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Farmer Friendly Application for Resource Mapping of Village with Government Aided Schemes

Sushant Wavhal[1], Nishtha Tilloo[2], Ruturaj Haral[3], Pragati Tekawade[4]
BE Student[1, 2, 3, 4]
Department of Computer
Pimpri Chinchwad College of Engineering, Pune, Maharashtra, India

Abstract:
We live in a country where agriculture accounts for almost 7.68% of total global agriculture output. Agriculture is mainly concerned with the farming industry. Almost half of the population is directly or indirectly dependent on this industry. This includes agricultural labourers and farmers. As a lot of manpower is involved in farming, government of India launches schemes and allowances for the economic and social welfare of farmers. Even though a large number of workforces are involved in this industry, there is no proper way of maintaining their records and also, not every eligible person is able to get benefits of these schemes. In this paper we are suggesting a prototype which provides facilities to maintain the records of farmers and agricultural laborers and notifying them with the latest government schemes.

Keywords: Agriculture, Android, Database

I. INTRODUCTION

Information and Technology can play an important role in sustainable agriculture. The farmers face many problems while performing different agricultural activities .One of the main reasons is the availability of resources. Many times the resources are available in abundance or scarcity. This problem will be solved easily by our application as it will give the notifications to the farmers by which they will understand the availability of resources in different or nearby villages. There are many schemes and facilities available from the Agriculture department for the benefits of farmer. Most of the time the farmers don't know these schemes and thereby can't take benefit from these schemes. The system admin can send any kind of work request or the notification to the labour. Labour can approve or disapprove the request. Whatever the result of the request approval, the notification will be sent to the admin. This project plays main role at admin side for work distribution process. Admin has the full authority over the services for any addition, deletion and modification of services or products and labour details. Admin will be provided with a secure username and password for logging into the system. It's the responsibility of the admin to create entry for allotment and creation of registration service and work notification request to the labour. Admin also has complete authority to update and view complete details.

II. LITREATURE SURVEY

Viraj Patodkar1, Sujit Simant2, ShubhamSharma3, Chirag Shah4, Prof. Sachin Godse5, "E-Agro Android Application (Integrated Farming Management Systems)"2015[1] this software application is basically for sustainable development of farmers. Many times farmer is confused to take decisions regarding the selection of fertilizer, pesticide and time to do particular farming actions. So to avoid this problem this application is very useful. Fertilizer schedule of each type of crop will get registered. Based on sowing date of crop, farmer will get reminders about application of fertilizer, herbicide as per schedule, pesticide for diseases and weather alerts if particular crop exceeds its favourable temperature range. Crop suggestion will be given based on Soil type, geographical location. Farmer will get real time national level crop rates to get more befit. This system combines modern Internet and mobile communication systems with GPS for efficient and smooth farming. This review paper presents the introduction, theories and analysis of DBMS, use of Smartphone in agriculture. This paper is developed on brief study of some common problems faced by the farmers across the nation. This project aims at bringing the spark of 21st century to that 70% population who are land worshipers.

Aniket Bhave, Rahul Joshi, Ryan Fernandes, "Mahafarm-An Andriod based solution for remunerative Agriculture" 2014[2] Information and Communication Technology (ICT) in agriculture is an emerging field focusing on the enhancement of agricultural and rural development in India. Using innovation is a key measure in the rural domain. The advancement of ICT can be utilized for providing accurate and timely relevant information and services to the farmers, thereby facilitating an environment for remunerative agriculture. This paper describes a mobile based application for farmers which would exhaustively help them in their farming activities. We propose an android based mobile application – 'MahaFarm' which would include agro-based crop information, weather updates, daily market prices and news/loan informational updates. The application has been designed taking Maharashtra into consideration.

Monika Chirmade1, Komal Tayade2, Gaurav Sham Bankar 3, Shounak Sugave4, "Agriculture Supply Chain Management Based Android Application" 2015[3] Android platform is launched by Google which is a new generation of smart mobile phone platform. Android provides the support for mobile map and provides facility to link multiple website links, which is probably a concern of vast numbers of developers. Android is free and open source, providing an easy-to-use development kit containing real time information update and

facility to link websites. Agro Supply Chain will be an advisory and information system for the farmers. Agro Supply Chain will be available on mobile phones, which will be designed for farmers to help them stay on track, avoid troubles, manage their expenses in cultivation, receive all the latest and updated information, government schemes and strategies related to the field of agriculture along with suppliers details for sugarcane. The advisory system will enable its users to receive real-time and interactive advices and alerts on crop. Different alerts will be provided for plantation, insects, diseases and nutrition. Farmers will also receive regular pest, disease alerts and market price information to support on-farm decision making.

Prof.P.B.Gaikwad, Pallavi Malode, Pooja Pawar, Sangita Darade, "E-Farming an Interface for Indian Farming" 2015[4] Today the mobile phone is used and in that most are the smart phones. Android is the mobile operating system used in smart phone, most of android applications are freely available for user. The use of smart phone is increase in every sector. So in this we use Horticulture concept and Android is used for a Farmer Helping Service system that will provide the detail information of fruits, vegetables to the farmers. And this information will also provide information in audio form also. This system can provide information using android smart phone from anywhere and anytime without using internet and at free of cost. It is very useful to Maharashtra Farmer because they will get information in Marathi Language just by typing number from the mobile keypad. An illiterate person can also easily operate the system.

Wang Di, Dong zhaoxia, Zhou Qingbo, Chen Zhongxin "*An overview of spatial sampling procedures for crop area estimation*"2016[5] information on crop sown acreage is an important basis for the formulation of national food policies and economic planning. Timely and accurate knowledge of crop acreage plays Avery important role in enhancing agriculture management and ensuring national food security. The complete statistical survey method has been used to obtain the crop sown area information at the national scale in China for a long time. However, there are many shortcomings using the method, for example, the enormous inventory workload, the high investigation cost and the very long survey time and so on. With the rapid development of the economy and the increasing of the government decision-making departments, the social public demand for agricultural statistical data, the complete statistical survey has been not able to meet the need that the new rural development situation and the crop planting structure changes. In order to improve the survey efficiency, the traditional list sampling method (the operation procedure is as follows: sampled counties were drawn from the Province, sampled towns were drawn from the sampled counties, sampled villages were drawn from the sampled towns, and finally, sampled famers were drawn from the sampled villages) has been employed to investigate crop acreage by the Chinese statistical department since 1984. Although the traditional list sampling has solved part of the problems appearing in the complete statistical survey, however, limited by itself operational mechanism, the new problems are that the update of the sampling frame is very slow and that spatial information is not adequately employed in the investigation process, when the traditional list sampling is used to estimate the crop area.

Erick Fernando, Setiawan Assegaff, Hetty Rohayani, AH "Trends Information Technology in E-Agriculture" 2016[6] ICT development is currently so fast; these developments affect the developing technology in all aspects, to the development of agriculture. Where the development of ICT transform traditional agriculture to modern. The purpose of this paper is to survey and analyse the available literature on Trend of Information technology in E-agriculture and also to identify gaps and state-of-the-art in research. This study use the System aticliterature reviews study by collecting the article from reputable database journals. We used recognize database journal such as "Emerald", "Science Direct", "IEEE explore", "Springer", "Saga" and "Google Scholar" to collect the articles. "Information technology in E-agriculture" is used as a keyword to search the relevant article. The selected articles are reviewed and analysed. The result of analysis that e-commerce is the Trend research in information technology in agriculture. That is famous study by researchers, e-commerce to agriculture requires good marketing processes and successful in order to impact income of farmers. In addition, researching the sensor area that helps a process of agriculture to increase yields from such a farm. With the use of information technology trends are became agriculture more modern.

O. O. Mazhara, S. I. Shapovalovam,"Production System for Express Diagnostics of the Agriculture and Natural Resources Objects for Portable Devices"2016[7]Expert systems are widely used in agriculture and nature management to provide domain knowledge that increases efficiency in these areas of human activity. Development of modern information technology resulted in innovative approaches for conducting agricultural activities. Architecture of the expert system for portable device for express diagnostic is proposed in this paper. Programming tools of implementation are substantiated. The client application has been developed for the approbation of the proposed architecture and programming tools. The application is designed for the diagnosis of crop pests. The application works on a portable device in standby mode.

III. PROBLEM STATEMENT

"Farmer friendly application for resource mapping of village with respect to government aided schemes and facilities." Information Technology in agriculture is an emerging field focusing on the enhancement of agricultural and rural development in India. Using innovation is a key measure in the rural domain. The advancement of this system can be utilized for providing accurate and timely relevant information and services to the farmers, thereby facilitating an environment for remunerative agriculture. This system describes android based application for farmers which would exhaustively help them in their farming activities.

IV. PROPOSED SYSTEM

We are going to develop an e-farming application that will fulfil all the agricultural needs of the farmer. Our system is an android application which will have multiple sections like login for farmer/people to use it in their own way. Next section is a web panel, from this the government agency will login and feed up their important data and information (Schemes and provisions). Our main goal is to help the farmer who is in trouble and give him a user friendly application.

ADVANTAGES:

1. Help farmer for managing his expenses and schedule: Using this application farmer can get approximate budget for planting crops. Farmer can upload his details like area of land owned, type of soil, and month of plantation. Depending on the

input optimal suggestions in harvesting period, amount of fertilizers, amount of water will be provided. Depending on input all expenses requires for plantation will be given to the farmer, viz. price for land, price for fertilizers ,price required for water , price required for plantation, price required for pre-plantation etc. By using this application farmers will also get the exact schedule depending upon the plantation he has chosen, for instance "Suru Plantation", "Adsali Plantation", and "Pre seasonal Plantation". He will also get the schedule for irrigation and fertilization.

2. Latest Government Policies are easily available.

Farmers will be notified about the latest government policies related to agriculture. Government policies available on Ministry of Agriculture web-site, but a fellow farmer cannot have the resources to access the website thus a handy solution.

3. Provide new Strategies and Technologies for Farming.

This application will provide new strategies in plantation and upcoming technologies for better production of crop. For example, plantation technique, amount of irrigation to be done, type and amount of fertilizers to be used in plantation.

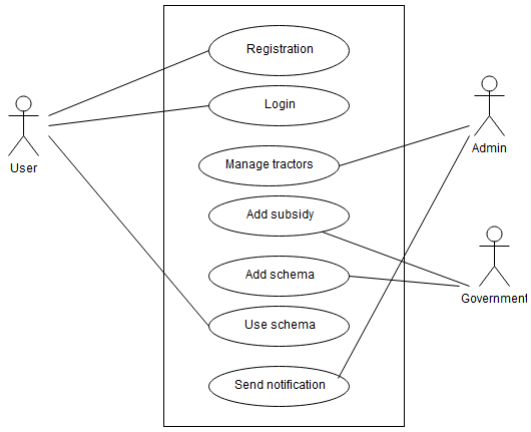

Figure.1. Use case diagram of system

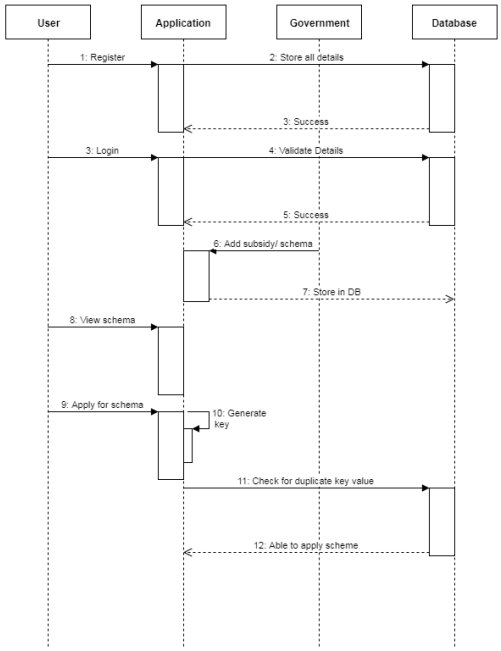

Figure.2. Sequence diagram of system

V. CONCLUSION

India is the country which is fully depended on agriculture. Indian government provides more facilities for the farmers to improve their cultivation quantity as well as the productivity. All the facilities and plans are not reaching farmers due to unfair management. Most of the farmers do not know about using the new technologies in agriculture. Thus, in order to bridge this gap between farmers and government aids to enhance agricultural growth we have developed a novel solution. Our system will delineate the necessary procedure to make farmers aware about the government policies and also help them to abide by those to apparently improve agriculture in our nation.

VI. REFERENCES

[1]. S. C. Mittal, ―Role of Information Technology in agriculture and its Scope in Indial, www. iffco. nic.in/ applications/ brihaspat.nsf/0/.../$FILE/it_fai.pdf, **(2012)**.

[2]. P. Sharma, ―Necessity of education and awareness in farmers: the basis of agricultural progress in developing and underdeveloped nations‖, Agriculture and Biology Journal of North America, (2010), pp. 387-390.

[3]. Shitala Prasad1, Sateesh K. Peddoju2 and Debashis Ghosh3, ‖Agro Mobile: A Cloud-Based Framework for Agriculturists on Mobile Platform‖ International Journal of Advanced Science and Technology Vol.59, (2013), pp.41-52

[4]. WANG Ping, LIU Xiang-nan, HUANG Fang,‖ Research on Mobile Mapping System and its Application in Precision Agriculture‖, Map Asia (2004)

[5]. SHWETA SHARAN, KAMINI and NEHA MAHAJAN, ‖ Tech Productivity - An Android Based Solution for Indian Agriculture‖, ORIENTAL JOURNAL OFCOMPUTER SCIENCE & TECHNOLOGY, ISSN: 0974-6471, March 2013, Vol.6, No. (1):Pgs. 125-129

[6]. http://www.tutorialspoint.com/android /android_intents_ filters.htm

[7]. Mamadou Youssouf Thiam," Role of information technology in agriculture", Global Journal of Information technology, Volume 03, Issue 2,pp 27-30, 2013.

[8]. Impact of phones on agriculture

[9]. http://www.cropinfo.in

[10]. http://www.ncipm.org.in