

CHAPTER 1

INTRODUCTION

1.1 Project Description

A revolutionary smartphone application known as the "Farmers Crop Selling App" has been developed with the intention of radically altering the processes by which farmer solders can vend their crops and take part in online tenders. Farmers in many different economies according to agriculture frequently experience difficulties in locating buyers for their produce and in securing prices that are fair in trade that benefits labour. This application intends to address these difficulties by providing farmers with a digital platform on which they can encourage the products and communicate directly with possible purchasers. As a result, the need for intermediaries will be eliminated, and transparency will be increased in the process of selling goods.

The software makes us to utilize the power of technology to establish a streamlined marketplace in which farmers may advertise their crops, describe the quality and quantity of those products, and engage with buyers who are interested in acquiring their produce. In addition to this, the app makes it possible for farmers to engage in online tendering procedures, get competitive offers, and negotiate the best possible pricing for their crops. This can be achieved through the app's facilitation of an effective online tendering system. The aim of this application is to strengthen rural economies and enhance the farmers' standard of living by offering good authority on sales of their produce and good entry to a bigger market.

1.2 objectives

- **Creation of a Personalized Profile for the Farmer** The software allows farmers to establish a personalized profile for themselves by entering information such as their name, location, the sort of crop they grow, and their contact information.
- **Listing of Available Crops and Detailed Information** Farmers are able to quickly publish their available crops alongside detailed information that may include crop kind, quantity, quality factors, and the anticipated price range.
- **Search Capabilities Based on Geolocation:** The app makes use of geolocation services to enable buyers to look for crops that are available in certain places.
- **Real-Time information** Farmers receive real-time information about the results of tenders, new buyer queries, and other pertinent developments, securing and keep up to date regarding potential business transactions and opportunities.
- **Safe and Reliable Payment Gateways:** The mobile application offers safe and dependable payment gateways, which makes it possible for transactions between buyers and sellers to go off without a hitch.
- **Ratings and Reviews** Buyers have the ability to submit ratings and reviews for the purchased products, which enables farmers who sell high-quality food to create confidence and credibility among future buyers.
- **Support in Multiple Languages** The software provides support in multiple languages in order to accommodate farmers who come from a variety of linguistic backgrounds. This makes the app more accessible and user-friendly.

To summarize, the “Farmers Crop Selling App” is a disruptive solution that provides farmers with more market access, fair pricing, and less dependence on intermediaries. This app empowers farmers to sell their crops directly to buyers. This app revolutionizes agricultural trade by embracing technology and connectivity.

CHAPTER 2

LITERATURE SURVEY

2.1 Existing System

Farmers sold their crops through local markets, intermediaries, or physical auctions.

Traditional technique components and drawbacks:

- **Physical Markets and Auctions:** Traditionally, farmers took their commodities to physical markets or auction houses where purchasers could inspect and bid on them. Farmers had to carry their crops to market, adding cost and complexity.
- **Middlemen and Intermediaries:** Farmers used intermediaries to find buyers. Middlemen negotiated prices and facilitated transactions, but commission costs reduced farmers' profits.
- **Market Reach:** Traditional methods had limited market reach. Farmers were generally limited to local marketplaces, making it difficult to reach more buyers and maybe get better crop prices.
- **Lack of Transparency:** Traditional selling was opaque. Intermediaries may have exploited farmers due to uncertainties about market demand and prices.
- **Time-Consuming Process:** Physical auctions and market visits can take farmers away from their crops and daily routines.
- **Price Fluctuations:** Many reasons might cause physical market prices to fluctuate, resulting in uncertain farmer incomes.
- **Limited Competitive Bidding:** The traditional method may have limited farmers' crop prices.

- **Lack of Market knowledge:** Farmers generally lacked market knowledge and trends that may inform crop choices and price tactics.
- **Inefficient Transactions:** The manual and paper-based traditional technique may result in inefficient transactions, payment delays, and inaccuracies.
- **Physical Presence:** farms had to be at markets or auctions to sell, which was difficult for rural farms.

In conclusion, traditional crop selling and online tendering for farmers had various drawbacks, including restricted market access, lack of transparency, dependence on middlemen, and inefficiency. Farmers had trouble getting fair pricing and accessing a wider market due to these restrictions. Modern mobile apps and online platforms, like the proposed "Crop Selling and Online Tendering App for Farmers," use technology to create a more efficient, transparent, and accessible marketplace for farmers to sell their crops and participate in online tenders.

2.2 Proposed System

The "Farmers Crop Selling App" is a modern and user-friendly smartphone app that changes how farmers sell their crops and participate in online tenders. The technology gives farmers a digital platform to promote their commodities, contact directly with buyers, and engage in a transparent and fast online tendering process. Key system components:

- **Farmer Registration and Profile Creation:** Farmers may easily register on the app by entering basic facts and building personalized profiles. The farmer, crops, and location are in the profile.
- **Crop Listing and Details:** Farmers can enter crop type, variety, quantity, quality factors, and price range. The app showcases farmers produce.
- **Geolocation-Based Search:** The programmer lets buyers search by region for crops. This service helps farmers find local buyers.

- **Online Tendering Platform:** The app's easy online tendering platform lets farmers bid on crops. Farmers can select the best bids from competing buyers.
- **Real-Time Notifications:** Farmers receive real-time updates on online tenders, buyer queries, and potential deals. Farmers keep informed and make prompt decisions.

Proposed System Benefits:

- **Expanded Market Access:** The app connects farmers with customers from diverse regions, expanding their consumer base.
- **Transparency and Fair Pricing:** The online tendering platform allows farmers to get the greatest crop prices through competitive bidding.
- **Reduced Dependency on Intermediaries:** By connecting farmers directly with customers, the method lowers intermediaries and improves farmer profit margins.
- **Time and Cost Savings:** Farmers may now sell from their mobile devices, saving time and money on market visits.
- **Market Insights and Informed Decisions:** Farmers can use market insights and historical data to choose and price crops.
- **Efficiency:** The internet platform simplifies sales and reduces paperwork.
- **Real-Time Notifications:** Farmers receive real-time notifications of potential agreements and possibilities.
- **Empowerment and Inclusivity:** The app provides farmers more authority on sales and levels the field for all the users, regardless of location or farm size.
- **Increased Trust and Credibility:** Farmers with a history of high-quality produce benefit from ratings and reviews.

Finally, the "Farmers Crop Selling App" uses technology to provide a more efficient, transparent, and accessible marketplace for farmers. The method empowers farmers, removes intermediaries, and promotes fair pricing by offering a digital platform to sell commodities and participate in online tenders.

2.3 Feasibility Study

The "Crop Selling and Online Tender App" needs a feasibility study to determine its practicality, viability, and possible benefits. The analysis should evaluate technological, economic, operational, legal, and scheduling factors. The app's viability:

- **Technical Feasibility:** App Development: App development requires technical skills and resources. To reach more users, the software should work on iOS and Android. Connectivity and Performance: Even in places with inconsistent internet connectivity, the app should operate adequately and deliver a smooth user experience.
- **Economic viability:** Estimate app design, programming, server setup, and testing costs. Revenue Generation: Assess the app's profitability using transaction fees or subscriptions.
- **Operational Feasibility:** User Adoption: Determine if farmers and buyers will use the app for agricultural sale and tendering. User Support: Determine app support resources.
- **Legal Feasibility:** Compliance with Regulations: Make sure the app meets e-commerce, data protection, and tendering regulations.
- **Scheduling Feasibility:** Project Timeline: Estimate project completion by estimating app development, testing, and deployment time.

"Farmers Crop Selling App" advantages and benefits:

- **Expanded Market Reach:** The software lets farmers sell crops to customers outside their local area.
- **Transparency and Efficiency:** Online tendering promotes fair commerce and buyer competitiveness.
- **Real-Time Communication:** Farmers can directly engage with buyers via the app, eliminating intermediaries.

- **Price Discovery:** The app allows farmers to compete for the greatest crop prices.
- **Lower Transaction Costs:** Farmers and buyers save money on travel and paperwork with the app.
- **Market Insights:** App data can help farmers and buyers make informed decisions.
- **Sustainable Practices:** The app connects farmers to environmentally aware purchasers, promoting sustainable agriculture.

The "Farmers Crop Selling App" feasibility study will identify project difficulties, possibilities, and advantages. A thorough analysis will help stakeholders create and deploy the app to fulfil the demands of farmers and buyers in the agriculture sector.

2.4 Tools and Technologies Used

About PHP

PHP (Hypertext Preprocessor) is a popular server-side scripting language used largely for web development. It is also known as open-source language, which means it is publicly available and has a big developer community contributing to its development and improvement.

PHP's key features include:

- **Simplicity:** PHP has a very simple syntax, allowing beginners to immediately begin constructing online applications.
- **Server-Side Scripting:** PHP executes on the server before the generated HTML is sent to the client's browser. Dynamic content generation, database interactions, and other server-side processes are now possible.
- **Cross-Platform Compatibility:** PHP is compatible with many operating systems, like Windows, MacOS, Linux, and UNIX. It works well with a different web servers, including Apache, Nginx, and Microsoft IIS.
- **PHP provides significant database integration features,** supporting common database like MySQL, PostgreSQL, Oracle, and SQLite. It permits the linking and manipulation of data contained in databases in real time.
- **HTML integration:** PHP can be directly integrated into HTML code, allowing developers to combine PHP and HTML within the same file. This streamlines of creating dynamic content and produce it possible to create reusable web components.

- **Extensive Library and Framework Support:** PHP has a large ecosystem of libraries and frameworks that add functionality and speed up development. Laravel, Symfony, and CodeIgniter are popular PHP frameworks.
- **Community help:** PHP has a big and active developer community that shares resources, provides help, and contributes to the language's constant improvement. The plethora of online forums, tutorials, and documentation accessible to help developers learn and debug.

PHP is well liked programming language to develop dynamic websites, online applications, content management systems (CMS), e-commerce platforms, and other server-side applications. Its adaptability, ease of use, and broad support make it a favored choice in the group of web developers worldwide.

About BOOTSTRAP

Bootstrap is a well-liked and famous front-end framework that provides a collection of pre-built CSS and JavaScript components, responsive grid system, to simplify and expedite web development. It was initially developed by Twitter and is now maintained as an open-source project.

Key features and benefits of using the Bootstrap framework include:

- **Responsive Design:** Bootstrap is designed with mobile-first principles, ensuring that websites and web applications created with Bootstrap are responsive and adapt well to different screen sizes and devices. The responsive grid system and CSS classes provided by Bootstrap help achieve consistent and fluid layouts.
- **Cross-Browser Compatibility:** Bootstrap takes care of browser compatibility issues, providing consistent styles and behaviors across different browsers. It includes CSS resets and supports popular web browsers, ensuring a consistent user experience.
- **Ready-to-Use Components:** Bootstrap suggest extensive pre-styled UI components such as navigation menus, buttons, forms, alerts, modals, carousels, and more. These components can be easily added to web pages by applying the appropriate CSS classes, saving developers time and effort in designing and coding from scratch.

- **Customizable and Theming:** Bootstrap provides extensive customization options, allowing developers to modify the framework's default styles and components to match their project's branding or design requirements. Customization can be done by overriding variables or using Sass (Syntactically Awesome Style Sheets) for more advanced customization.
- **JavaScript Plugins:** Bootstrap includes a set of JavaScript plugins that strengthen the effectiveness of web components. These plugins offer features like dropdowns, tooltips, modals, carousels, and more, making it easy to add interactivity and user-friendly behavior to web applications.
- **Documentation and Community:** Bootstrap has comprehensive and well-documented official documentation, providing detailed information, examples, and usage guidelines. Additionally, Bootstrap has a large and active community of developers who share resources, offer support, and contribute to the ongoing development and improvement of the framework.
- **Rapid Prototyping:** Bootstrap's pre-built components and responsive grid system enable rapid prototyping of web pages and applications. Developers can quickly create and iterate on designs, test layouts, and showcase ideas with minimal effort.
- **Integration:** Bootstrap can be easily integrated into projects by including the necessary CSS and JavaScript files or by leveraging package managers like npm or Yarn. It is compatible with various web development technologies and frameworks, making it versatile and widely adopted in the web development community.

Overall, Bootstrap simplifies front-end development by providing a robust and customizable framework with ready-to-use components, responsive design capabilities, and extensive documentation. It is an excellent choice for building modern, responsive, and visually appealing websites and web applications.

About MYSQL

MySQL called as Relational Database Management System (RDBMS) it is publicly available source and widely used for organizing and storing structured data. This is a popular database system that is noted for its performance, scalability, and ease of use.

MySQL works with a variety of operating systems and may be integrated with a variety of programming languages and frameworks.

MySQL's key features and attributes include:

- **Relational Database Management:** MySQL adheres to the relational paradigm, allowing users to establish tables, relationships between tables, and enforce data integrity restrictions via primary keys, foreign keys, and unique constraints.
- **Structured Query Language (SQL):** SQL, a standard language for handling relational databases, is supported by MySQL. It includes a comprehensive set of SQL commands for creating, editing, querying, and maintaining databases, as well as the tables, indexes, views, and stored procedures that go with them.
- **Scalability and Performance:** MySQL is built to efficiently manage huge quantity of data and heavy traffic loads. To improve performance and scalability, it provides many optimization algorithms, indexing systems, and query caching.
- **High Availability and Replication:** MySQL includes high availability and replication features that enable the establishment of backup systems and data synchronization across different database servers. Data redundancy, fault tolerance, and load balancing are all ensured.
- **Security:** MySQL has comprehensive security capabilities to secure data and manage user access. To protect sensitive information, it offers authentication procedures, encrypted connections, user rights, and data encryption.
- **Triggers and Stored Procedures:** MySQL provides triggers and stored procedures, which allow the database to execute predefined actions or operations automatically when certain events occur. This increases flexibility and enables the deployment of extensive data manipulation and business logic.
- **Data Compatibility:** MySQL hold up large amount of data types, including numeric, text, date, and time, Boolean and others. It also supports several character sets and collations, making it appropriate for multi-language applications.
- **Community and Ecosystem:** MySQL has a big and active user, developer, and contributor community. The community offers substantial documentation, tutorials, forums, and resources, making it simple to obtain help and solutions to common problems.

- MySQL has an extended applications, ranging from small-scale websites and online apps to large-scale enterprise systems. It is often used with web development frameworks such as PHP, Python, Ruby, and content management systems (CMS) like as WordPress and Drupal.

Overall, MySQL is a robust and versatile Relational Database Management System(RDBMS) with strong features, performance, and scalability. It is well-suited with extended range of applications and used with businesses of all sizes to manage their data efficiently and securely.

About ANDROID

The Android is an operating system that was developed with mobile phones and tablets in mind. It uses the Linux kernel and other open-source software, and it is created and maintained by Google. Android is now most frequently used mobile operating system in the world after the release in 2008.

Features that set Android apart:

- Android's open-source foundation means that programmers are free to make changes to the system and release their own forks of the operating system.
- Second, Android's app ecosystem is extensive, with thousands of options on the Google Play Store. There are abundance of useful applications available for users to download and use on their mobile devices.
- Thirdly, the user interface may be tailored to the individual's tastes thanks to Android's support for widgets and live wallpapers.
- Android's support for multitasking means users may easily switch between apps and even have many open at once.
- Android's notification system is robust, keeping users abreast of updates, messages, and other events without interfering with their ongoing tasks.
- Wi-Fi, Bluetooth, Near Field Communication (NFC), and mobile data are all supported by Android smartphones, making it simple to connect and share information.
- Google services like Google Maps, Gmail, Google Search, Google Drive are included into Android smartphones.

- To keep personal information and data safe, Android has built-in security measures including app sandboxing and app permissions.
- Google often releases updates and security fixes for Android to enhance speed, introduce new features, and close security loopholes.
- Android's publicly available source may be modified to work with a extended variety of devices and software.

The Android Software Development Kit (SDK) and the Java or Kotlin programming languages are used to create Android applications. Games, productivity applications, social media apps, and more can all be developed by programmers to meet the varying demands of their users.

Android's huge range of features, apps, and possibilities for users and developers has contributed significantly to the mobile industry's revolution and made Android a staple in our daily life.

About WAMP

WAMP stands for “Windows Apache MySQL and PHP” , is a software stack that is used for designing web page on Windows. It offers a simple and complete environment for designing and testing web applications on Windows PC.

Here's a breakdown for WAMP stack's components:

- Windows: WAMP is built to run on Windows operating systems, making it simple for developers working on Windows workstations to set up and use.
- Apache: The server of web component for WAMP stack is Apache. It acts as the HTTP server, handling incoming web browser requests and providing online content to clients. Apache includes URL rewriting, virtual hosting, and SSL support.
- MySQL: This is included in the WAMP stack is MySQL. Developers can use it to construct, maintain, and interact with relational databases. It is a strong and efficient data storage and retrieval option for web applications.

- **PHP:** PHP is the programming language used in the WAMP stack for dynamic web content and server-side scripting. It allows programmers for writing programs to communicate with databases, processes form data, generates dynamic web pages, and handles a variety of server-side operations.

Developers can create a local web development environment by installing and configuring WAMP, which contains a web server (Apache), a database server (MySQL), and a server-side scripting language (PHP). This enables them to create and test web apps locally before deploying them to a production server.

WAMP offers various advantages to web developers, including:

- **Ease of Installation:** WAMP provides a simple installation process by combining all essential components into a single package. This simplifies the setup by removing the need to install and configure each component separately.
- **Integration and Compatibility:** WAMP is designed to function in tandem, ensuring Apache, MySQL, and PHP compatibility. This eliminates compatibility difficulties and allows developers to concentrate on developing their applications.
- **Local Development Environment:** WAMP has a local development environment on a Windows PC that allows developers to test programs before deploying them to a live server. This speeds up development and makes debugging and troubleshooting easier.
- **Configurability:** WAMP includes configuration files for each component, allowing developers to adjust settings to set the necessity of their individual project. This adaptability allows developers to modify the environment to their specific requirements.
- **Community and Support:** WAMP has an active user community that offers forums, tutorials, and documentation for help and support. The community assists WAMP users by addressing common concerns, sharing knowledge, and providing guidance. Because of its ease of use, integration of major components, and ability to provide a local development environment, WAMP is a popular choice for Windows-based web development.

2.5 Software and Hardware Requirements

Hardware Specification

Processor	-i3 or Higher
RAM	- 2GB or Higher
Hard disk	- 500 GB

Software Specification

Front end	- Bootstrap framework
Back end	- My SQL
Server Scripting Language	- PHP
Web Server	- Apache
Operating System	- Windows 7 or Any Compatible
IDE	- net beans 8.0,Android Studio 2.0

CHAPTER 3

SOFTWARE REQUIREMENT SPECIFICATION

3.1 Modules

Farmers: Farmers use the app to market their crops. They can list their produce, show potential buyers, participate in online tenders, and negotiate competitive rates. Market knowledge, transparent pricing, and direct buyer access empower farmers and improve their profitability.

Buyers: Wholesalers, merchants, and agribusinesses are important app users. They can peruse crop listings, bid competitively in online tenders, and buy high-quality produce directly from farmers. Buyers may quickly and cheaply source commodities from a variety of producers using the app.

Agricultural Aggregators and Traders: The app can also help them. They can find business possibilities, trusted suppliers, and bulk purchases on the platform. The app improves aggregator-farmer transactions, streamlining the supply chain and sourcing.

Government organizations: The software can help government agricultural organizations track crop production, pricing patterns, and market dynamics. This data can improve agriculture policies, market demand, and farmer sales.

Market researchers and analysts can use the app's data and analytics to study crop trends, market demand, and pricing patterns. The programmer can help with agricultural investment and crop demand forecasting.

Financial Institutions: The app may check farmers' creditworthiness based on sales history and ratings. Transparent transaction data can aid financial organizations in financing to farmers.

3.2 Functional Requirements

- **User Registration and Profile Creation:** Farmers, buyers, and other users must register on the app by entering relevant facts and building personalized profiles.
- **Crop Listing and Details:** The app should allow farmers to list their crops, including types, varieties, numbers, quality factors, and predicted prices.
- **Geolocation-Based Search:** The app should let buyers search for crops by region.
- **Online Tendering Platform:** The app must have a platform where farmers can bid on their crops and purchasers can submit competitive offers.
- **Real-Time Notifications:** The app should notify farmers of tender outcomes, buyer queries, and other pertinent developments.
- **Secure Payment Gateway:** To simplify farmer-buyer interactions, the app needs a secure payment gateway.
- **Ratings and Reviews:** The app must allow customers to rate and evaluate commodities, helping farmers gain trust and reputation.
- **Market Insights and Analytics:** The app should give farmers demand patterns, historical pricing data, and crop preferences.
- **Multilingual Support:** Farmers from different languages can also be capable to work this App.
- **Customer Support:** The app should help farmers with questions and technical concerns.

3.3 Non-Functional Requirements

- **Performance: Responsiveness:** The programmer should respond rapidly to user input to save loading times.
Throughput: The system should efficiently manage many users and transactions.
Scalability: The software should scale smoothly to meet user demand.
- **Usability:**
 - **User-Friendly Interface:** Farmers and customers should find the app straightforward to use.
 - **Accessibility:** The software should meet accessibility criteria for disabled users.

- **Security: Data Protection:** The app should encrypt and secure sensitive user data like personal and payment information. To protect user accounts and prevent unauthorized access, the app must provide secure user authentication and suitable authorization levels.
- **Reliability: Availability:** The programmer should be online and running with little downtime.
Fault Tolerance: The app should be tolerant to system failures or errors to maintain vital functionality.
- **Compatibility:** The app should operate well on smartphones, tablets, and PCs. To accommodate varied user preferences, the software should be cross-browser compatible.
- **Performance Efficiency: Resource Use:** The programmer should optimize resource use to reduce server load and bandwidth consumption.
Energy Efficiency: The app should conserve mobile device battery life by minimizing energy consumption.
- **Data Integrity: - Data Validation:** The app should thoroughly validate user inputs to ensure data accuracy and integrity.
Data Backup and Recovery: The programmer should backup data periodically and make data recovery straightforward.
- **Compliance:** Legal and regulatory compliance, including data privacy rules, should be met by the app.
- **Performance Monitoring and Analytics:** The app should track app usage, user behavior, and system performance.
- **Response Time:** For a good user experience, the app should have minimal response times for critical functions.

Finally, the " Farmers Crop Selling App " is non-functional requirements ensure its performance, security, stability, and usability. These standards provide user data security, a smooth user experience, and a stable and scalable agricultural trade platform.

CHAPTER 4

SYSTEM DESIGN

4.1 SYSTEM PERSPECTIVE

Admin module

Admin is the super user of the system admin has privileges such as verifying the farmer and dealer details and also they can remove old accounts

Registration module

In this module peoples get registered with the system to get the service of the system, to get registered they need give their mobile number at the registration page a verification code is sent to that number getting the correct confirmation code they are asked to enter voter card number with which their information is obtained and allowed to have an account.

farmer module

In this module the details of farmer can updated.

Add crop

In this module farmer will updates their selling crop details and they can be edited.

Dealer module

In this module the details of dealer can updated

View module

In this module, the dealer can see the details of crops

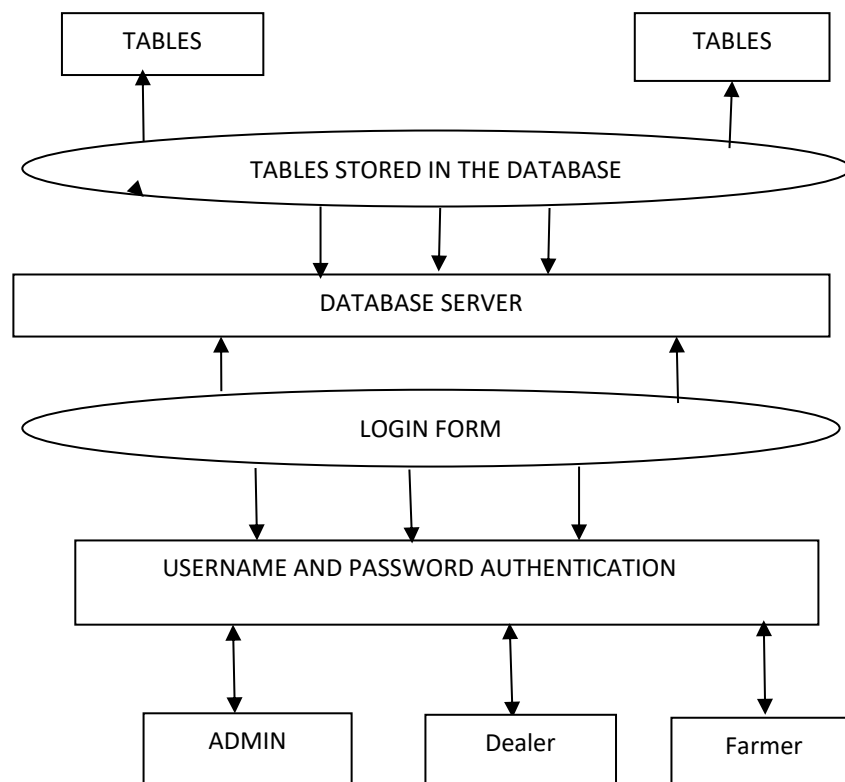
Architecture diagram:

Figure 4.1: Architecture diagram

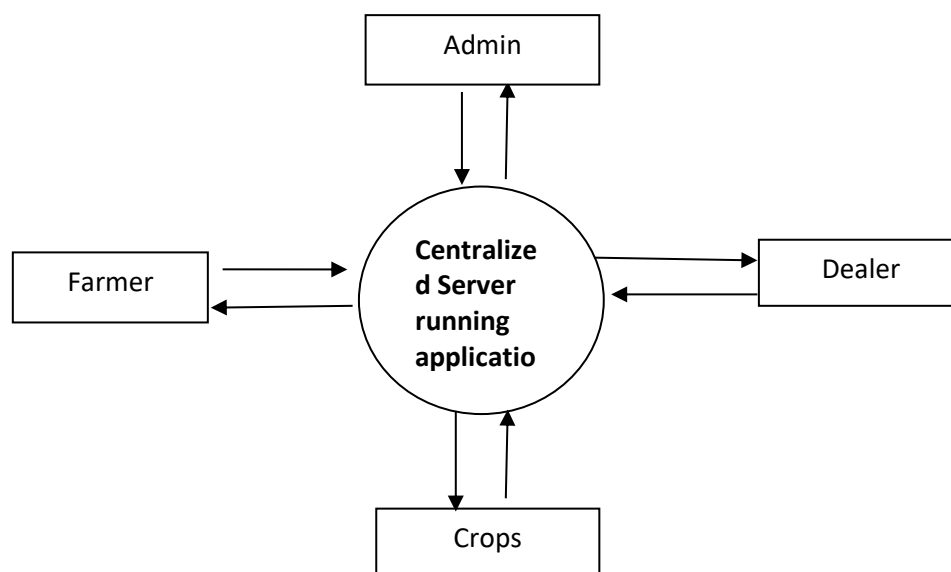
4.2 CONTEXT DIAGRAM

Figure 4.2: Context Diagram of Project

CHAPTER 5

DETAILED DESIGN

5.1 Use case diagram

5.1.1 Use case diagram of admin

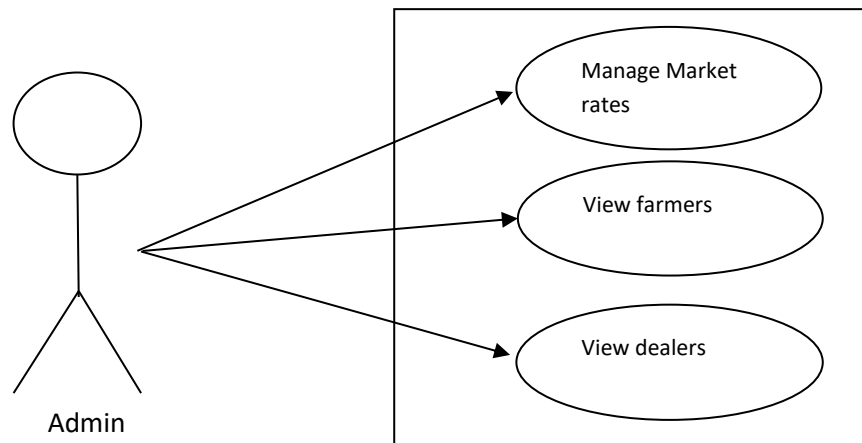


Fig. 5.1.1 Use Case Diagram of Admin

5.1.2 Use case diagram of Farmer

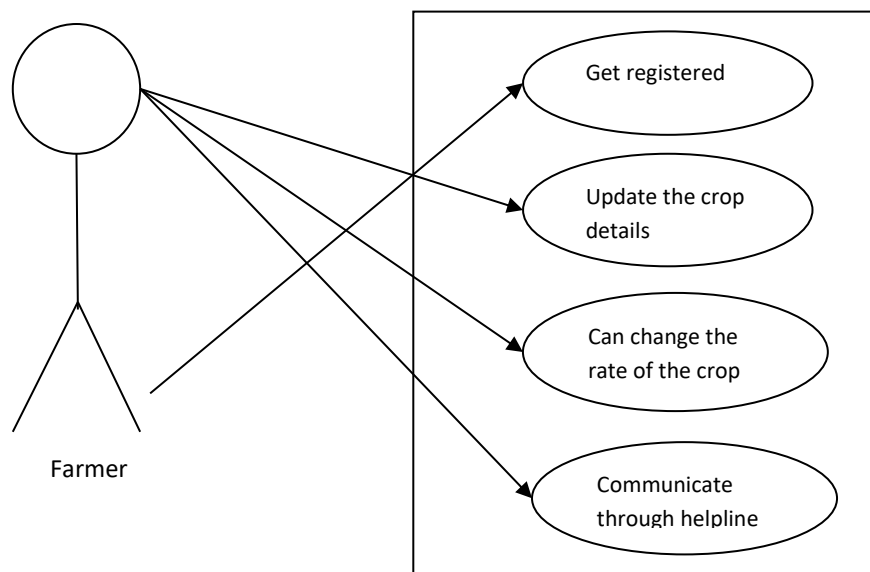


Fig. 5.1.2 Use Case Diagram of Farmer

5.1.3 Use case diagram of Dealer

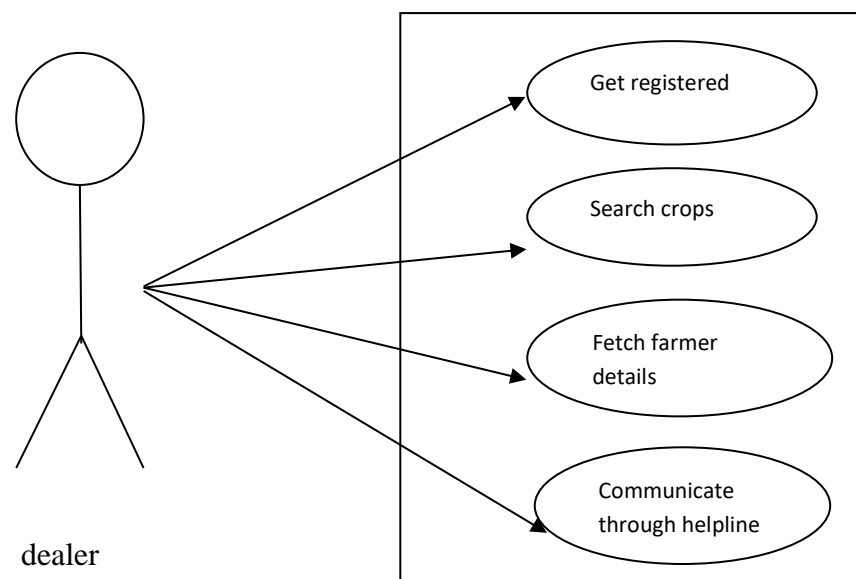


Fig. 5.1.3 Use Case Diagram of Dealer

5.2 Sequence Diagram

Sequence Diagram of the Farmer

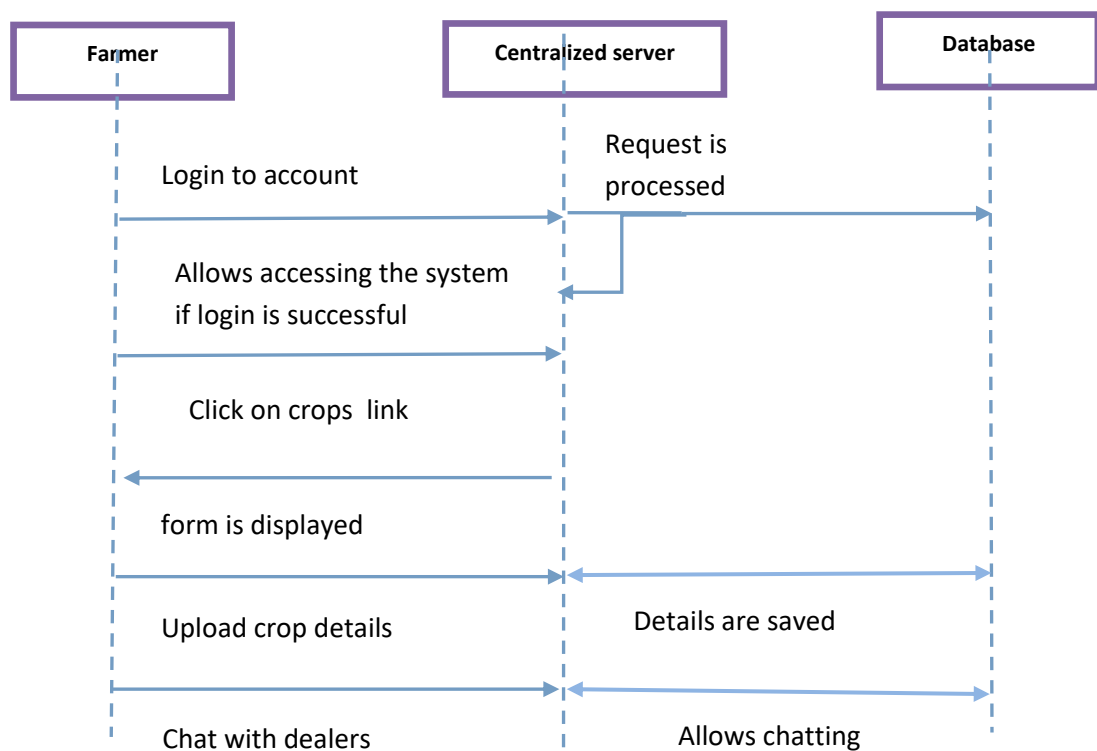


Fig. 5.2.1 Sequence Diagram of Farmer

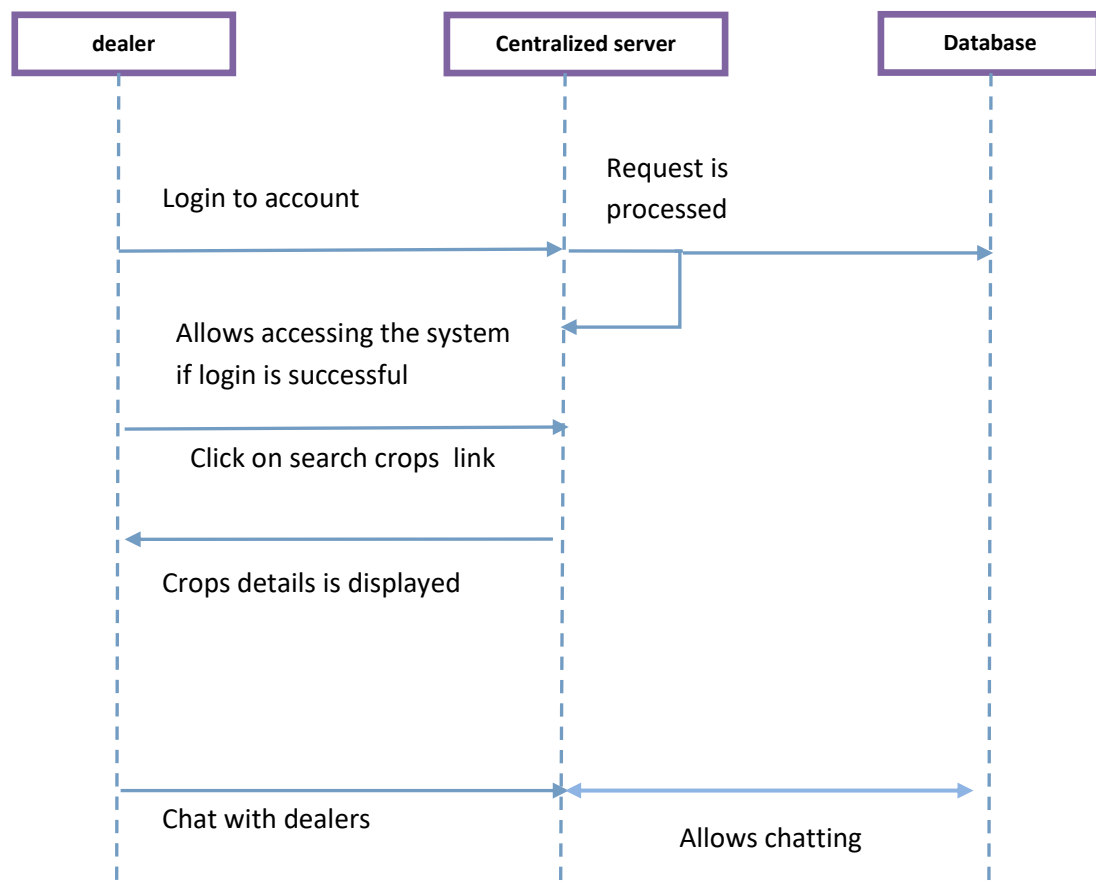
Sequence Diagram of the Dealer

Fig. 5.2.2 Sequence Diagram of Dealer

5.3 Activity Diagram (Control flow diagram of end user)

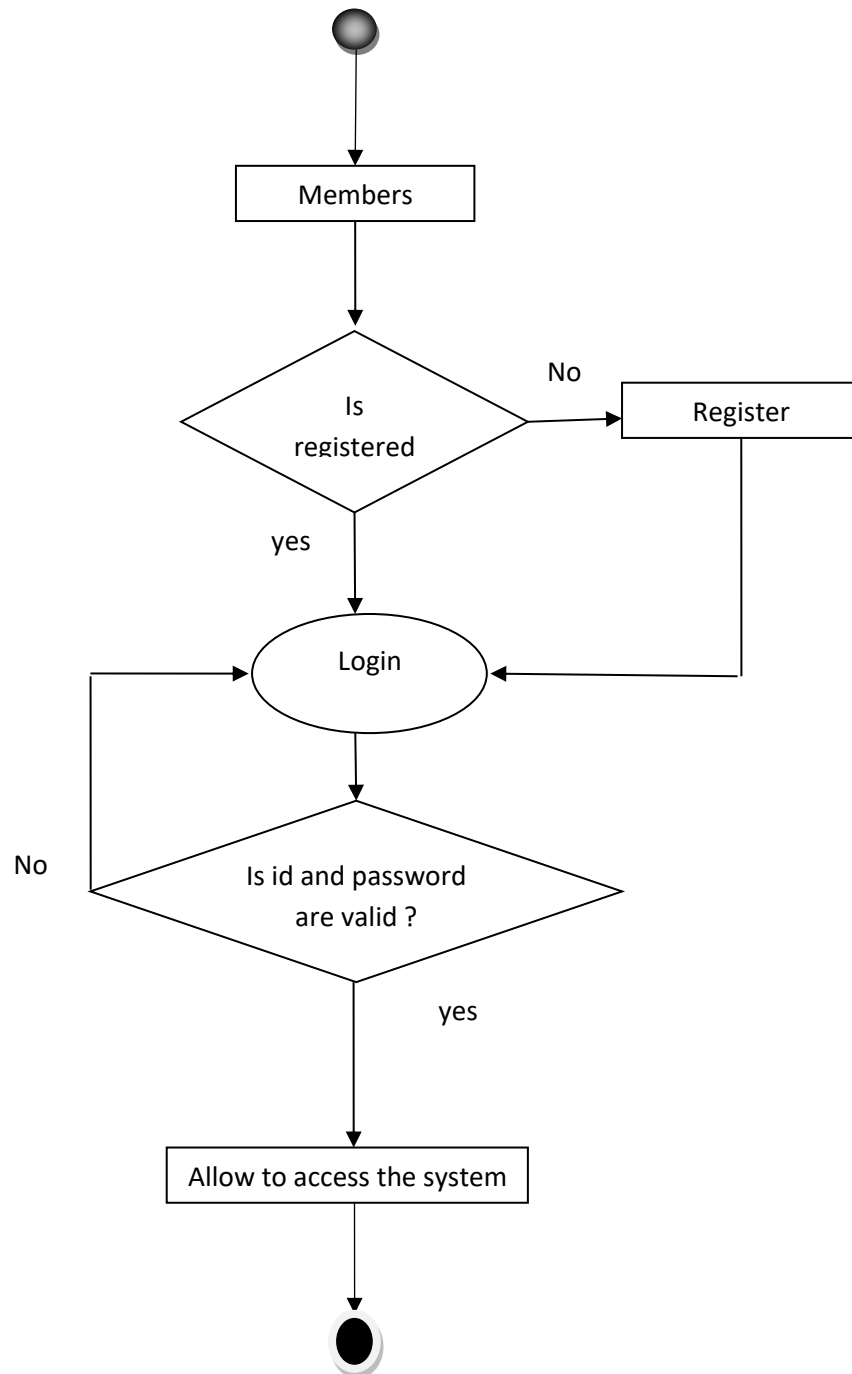


Fig.5.3: Control flow diagram

5.4 Dataflow diagram (DFD)

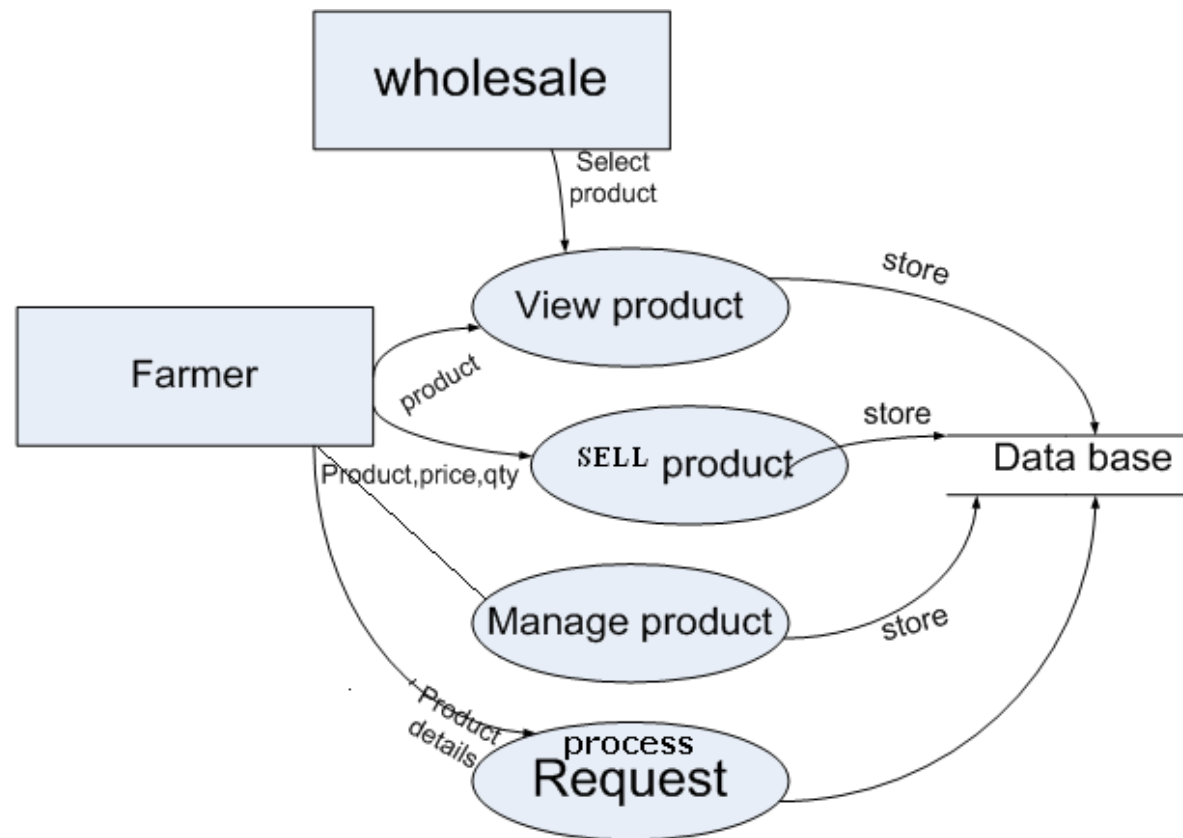


Fig. 5.4.1 Data Flow Diagram

5.5 Database tables

Tables used in the project

FARMER:

Field	Type	Null
Fid	Varchar (20)	No
name	Varchar(100)	No
Addr	Varchar(200)	No
Contno	Varchar(20)	No
Land	Varchar(50)	No
Bankact	Varchar(20)	No
Branch	Varchar(100)	No
Dist	Varchar(100)	No
State	Varchar(100)	No
Uname	Varchar(100)	No
Pwd	Varchar(100)	No
Imgname	Varchar(100)	No
Paddr	Varchar(200)	No

Table 5.5.1 Farmers table

DEALER:

Field	Type	Null
Did	Varchar(20)	No
Tinno	Varchar(20)	No
Name	Varchar(100)	No
Addr	Varchar(200)	No
Contno	Varchar(20)	No
Uname	Varchar(100)	No
Pwd	Varchar(100)	No
Bact	Varchar(20)	No
Bbranch	Varchar(100)	No
District	Varchar(100)	No
State	Varchar(100)	No
Imgname	Varchar(100)	No
Paddr	Varchar(200)	No

Table 5.5.2 Dealers table

CROPS:

Field	Type	Null	Default
Sino	int(11)	No	
Fid	Varchar(20)	No	
Cropname	Varchar(50)	No	
Quality	Varchar(50)	No	
Qnt	Varchar(100)	No	
Estprice	Varchar(100)	No	
Udate	Date	Yes	<i>NULL</i>

Table 5.5.3 Crops table

5.6 ER-Diagram

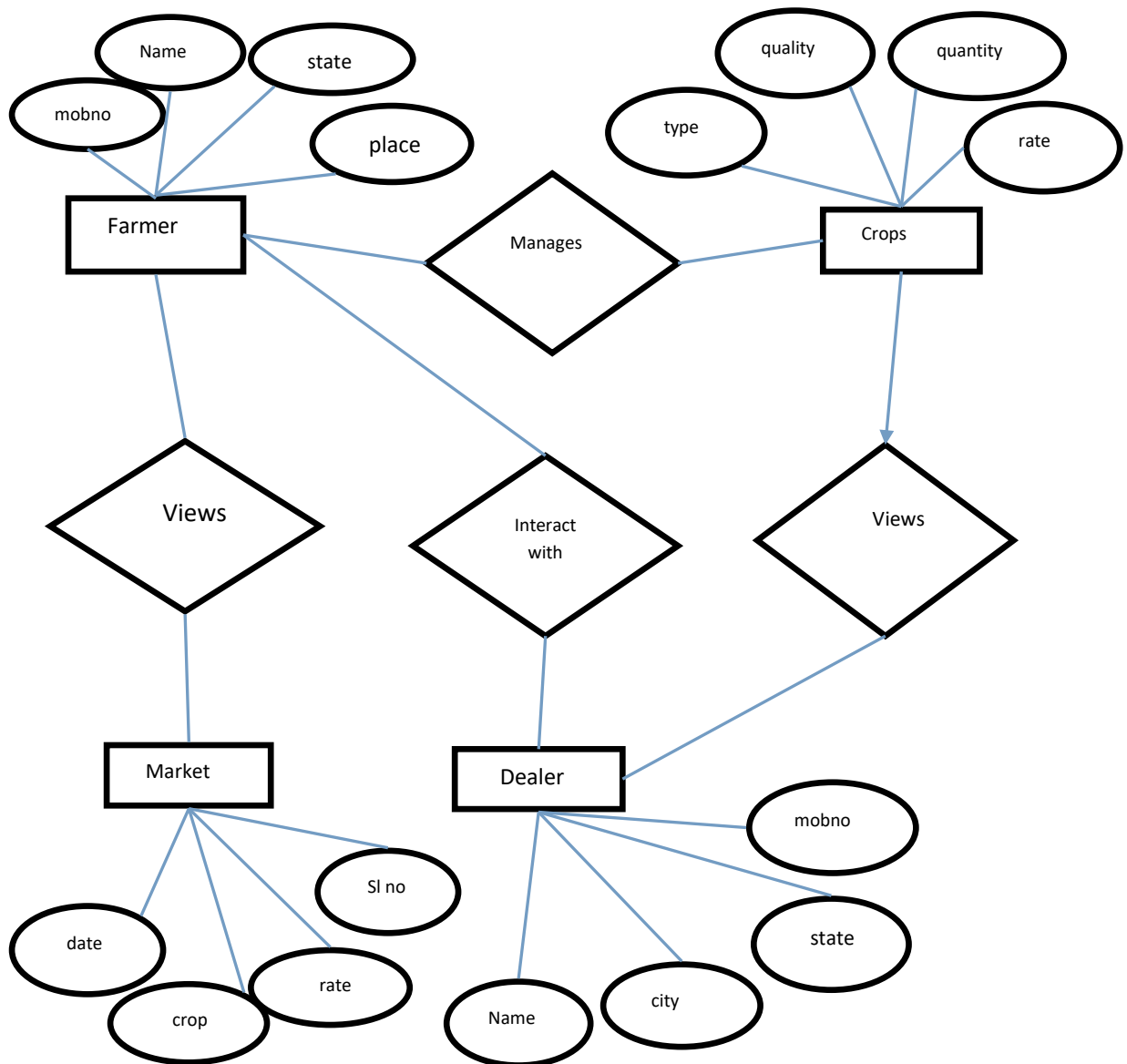


Fig.5.6.1 Entity-Relationship Diagram

CHAPTER 6

IMPLEMENTATION

6.1 Code snippets

6.1 Coding practices done in the project

Here's an algorithm that outlines the steps to connect PHP and MySQL for transactions:

1. Start the PHP script:

- Open the PHP tags.
- Declare any necessary variables.

2. Establish a connection to the MySQL database:

- present database hostname, username, password, and database name.
- Use the `mysqli_connect()` function to develop a connection object.
- Check if the connection was successful using the `mysqli_connect_errno()` function.

3. Begin a transaction:

- Use the `mysqli_begin_transaction()` function to start a new transaction.
- Check if the transaction was successfully started using the `mysqli_autocommit()` function.

4. Execute the SQL queries within the transaction:

- Write the SQL queries that need to be executed for the transaction.
- Use the `mysqli_query()` function to execute each query.
- Check if each query was successful using the `mysqli_affected_rows()` function.

5. Commit or rollback the transaction:

- If all queries were executed successfully, use the `mysqli_commit()` function to commit the transaction.

- If any query failed, use the `mysqli_rollback()` function to roll back the transaction.
- Check if the commit or rollback was successful using the `mysqli_autocommit()` function.

6. Close the database connection:

- Use the `mysqli_close()` function to close the database connection.

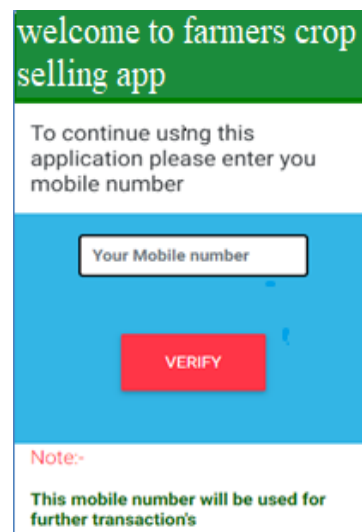
7. End the PHP script:

- Close the PHP tags.

Note: It's important to handle any mistakes or exceptions while transaction processing. Proper error handling can help identify and resolve issues related to the connection, queries, or transactions.

Remember to use proper coding practices and consider implementing security measures, such as prepared statements and input validation, to protect against SQL injection attacks.

6.2 SCREENSHOTS



welcome to farmers crop selling app

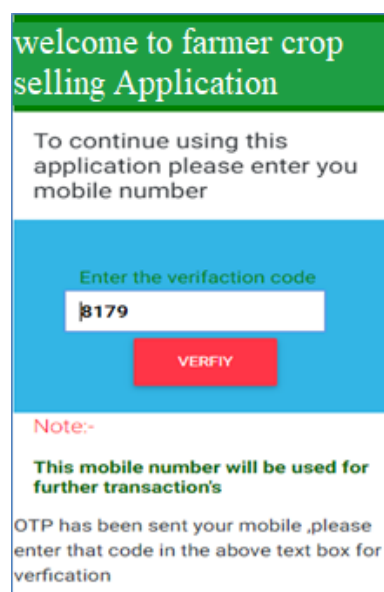
To continue using this application please enter you mobile number

Your Mobile number

VERIFY

Note:-
This mobile number will be used for further transaction's

Fig 6.2.1: Login page



welcome to farmer crop selling Application

To continue using this application please enter you mobile number

Enter the verification code

8179

VERIFY

Note:-
This mobile number will be used for further transaction's

OTP has been sent your mobile ,please enter that code in the above text box for verification

Fig 6.2.2: verifying the mobile number

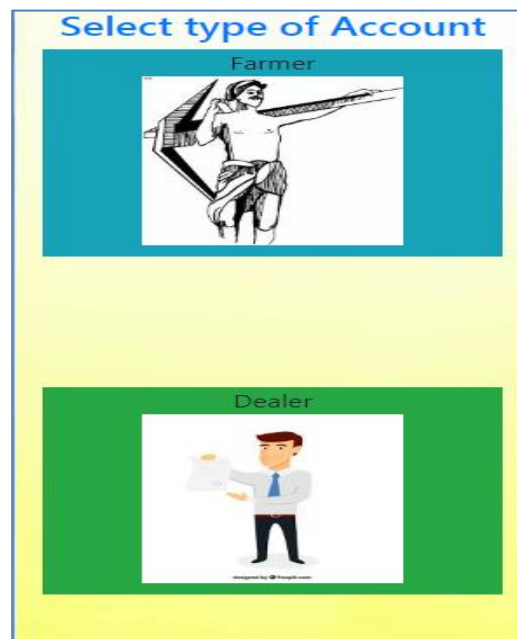


Fig 6.2.3: Types of Accounts



Fig 6.2.4: Home page

Farmers crop selling app

Upload Crop details form

Choose Crop Name: Rice

Choose Quality: High

Quantity: 10

Unit: Kwintols

Estimated Price: 3000

Price Unit: Per Kwintol

Fig 6.2.5: Uploading Crop Details

farmer crop selling app

Uploaded Crops Details..

CropName	Quality	Quantity	Estimated Price
Rice	High	10 kw	3000 /kw

Fig 6.2.6: Crops Uploaded Successfully

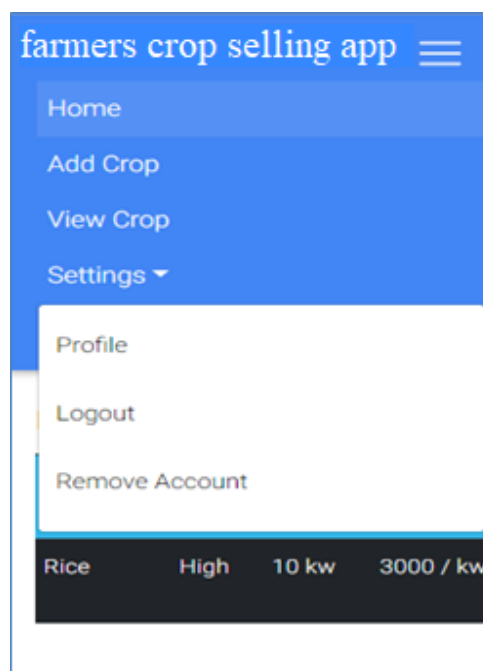


Fig 6.2.7: Profile edit page

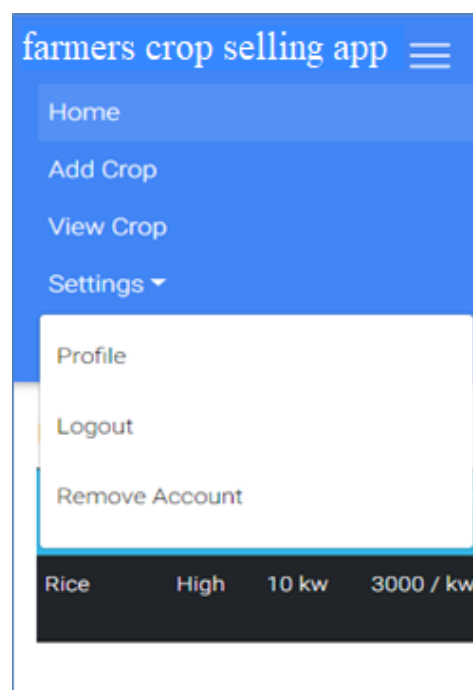
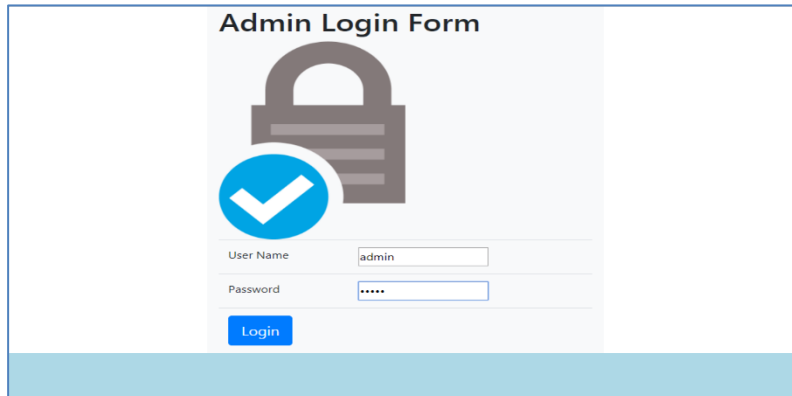


Fig 6.2.8: Crop Details Edit Page

ADMIN LOGIN PAGE



The image shows a web form titled "Admin Login Form". It features a large padlock icon with a blue checkmark inside a circle. Below the icon, there are two input fields: "User Name" with the text "admin" and "Password" with masked characters "*****". A blue "Login" button is positioned below the password field.

Fig 6.2.9: Admin login page

ADMIN HOME PAGE



Fig 6.2.10:Admin home Page

ADMIN REPLY FORM



The image shows the "farmer cron selling admin home viewnost" page. It displays a list of replies. The first reply is from "abot raagi" with the text "need help to solve yielding issue". Below this, there is a green "REPLY" button. The second reply is from "abot raagi" with the text "abot raagi need help to solve yielding issue". Below this, there is a green "REPLY" button.

Fig 6.2.11: Admin Reply Page

CHAPTER 7

SOFTWARE TESTING

The "Crop Selling App" goes through extensive testing at several levels to guarantee it meets user expectations for quality, features, and speed. Standardized app testing phases include the following: The first step in testing is the requirements analysis, during which the testing team examines the app's documentation to learn more about its features, intended audience, and expected level of performance.

Testers develop a detailed strategy for testing that specifies the goals, scope, resources, timeline, and methods to be used. They also specify the devices and settings to be utilised in the tests. Third, testers create comprehensive test cases according to the app's requirements and features. The app's functionality is verified by running through a variety of test cases, both positive and negative.

Unit testing is a type of software testing in which developers check certain parts of an application independently. Each module's functionality and conformance to requirements are verified via unit tests. Integrity and proper communication between modules are ensured by means of integration testing, which examines the interactions and data flow between them. Functional testing verifies that the app's functionality, such as user registration, crop listing, bidding, and payment processing, perform as intended.

User Interface (UI) Testing: - UI testing evaluates the app's user interface to make sure it is intuitive, aesthetically pleasing, and consistent across devices. Usability testing is a type of quality assurance testing that looks at how real people interact with an app.

The responsiveness, speed, and scalability of the software are tested under various load scenarios during performance testing to guarantee it can support a large number of users at once.

7.1 Test cases

Test Case 1: Logging into the website.

Type	User should choose whether he is Farmer or Dealer
Input	<ol style="list-style-type: none">1. Enter valid username and password.2. Enter the invalid username and password.
Result	<ol style="list-style-type: none">1. Login successful.2. Error message 'invalid username or password'.
Condition	User should have a username password .to login to the system

Table 7.1: Test Case 1

Test Case 2: Add new crops.

Input	<ol style="list-style-type: none">1. Click on add crop2.Fill the details: Choose crop name = rice. Choose quality = medium. Quantity = 225 quintals. Estimated price=1709 per quintals3. Click submit button.
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Result	<ol style="list-style-type: none"> 1. Crops are added with the given details and the successful message is displayed. 2. Error message is displayed if any field is empty.
Condition	Farmers can only add new crops.

Table 7.2: Test Case 2

Test case 3: Search crops.

Input	<ol style="list-style-type: none"> 1. Click on Search. Crop name = rice. Quality = medium. District = Davangere. 2. Click on Search button.
Result	<ol style="list-style-type: none"> 1. Crops detail is displayed. 2. Error message SORRY NO RECORDS FOUND is displayed if crops are not there.
Condition	Dealer can only search the crops

Table 7.3 : Test Case 3

CHAPTER 8

CONCLUSION AND FUTURE ENHANCEMENT

8.1 CONCLUSION

The software lets farmers list and display their commodities, bid competitively, and get fair pricing. Real-time notifications, secure payment channels, and a user-friendly interface make selling easier and cheaper for farmers.

The software supports various languages and serves farmers from diverse linguistic origins, promoting inclusivity. It lets farmers of various sizes and locations compete and succeed in the market.

The tool helps farmers optimize crop choices and price with market insights and analytics. This helps farmers and improves market efficiency and sustainability.

The app's non-functional criteria, such as performance, security, and scalability, offer a reliable and seamless user experience, while legal and regulatory compliance protects user data and privacy.

The "Farmers Crops Selling App" boosts rural economies, farmer livelihoods, and the agricultural ecology. The software improves agricultural openness and pricing by connecting producers and buyers.

The software has the potential to transform the agriculture industry, encouraging sustainable practices and improving farming communities globally.

8.2 FUTURE ENHANCEMENT

- **Image Recognition for Crop Quality Assessment:** Let farmers upload crop photographs for image recognition. Buyers can see crop quality using AI-based algorithms in the app.
- **Implement AI-powered pricing proposals** based on market trends, demand-supply dynamics, and historical data. This function helps farmers set competitive agricultural pricing.
- **Use blockchain technology** to improve supply chain transparency and traceability. Blockchain can safeguard and tamper-proof every transaction, boosting user trust.
- **Weather Integration:** Integrate weather data into the app to give farmers real-time weather forecasts. These details can help the farmers to plan crop activities and reduce weather risks.
- **Crop Advisory and Best Practices:** Provide advice based on crop type and location. Personalized crop management advice can boost yields and quality.
- **Payment Platform Integration:** Work with several payment platforms and mobile wallets to give buyers flexible and convenient payment options.

The "Farmers Crop Selling App" can expand into a comprehensive and dynamic platform that empowers farmers, promotes sustainable agriculture, and creates a transparent and efficient agricultural marketplace by including these future additions. To meet the changing demands of the agricultural community, user feedback and stakeholder participation are essential.

APPENDIX A

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- W.Jason Glimor --Beginning PHP and MYSQL (Fourth Edition), in Publisher:Apress Publishers from Novice to Professional , 2010
- Bogdan Brizarea—AJAX and PHP (Second edition),Published by : Packt Publishers, December-2009

REFERENCE WEBSITES:

- www.w3schools.com/
- www.sitepoint.com/article/
- <http://stackoverflow.com/>

APPENDIX B

USER MANUAL

Step1:Download the app in web phone, launch the app

Step2:Among various links such as Enquiry, Courses, Services etc.

choose the required one

Step3:While using enquiry form, provide required information and click ok button

Step4:Browse for the information available using respective links

Step5:Exit from the app at the end