2023

AGRICULTURAL LABOURERS' FARMING INNOVATIONS AND SOCIAL WELFARE CO-OPERATIVE SOCIETY LTD T-2325

ALFICOS
farming innovations

Agriculture Labour Services Platform

REQUIREMENT OF PROPOSED MULTI STAKE HOLDER PLATFORM FOR PROVIDING AGRICULTURE LABOUR SERVICES

Agriculture Labor Services Platform

CONTENTS

1. EXECUTIVE SUMMARY

The **Kaarshika Labour Bank Project**, an innovative initiative of the District Panchayat of Thiruvananthapuram, is currently being implemented during the current financial year. This project seeks to create a labour bank in the agricultural sector to provide farming services to landowners. The labour bank has been registered as the **Agricultural Labourers' Farming Innovations and Social Welfare Co-operative Society**. Furthermore, the project also proposes to establish a multi-stakeholder e-commerce platform to manage all services and financial transactions. This platform should be web-based, with a mobile app for added convenience.

2. SCOPE

The requirement is to develop a platform for providing agricultural labor services to the target market of homeowners and small- to medium-scale farm owners in Kerala. The scope of the project is to create and deploy a platform that will provide agricultural labor services to this market. This platform will enable users to access a wide range of services, from finding and hiring laborers to managing their agricultural labor needs.

3. REQUIREMENTS

System requirements are explained below

1. It should be possible for a customer to schedule an appointment for agricultural labourservices.
2. Services that are to be supported are
   a. Hydroponics unit setting up
   b. Aeroponics unit setting up
   c. Drip irrigation installation
   d. Spraying services
   e. Crop management operations
   f. Veg harvesting
   g. Land tilling

Agriculture Labor Services Platform

        h. Bund forming

        i. Tapioca mount taking

        j. Coconut harvesting

        k. Digging

        l. Coconut basins

        m. Ploughing rice field

        n. Ploughing land

        o. Weeding and land clearing

        p. Irrigation job

        q. Manpower supply

        r. Farm plan based Farm development services

3. System should support adding a Labourer Group which will be managing activity in a locality.

4. While adding a group, system should allow defining areas by postal code in which the group will be providing services

5. Group will have a group supervisor who will be coordinating activities inside the group.

6. All jobs shall be performed only after advance payment collection.

7. For jobs, customer will request service in a convenient date and specify the number of trees. Group Admin will ensure labor availability on that date and send payment link to the customer.

8. But for Farm development services , group supervisor will go, visit the site, update estimate in the site and customer will then make payment online.

9. When a customer schedules an appointment, group supervisor of that area will be notified.

10. Group supervisor will allocate a person for providing services to that customer.

11. Customer will be notified by SMS and could also view details inside the web application and mobile app.

12. If there is any additional payment required, that will be collected as part of final settlement.

13. After schedule date, estimate will automatically expire.

14. All services will be supported by all groups.

Agriculture Labor Services Platform

15. There is a need to support GST based tax in the invoice.

16. Performance expectations – 100 customers and 50 groups

4. TECHNICAL SOLUTION

The requirement is to develop a responsive web and mobile application for addressing this objectives.The web and mobile application will contain the following capabilities

- It should be possible to add users into the application

- Web application will support four types of users

  - Customer – Customers who will be availing services. They will be able toregister to the platform using their mobile number/email.

  - Group Supervisor -Group Supervisors will be managing a group of labourers

  - Administrator – Administrator will have all administrative rights and can see alldetails in the application.

  - Officials – The authorized official of the District Panchayat will be able to view the selected generated reports to monitor the progress in implementation and customer grievances that may arise.

- Application will support adding a group and assigning a group supervisor. Groupswill be linked to postal codes and there will be only one group for a postal code.

- Only administrators can add/modify/delete groups in the application.

- Current version of the platform will support the listed services.

- Customer will be able to login to the application by giving his phone number.

- Once logged in customer will be able to add a service request by providing

  - Location details

  - The work/ job required with extend of area or number of workers / Number of Coconut trees

  - Date and time slot [Select from a set of available timeslots]

Application will have separate workflows for coconut harvesting, services that need recurring payments and fixed cost labour services.

- Once payment is completed, a notification will be given to group supervisor with details of customer. Group supervisor will be able to update the work assignment details in the web application.

- Work assignment details will include- labourer name, phone number and time in which he will be reaching the location.
- Once group supervisor submits work assignment information, customer will be notified via SMS with labourer details.
- There will be an option to reschedule/cancel the appointment.
- Group Supervisors will be able to view daily/monthly total revenue of the group.
- Administrator will be able to view daily/monthly total revenue.

5. WORKFLOWS

Normal farm services Workflow
- Application will show the total amount to be paid for this work and customer will be able to raise the request. Admin/Group Supervisor [of that area] will look for labourer availability and will trigger payment. Customer will receive the payment link and he will make the payment online. He will get a receipt of payment via email[if specified] and will also receive a payment received SMS

Workflow for services that need recurring payment – Rubber tapping and Irrigation

- Application needs support for scheduled booking. Customer will be able to book theservice for 6 months period and can make an advance payment for 15 days (minimum advance payment slot is 5 days). He will be able to do followup paymentand renewal/cancellation of contract in the website itself.

Workflow for farm setting up services
- For all farm setting up services, group supervisor will go and visit the site , update estimate/ farm plan in the site and customer will then make payment online.

6. PAYMENT MANAGEMENT

Appropriate payment gateway need to be integrated with the platform to enable the customers to make payments, to disburse wages to workers based on the tasks done, cash return to customers etc. G-pay, phonepe, credit card, debit card, internet banking etc need to be integrated.

7. DEVELOPMENT /DEPLOYMENT ENVIRONMENT

#		
2	Platform	Html5, Css3, Angular2, Java/Spring, MySQL
3	Deployment	Deployment will be done in a cloud system

8. PROJECT ACTIVITIES

Following activities shall be taken up as part of this project

- ➢ Web interface design and requirement document
- ➢ Application development
- ➢ Testing of the system
- ➢ Deployment and configuration at cloud

9. MILESTONES

M S 1	Screen Design + Requirement documentation
M S 2	Application Development
M	Testing @ Supplier facility

ALFICOS
farming innovations

Agriculture Labor Services Platform

S 3	
M S 4	Deployment in cloud +
M S 5	Completion of Project

10. CONTACT DETAILS

Implementing Officer (Official)	ALFICOS (Admin for the portal)
Deepa Deputy Director of Agriculture (WM) O/o Principal Agricultural Officer Thiruvananthapuram Ph: 94462 89277	**K.G. Girish Kumar**Secretary ALFICOS Ph 858 999 6464 Email: alficoslabourbank@gmail.com