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Paper Authors

Mr.T.Uday<sup>1</sup>, Parsa Chandana<sup>2</sup>, Sagi Tejaswi<sup>3</sup>, Cheruku Isaac Abhinav<sup>4</sup>,  
Devarapalli Leela Krishna Vamsi<sup>5</sup>



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## FARMER BUDDY

Mr.T.Uday<sup>1</sup>, Parsa Chandana<sup>2</sup>, Sagi Tejaswi<sup>3</sup>, Cheruku Isaac Abhinav<sup>4</sup>,  
Devarapalli Leela Krishna Vamsi<sup>5</sup>

<sup>1</sup>Assistant Professor, Dept. of CSE, <sup>2</sup>17ME1A0545, <sup>3</sup>17ME1A0553, <sup>4</sup>17ME1A0508,  
<sup>5</sup>17ME1A0512

Ramachandra College of Engineering, A.P., India

### ABSTRACT

Farmers Buddy is implemented on a pure Java2EE architecture with Oracle database. It is a web based open discussion portal providing information and solutions about crops, fertilizers, soil and climate to small farmers and agricultural students. The portal provides soil analysis for various regions and suggestions based on the soil condition and climate. It explores questions such as: "which fertilizers to use where and in what quantity", "which crop, vegetable, or herb should be grown where and in which season" etc. Additionally, farmers buddy helps farmers and agricultural students in making decisions on the current market and best prices crops and herbs. It also features training and online query handling for all users. Training can be request by students and general public. Similarly, queries can post on the portal via mails. Queries can be forwarded to a particular officer

### 1. Introduction

#### 1.1 About Project

This is a web based project which is useful for farmers and agricultural students. This is an open discussion portal providing solutions to small farmers and agricultural students. It also provides soil analysis for all regions and suggestions on which fertilizers to use where and how much? And which crop, herb or vegetable to be grown where and in which season? It also helps to make decisions on market and best prices. Information about major crop markets and their current price for the crop will be published daily. NGO's are trying to spread messages to make agriculture more eco-friendly through this site. This also includes training scheduled by agricultural officers. Training is requested by students, general public. Training provides information about crops, fertilizers, and market details that are requested. Online query handlings for all users. Queries can be posted by students, general public through mails. Queries can be directed to a particular officer. Information pages should be dynamic so that agricultural officers and administrator can change it.

### 2. PROJECT ANALYSIS

#### 2.1 Purpose of the Project

It is an open discussion portal used for agricultural students and farmers. Any general public can use this system for knowing the information about various crops, and the usage of fertilizers to those crops and in which soil these crops give more yield and the climatic conditions for those crops. Training is requested by the students, general public. These trainings are scheduled by agricultural officer. Information about major crop markets and their current price for the crop will be published daily. Current prices of the markets are updated daily by the NGO. It gives information regarding all the states in India.

#### 2.2 Existing System

Complexity in managing the data related to the agriculture products, soils, fertilizers, mandi/market details.

##### 2.2.1 Problems in existing system

- Lack of security.
- This system does not provide category wise classifications of products.
- Inefficiency in querying details.
- Periodic Report generation takes lot of time.

#### 2.3 Proposed system

The development of this new system contains the following activities, which try to automate the entire process keeping in the view of database integration approach.

- Reduce complexity in managing the data related to the agriculture products, soils, fertilizers, mandi/market details.
- Current system provides different access levels for security.
- Rich user interface is provided in order to interact with application.
- Reports are generated dynamically on a periodic basis.
- Efficiency in querying details.
- User Queries and Answers are maintained.

### 3. REQUIREMENT ANALYSIS

#### 3.1 Purpose and Scope

• Purpose It is an open discussion portal used for farmers and agricultural students for knowing the information about various crops, and in which soil they grow more, and the usage of fertilizers to the crops. If necessary, training is given to the students and farmers.

#### • Scope

- Providing accessibility to all users who have a valid userID and password.
- Generating monthly and daily reports of the market
- User can post query. They can see answers only after they have logged in.
- Communication is provided for the user through mails.

#### 3.2 Users of the system

- Farmers and agricultural students
- General public

- Administrator
- Agricultural officers

### 4. SPECIFIC REQUIREMENTS

#### 4.1 Functional and Non- Functional Requirements Functional Requirements

- Individual profile management for all kind of users.
- Basic soil analysis for all regions and suggestions on which fertilizers to use where & how much? Which crop, herb or vegetable can be grown where and in which season?
- Online query handlings for all users. Queries can be general or directed to a particular officer.
- Officers/NGOs can schedule trainings and publish it online. General public, farmers and agriculture students can request training online.
- Facilitate communication between user, experts and general public through mails.
- Information about major crop markets (mandi) and their current price for crop should be published daily.
- Information pages should be dynamic so that agriculture officers and administrator can change it from their interface easily.

#### Non-functional Requirements

- Secure access of confidential data (user's details).
- 24 X 7 availability
- Better component design to get better performance at peak time
- Flexible service-based architecture will be highly desirable for future extension

#### 4.3 System Architecture

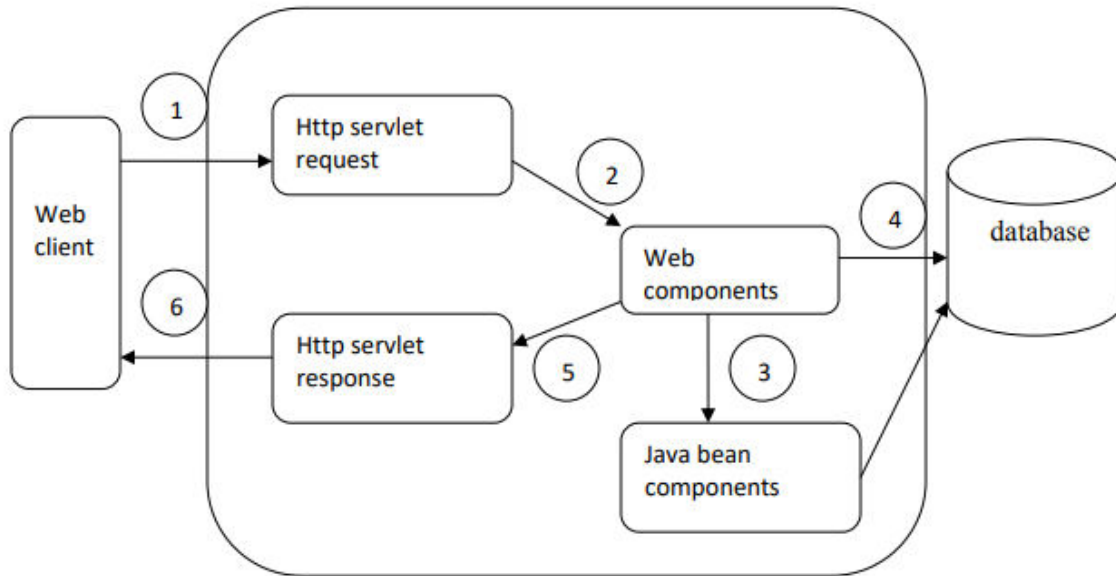


Figure 1: System Architecture

## 5. SYSTEM REQUIREMENTS

### UML

The Unified Modeling Language (UML) is an open method used to specify, visualize, construct and document the artifacts of an object-oriented software-intensive system under development. UML offers a standard way to write a system's blueprints, including conceptual components such as: Actors, Business processes and System's components and activities.

### Java script

JavaScript is a script-based programming language that was developed by Netscape Communication Corporation. JavaScript was originally called Live Script and renamed as JavaScript to indicate its relationship with Java

### J2EE

Java Platform, Enterprise Edition or Java EE is a widely used platform for server programming in the Java programming language

### Servlets

The Java web server is JavaSoft's own web Server. The Java web server is just a part

of a larger framework, intended to provide you not just with a web server, but also with tools. To build customized network servers for any Internet or Intranet client/server system. Servlets are to a web server, how applets are to the browser.

### HTML

HTML, an initialism of Hypertext Markup Language, is the predominant markup language for web pages. It provides a means to describe the structure of text-based information in a document.

### 5.2 Tools used

- Oracle 10G
- Tomcat 5.0
- Rational Rose Enterprise Edition
- EDRAW

## CONCLUSION

By this project, we provide various information required for farmers and agricultural students and providing solutions to them about queries posted by them. This makes agriculture more ecofriendly and this portal is very useful to farmers and agricultural students.

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