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E-Agro

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ABSTRACT—This paper includes the proceedings and all the information regarding the app "E-Agro". It is an android application created for the ease of farmers so that they can get all the information like Schemes, Prices, Feeds, and can also chat & buy farming products though this app.

I. INTRODUCTION

Agriculture or farming is the practice of cultivating plants and livestock. Agriculture was the key development in the rise of sedentary human civilization, whereby farming of domesticated species created food surpluses that enabled people to live in cities. The history of agriculture began thousands of years ago. After gathering wild grains beginning at least 105,000 years ago, nascent farmers began to plant them around 11,500 years ago. Pigs, sheep, goats, and cattle were domesticated over 10,000 years ago. Plants were independently cultivated in at least 11 regions of the world. Industrial agriculture based on large-scale monoculture in the twentieth century came to dominate agricultural output, though about 2 billion people still depended on subsistence agriculture.

Following the three-sector theory, the number of people employed in agriculture and other primary activities (such as fishing) can be more than 80% in the least developed countries, and less than 2% in the most highly developed countries. Since the Industrial Revolution, many countries have made the transition to developed economies, and the proportion of people working in agriculture has steadily fallen. During the 16th century in Europe, for example, between 55 and 75% of the population was engaged in agriculture; by the 19th century, this had dropped to between 35 and 65%.In the same countries today, the figure is less than 10%. At the start of the 21st century, some one billion people, or over 1/3 of the available work force, were employed in agriculture. It constitutes approximately 70% of the global employment of children, and in many countries employs the largest percentage of women of any industry. The service sector overtook the agricultural sector as the largest global employer in 2007.

Agriculture is the primary occupation of the larger part of Indian population. 65-70% of Indian population is being depends on agriculture for their living.

The challenging task for farmers is information management mainly in terms of the amount of data and the complexity of processes in precision farming.

Agro-App is a mobile application built keeping the farmers in mind and also a common man who wants to grow vegetables for his daily need.

It keeps a farmer updated with all the information related to crop, pesticides, insecticides, financial sector etc. It provides detailed information about which crop to grow in which season and which crop is suitable for that particular area in which the farmer is living.

This Agro App contains several scheme and crop related information which is provided by farmer or government agents.

This app is also for the Animal husbandry there types, prices, meds, etc.

II. PROBLEM STATMENT

•The major problem of agriculture farmer is to inadequate amount of sources and lack of knowledge to boost their productivity and don't aware of government scheme and other major issue is considered.

•They do not get verified content regarding their crop problems or schemes, all should be verified from authorized person.

•There is no individual content for farmers where they can watch only information regarding farming or animal husbandry

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III. METHEDOLOGY

A) Login Module
- All user can login using there registered mobile number.
- OTP will be required to login.
- App will check the user type in database (Farmer, Expert, and Shop).
- Firebase is used to authenticate users.

B) Registration Module
- User can register using register module.
- User need to fill the form first to register:
- Farmer registration includes:
- Mobile number
- Name
- Address
- Area of land
- Expert registration includes:
- Mobile number
- Name
- Address
- Position
- Experience
- Shop registration includes:
- Type of shop (Agriculture/Pets)
- Mobile number
- Name of Shop
- Name of proprietor
- Address
- GST number
- Aadhar number
- License numbers

C) Feeds Module
- User can see feed on the feeds tab.
- User can like, comment, save the post.

D) Uploading Photos/Videos
- Users can upload videos/photos from their phone which are stored in their phone.
- No individual camera module for the app is designed for now.
- The videos /photos are stored in firebase storage.

E) Chat Module
- Users can chat with each other.
- Experts can create discussion groups.
- Timestamp will be included in chats.

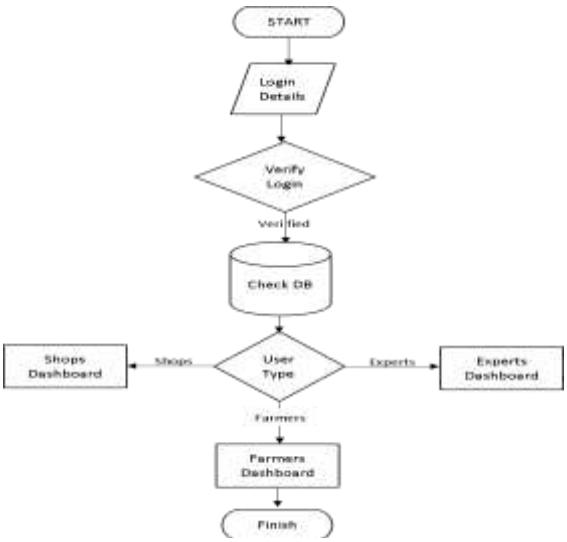
F) Schemes Module
- User can see various schemes.
- User can hear the audio format of scheme
- User can switch between Hindi and English language scheme pdf

G) Purchasing Module
- Farmers can buy the products form the app.
- Can buy from the registered shop near them or from whichever they want.
- The delivery will be provided by the shops or they can buy it by visiting the store.

H) Profile Module
- User can see their profile.
- User can edit their profile.
- See the post which they have posted.
- Can see the saved posts.

IV. DATA FLOW DIAGRAMS

Login Module



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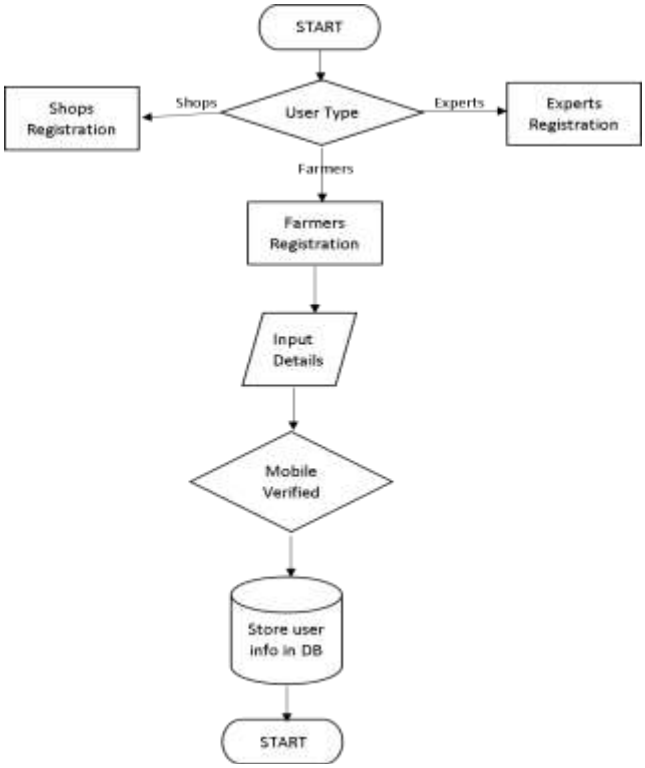
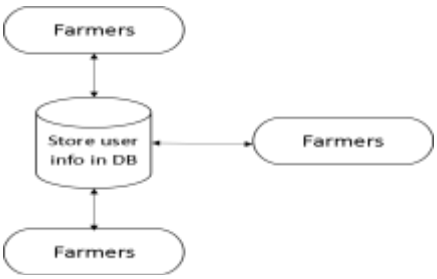
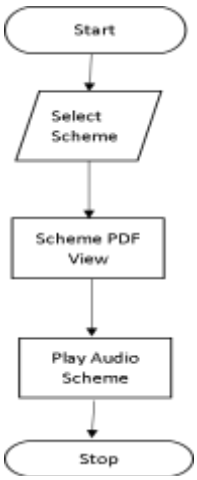
Signup Module



Chat Module



Scheme Module



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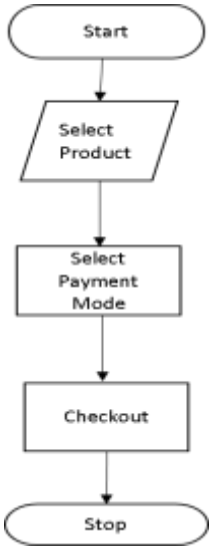
Purchasing Module



V. DISCUSSION & RESULT

Creating an Android based mobile application using Java, Xml, SQL and Firebase.

The app will contain type of users:

– Farmers: Farmer can login/signup using their mobile number and OTP. The farmer section will contain Feeds, Info, Chats, and Profile. In Feed Section farmers can see the latest feed (Photos, Videos) and can perform following actions on it: Like it, Comment on it, save the post. In Info section farmer can get information about crops/pets like there Information, prices, schemes and all. In chat section farmer can see all the recent chats and by clicking on then can chat to particular user. In profile section farmer can edit and see the profile information and posts.

– Experts: Experts can login/signup using their mobile number and OTP. If it's new user admin will verify it first then can login. The experts section will contain Feeds, Info, Chats, and Profile. In Feed Section expert can see the latest feed (Photos, Videos) and can perform following actions on it: Like it, Comment on it, save the post. In Info section expert can get information about crops/pets like there Information, prices, schemes and all. In chat section expert can see all the recent chats and by clicking on then can chat to particular user. In profile section farmer can edit and see the profile information and posts. Expert can post the new released schemes and can help farmers regarding their particular problems.

– Shops: Shops can login/signup using their mobile number and OTP. The shop section will contain Feeds, Info, Chats, and Profile. In Feed Section shop can see the latest feed (Photos, Videos) and can perform following actions on it: Like it, Comment on it, save the post. In Info section farmer can get information about crops/pets like there Information, prices, schemes and all. In chat section shop can see all the recent chats and by clicking on then can chat to particular user. In profile section farmer can edit and see the profile information and posts. Shop user can update the prices of products and can also add new product. Shop owner can also chat with farmers and experts.

•The schemes and crop related Information can be uploaded by Admins and Agro-Instructors
•Admin will verify the Experts/Shops and then they can use app.
•User can switch between languages in app.
•User can listen audio transcript of schemes in multiple languages which are available.

- The upload of Schemes and its audio transcript will be uploaded by expert and admin and will be verified by admin.

CONCLUSION

Here is the conclusion is that while using these app the main agenda is to provide proper information regard farming, cropping and other things which is useful for the better growth and production of the crops.

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Second major factor is toaware the farmer regarding with the government scheme and various benefits like problem solving for their crop, enquiry related to their query.

Farmer can check prices of products across the shop and can buy with best price option.
They can get updates from different farmers by videos and photos uploaded in feeds.

Register as farmer

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Register as expert

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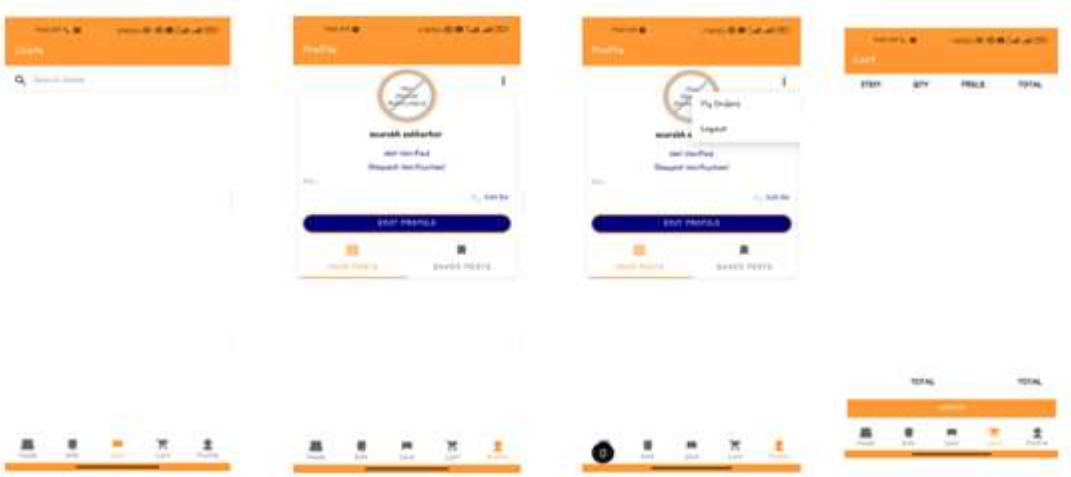
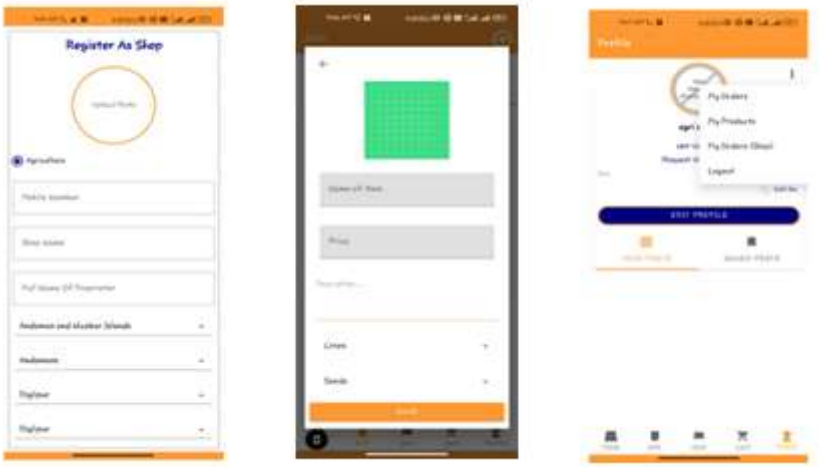
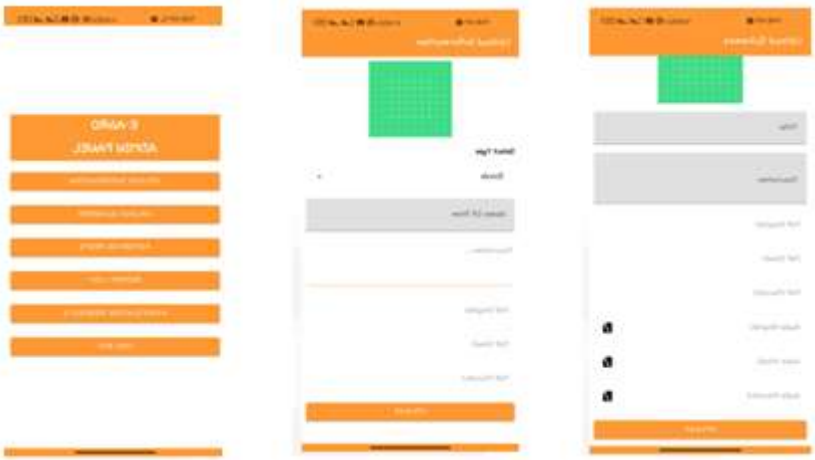


Register as shop



Register as admin



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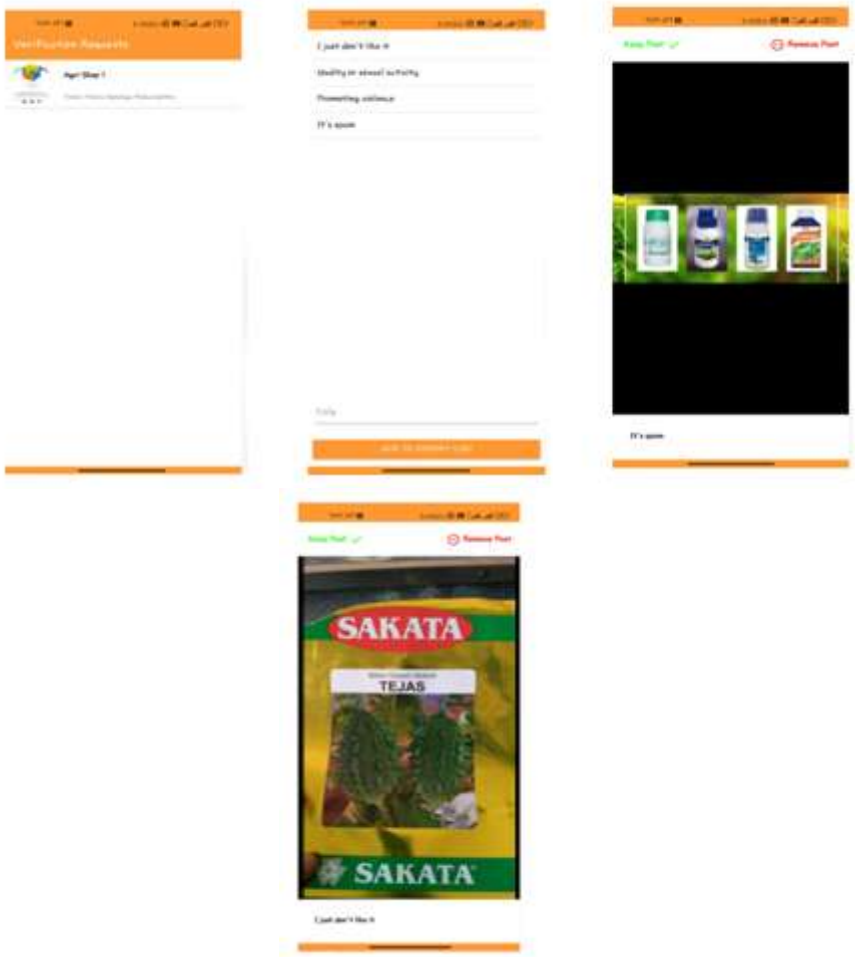

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