



# **AGRICULTURE DEVELOPMENT MOBILE APPLICATION PROJECT PROPOSAL**

## **Agri Mart**

An Online Agriculture Marketplace

Group B

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## **2. PROJECT OVERVIEW**

### **2.1 EXECUTIVE SUMMARY**

Agriculture Market is a digital classified Agriculture marketing mobile App creating a digital market for the farming community .Buyers, sellers and transporters are able to come together in a transparent manner procuring agriculture commodities and services through a listing mechanism.

Agri Mart Mobile Application provides easier user interface which makes the shopping easy for customers, farmers and also makes the delivery of products easy and less time-consuming. offers a wide range of vegetables, fruits, cereals, Agricultural Equipment. In further, this app comes with the Educational Guidance Forum which aims on the developing farmer's agricultural knowledge. In this forum every user can share their knowledge through using Question and Answer forum.

## **3. PROJECT OBJECTIVES AND EXPECTED BENEFITS**

### **3.1 The purpose of this application is to automate and facilitate the whole process of agricultural marketing**

This mobile application will be provided to farmers with valuable information that can help them improve their marketing. Mobile app can be access anywhere with low budget requirements compared to desktop web applications. Generally, intermediaries are getting the most benefit from agricultural marketing, but this application will largely alleviate that disadvantage. Farmer can be connected with buyers directly.

### **3.2 This application fixes the limitation and problems in buying and selling processes of agricultural products.**

Selling is the biggest challenge for any farmer. We can close the gap between farmers and potential buyers from this application, that helps farmers by providing information on prices, marketplaces, and next links in the big supply chain. This means creating a whole marketplace for farmers where they'll be able to compare and control market prices for different products and also get more opportunities to promote and market themselves.

### **3.3 Increase the quality of sale**

The main goal to increase the quantity of sales by making the new technology of mobile application design more attractive and to search a lot of customers and company to their location. Mobile apps for agriculture are a great option as they give farmers an opportunity to work in the field more effectively.

### **3.4 Efficient Transportation**

Because of lack of management in today transportation mechanisms, the quality of the sales is highly affected by time. To do transport sales efficiently, this app manages all the sales transports through registered transporters.

## **4. Project Details**

### **4.1 PROBLEM DESCRIPTION**

1. Selling harvest is the biggest challenge for any farmer. There is a huge gap between farmers and potential buyers in these days. In that gap there are lots of middle persons, that frustrates farmers by decreasing their prices, marketplaces.
2. On the other hand, buying harvest from farmers is the biggest challenge for any traders/shop owners. There is a huge gap between farmers and potential buyers in these days, that frustrates buyers and customers too.
3. Different prices from every region, because in different region there will be much harvests otherwise less harvests so the prices will be different for every region.
4. Difficulties with transportation of harvest to buyers. the quality of the sales is highly affected by transportation delay time.

## **4.2 IDENTIFIED ROOT CAUSES**

1. Don't have computer literacy
2. Every region will have the different whether conditions.
3. Farmers don't have a proper idea for marketing.
4. Farmers don't have a marketing source.
5. Trade mafias in the supply chain.
6. Government institutions don't have clear mechanism to identify demand and supply.
7. No proper connection with transportation chain. lack of management in today transportation mechanisms.

## **4.3 PROPOSED SOLUTION**

1. Mobile app can be access anywhere with low budget requirements compared to desktop web applications.
2. Users can contact the farmers directly via online.
3. Farmers can identify a proper marketing source through get registered to this application.
4. Farmers and buyer can easily engage with transportation chain and nearby transporters.
5. Farmers will have a very good marketplace to sell their harvest.
6. Buyers will have a very good marketplace to buy their harvest from Farmers.
7. Wholesalers can deal with farmers for a least amount via this application.
8. Crop cultivation guidance wiki service through the app which includes new technological, transportation techniques, storage techniques via experts through educational guidance forum in our app. This is a Q & A forum with agriculture experts.
9. New secure easy online payment options through mobile application
10. Market analysis display system where farmers can study about pricing their harvest and daily updates on price changes.
11. User Review system on each farmers/supplier to maximize the quality of goods and service.

### 4.3 Project Scope

In this modern world and the new generation all the fields are technology wisely improved. But the only the agriculture field in our country not improved well. Agriculture is important to human being because it forms the basis for food security. Agriculture plays a crucial role in the life of any economy. It is back bone of our economy. Agriculture not only provides food and raw materials but also employment opportunities to a very large proportion of population. So, through this application we can easily improve the agriculture field and also all the users can easily get connect with this. So as developers we are thinking it will help all the users as well and this will surely improve the agricultural field with technology wise.

- **Scope statement**

Introducing an online mobile platform to local farmers, buyers and transporters to market their agricultural food items where all the related money transactions and communications can be done.

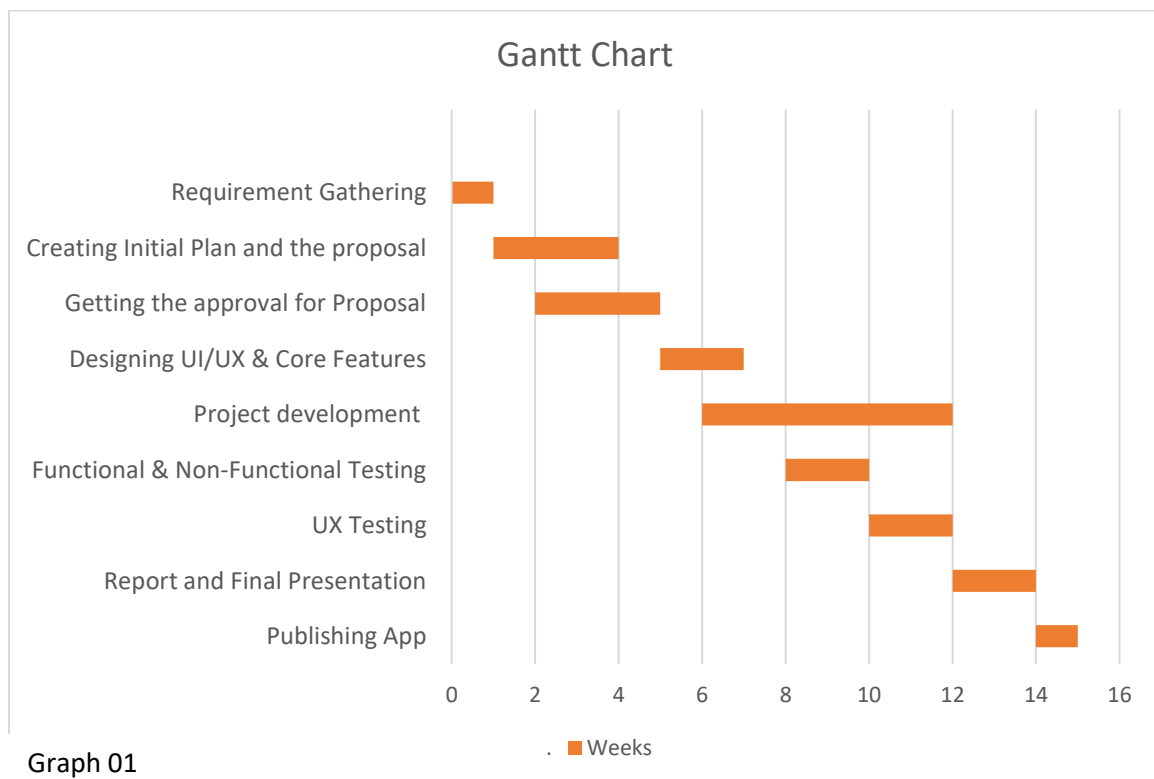
In Scope	Out of Scope
Farmers buyers will able to Share their market information through this application.	Connections between farmers and weather department.
Facility of getting all the updates of daily market prices and other details.	Participation of other agriculture related private companies with their promotions.
Any of user will able to find nearby transport agent through this application.	Online payment facilities for all users.
Agriculture experts can engage with farmers Q and A forums.	Foreign export Commercial crops farmers like rubber, tea, coffee.
Sri Lankan Local Market	International Market
Vegetables, Fruits, Rice and cereals crop harvest marketing	Local Livestock Industry

Table 01

## 4.4 Project Milestones

- I. Requirement Gathering
- II. Creating Initial Plan and the proposal.
- III. Getting the approval for Proposal.
- IV. Designing UI/UX & Core Features.
- V. Project development
- VI. Functional & Non-Functional Testing.
- VII. Perform UX (User Experience) QA Testing.
- VIII. Delivering Report and Final Presentation.
- IX. Publishing and Launching Application.

## 5. Time Management Gantt chart



## 6. Project Cost and Resource Estimates

Project Expense	Est. Amount (LKR)
Server Web Hosting for Website	10 000
Mobile Application registration	5000
Monthly Internet Costs	5000
Gaining Quality Certificates	5000
Domain	5000
Developer Tools	5000
Electricity Charges	5000
Equipment Depreciation	5000
Marketing Campaign	50 000
Government Tax	5000
Employer and Labor Salaries	10 000
Office Building Rent	10 000

**Total: 125 000**

Table 02

## 7. RISK MANAGEMENT

### 7.1 Possible Risks

1. This is may be not for home use, that means, we will buy only a small number of items for home use.
2. Using smart phone is a problem to some users.
3. Language is a problem to some of users.
4. Delivery time is problem for the consumers.
5. Government laws and policies.
6. Lack of face to face interactions.

### 7.2 IDENTIFIED ROOT CAUSES

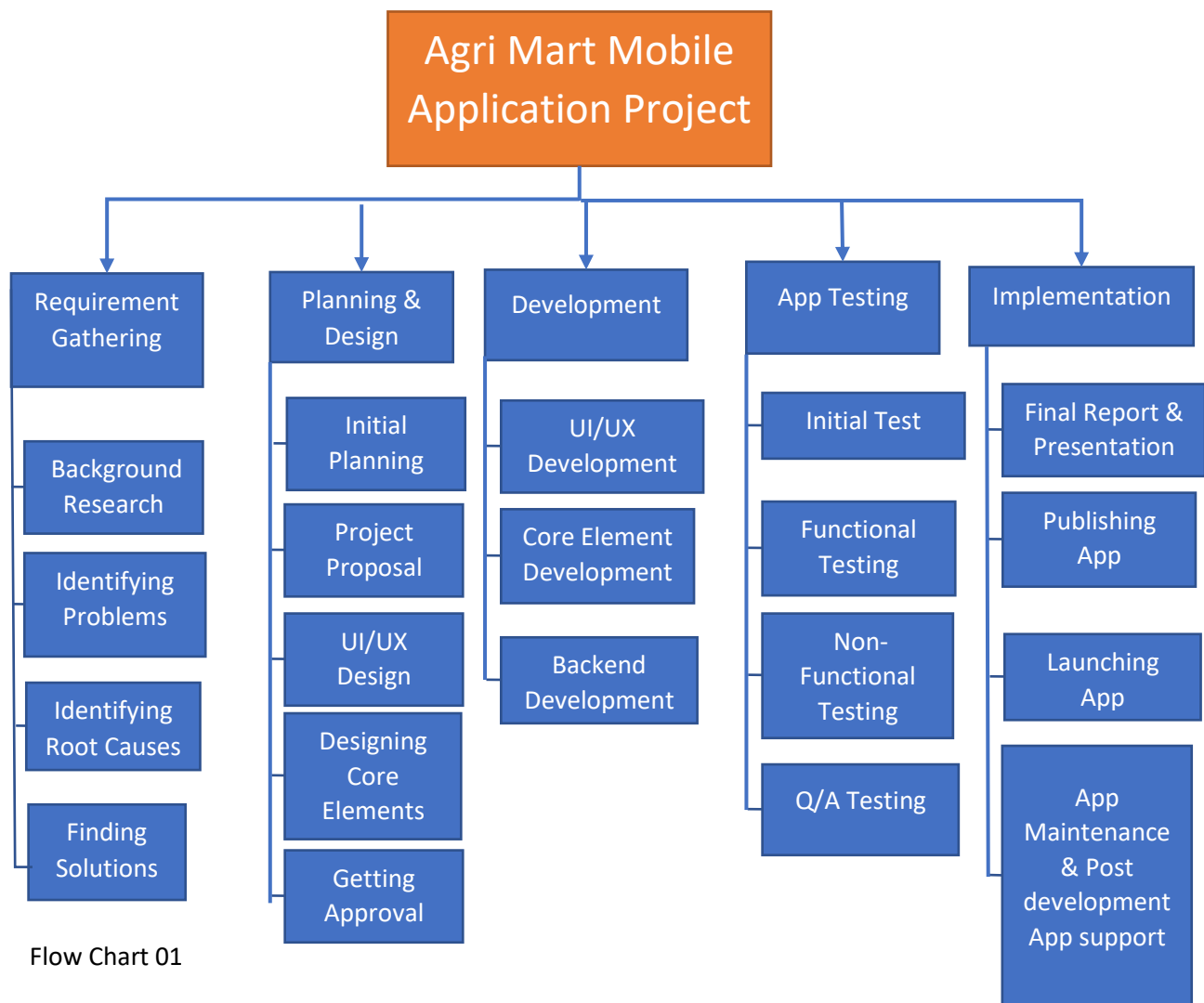
1. It will cost more charges to delivery, tax and all, it will be much than the delivery item.
2. Some of the users may be illiterate so they don't know how to use a smart phone.
3. Some of the users couldn't understand the languages, maybe they are illiterate.
4. Could not sure the delivery time, maybe it could be little bit late.
5. Expired government laws and policies.



## 7.3 PROPOSED SOLUTION

1. Can buy items as lot. Mostly it will be very useful to wholesale dealers.
2. This app will be operated by a low OS support and it will be a user-friendly attractive UI.
3. This app includes all our three languages for all user's support.
4. We will provide practiced drivers to quick delivery.
5. Negotiating with government intuition about this project.

## 8. WBS – Work Breakdown Structure



## 9. Functional and Non-Functional Requirements

Functional Requirements	Non-Functional Requirements
Customer User Account Databases	Customer Details
Farmer User Account Databases	Farmer Details
Transporter User Account Databases	Transporter Details
Financial Transaction Databases	Financial Information
Security Functions	Security Information

Table 03

## 10. Financial requirements

1. Bank Loans as Initial Capital
2. Bank Account
3. Online Banking System
4. Online Money Transaction Support

## 11. Operational requirements

1. Business location with Access to Main Road, enough space, Electricity, water
2. Internet connection availability like Fiber Optics

## 12. Human Resource requirements

1. Mobile Application developer
2. Mobile Application Testers
3. Accountants
4. Transport Delivery Operators
5. Mobile developer
6. Web Master
7. Marketing and Promotion Manager

### **13. Communication plan**

Certain times we have to communicate with our app subscribers. Therefore, we are going to include following features in our app.

1. chat system,
2. forum facility
3. feedback/report.

Users can communicate with maintenance team through that feedback and chat system. In the same time, we are collecting their contact details (phone number, email address) through their user accounts. So, in case of an emergency, we will be able to contact them directly.

Public Relations involves a variety of programs designed to maintain or enhance an application's image and the products and services it offers. Successful implementation of an effective public relations strategy can be a critical component to a marketing plan. We intend to set up,

- Facebook Page
- Instagram Page
- Mobile app in built chat system with inbuilt AI chat bot for public relations

Using above methods, our customers can contact us 24 hours a day. This enables us to provide fast service and customer confidence in our service.

User review system also a kind of communication system where it contributes to the increase of the quality of sales and sellers.

### **14. Measurable Benefits**

1. This mobile application will be provided to farmers with valuable information that can help them improve their marketing. This increases their income and living standard.
2. Mobile app can be access anywhere with low budget requirements compared to desktop web applications. otherwise farmers and buyers have to sacrifice their time and money. This app saves their time and money.

3. Generally, intermediaries are getting the most benefit from agricultural marketing, but this application will largely alleviate that disadvantage. We can close the gap between farmers and potential buyers from this application. So, income would be fairly divided among transporters and farmers.
4. Farmer can be connected with buyers, transporters directly. This saves time of everyone
5. Because of lack of management in today transportation mechanisms, the quality of the sales is highly affected by time. To do transport sales efficiently, this app manages all the sales transports through registered transporters.
6. Increase of the quantity of sales by making the new technology of mobile application design more attractive and to search a lot of customers and company to their location. Mobile apps for agriculture are a great option as they give farmers an opportunity to work in the field more effectively.
7. By saving everyone's time it will increase the quality of sales like the vegetables and fruits. That benefit also goes to customers as they obtain healthy quality foods. So, everyone involves with this app increase their living standard through this app.

## **15. Project Team**

### **Project Lead Coordinator**

➤ H.M.N.I. Nimeshana (1038)

### **Project Developers and Designers**

➤ S.S. Arunjith (905)

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### **Project Documentation and Co-Coordinator**

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## 16. Revision History of the Document

Date	Authors	Revision Summery
2020.03.06	Contributed All the Authors	<ul style="list-style-type: none"> <li>• Project overview</li> <li>• Project objectives and expected benefits</li> <li>• Project details</li> <li>• Risk management</li> <li>• Project team</li> </ul>
2020.03.20	Contributed All the Authors	<ul style="list-style-type: none"> <li>• Updated Project Scope</li> <li>• Created WBS – Work Breakdown Structure</li> <li>• Created Gannt Chart with time management</li> <li>• Project Milestones</li> <li>• Communication plan</li> <li>• Functional and Non-Functional Requirements</li> <li>• Financial requirements</li> <li>• Risk Management</li> </ul>
2020.04.07	Contributed All the Authors	<ul style="list-style-type: none"> <li>• Updated WBS</li> <li>• Updated Milestones</li> <li>• Updated Gannt Chart</li> <li>• Updated Project Scope</li> <li>• Created Measurable benefits</li> <li>• Created operational management</li> <li>• Created human resource management</li> <li>• Created communication plan</li> <li>• Added further optimizations to the relevant sections according to the recommendations</li> <li>• Finalized the document</li> </ul>

Table 04