**Software Engineering Mini Project**

**Farmers Buddy**

**Software Requirements Specifications**

Version 1.0

**Team Members**:

1. Praveen Jain – 07IT36
2. Veeresh B – 07IT64
3. Karthik Bellur – 07IT20

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# 1. Introduction

# 1.1 Purpose

India is an agricultural country. There is a need to inculcate scientific agricultural practices among our farmers. Farmers buddy is an online portal which aims to provide the farmers and agricultural students of India, with a platform to access and share information regarding various agricultural practices and schemes.

# 1.2 Scope

Farmers Buddy is an online web portal which offers the following features -

* Individual profile management for all kinds of users with secure access to data 24x7.
* Information about various government loan and insurance schemes to farmers
* Information about present crop prices in major Indian markets(Mandi)
* Private firms and Multinational companies can upload the products offered by them.
* Information about trainings held for farmers and also request for training
* Officers can access various reports related to farmers details
* Farmers/Students can get their queries answered by Agricultural Officers
* Details of Soil/Crop/Location/Fertilizer analysis will be made available to Farmers

# 1.3 Definitions acronyms and Abbreviations:

* **Personal Details** : The details of farmer or student such as Name, address, Phone number, Date of Birth, etc
* **HTML** : Hypertext Mark-up Language is a mark-up language used to design static web pages.
* **J2EE** : Java 2 Enterprise Edition is a programming platform—part of the Java Platform—for developing and running distributed multitier architecture Java applications, based largely on modular software components running on an application server.
* **MySQL**: MySQL is an open-source database management system of Sun Microsystems that delivers a flexible and cost-effective database platform to build robust on demand business applications
* **Apache Tomcat** : Apache Tomcat is a Web-Server along with an application container that supports the J2EE standards.
* **HTTP** : Hypertext Transfer Protocol is a transaction oriented client/server protocol between web browser & a Web Server.
* **HTTPS** : Secure Hypertext Transfer Protocol is a HTTP over SSL (secure socket layer).
* **JSP:** Java Server Pages used to create dynamic web-content
* **Admin :** Refers to administrator of the system.

# 1.4 References:

* IEEE SRS Format - http://en.wikipedia.org/wiki/Software\_Requirements\_Specification
* CT Arrington. *Enterprise Java with UML*. OMG Press.
* Grady Booch, James Rumbaugh and Ivar Jacobson. *The Unified Modeling Language Reference Manual, Second Edition*. Addison-Wesley

# 1.5 Technologies:

* J2EE: Application Architecture
* MySQL : Database
* Apache Tomcat: Web Server
* Rational : Design Tool
* AJAX: Webpage Development
* Eclipse : development tool
* iBATIS : ORM solution
* log4j : logging
* JASPER: Report Generation
* Struts 2 : J2EE framework

# 1.6 Overview:

SRS will include two main sections:

* Overall Description will describe major components of the system, interconnection and external interfaces.
* Specific Requirements will describe the functions of actors, their role in the system and constraints.

# 2. Overall Description

# 2.1 Product Perspective

MySQL

HTML

Client

(Customer)

Apache Tomcat

HTTP/HTTPS

Database Server

Client Side (Browser)

Application Server

The web pages (HTML) on the client-side provide the Graphical User Interface(GUI) to the end user. Communication between customer and server is provided through HTTP/HTTPS protocols.

On the server side Apache Tomcat application server is for J2EE and MySQL database is for storing the information.

# 2.2 Software Interface

* End User : Web browser(any), Operating System(any)
* Web Server: Apache Tomcat application server , Operating System(LINUX / Windows)
* Database Server : MySQL, Operating system(LINUX / Windows)

# 2.3 Product Functions

* Farmer is kept up to date about various products, schemes and market prices
* Farmer, general public or students can contact the local officer for any information
* The students can get real time data regarding agricultural practices.

# 2.4 User characteristics

In general, all users know how to operate a computer and browse internet. Users have access to computer and internet. Specifically, the various user roles are -

1. Administrator : He is responsible for the proper working of the entire system. He adds agricultural officers and generated reports

2. Agricultural Officer : He adds/updates various details needed for the farmer

3. Farmer/Student : Makes use of the information provided by the portal

* Officers and administrators have received sufficient training in uploading data and maintaining system.

# 2.5 Constraints:

* The whole system is on a single server only.
* Only HTTP / HTTPS connections are supported.