International Journal of Trend in Scientific Research and Development (IJTSRD)
International Open Access Journal
ISSN No: 2456 - 6470 | www.ijtsrd.com | Volume - 2 | Issue – 3

Web based application for farmers using new trends in web technology

Sathya Bama S
PG Scholar, Department of Computer Science and Engineering, Anna University Regional Campus Coimbatore, Tamil Nadu, India

Dr. J. Preethi
Assistant Professor, Department of Computer Science and Engineering, Anna University Regional Campus Coimbatore, Tamil Nadu, India

ABSTRACT

Agriculture plays a vital role in Indian economy. Agriculture is an important domain of the Indian economy in several aspects of employment. As the population rises there is a need to increase the agricultural production. Therefore agricultural modernization is an important aspect. Over past few decades Farmers started using computers and software for organizing their economic data and also monitor their crops effectively. This system is mainly based on the aspect of agricultural modernization in terms of soil management, weather prediction, and expert's advice on using suitable pesticides, best use of available loans in terms of a dynamic website. The main scope of this project is to help and provide the information in terms of all agricultural related areas to the farmers it includes irrigation techniques, best fertilizer utility, determining the soil suitability for the suitable crops, instructing the farmers to cultivate crops based on seasonal and climatic aspects, information about bank loan, demand for crops in the market, soil management, advisory system and a reminder system.

Keywords: *Web technology, farming, Google api, SMS gateway*

Introduction

In the current scenario, Indian farmers are following farm modernization at a drastic rate. The aim of this project is to create one shop stop for meeting all informational needs relating to agriculture. It is based on providing all sorts of information in terms of agriculture related areas including irrigation techniques, best fertilizer utility and weather forecasting. In this website, a farmer will be able to get all relevant information on specific subjects around his city name. This information will be delivered in the form of text. With this Indian farmer will not be required to shift through maze of websites created for specific purposes so this web based application can be hosted on a server and can be used by Indian farmers to get well informed about all the information related to the crops they are planning to cultivate.

Proposed Work

I-Farm follows a simple web based structure for better structure for better functionality with less complications. The front end tier has web pages which interact with users to provide information and functionality. PHP is used for interaction with operating system to execute system commands and to display the result on webpage. Windows is used as the working environment. The user opens the I-Farm web application in a web browser and selects a module, interface asks for required information through HTML forms. Once the user submits the registration information, it gets validated by PHP script and the farmer(user) can see and know the details regarding their crops. The farmer will register website in the registration page. If already registered, farmer can login using his registered username and password.Farmer can view the details about the crops

and can get details about weather report by typing the city name.Farmer will get alert messages through SMS regarding the details about the weather conditions.Farmer can view the various uploaded videos to get information about how the crops can be cultivated using various irrigation system.They can get particular loan information from the financial bank by clicking on the link for financial websites.

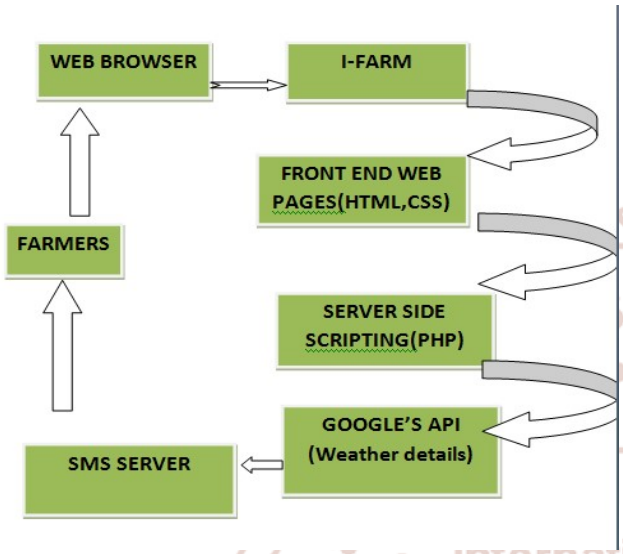

Fig1: Architecture of the proposed system

Modules

The modules such as Farmer, Login, Registration, Weather Module and Translation are present in the system.Farmer module consists of the details about the major crops grown in India. These details include Crop management fig 2, Minimum Support Price, Irrigation methods, Financiers, Fertilizers and Weather details fig 3. Login module helps the farmers to login using their username and password that they have registered. After the successful login the farmer will be taken to the I-Farm home page and can access the details. Once all your work has been done you can logout by using the logout button. This helps the farmers to register themselves in I-Farm with their personal data. The registration module consists of a form which asks for the name, mobile number, city, password, address and gender. The weather module provides the details regarding the current weather with help of this module the farmer can know the current weather. Farmers can select their own regional languages using the Google language translator available in the application. This module consist of two drop down menu namely 'from' and "to" user can select the desired regional language fig 4. Through this SMS module farmers can get message that includes the crop cultivation details. These messages are sent to the farmers by means of the SMS gateway.

Fig 2: Crop management

Fig 3: Weather Prediction

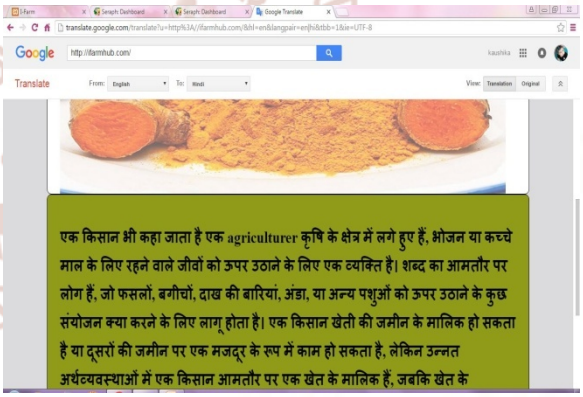

Fig 4: Translation Module

Conclusion and Discussion

This is an application along with some of its unique features. The web interface is very powerful and general and makes it an easy to use it efficiently. It provides an effective way for the farmers to get the information about the crops. This application is useful for illiterate farmers who can get necessary information about weather forecasting for a particular location is available to the farmers. Besides to it,

farmers can get alert through SMS. The project can be extended in future by adding chat application. The chat application concept is helpful for agricultural students, scientists and educated farmers who can chat between each other to discuss about their studies regarding crop cultivation and about the farmers problems.

REFERENCES

1. Web Content Accessibility Guidelines (WCAG) 2.0 by W3C. (http://www.w3.org)
2. Content Framework for the National Portal of India, National Informatics Centre
3. State Portal Framework Version 1.0, National Informatics Centre
4. Technical Guidelines for Digital Cultural Content Creation Programmers: Minerva
5. Technical Guidelines 2.0
6. Agripedia of IIT Kanpur under NAIP
7. Soil suitability evaluation-department of agriculture pdf
8. http://www.newsgram.com
9. http://www.w3schools.com
10. http://www.agrifarming.in
11. http://www.knowledgebank.irri.org
12. Programming with Java, 2nd Edition, E. Balagurusamy, Tata McGraw Hill, 1998, 2000
13. Object oriented system development using the unified modeling language,AliBahrami, Tata McGraw Hill,Second reprint 2008
14. Detailed Project Report for Agriculture Mission Mode Project under National e-Governance Plan.