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ACKNOWLEDGEMENT

First of all we would like to thank my lecturer Mr. Sreedhar who taught us Object Oriented and Analysis. He helped us to learn about different types of software development methodologies along with benefits. He also taught us the basic knowledge of UML Design.

Lastly, we am very glad that I have successfully able to complete our project time. We appreciate some of our friends for helping out along the way of this development. We thank all of them cordially for their helpful attitude.

1.0 INTRODUCTION

In today's tech era, IOT (Internet of things) has become much popular around the world. Almost all the devices, which are known as smart device, can connect to the internet and access data from any corner of the world. Now the technology is more advanced then compare to any previous times and henceforth we have just tried to develop a prototype android app named “AGRO-FARM” .

This app is basically a guide for farmers which can be helpful for them in purchasing agricultural inputs like seeds, fertilisers etc from shops near by them. We have used Google Map API which can be useful in finding paths to the nearest godwon/dealers. This also includes online payment portal. It also includes weather prediction in it which can be useful for planning of farming and also we have included a feature of price compare which gives the actual and current price of the commodity as set by the Indian government. So, our app is just a powerful mini-guide for the farmers for their day to day life. This android app can play a great role in development of primary sectors and also protect the farmers from exploitation of brokers, landlords and middleman.

We have undergone through the “water-flow technique” of software development where we first we first analyse the problem statement, then according to requirements and then come to the design part. And finally we developed a vertical prototype of our project.

Later, ahead we will be describing the assumptions, features and how the system is going to be designed using UML (Unified Modelling Language) with four types of diagrams

2.0 FEATURES

According to our system we are having some features which will make users to access the system smoothly. Here we will describe what are going to implement in or “AGROFARM” android app. We will integrate the features with the user’s interaction to make it clearer.

2.1 Users List

a) Farmers:

This app is mainly for purpose of farmers though any one can use it. For using our app they have to register their mobile numbers such that no one can access the app with fake identity. After registering/login the app contains many useful functionalities for farmers which are described below one of the feature is they can sell their products to some good dealers.

b)Dealers:

Anyone with a motive to buy large quantity agricultural product can be a dealer. They can be private shop-owners, wholesalers or any government and private organisation. For availing this feature they too have to login with their mobile numbers and they have to bid for the products with their details

2.2 Functions

a) Login:

This is the first feature in our app which is based on security purpose. Both the users have to login with their mobile numbers to access the rest of the features. As our app consist of deals for transaction of products, so it should avoid fraudulent.

b) Maps:

This feature is there for guiding the farmers for transportation charge. It will be helpful for farmers to know seller nearest to them, stores near them, etc.

c) Commodity Price:

This feature is to compare the actual price of the agricultural items. We retrieve the data from the website “www.agriwatch.com” ,which always provide the updated market price of the item and henceforth gives the right detail to the farmers to sell.

d) Weather Info:

This tool predicts the weather which is an important factor in farming. This retrieve data from the “www.darksky.net” . According to this the farmers can plan for tomorrow.

e) Payment-Portal:

Our app consist of online payment portal for transaction of money. This is very useful in case of cashless transaction and instant payment. This also reduces the risk of theft and robbery in transaction.

f) Auction:

This provides platform to the sellers to sell their products directly to the buyers without involvement of brokers. The buyers have to give their detail and then bid for the product and it gives the farmers a wide range of choice to sell their product.

g Sell:

The auctioned product along with the detail of the dealer will be shown such that farmers can choose the best possible option. Once the deal get done it will be removed from the option list to avoid confusion.

3.0 LIMITATION

Though our app provide wide range of features for the farmers and can be very helpful for them but it has also some limitations in it. The following are the limitation of our android app:

1. This app uses english as its primary language, so it can be difficult to run the app.
2. It has some complex functionalities like the payment portal app. Still many people are are there who don't know to use the online payment portal and also many are there who don't trust on such systems.
3. There should be mutual understanding among the farmers and dealers to have a good deal.

For future Implementation we can use machine learning to run the app with voice and also try to come up with an app which supports multiple languages . Also we will make app more simpler to use. We will also feature a helpline to guide the farmers.

4.0 ANALYSIS MODEL

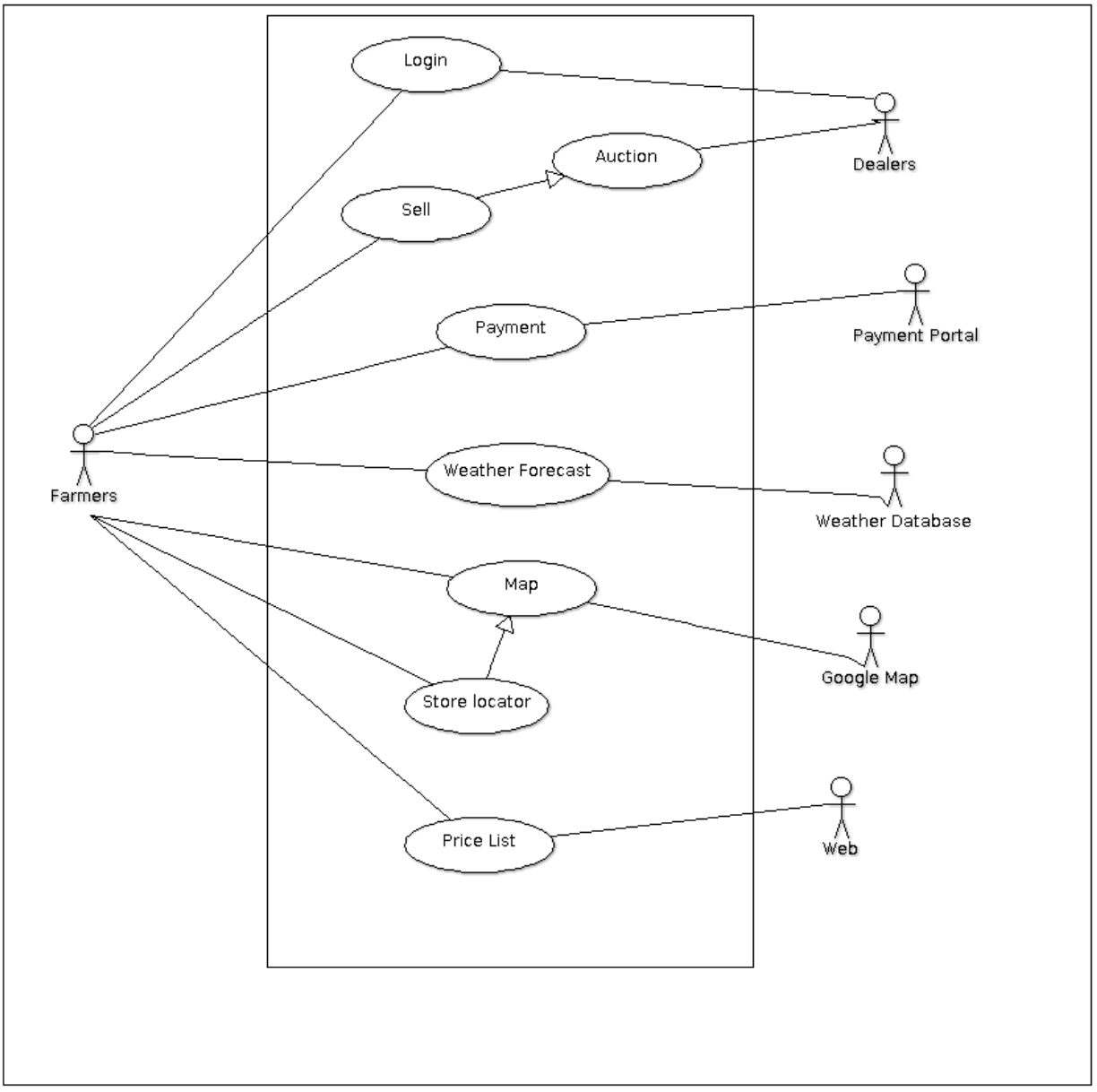


Fig 4.1 Use-case diagram for “AGRO-FARM” android app

4.2 Use case specifications

USE CASE NAME	LOGIN
SUMMARY	User enter their details into the system.Details of the customers used to be validated by the system before saving into the database.
ACTOR(s)	Farmers, Dealers

USE CASE NAME	AUCTION
SUMMARY	Dealers give their detail and bid for the different items they need to buy.
ACTOR(s)	Dealers

USE CASE NAME	SELL
SUMMARY	It extends to Auction use case. It shows a list of dealers who have bid for product along with their price. Farmers can accordingly choose their best offer.
ACTOR(s)	Farmers

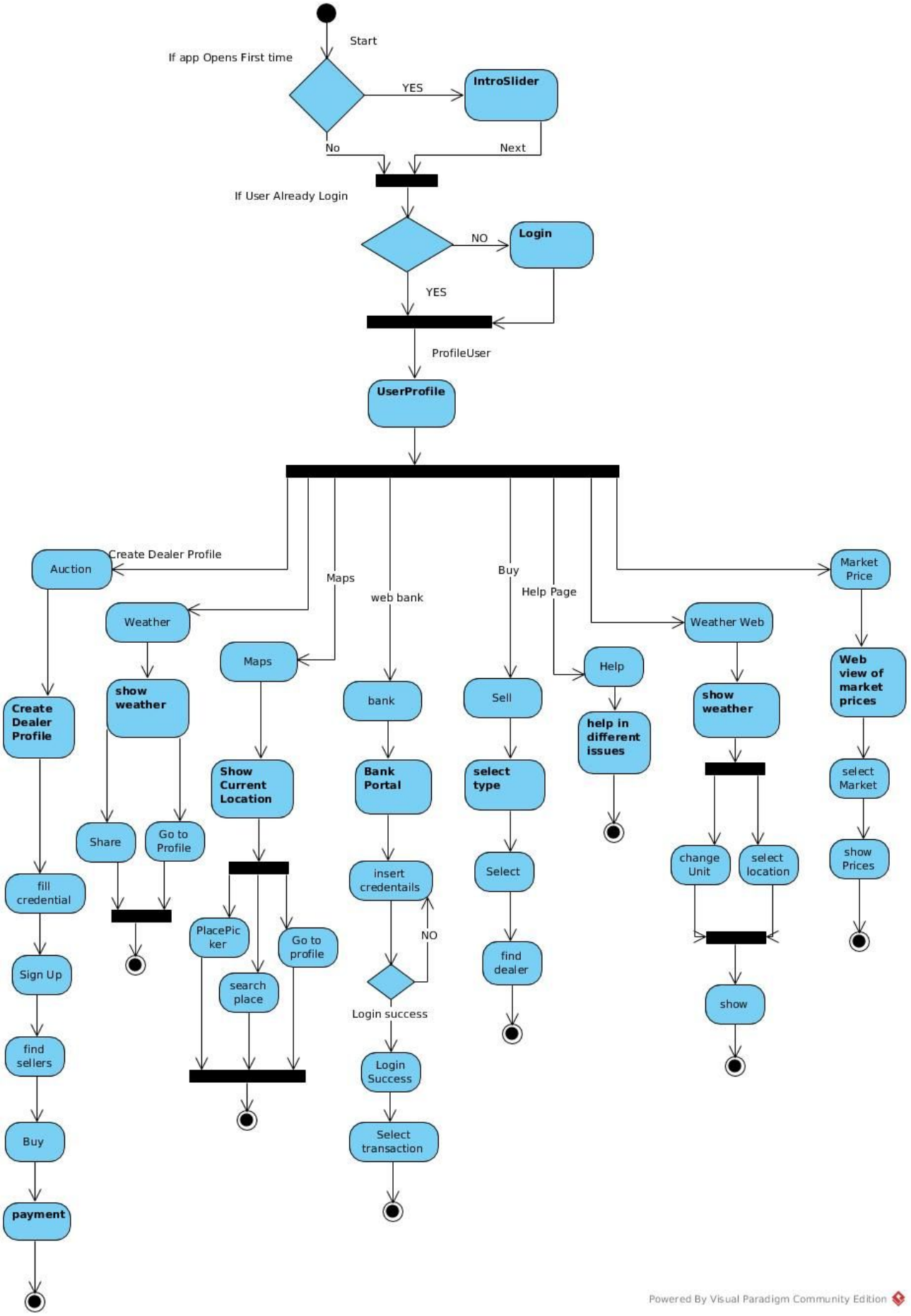
USE CASE NAME	WEATHER FORECAST
SUMMARY	This shows the current weather and also predicts about The weather thus can help farmers for planning
ACTOR(s)	Farmers, Website (source)

USE CASE NAME	PAYMENT
SUMMARY	This is an link to online payment portal, for cashless and safe transaction
ACTOR(s)	Farmers, Payment portal

USE CASE NAME	MAPS
SUMMARY	It has feature like shortest path between places and hence can reduce transportation charge. It also shows the current location and places nearby
ACTOR(s)	Farmers, Google maps API

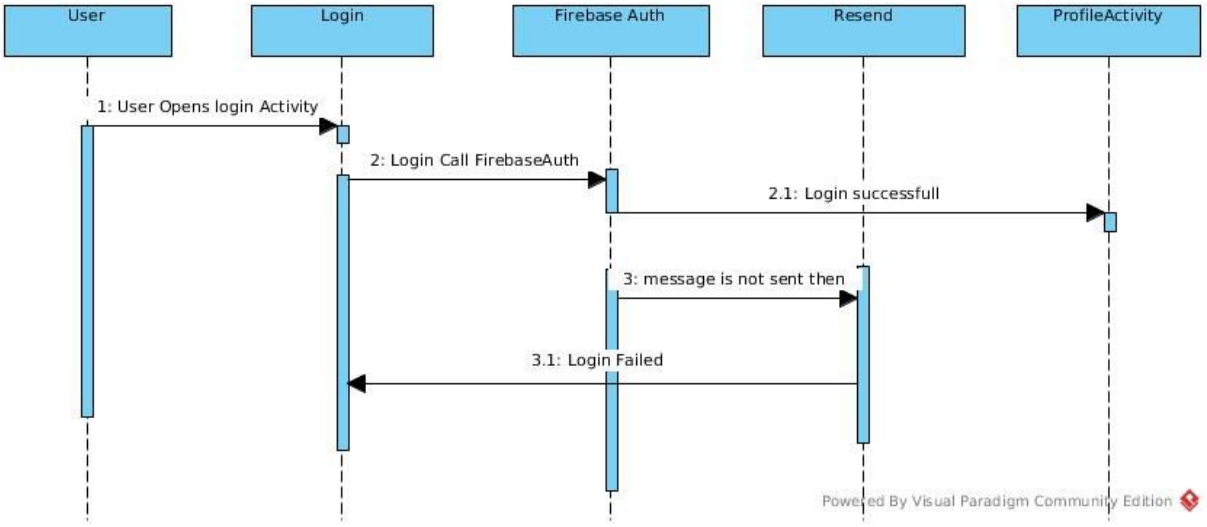
USE CASE NAME	STORE LOCATOR
SUMMARY	It extends Maps. It helps to show nearby stores.
ACTOR(s)	Farmers, Dealers

USE CASE NAME	PRICE LIST
SUMMARY	It can be used to view the current price of different products. This takes data from from website. It also remain updated.
ACTOR(s)	Farmers, Website (source)

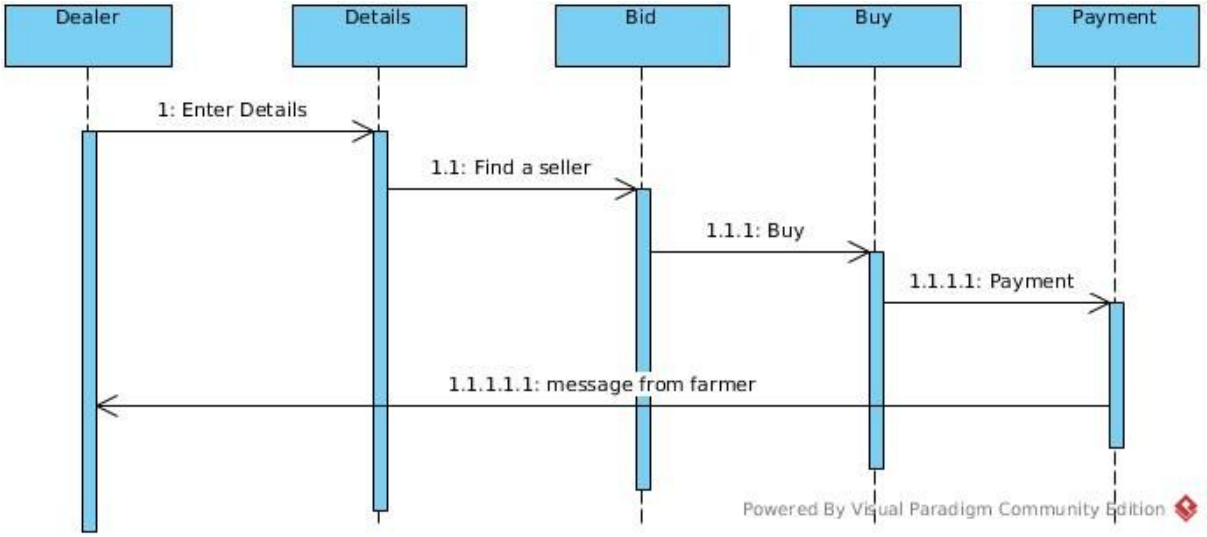

Start
If app Opens First time
YES
IntroSlider
No
Next
If User Already Login
NO
Login
YES
ProfileUser
UserProfile
Auction
Create Dealer Profile
Maps
web bank
Buy
Help Page
Market Price
Weather
Weather Web
Create Dealer Profile
show weather
Maps
bank
Sell
Help
show weather
Web view of market prices
Share
Go to Profile
Show Current Location
Bank Portal
select type
help in different issues
select Market
fill credential
PlacePicker
Go to profile
insert credentails
Select
change Unit
select location
show Prices
Sign Up
search place
NO
find dealer
Login success
show
find sellers
Login Success
Buy
Select transaction
payment
Powered By Visual Paradigm Community Edition

4.4 Sequence Diagram

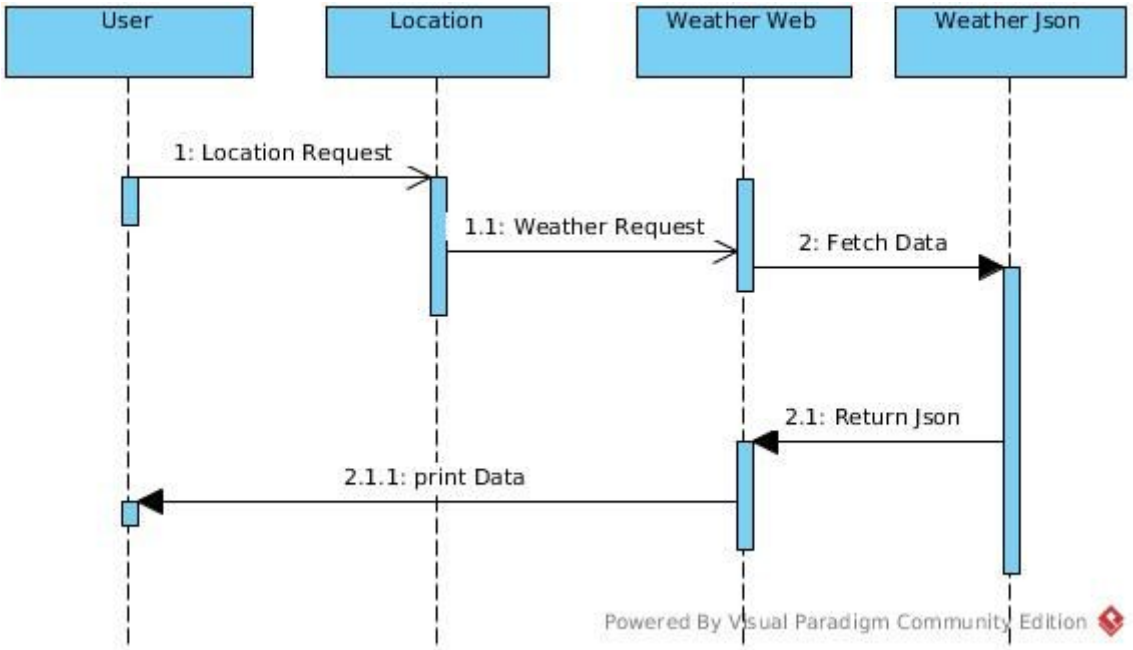
a) User Login



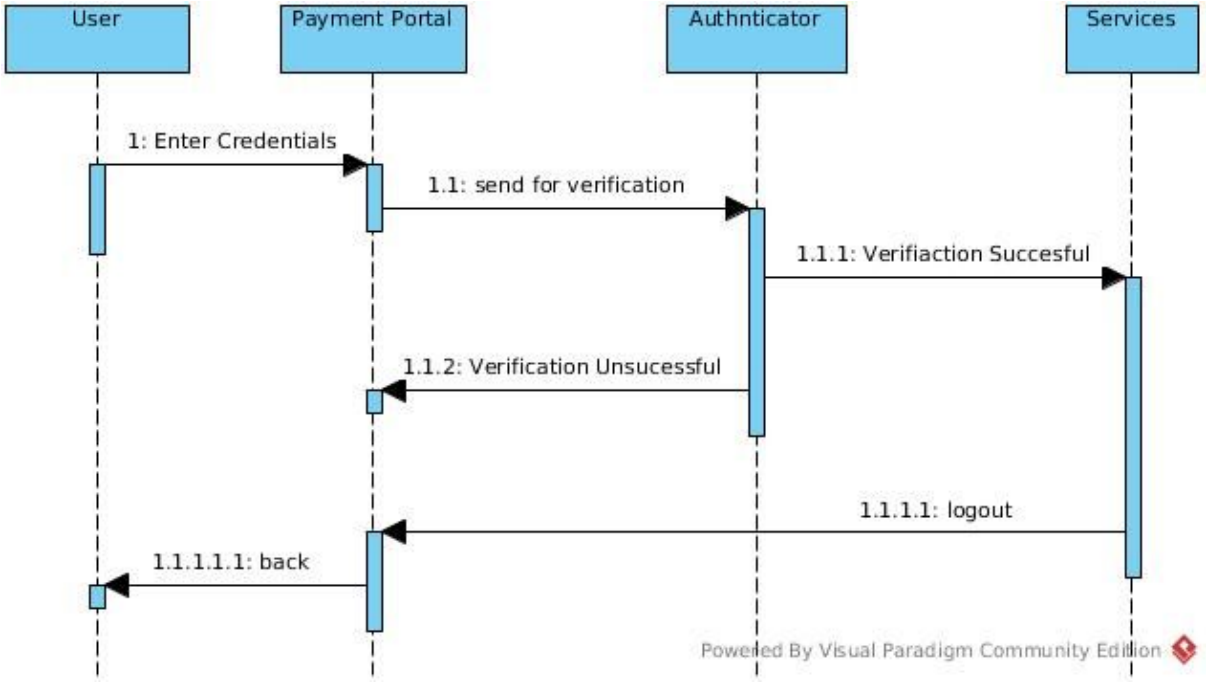
b) Dealer Activity



c) Weather activity

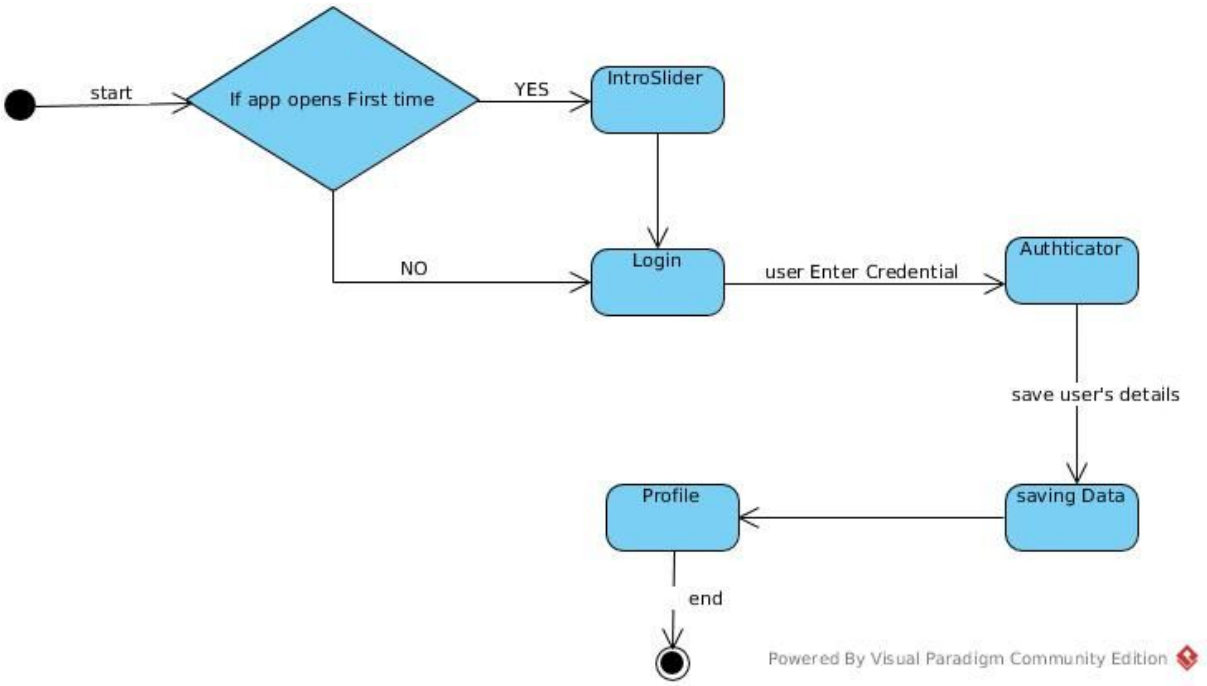


d)Bank portal



4.5 State Machine Diagram

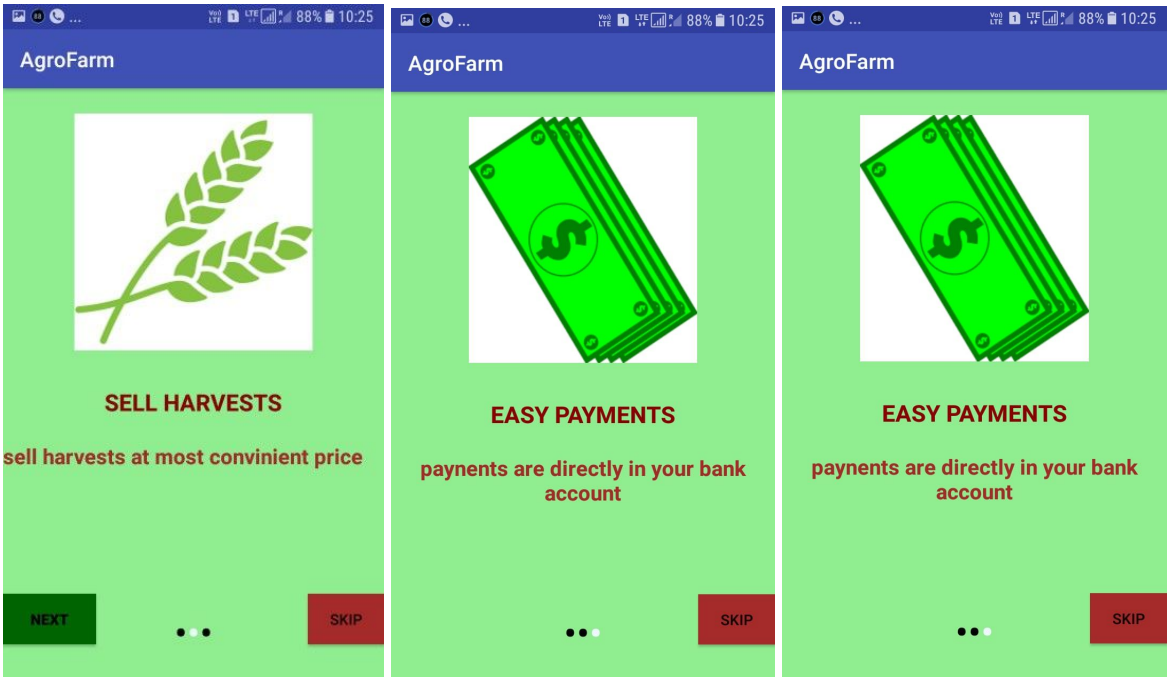
a) Login



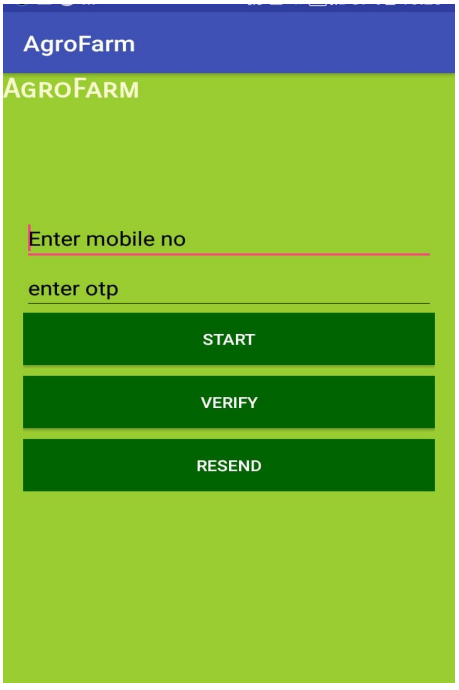
5.IMPLEMENTATION

5.1 Screen Shots

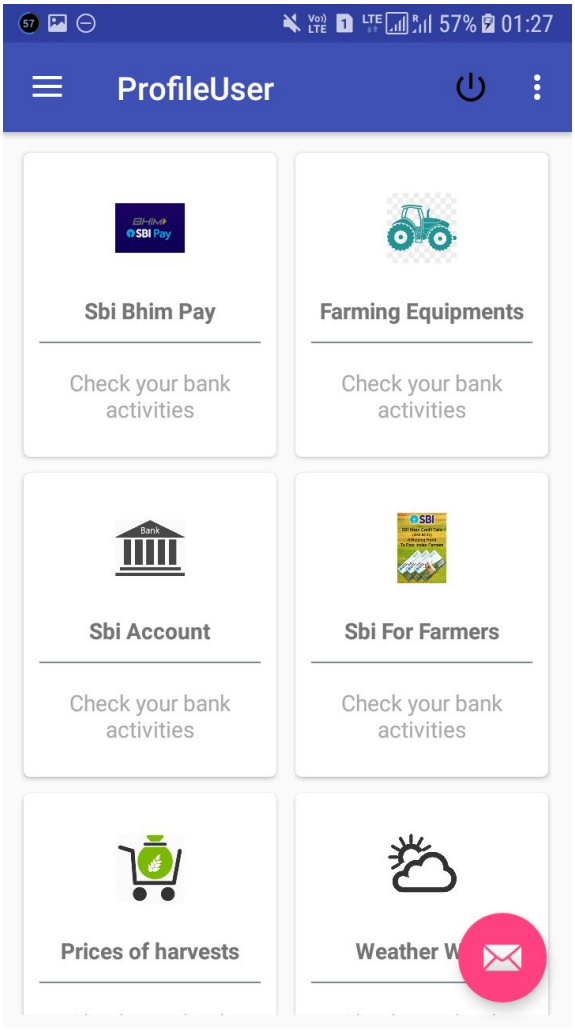
a)Intro Slider

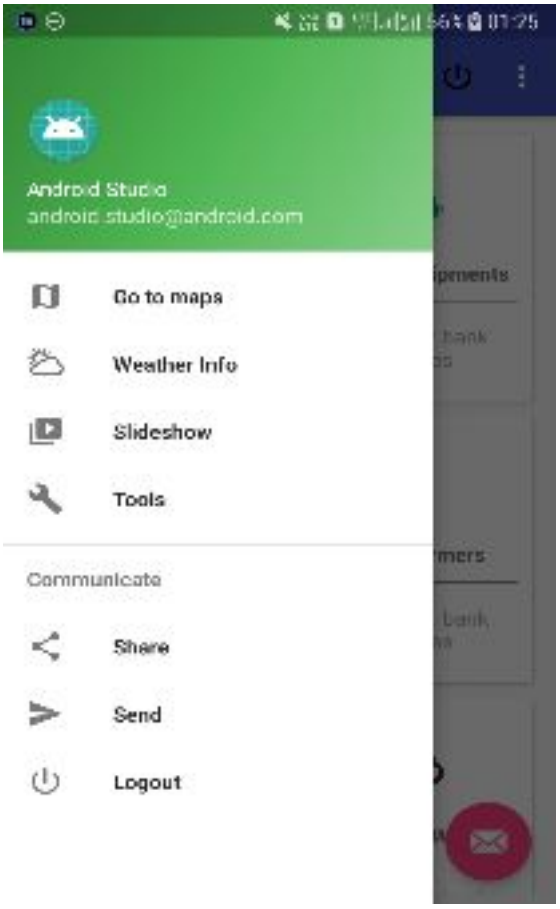


b)Login

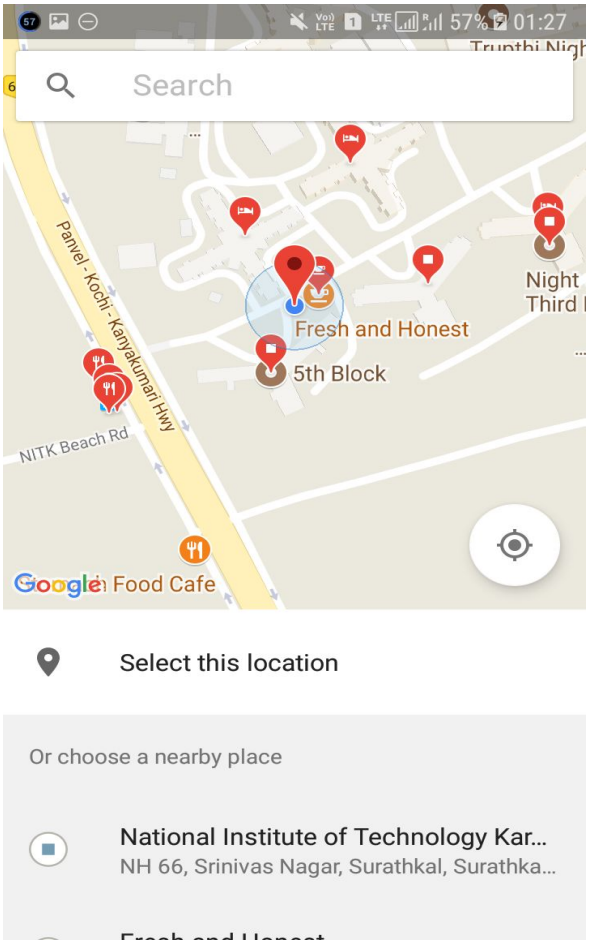


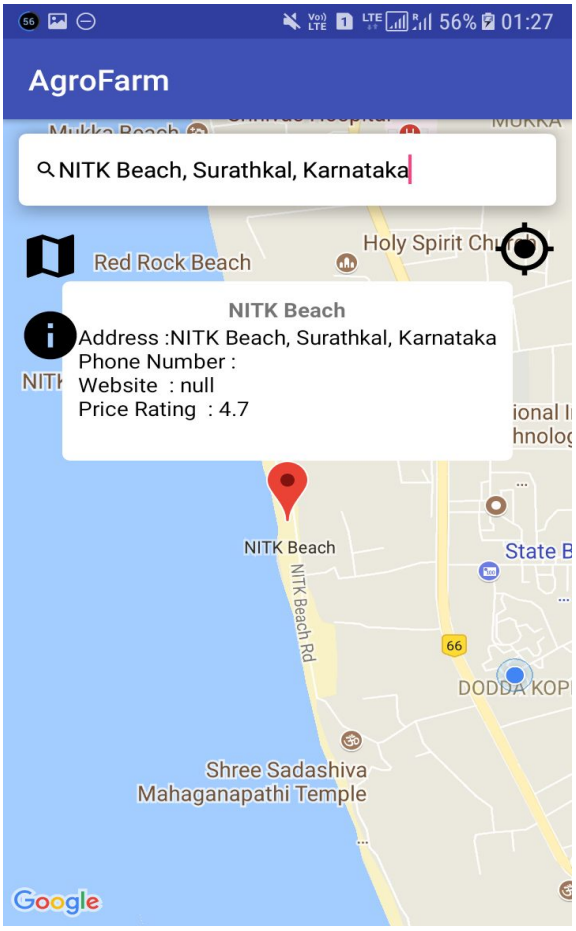
c)Profile


57% 01:27
ProfileUser
Sbi Bhim Pay
Check your bank activities
Farming Equipments
Check your bank activities
Sbi Account
Check your bank activities
Sbi For Farmers
Check your bank activities
Prices of harvests
Weather W


Android Studio
android.studio@android.com
Go to maps
Weather Info
Slideshow
Tools
Communicate
Share
Send
Logout

d) Map

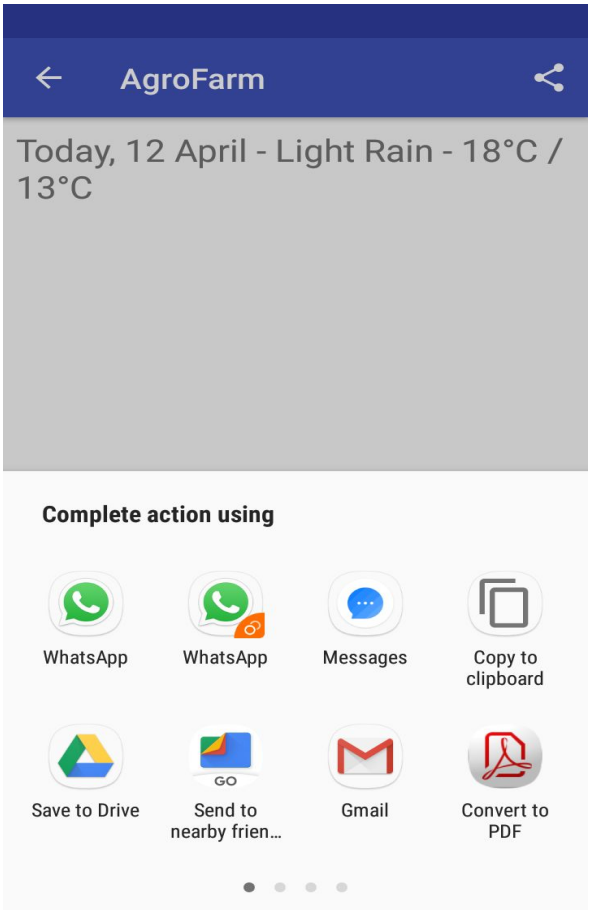

Search
Panvel - Kochi - Kanyakumari Hwy
NITK Beach Rd
Fresh and Honest
5th Block
Night
Food Cafe
Google
Select this location
Or choose a nearby place
National Institute of Technology Kar...
NH 66, Srinivas Nagar, Surathkal, Surathka...


AgroFarm
NITK Beach, Surathkal, Karnataka
Red Rock Beach
NITK Beach
Address :NITK Beach, Surathkal, Karnataka
Phone Number :
Website : null
Price Rating : 4.7
NITK Beach
NITK Beach Rd
66
Shree Sadashiva
Mahaganapathi Temple
Google

e) Payment portal:

f)Weather

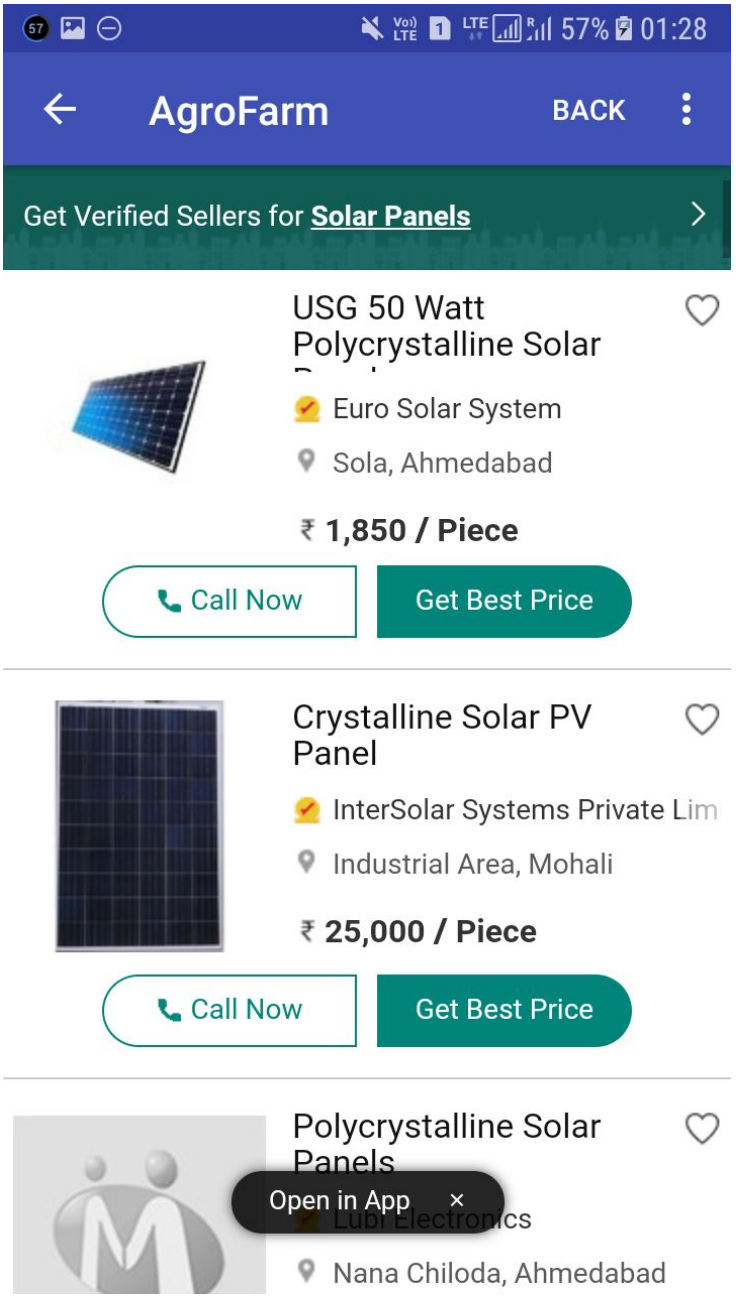

57% 01:28
AgroFarm
BACK
Wind: 2 m/s
Humidity: 70%
Dew Pt: 21°
27° Partly Cloudy.
Feels Like: 29° Low: 27° High: 34°
Humid and mostly cloudy throughout the day.
Partly Cloudy
Now 3am 5am 7am 9am 11am
27° 27° 27° 28° 30° 33°


AgroFarm
Today, 12 April - Light Rain - 18°C / 13°C
Complete action using
WhatsApp
WhatsApp
Messages
Copy to clipboard
Save to Drive
Send to nearby frien...
Gmail
Convert to PDF

g) Help


57% 01:29
AgroFarm
BACK
Layer Poultry Farming Information Guide
Layer Poultry Farming: Layer Poultry Farming – A Complete Guide For Beginners Layer Poultry Farming is a commercial egg production business, where poultry birds are raised for eggs. Layer birds are special breeds of hens, they lay hens till the age of 72 to 78 weeks. Layer birds start laying eggs from the age of 18 to 19 weeks. In ...
Read More »
Growing Tomatoes In Containers

h)Equipments



06. **Conclusion** :

Agriculture is the cultivation and breeding of animals and plants to provide food, fibre, medicinal plants and other products to sustain and enhance life. 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. India is an agricultural country. Agriculture and its allied activities act as main source of livelihood for more than 80% population of rural India. It provides employment to approximately 52% of labour. Its contribution to Gross Domestic product (GDP) is between 14 to 15%. This growth in itself represents a remarkable achievement in the history of world agriculture. India has achieved significant growth in agriculture, milk, fish, oilseeds and fruits and vegetables owing to green, white, blue and yellow revolutions. All these revolutions have brought prosperity for the farmers. So here we are developing the app AGRO FARM which helps the farmers to update from the latest news of agriculture, help them in various ways to increase their products, inform them about support given to them by government, increase their efficiency in by providing guides and new techniques, provide weather forecast and provide them good Equipments at better price to help them economically. Our main goal is to help in any way possible to increase the economic condition

7.Future Works:

For future Implementation we can use machine learning to run the app with voice and also try to come up with an app which supports multiple languages . Also we will make app more simpler to use. We will also feature a helpline to guide the farmers.

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   Object-oriented analysis and design