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Android Application Agriculture Decision Support System

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ABSTRACT
Android mobile use in Agriculture is as the core components to more helpful to increase productivity of crops and indirectly to increase GDP of India reduce poverty.
The main challenges for crop selection traditional methods. This is android application which will be useful for farmers & agricultural institutes for cultivation of various kind of crops in various type of atmosphere. This smart phone app is easy to use and in affordable cost which will suggest most probable matching crops to people according to weather condition. By this farmers can cultivate more suited crop and increase production ratio .Here application needed basic inputs like water availability in mm , average temperature , average soil Ph of farm , locality of farm , soil type etc so by certain calculation at backend this application will show most probable crops for that farm . It is one farmer's friend kind of application.

I. INTRODUCTION

1.1 Problem

This Decision support System Used in Agriculture System To suggest Farmer to select a crop for cultivation mapping using different ground parameters Soil type ,Soil PH ,Average Weather ,Water consumption ,Temperature range.

1.2 Previous Work

No such limitation of existing systems but as some weak results are possible using Traditional methods which are not assured about 100 percent right decision so as there some chances of less profitable to the farmer or quality of crops also .

As this is Android Application used on Mobile for increased Agriculture profitability of farm as it helps farmer to take decision at the time of crop selection which is a first step towards increase productivity indirectly profitability but from year to year a traditional method are used or by experience or by inheritance .No such any method present which provide a solutions for crop selection decision using a advance technology.

1.3 Purpose

The productivity of a region's farms is important for many reasons. Aside from providing more food, increasing the productivity of farms affects the region's prospects for growth and competitiveness on the agricultural market, income distribution and savings, and labor migration.

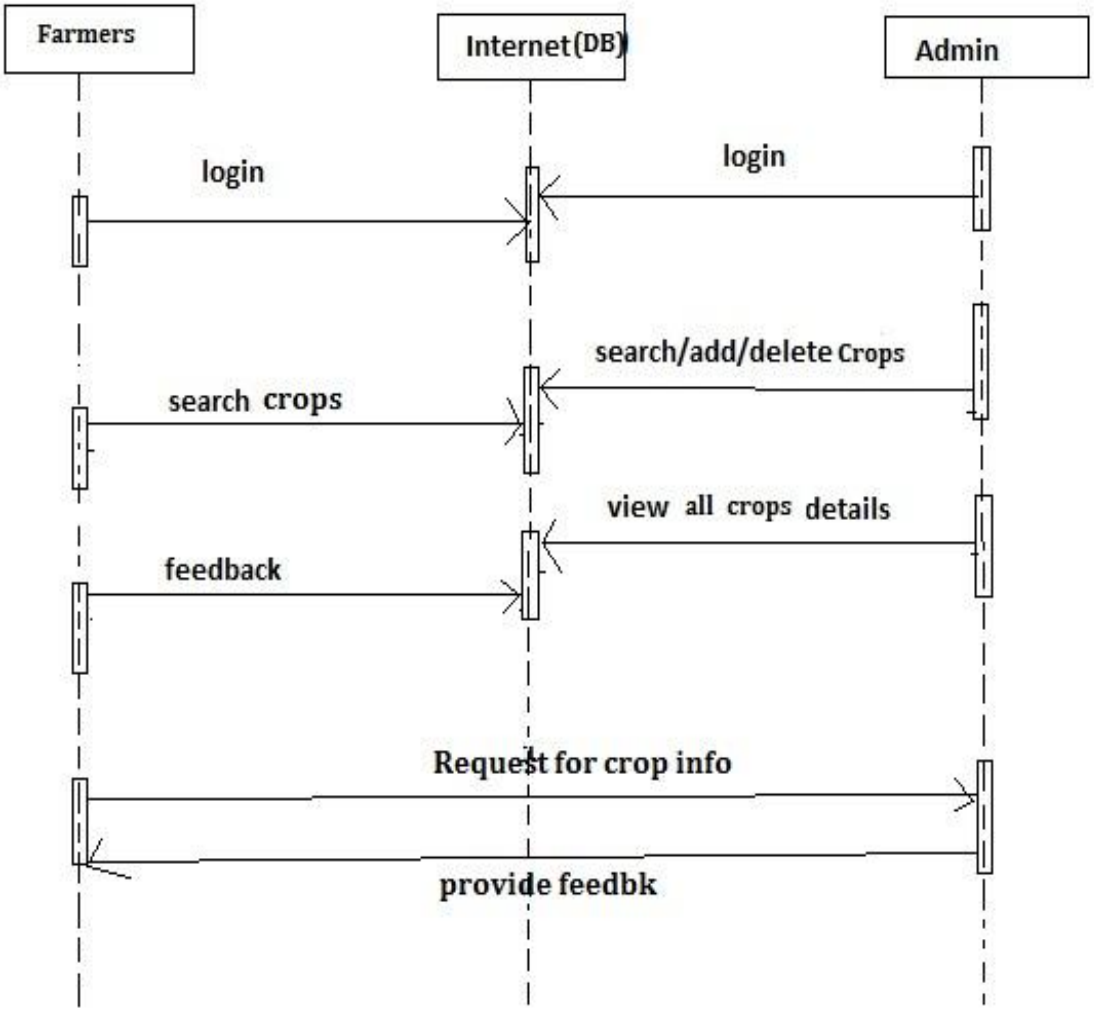
As farmers adopt new techniques and differences in productivity arise, the more productive farmers benefit from an increase in their welfare.

There are many factors to consider in crop selection, a requisite that must be undertaken before actually starting farming venture.

Two points are very important for the crop to be grown can be decided based mainly on marketability and profitability. But up till now this is inherited or traditional method are used which are not 100 percent assured profitability.

In any locality, the prevalent cropping systems are the cumulative results of past and present decisions by individuals, communities or governments and their agencies. These decisions are usually based on experience, tradition, expected profit, personal preferences and resources, social and political pressures and so on.

II. FIGURES AND TABLES



Fig(1)

This project uses Decision Tree classification methodology and artificial neural network Concept to identification of crops. ANNs provide a method to characterize synthetic neurons to solve complex problems in the same manner as the human brain does.

A subscription system enables personalized information. Background data are collected from different sources, processed by decision support models, and the results are integrated into personalized pages with embedded graphics, expert interpretations and links to additional information.
As per Fig(1) there is

1.3.1 **Admin Module**

I. Login
II. Add crops
III. Delete crops
IV. Update crops info
V. View crops

1.3.2 **Farmers module**

I. Registration
II. Login
III. View crops
IV. Find matching crops using crop calculator
V. Feedback

3. **Neural Network**

It is main algorithm on which project is based .We used this algorithms, Because in this project we need a lots of searching parameters list .So reduce coding and searching we have taken it as basic formula .

There are many constrains like temperature ,water availability , soil type, soil ph level to sort out the most probable matching crops .So we have created one separate special class to find it out i.e Neural.java We have taken user inputs from user and calculate all values at backend and display matching crops to user.

To provide a client (farmer) different soil type drop list, water supply requirement options, Provide temperature ranges and different average climate options and Soil PH and month Duration .

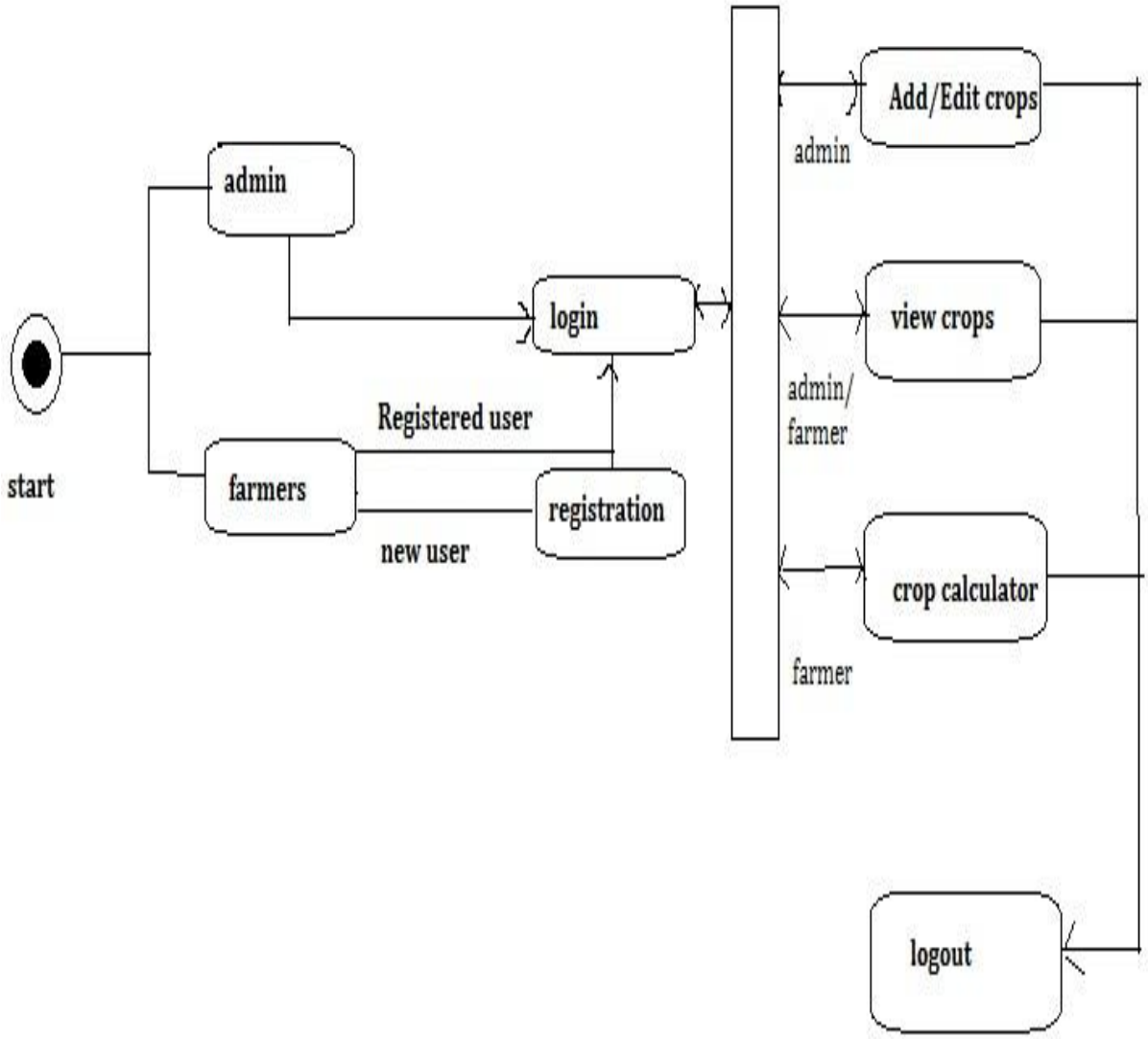
If crop get selected from client from preference list then provide a detail of information related to that particular crop cultivation for e.g

1)where to get seed or plants.

2)How to crop cultivate process.

3)How to manage crop maintenance etc.

Data Flow of Project As per Fig(2)



Fig(2)

III. CONCLUSION

This Decision support System will be Useful in Agriculture System to suggest Farmers to select a crop for cultivation mapping using different ground parameters Soil type, Average Weather ,Water consumption ,Temperature and soil PH.

As this system more helpful to increase productivity of crops and indirectly to increase GDP of India reduce poverty.

References

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