Web based Solution for Trading Sri Lankan Agricultural Foods/Crops

Proposed by:

DSCI Company

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1 Objectives

The main objective of this project is to create an e-commerce solution for ABC Company which will have a clean and modern design, features rich while covering the requirements of trading agricultural foods/crops from Sri Lanka. The application allows customers to order export agricultural products and provides sellers a proper platform to sell their products.

The system,

1. Provide fully responsive web pages and be optimized for operation on PC/Tablet/Mobile.
2. Provide a platform for trading export agricultural products such as Vanilla, Cashew, Pepper, Cinnamon, Clove, etc.
3. Promote agricultural product export online.
4. Secure registration and profile management facilities for sellers and buyers
5. Provide facility to customers for searching products via the category and ordering (select) available products.
6. Selected (ordered) products will be added into a shopping cart while sending an email to the seller about the relevant order.

1.1 Proposed System Environment

The proposed system is an online based trading platform for agricultural products with a centralized database. The system will be accessible from devices such as mobile phones, tablet computers and personal computers with an Internet connection.

1.2 System Security

The proposed system will include several measures of security for the online access and processing of the data and features such as role-based access control, templates of activities to control functionalities of different users, data visibility control providing the facilities to control the access by users will be included.

1.3 Ensure Proper Conduct by Users

The data insertion, manipulation will be assigned to responsible user accounts grouped by a properly defined set of user roles suitable for the positions and activities.

2   Time-line and Deliverables

The proposed development will be delivered as a **fully functional system** in **6 weeks'** time after signing the contract. The next **2 weeks** of the contract period will be allocated for **testing** along with bug fixing.

Table 1: Proposed time frame

Key Task	Required Deliverable/s	Proposed Time Frame
1	Propose a system to the client, create and submit relevant documents (Project proposal, Agreement, etc.)	**1 week**

2	Implement
	i) System architecture design
	    ii)Front-end design
	    iii)Data modelling and design,
	        once approved by the client
		6 weeks

3	Code Implementation	
4	Deliver a fully operational system along with necessary instructional material and ownership information.	
5	Testing and bugs fixing	**2 weeks**

3   Security

Several security measures are included to ensure the maximum protection for the sensitive information stored in the proposed system.

3.1   Role-based Access Control

Multiple types of users and roles of each user will be defined in the system to provide a higher level of manageability of the information. Each type of user in the system will have different views along with the set of functionalities that they are allowed to perform on the system.

3.2   Profile Templates

The proposed system maintains user profile templates which allow the administrator to easily assign and prevent the actions performed by the users.

4   Functionality by User Role (Major tasks only)

4.1   Administration

1. Administrator can login to the system using the correct username and password
2. The proposed system will allow admin to create and manage user accounts.
3. Authorized to remove registered users from the system due to legal situations.
4. Able to insert, delete and update crop product categories.
5. Capable to make changes to the system and maintain it.

4.2   Sellers

1. The proposed system will allow sellers to register to the system using their personal information.
2. Registered sellers are able to login to the system with the appropriate user name the password.
3. Registered sellers can view, edit and update their profiles
4. Registered sellers can insert, delete and update selling product details.

4.3   Buyers

1. The proposed system will allow buyers to register to the system using their personal information.
2. Registered buyers are allowed to login to the system with the appropriate user name the password.

3. Registered buyers can view, edit their profiles
4. Registered buyers can make changes to their data displayed on the customer profile.
5. Registered buyers can search and order (select) products.
6. Registered buyers can add or remove products from a shopping cart
7. Buyer can move to the checkout after adding finalized products to the shopping cart.

4.4 Viewers (third party)

1. Able to view available products and the number of registered users.
2. Able to contact the administrators through contact form to get the information.

5 Hardware Requirement

Due to the high capacity of data storage and management in the proposed system it will require two different server environments for hosting and backup storage with the configurations below.

5.1 Deployment Server (In-House Server)

- Processor: At least 4 computational cores.
- RAM: 16GB
- Storage (HDD): 2TB
- Operating System: Linux (64 Bit CentOS is preferred)

5.2 Backup Server

- Processor: Intel i5 (or Higher)
- RAM: 8GB
- Storage: 2TB (depending on frequency/duration of the backup)
- Operating System: Linux (64 Bit CentOS is preferred)

*NOTE-01***: Under the proposed development we will not be providing any hardware devices or hardware maintenance services.**

6 Budget

Described below is our financial proposal and payment schedule.

Table 6.1: Budget breakdown

	Phase / Module	Hours	Rate (LKR)	Line Total (LKR)
1	System architecture design	20	2,000.00	40,000.00
2	Front-end design	50	1,000.00	50,000.00
3	Data modelling and design	50	1,000.00	50,000.00
4	Implementation	80	1,000.00	80,000.00
5	Testing	20	1,000.00	20,000.00
6	Deploying / Hosting	20	1,000.00	20,000.00
7	Initial data input	10	1,000.00	10,000.00
	Total (LKR)			**270,000.00**

Table 6.2: Payment schedule

Key Task	Description	Portion of the Allocated Budget
1	Signing the contract	40%
2	Design and develop the e-platform with the project team once approved by the client. Delivery of a fully functional system.	40%
3	End of contract period	20%