

Software Requirements Specification

for

Agricultural Forum

<Version number approved>

Prepared by - Group A

Sri Lanka Technological Campus

29th April 2020

1. Introduction

1.1 Purpose

Cultivation is an important sector in Sri Lanka. In cultivation, lot of parties are involved in it. Such as Agricultural department, weather department, Water suppliers, third party, sellers, buyers, transport services, fertilizer weed killer and insecticide making companies, labors etc. with enrolment of these parties ,get the results of severe price fluctuations ,high post-harvest losses and high cost of business activities and finally low income for the farmer. It is very unfair for the farmer. we should minimize contribution of third party for this process. Within this application we will be able to find solution for this problem.

1.2 Document Conventions

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<Describe any standards or typographical conventions that were followed when writing this SRS, such as fonts or highlighting that have special significance. For example, state whether priorities for higher-level requirements are assumed to be inherited by detailed requirements, or whether every requirement statement is to have its own priority.>

1.3 Intended Audience and Reading Suggestions

The intended audience fir this document is:

- Group members (Group members are the Developers, project managers, marketing staff, users, testers)
- The project Supervisors: Mr. Yohan and Ms. Dinithi Shakya.

This document will be read by this audience frequently to check that the project is being completed with the mentioned features and requirements. So if there are any changers to do to the project it is easy to identify and make the necessary changers.

1.4 Project Scope

Today there is a difficulty for the farmers to sell their harvest and also the haven't a place to discuss their problems. So, this is an application that Farmers can share their information, farmers can get updates on daily market prices, Agricultural consultative can update their accounts with information about agriculture, and also farmers can discuss their problems with those consultative. To buy those crops buyers can add their daily purchase prices, transport service owners also can add their information.

1.5 References

<List any other documents or Web addresses to which this SRS refers. These may include user interface style guides, contracts, standards, system requirements specifications, use case documents, or a vision and scope document. Provide enough information so that the reader

could access a copy of each reference, including title, author, version number, date, and source or location

2. Overall Description

2.1 Product Perspective

This is an application that comes under e-farming. Farmers can discuss their problems with agricultural consultative and also, they can sell their harvest easily through this application.

2.2 Product Features

- Conversation facility between two users.
- Special online meetings with agricultural Consultative.
- Find the location of farmers, buyers, transport service owners.
- Online ordering.
- Online paying.

2.3 User Classes and Characteristics

<Identify the various user classes that you anticipate will use this product. User classes may be differentiated based on frequency of use, subset of product functions used, technical expertise, security or privilege levels, educational level, or experience. Describe the pertinent characteristics of each user class. Certain requirements may pertain only to certain user classes. Distinguish the favored user classes from those who are less important to satisfy.>

2.4 Operating Environment

<Describe the environment in which the software will operate, including the hardware platform, operating system and versions, and any other software components or applications with which it must peacefully coexist.>

2.5 Design and Implementation Constraints

<Describe any items or issues that will limit the options available to the developers. These might include: corporate or regulatory policies; hardware limitations (timing requirements, memory requirements); interfaces to other applications; specific technologies, tools, and databases to be used; parallel operations; language requirements; communications protocols; security considerations; design conventions or programming standards (for example, if the customer's organization will be responsible for maintaining the delivered software).>

2.6 User Documentation

We will be delivering an online help along with the application.

2.7 Assumptions and Dependencies

<List any assumed factors (as opposed to known facts) that could affect the requirements stated in the SRS. These could include third-party or commercial components that you plan to use, issues around the development or operating environment, or constraints. The project could be affected if these assumptions are incorrect, are not shared, or change. Also identify any dependencies the project has on external factors, such as software components that you intend

to reuse from another project, unless they are already documented elsewhere (for example, in the vision and scope document or the project plan).>

3.System Features

There are different uses who will be using this product, they are Farmers, Agricultural consultative, Buys, Transport Service Owners. So different users have different features.

3.1System Feature 1

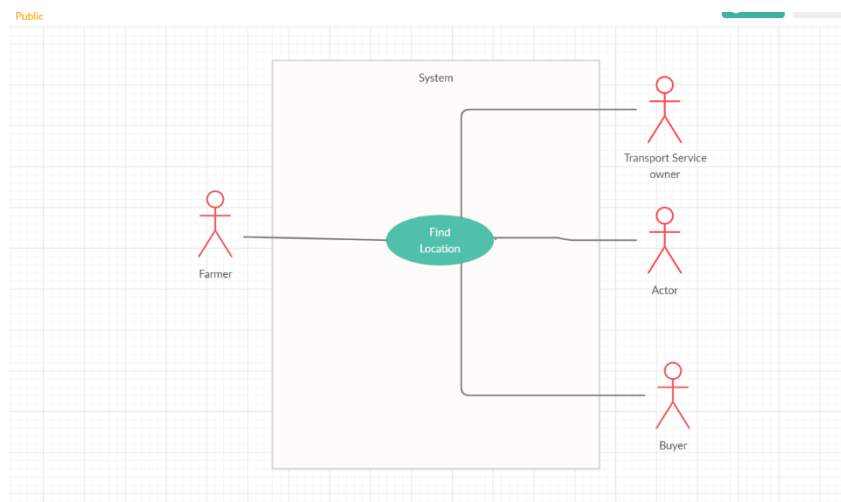
- Conversation facility between two users.

3.1.1 Description and Priority

This is a feature that our all users can have. In here two users get connected together. It may be A farmer with another farmer, a farmer with an agricultural consultative, a farmer with a buyer, farmer with a transport service provider, a buyer with a transport service provider. After connecting, they can share their information with the other user. In our application this feature has a high priority.

	Rating (0-9)
Priority	9
Benefit to the user	9
Cost	3
Risk	5

3.1.2 Stimulus/Response Sequences



3.1.3 Functional Requirements

<Itemize the detailed functional requirements associated with this feature. These are the software capabilities that must be present in order for the user to carry out

the services provided by the feature, or to execute the use case. Include how the product should respond to anticipated error conditions or invalid inputs. Requirements should be concise, complete, unambiguous, verifiable, and necessary. Use “TBD” as a placeholder to indicate when necessary information is not yet available.>

<Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.>

REQ-1:

REQ-2:

3.1 System Feature 2

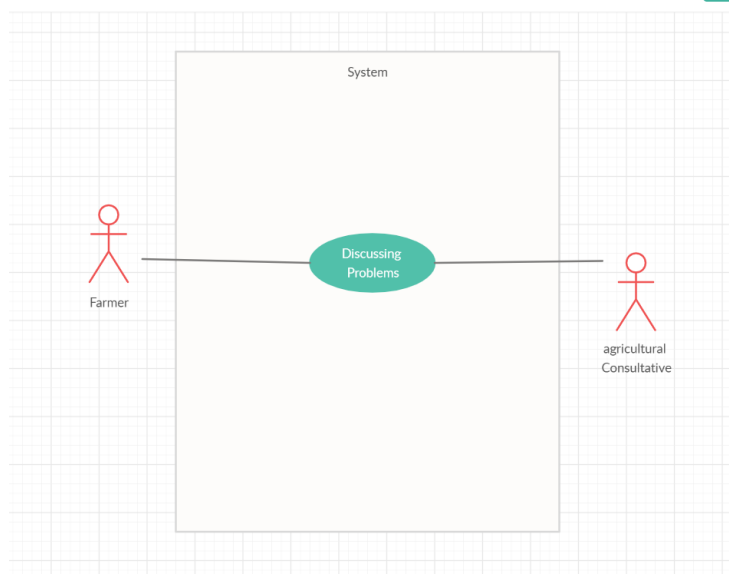
- Special online meetings with agricultural Consultative.

3.2.1 Description and Priority

This is a feature that a farmer and an agricultural consultative can have. If a group of farmers have the same problem to solve with an agricultural consultative, they can arrange a meeting and can discuss with their problem.

	Rating (0-9)
Priority	9
Benefit to the user	9
Cost	3
Risk	6

3.2.2 Stimulus/Response Sequences



3.2.3 Functional Requirements

<Itemize the detailed functional requirements associated with this feature. These are the software capabilities that must be present in order for the user to carry out the services provided by the feature, or to execute the use case. Include how the product should respond to anticipated error conditions or invalid inputs. Requirements should be concise, complete, unambiguous, verifiable, and necessary. Use “TBD” as a placeholder to indicate when necessary information is not yet available.>

<Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.>

REQ-1:

REQ-2:

3.1 System Feature 3

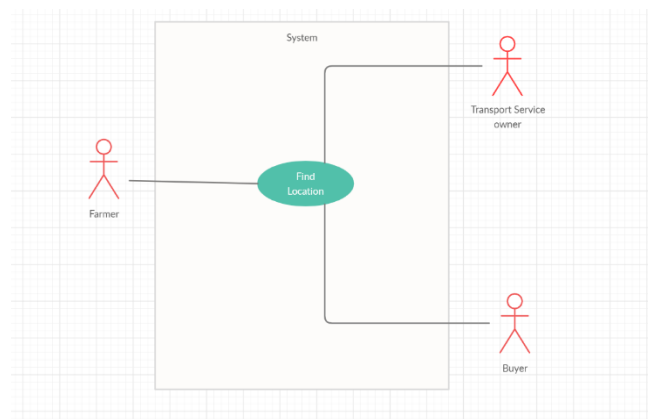
- Find the location of farmers, buyers, transport service owners.

3.3.1 Description and Priority

This feature is mostly targeting Farmers and Transport service owners. When a farmer wants to sell his harvest, he needs to carry his harvest to the market so he needs a transport facility. So, when the transport service owners can find the place through the application where the farmer is, it is easy for them to reach the farmers place. And also buyers can find the location of transport service providers farmers.

	Rating (0-9)
Priority	8
Benefit to the user	8
Cost	4
Risk	8

3.3.2 Stimulus/Response Sequences



3.3.3 Functional Requirements

<Itemize the detailed functional requirements associated with this feature. These are the software capabilities that must be present in order for the user to carry out the services provided by the feature, or to execute the use case. Include how the product should respond to anticipated error conditions or invalid inputs. Requirements should be concise, complete, unambiguous, verifiable, and necessary. Use “TBD” as a placeholder to indicate when necessary information is not yet available.>

<Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.>

REQ-1:

REQ-2:

3.1System Feature 4

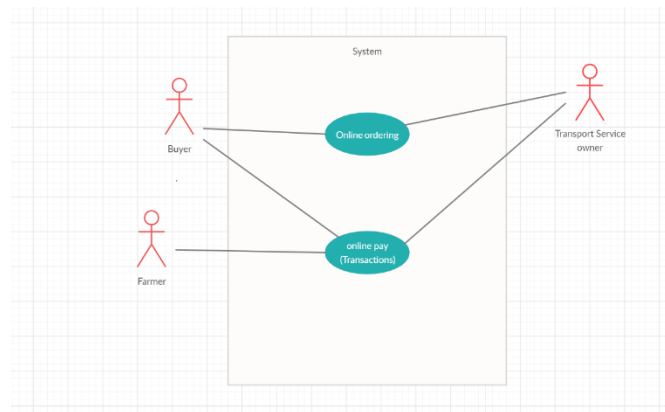
- Online ordering and paying.

3.4.1 Description and Priority

Farmers, Buyers and the transport service providers are the once who deal with money, so if there is an online paying method in our application it will be very easy for them.

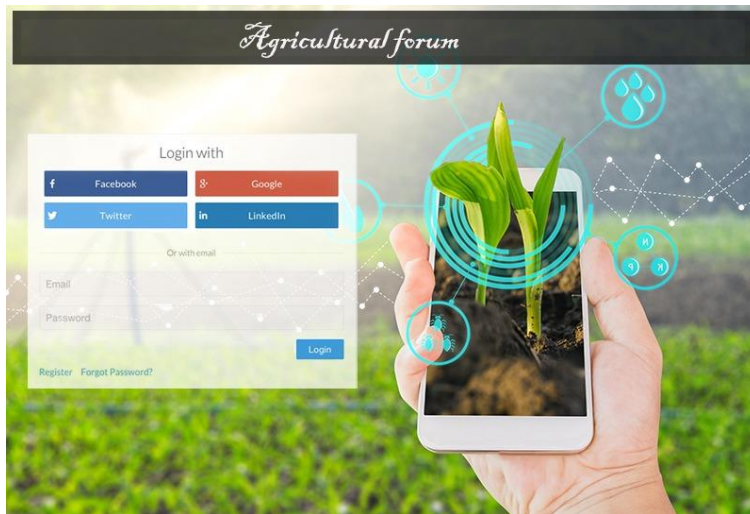
	Rating (0-9)
Priority	7
Benefit to the user	8
Cost	3
Risk	6

3.4.2 Stimulus/Response Sequences



4 External Interface Requirements

4.1 User Interfaces



Farmer sign up form

FORM PREVIEW

Membership Application

To apply for membership please complete all questions.

Name

First Name Last Name

Address

Street Address

Street Address Line 2

City State / Province

Postal / Zip Code Country

E-mail

ex: myname@example.com

Next Page

FORM PREVIEW

E-mail

ex: myname@example.com

Home Number

-

Area Code

Phone Number

Cellular Number

-

Area Code

Phone Number

Work Number

-

Area Code


Phone Number

Whatsapp number

Skype name

Website

Website



SUBMIT

4.2 Hardware Interfaces

<Describe the logical and physical characteristics of each interface between the software product and the hardware components of the system. This may include the supported device types, the nature of the data and control interactions between the software and the hardware, and communication protocols to be used.>

4.3 Software Interfaces

<Describe the connections between this product and other specific software components (name and version), including databases, operating systems, tools, libraries, and integrated commercial components. Identify the data items or messages coming into the system and going out and describe the purpose of each. Describe the services needed and the nature of

communications. Refer to documents that describe detailed application programming interface protocols. Identify data that will be shared across software components. If the data sharing mechanism must be implemented in a specific way (for example, use of a global data area in a multitasking operating system), specify this as an implementation constraint.>

4.4 Communications Interfaces

<Describe the requirements associated with any communications functions required by this product, including e-mail, web browser, network server communications protocols, electronic forms, and so on. Define any pertinent message formatting. Identify any communication standards that will be used, such as FTP or HTTP. Specify any communication security or encryption issues, data transfer rates, and synchronization mechanisms.>

5 Other Nonfunctional Requirements

5.1 Performance Requirements

- RAM usage by the app
- How app is behaving in Network change condition, connectivity issues
- Is app crashing with a greater number of simultaneous users
- How app is working with other installed apps
- Splash time of app
- Packet loss, if any

App Start-Up time: The time our app takes to start up after the user taps on app icon the first screen should be shown in **1–2 seconds**.

Battery: The app should not consume memory in background and it should not heat up the device.

Memory: Check memory usage of your app using android monitor. Find out the screen, module which is taking more memory. Use animations carefully.

Interference: When the app is running in parallel with other apps, there should be no interference.

Network Speed: The app should be tested on 2.5G, 3G, and 4G networks. Both Wi-Fi and mobile networks.

Templates: In order to increase the speed of the Android app, load only limited templates just by reusing them.

Loading: Adding something during the loading process will give the users an illusion that it is loading rapidly.

5.2 Safety and Security Requirements

Ask for credentials before information

When requesting credentials from users so that they can access sensitive information or premium content in your app, ask for either a PIN/password/pattern or a biometric credential, such as using face recognition or fingerprint recognition.

Apply network security measures

Provide the right permissions

The app should request only the minimum number of permissions necessary to function properly.

Store data safely

The app might require access to sensitive user information, users will grant your app access to their data only if they trust that we safeguard it properly.

Store private data within internal storage

Store all private user data that other apps cannot access those files. As an added security measure, when the user uninstalls an app, the device deletes all files that the app saved within the storage.