

Abstract: Coffee Wholesale and Retail Web Application

Current Situation (Manual System)

Currently, the coffee wholesale and retail industry operates primarily through offline channels. Coffee farmers sell their beans to intermediaries or local buyers, often facing challenges such as low prices, lack of access to market insights, and limited opportunities to improve the quality of their products. Retailers and wholesalers rely on physical stores or traditional communication methods to procure coffee beans, which results in inefficient operations and limited reach.

Farmers have minimal support in terms of improving their farming practices or enhancing their coffee bean quality. Additionally, the collection of coffee beans from farmers' locations is disorganized, and there is no centralized system to manage wholesale and retail coffee sales effectively.

Proposed System

The proposed web application will serve as a centralized platform for both wholesale and retail coffee sales, connecting coffee farmers directly with buyers. The platform will offer services to help farmers improve their coffee products through farming tips, quality control, and access to market data. Additionally, the system will manage the collection of coffee beans directly from farmers' locations, ensuring a streamlined process.

For retail customers, the platform will offer a variety of coffee products for purchase. The system will ensure efficient order management, payment processing, and delivery tracking.

Key Features of the Proposed System:

- Direct connection between farmers and buyers (wholesalers and retailers)
- Support services for farmers to improve coffee bean quality
- Collection of coffee beans from farmers' locations
- Retail sale of coffee products
- Transparent pricing and reporting

Input and Output

Input:

- Farmer details (name, contact information, location, coffee bean details)
- Buyer details (name, contact information, order details)
- Coffee product details (product name, description, price)

• Order details (product, quantity, delivery location)

Output:

- Coffee collection schedules
- Farmer performance reports
- Sales reports for wholesalers and retailers
- Order status updates for buyers
- Notifications and alerts for farmers and buyers

Users of the System:

- **Admin:** Manages the entire system, including user registration, coffee product inventory, orders, and reports.
- **Farmers:** Register on the platform to list their coffee beans for sale and access support services.
- Wholesalers: Purchase coffee beans in bulk directly from farmers.
- **Retail Customers:** Purchase coffee products through the online store.

Modules of the System:

1. Registration Module:

- Allows farmers, wholesalers, and retail customers to register on the platform.
- Stores user details in the database.

2. Farmer Support Module:

- Provides farmers with resources to improve their coffee bean quality.
- Shares farming tips, best practices, and market trends.

3. Coffee Collection Module:

- Manages the collection of coffee beans from farmers' locations.
- Tracks collection schedules and locations.

4. Product Management Module:

- Manages coffee product listings, including product descriptions, prices, and availability.
- Allows the admin to update product details.

5. Order Management Module:



- Facilitates the ordering process for both wholesalers and retail customers.
- Tracks order status from placement to delivery.

6. Payment Module:

- Handles online payments from buyers.
- Provides farmers with payment reports and history.

7. Reports Module:

• Generates various reports, including sales reports, collection reports, and performance reports.

System Requirements:

Front-End:

Reactis

Back-End:

- Nodejs
- MongoDB

Conclusion:

The proposed Coffee Wholesale and Retail Web Application will streamline the entire coffee supply chain, connecting farmers directly with buyers and offering support services to improve coffee bean quality. The system will enhance transparency, efficiency, and profitability for all stakeholders involved, from farmers to wholesalers to retail customers.