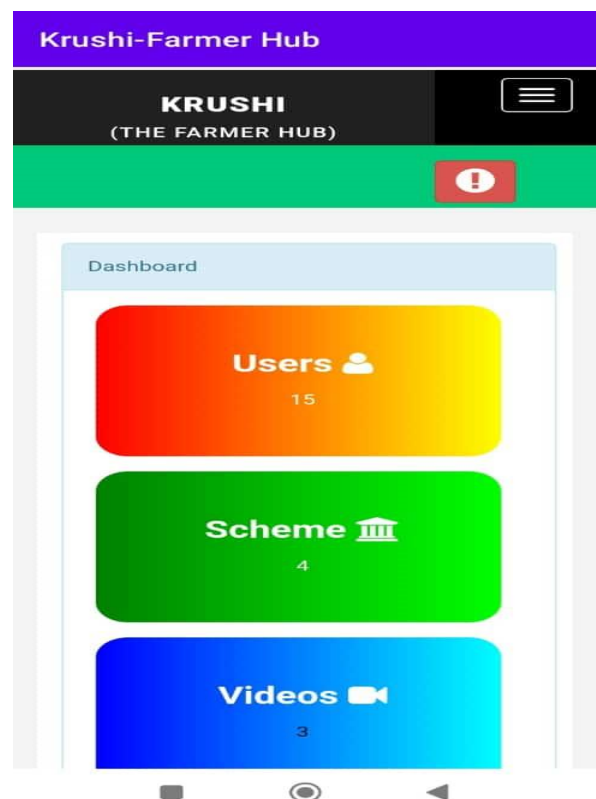
4. RESULT AND IMPLEMENTATION

Fig 3.2 Admin home page

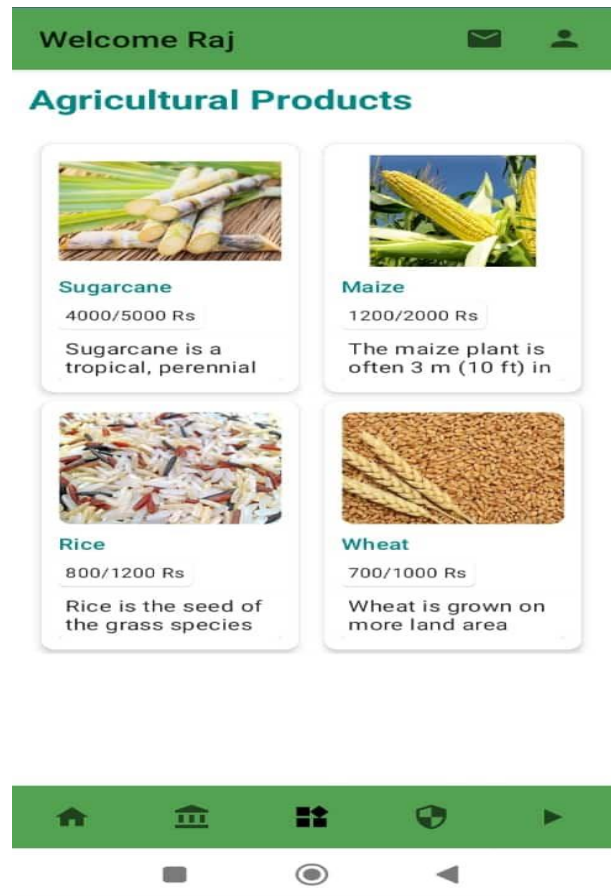Fig 3.3 Admin login

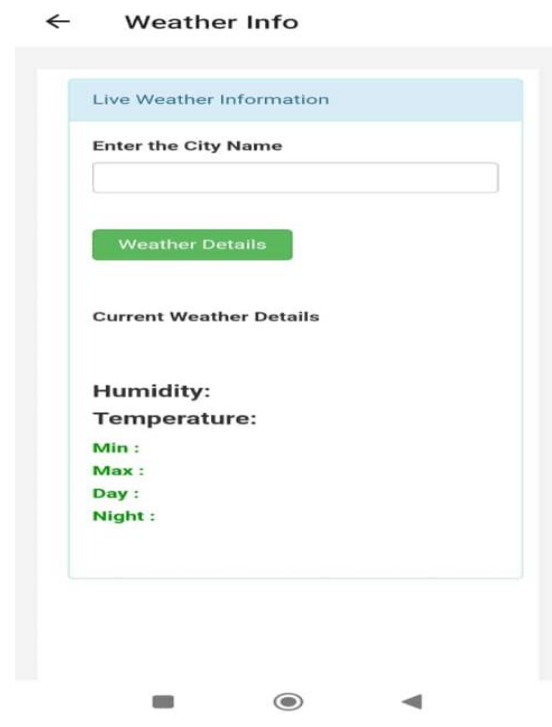Fig 3.5 Agriculture Product Page

Fig 3.4 User Home Page
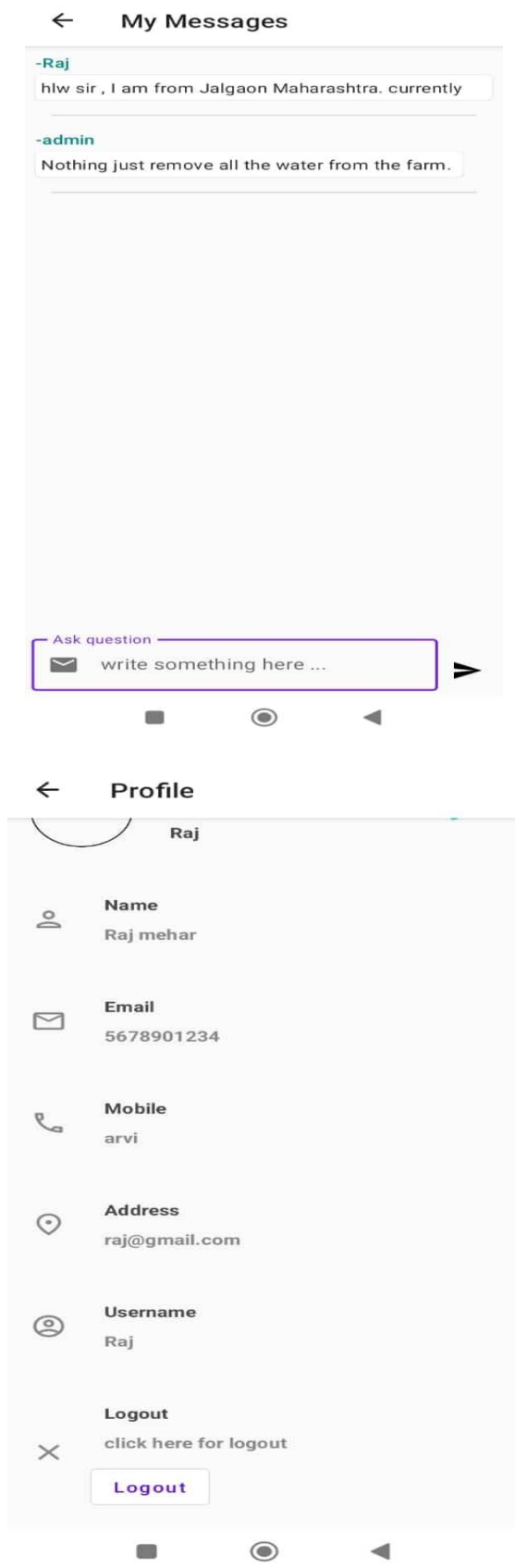

Fig 3.6 User's Weather Forcasting

Fig 3.7 User's professional talks

5. CONCLUSION

Hence, we concluded the project of farming application is an initial proposal to show that this kind of information system is forcible. The real benefit of this type of information system to agricultural-based countries & farmers can be seen when it becomes operational as planters, importers, exporters, and researchers, will have access to up-to-date information. In addition to that the entire major Institute should be provided with internet access and the necessary human resources personnel to make this project are reality.

The Android application project that we have created for farmers is aimed at providing valuable information and resources to assist them in managing their crops more efficiently. By incorporating features such as crop management, daily articles, government schemes, crop insurance plans, videos, and professional talks, the Android application provides a one-stop platform for farmers to access information, ask questions, and get expert advice.

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