

# **Title: E-Agro Services**

## **Objective:**

This system will help and allows the owner of the agro service or a trader of the vegetable market to maintain their business records.

## **Scope:**

The scope of project is to develop a web-based application that helps agro service owners and vegetable traders to maintain their business records. The application will provide functionalities to register farmers, consignees, and transport agencies, manage purchases, sales, and billing records, and generate graphical and tabular reports for the users. The application will have role-based access control, where only the owner and their authorized employees can perform certain tasks. The application should be user-friendly, secure, and scalable to accommodate the growing needs of the business.

## **Requirements:**

### **1.Functional Requirements:**

- This system will be accessible for the owner, their employees, registered farmers, consignees and the transport agencies.
- The owner and their employees having the all authority to use this applications functionality like registering farmers, consignees, transport agencies updating, deleting, inserting will be accessible.
- The users will be accessible for viewing their personal data and business data.

### **(I)Owner:**

- The owner has all access to system.
- Only owner can register employee.
- Dashboard will provide information using graphs, indicators as well as Grid data prestation.

### **(II). Employee:**

- The employee can manage the registrations of the farmers, consignees and transport agencies.
- The employee manages the insertion, modification and deletion of the records like purchases, sells and billings.
- Employee will be managed to registering the new slips of purchases from farmer from anywhere like farms, farmhouses, etc.
- The employee can modify the slips of purchase items and sold items if there having some wrong data insertion.
- If the farmer has trouble to sold the item to them or if the consignee has to cancel the order because of some reasons then the employee can modify or remove those inserted data.
- If the farmer has to cancel an order of purchasing pesticides, seeds or any other thing then the employee can modify it from records or remove from records.
- Employee can update, delete the item, stock of pesticides, seeds, fertilizers if it is out of stock or not available.
- Employee can add new products to the stock available.
- Employee can manage the vehicles of those transport agencies to transport the items to the consignees.

### **(III). Farmer:**

- Only registered farmers can log into the system.
- Farmer can modify his profile.
- Registered farmer will be able to get helpline contact no in case of emergency.
- Farmer can access their own details only.
- Farmer can see his history of purchased items and sold items.
- Farmer can see his balance.
- Farmer can see his revenue of his particular item or can see his revenue of year wise sells of items.

### **(IV). Consignee:**

- Only registered consignees can log into the system.
- Consignee can modify his profile.
- Registered consignee will be able to get helpline contact no in case of emergency.
- Consignee can access their own details only.

- Consignee can see his revenue of his particular item or can see his year wise purchases items.

#### **(V). Transport:**

- Only registered transport agencies can log into the system.
- Transport agency can modify his profile.
- Registered transport agency will be able to get helpline contact no in case of emergency.
- Transport agency can access their own details only.
- Transport can see his revenue of his particular vehicle or can see his year wise history.

### **2.NonFunctional Requirements:**

#### **(I). Security:**

- Only Admin or owner of the E-Argo Services will see all records.
- Only Admin should be able to modify their own personal details.
- Farmer can login with their user id and password. Admin and farmers can access their details.
- No any user can access other users details expect admin.
- System will provide access to the content, operations using Role based security (Authorization) (Permissions based on Role)

#### **(II). Reliability:**

- The system will back up users data regularly and recover in a short time duration to keep the system operational, continuous updates are maintained through email and continuous administration is done to keep contact with users.
- During peak hours system will maintain the same user experience by managing load balancing.

#### **(III). Availability:**

- Uptime: 24\* 7 available
- 99.999%

#### **(IV). Maintainability:**

- A Commercial database software will be used to maintain System data Persistence.
- A Web Server will be installed to host online E-agro (Web Application) to management server capabilities.
- IT operations team will easily monitor and configure System using administrative tools provided by Servers.
- Separate environment will be maintained for system for isolation in production, testing, and development.

#### **(V). Portability:**

- The system will provide a portable User Interface (HTML, CSS, Angular) through which users will be able to access the web application.
- The system can be deployed to a single server, multi-server, to any OS, Cloud (Azure or AWS or GCP).

#### **(VI). Accessibility:**

- Only registered users will be able to log in after authentication.

#### **(VII). Durability:**

- The system will maintain users details.
- The system will implement backup and recovery for retaining users data, and their business data over time.
- The system will use cache for faster data retrieval and improve performance.

#### **(VIII). Efficiency:**

- During peak hours system will maintain the same user experience by managing load balancing.
- The system will be able to manage all transactions in isolation.

**(IX). Modularity:**

- The system will be designed and developed using reusable, independent or dependent business scenarios in the form of modules.
- These modules will be loosely coupled and highly cohesive.
- The system will contain CRM, Billing, order processing, membership and Roles management modules.

**(X). Scalability:**

- The system will be able to provide a consistent user experience to users irrespective of load.

**(XI). Safety:**

- The users login page will be secure from malicious attacks, and phishing.
- Separate environment will be maintained for system for isolation in production, testing, and development.
- IT operations team will easily monitor and configure System using administrative tools provided by Servers.