

GROUP 5

FUNCTIONAL AND NON FUNCTIONAL REQUIREMENTS

Functional Requirements:

1. User Registration and Authentication:

- Farmers and warehouse operators should be able to register and log in securely.
- User authentication ensures data privacy and access control.

2. Warehouse Management:

- The system should allow warehouse operators to input and update warehouse details, including location, storage capacity, and available amenities.
- Warehouse operators can mark a warehouse as available, reserved, or full for specific time periods.

3. Crop Reservation System:

- Farmers should be able to reserve storage space in a specific warehouse for their crops in advance.
- The system should provide available storage space recommendations based on the farmer's crop type, quantity, and duration.

4. Goods Storage Process Tracking:

- Warehouse operators should be able to record and update the status of goods being stored, including receiving, storing, and dispatching.

- Farmers should have real-time visibility into the status of their stored crops.

5. Warehouse Search and Nearby Warehouses:

- Farmers should be able to search for nearby warehouses based on their location.

- The system should provide a list of available warehouses, their distances from the farmer's location, and relevant details.

6. Notifications and Alerts:

- The software should send notifications to farmers regarding crop storage status, upcoming crop expirations, and available storage space.

- Warehouse operators should receive notifications about reservations and crop deliveries.

7. Integration and Scalability:

- Ensure scalability to accommodate a growing number of farmers and warehouses.

- Consider integration with mapping services for location-based search.

Non - Functional Requirements:

1. Performance: The system should respond quickly to user queries and load data efficiently.
2. Reliability: Ensure high uptime and data reliability to avoid disruptions in crop storage and retrieval.
3. Scalability: The system should be able to accommodate more users and warehouses as the platform grows.
4. Usability: The user interface should be intuitive and user-friendly for both farmers and warehouse owners.
5. Data Privacy: Protect user information and comply to applicable data privacy laws.
6. Availability: Ensure that the system is available 24/7, with minimal downtime for maintenance.
7. Data Backup: Regularly back up data to prevent data loss in case of system failures.
8. Scalable Database: Use a scalable and robust database system to store user and inventory data.

9. Mobile Accessibility: Ensure that the system is accessible and user-friendly on mobile devices.
10. Cost-Effective: Develop and maintain the system in a cost-effective manner to minimize operational expenses.