

**A**  
**Project Report On**

**KRUSHI MITRA**

**In the fulfillment of Master's degree  
In computer applications of Savitribai  
Phule Pune University**

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Year 2022 - 2023**

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**K. K. Wagh Institute of Engineering  
Education & Research**

NASHIK - 422 003.



**Certificate**

*This is to certify that Mr./Miss \_\_\_\_\_*

*has successfully completed the project work on*

*in partial fulfillment of the Masters Degree in  
Computer Applications (Under Faculty of  
Engineering) during the academic year \_\_\_\_\_*

**PRINCIPAL**



**AUGUSTCODE  
SOLUTIONS PVT. LTD.**

Date: 19<sup>th</sup> June, 2023

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that **Mr. Chetan Pawar** a student of **K. K. Wagh Institute of Engineering Education and Research, Nashik** is under an internship training at **AugustCode Solutions Pvt. Ltd.** from 3<sup>rd</sup> January 2023 to 30<sup>th</sup> June 2023 with the project name "Krusha Mitra" with the technology of "Python-Django, Angular.js".

Chetan Pawar is doing exceptionally well. We found him sincere, analytical and logical in approach and innovative as reflected during the project assignment.

With this positive approach to learn and the harmonious relations maintained with colleagues, we are confident that he will do well in professional career as well.

We wish best of luck for a prosperous and the bright future.

**Authorised Signatory,**



**AugustCode Solutions Pvt. Ltd.**

## ABSTRACT

This abstract gives a brief description of an e-farming online programme that aims to change the agricultural sector by bringing together farmers, retailers, administrators, and store owners on one practical and effective digital platform. The software consists of three separate modules: Farmer, Merchant, and Admin, each of which offers special functions to improve the agricultural environment. In this project having three main modules Farmer , Merchant and Admin.

In farmer module acts as a comprehensive tool that gives them the ability to manage their farming operations online. On the platform, farmers can register, make profiles, and submit details about their livestock and crops. Important agricultural information including weather forecasts, pest management techniques, and best farming practices are made more widely available by the module. Additionally, it makes it possible for farmers to speak with potential customers and settle prices immediately. Additionally, the module has capabilities that help farmers optimize their processes and increase production, such as yield tracking, inventory management, and access to financial services.

Agricultural merchants and store owners are catered to by the Merchant module. On the platform, business owners can register and set up profiles to promote their goods and services. This module makes it easier to buy agricultural products directly from farmers, cutting out intermediaries and guaranteeing fair prices.

The e-farming web application's Admin module serves as its structural support, ensuring efficient management. To manage user accounts, keep an eye on transactions, and guarantee data security, administrators have access to a variety of tools and features. They can uphold the platform's integrity, mediate and settle conflicts between farmers and retailers, and assist users as required. The module also makes it easier to integrate outside services, such as payment gateways and delivery operations, so that everyone involved has a seamless experience.

Overall, e-farming web applications are revolutionizing the agricultural environment by using digital technology to connect farmers, store-owners and merchants. By providing a practical and efficient platform, the application will improve productivity, transparency and profitability of the agricultural sector, promote sustainable growth and support all participants in the agricultural value chain.

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## **ABBREVIATIONS**

- HTML : Hyper Text Markup Language
- UML : Unified Modeling Language Diagrams
- RAM : Random Access Memory
- IDE : Integrated Development Environment
- DFD : Data Flow Diagram



# 1. INTRODUCTION

## OVERVIEW :

This project is like a commerce portal where some of the users (Seller) who want to sell the product and services using this and some of the users (Buyer/End user) who need the product they can buy from the user (Seller). On top of these two users there is another user (Admin) we named as admin, who has controlled all the operations like, he/she can delete the product, buyer, seller, can edit and update also. This project is like amazon, flipkart, snapdeal etc., but we haven't implemented all the features as they implemented. It gives you the knowledge of how the b2b portal is working. This project is like amazon, flipkart, snapdeal etc., but we haven't implemented all the features as they implemented. It will give you the knowledge of how the b2b portal is working. This is only an overview, you can get the overall idea. I am sure this will help you a lot. From the above we get to know three types of user roles present, we will discuss the role and what they are able to do in this project below.

Note : If any of the credentials are not working just go to the <http://localhost:3000/> and check the credential.

Admin:

Credential and URL: <http://localhost:4200/#/admin-login>

Email: [admin@gmail.com](mailto:admin@gmail.com)

Password: 123456

What can do:

Manage product

1. View all product
2. add product
3. edit product
4. delete product

Manage User

1. View all user (Seller, buyer and admin role)

2. add user
3. edit user
4. delete user

#### Manage Own Profile

1. can edit/update own profile

#### Seller:

Crdentaila and URL: <http://localhost:4200/#/sign-in>

Email: [seller@gmail.com](mailto:seller@gmail.com)

Password: 123456

#### What can do

#### Manage orders

1. WIP

#### Manage product

- 1 . View his/her product
2. add product
3. edit product
4. delete product

#### Manage Own Profile

1. can edit/update own profile

#### Buyer/End user:

Crdentaila and URL: <http://localhost:4200/#/sign-in>

Email: [buyer@gmail.com](mailto:buyer@gmail.com)

Password: 123456

What can do

- 1 . Buy all products across the platform
2. add to cart
3. view the product
4. buy the product
5. change the delivery address
6. see his order

Manage Own Profile :

1. can edit/update own profile

Welcome to our innovative krushi mitra (e-farming) web application a cutting-edge platform designed to revolutionize the agricultural sector. Our application is built with the aim of bridging the gap between farmers, merchants, and consumers, facilitating seamless transactions, and empowering all stakeholders in the agricultural ecosystem. With three key modules catering to farmers, merchants, and administrators, our platform provides a comprehensive solution for efficient farming operations, streamlined commerce, and effective oversight.

The Farmer module of our e-farming web application is tailored to meet the needs of agricultural producers. It equips farmers with essential tools and resources to enhance their productivity, optimise crop management, and maximize profits. From monitoring weather conditions and accessing real-time market prices to providing expert advice on crop selection and cultivation techniques, our platform empowers farmers with valuable insights and actionable information.

The Merchant module of our application serves as a virtual marketplace, connecting farmers with potential buyers and facilitating transparent and secure transactions. Merchants can browse through a wide range of agricultural produce, evaluate quality and pricing, and directly communicate with farmers. This module also includes features such as inventory management, order tracking, and seamless payment integration, ensuring a seamless and efficient supply chain.

To ensure effective administration and smooth operation of the platform, we have

incorporated an Admin module. This module empowers administrators with comprehensive control over the system, enabling them to manage user accounts, monitor transactions, enforce quality standards, and resolve any disputes that may arise. With robust reporting and analytics features, the Admin module ensures transparency and accountability throughout the platform.

Additionally, our e-farming web application includes a dedicated Shop module, where consumers can directly purchase fresh, high-quality agricultural products. By connecting farmers and end-consumers, this module promotes sustainable and locally sourced food consumption, fostering a healthier and more environmentally conscious society.

At our e-farming web application, we strive to empower farmers, facilitate efficient commerce, and create a thriving agricultural ecosystem. By leveraging the power of technology, we aim to transform traditional farming practices and bring about positive change in the agricultural industry. Join us on this digital journey as we revolutionize the way farming is conducted and redefine the relationship between farmers, merchants, and consumers.

#### **Purpose of the System:**

The purpose of the e-farming system is to revolutionize the agricultural sector by providing a practical and effective digital platform that brings together farmers, retailers, administrators, and store owners. The system aims to achieve the following objectives:

1. To Connectivity and Collaboration :The system enables seamless connectivity and collaboration among farmers, retailers, and store owners, fostering a stronger agricultural community. It allows farmers to connect with potential customers directly, negotiate prices, and settle transactions efficiently. It also facilitates direct purchasing of agricultural products by retailers, eliminating intermediaries and ensuring fair prices for both farmers and merchants.
2. To streamlined farm management :The system provides farmers with comprehensive tools and features to manage their farming operations effectively. Farmers can create profiles, register their livestock and crops, access important agricultural information and implement best farming practices. The system also offers capabilities for yield tracking, inventory management, enabling farmers to optimize their processes and increase production.
3. To enhanced business operations:For agricultural merchants and store owners, the system offers a dedicated module that simplifies their operations. Merchants can register,

set up profiles, and promote their goods and services to a wider audience. The system facilitates direct purchasing from farmers, eliminating middlemen and ensuring fair pricing. Merchants can manage their inventory, monitor sales, and run an online storefront, enhancing their visibility and customer reach.

4. To efficient administration and support :The system's admin module ensures efficient management of user accounts, transactions, and data security. Administrators have access to tools and features that maintain the platform's integrity, mediate and resolve conflicts between farmers and retailers, and provide necessary support to users. The system also facilitates integration with external services, such as payment gateways and delivery operations, to enhance the overall user experience.

Overall, the e-farming system aims to transform the agricultural environment by leveraging digital technology to connect farmers, retailers, administrators, and store owners. It seeks to create a more efficient and transparent agricultural ecosystem that promotes sustainable growth and benefits all stakeholders involved.

#### **Advantages:**

- It helps to increased efficiency by bringing farmers, retailers, administrators, and store owners onto a single digital platform, the project improves overall operational efficiency.
- It helps administrator to generate report.
- It brings transparency and efficiency in the working of cloud based farmer web application.
- Simple user interface to reduce operation time.
- Reduce the data entries lead to eliminate chances of error and reduce operator efforts.
- To provide direct connectivity between farmers and merchants.
- To access agricultural information
- Enhanced market opportunities

#### **Applications:**

The website cloud based farmer web application is aims to change the agricultural sector by bringing together farmers, retailers/merchants, administrators, and store owners on one practical and effective digital platform. The software consists of three separate modules: Farmer, Merchant, and Admin, each of which offers special functions to improve the agricultural environment.

### **Details Description of Technology Used:**

#### **AngularJS :**

AngularJS is an open-source JavaScript framework developed by Google. It is designed for building dynamic web applications by extending HTML's capabilities and providing a structured approach to web development. AngularJS follows the Model-View-Controller (MVC) architectural pattern, which helps in separating concerns and organizing code.

#### **JSON DATABASE :**

A JSON database is a document-type NoSQL database, ideal for storing semi-structured data. It's much more flexible compared to the row-columns format, which is fixed and expensive when it comes to implementing even small schema changes.

#### **Razorpay Payment Gateway:**

A Payment Gateway creates a secure pathway between a customer and the business to facilitate payments securely. It involves the authentication of both parties from the banks involved. You can accept payments from customers on your website and mobile apps using the Razorpay Payment Gateway as a business owner.

**Kommunicate AI CHATBOT :** Kommunicate Is a Customer Support Automation Platform That Will Help You Build Your Own Ai Chatbot That Can Qualify Leads, Schedule Meetings, And Support Your Customers 24/7.

## **2. REQUIREMENT ANALYSIS**

### **Design and Implementation Constraints**

#### **1. User Registration and Profiles:**

- Farmers, agricultural merchants, store owners, and administrators should be able to register and create profiles on the platform.
- User profiles should capture essential information such as contact details, farm location, and specialization.

#### **2. Farmer Module:**

- Farmers should have the ability to manage their farming operations online.
- Farmers should be able to submit details about their livestock and crops, including quantity, quality, and availability.
- Access to important agricultural information such as weather forecasts, pest management techniques, and best farming practices should be provided.
- The module should enable farmers to communicate with potential customers and negotiate prices in real-time.
- Features like yield tracking, inventory management, and access to financial services should be included to optimize farming processes and increase production.

#### **3. Merchant Module:**

- Agricultural merchants and store owners should be able to register and set up profiles to promote their goods and services.
- The module should facilitate direct purchasing from farmers, eliminating intermediaries and ensuring fair prices.
- Merchants should be able to control their inventory, monitor sales, and run an online storefront for customers to explore and purchase agricultural goods.
- Analytical tools should be provided to monitor market trends, optimize supply chain logistics, and improve overall business performance.

#### **4. Admin Module:** - Administrators should have access to tools and features to manage user accounts, monitor transactions, and ensure data security.

- The module should support conflict resolution and mediation between farmers and retailers.

- Integration with external services such as payment gateways and delivery operations should be possible.

- Support and assistance to users should be provided when required.

#### 5. User Experience and Interface:

- The web application should have a user-friendly interface for easy navigation and seamless user experience.

- The platform should be accessible from different devices and browsers.

- The design should be visually appealing and responsive to provide a satisfying user experience.

#### 6. Security and Data Privacy:

- Robust security measures should be implemented to protect user data, including encryption, secure authentication, and data backup.

- Compliance with data privacy regulations and policies should be ensured.

#### 7. Integration and Scalability:

- The platform should have the ability to integrate with external services, such as payment gateways and delivery operations, for seamless transactions.

- The system should be scalable to accommodate a growing user base and increasing data volume.

#### 8. Support and Maintenance:

- Ongoing support and maintenance services should be provided to ensure the continuous functionality and effectiveness of the platform.

- Bug fixes, updates, and improvements should be delivered in a timely manner.

#### 9. Performance and Reliability:

- The web application should be fast, responsive, and reliable, even under high user loads.

- Performance testing should be conducted to ensure optimal performance.

10. Documentation and Training: Comprehensive documentation should be provided for users and administrators to understand the functionality and features of the platform.

- Training materials and resources should be available to help users navigate and utilize the platform effectively.

By conducting a thorough requirement analysis, the project can ensure that all necessary functionalities and features are identified and incorporated into the development .



## **Operating Environment :**

The operating environment for e-farming, or electronic farming, depends on the specific context and technologies involved. However, here are some key elements that contribute to the operating environment of e-farming.

**Internet Connectivity:** E-farming relies heavily on internet connectivity to enable communication, data exchange, and access to online platforms and services. Availability of reliable internet access is essential for farmers to participate in e-farming activities.

**Mobile Devices and Computers:** Farmers need access to mobile devices or computers to interact with e-farming platforms, applications, and online services. These devices allow farmers to access information, manage their farm operations, communicate with stakeholders, and make informed decisions.

**Agricultural Information Systems:** E-farming often involves the use of agricultural information systems that provide access to relevant data and knowledge. These systems may include online marketplaces, weather information, crop and livestock management tools, precision farming technologies, and remote sensing technologies.

**E-commerce and Payment Systems:** E-farming may involve online transactions, such as buying inputs, selling produce, or accessing financial services. Integration with e-commerce platforms and secure online payment systems is crucial to facilitate smooth and efficient transactions.

**Data Connectivity and Interoperability:** E-farming can benefit from seamless data connectivity and interoperability among different systems and stakeholders. Integration and standardization of data formats and protocols allow for efficient exchange of information and collaboration among various actors in the agricultural value chain.

**Policy and Regulatory Frameworks:** Governments and regulatory bodies play a significant role in shaping the operating environment for e-farming. Favorable policies and regulations that support digital infrastructure, data privacy, cybersecurity, and fair competition can encourage the adoption and growth of e-farming initiatives.

**Training and Support:** To ensure successful implementation, farmers need training and support to familiarize themselves with e-farming technologies and tools. Training programs, user guides, and technical assistance can help farmers overcome barriers and effectively leverage e-farming solutions.

It's worth noting that e-farming can encompass various digital technologies and approaches, and the operating environment may differ based on factors such as

geographical location, level of technology adoption, and the specific goals of the e-farming initiative.

## **USER DOCUMENTATION :**

### **Project setup :**

Step 1: clone the project: `git clone <url of github repo>`

Step 2: `cd angular-ecomerce`

Step 3: `git pull origin develop or mastem`

Step 4: Install Node form <https://nodejs.org/en/>

Step 5: `npm install`

Step 6: `npm install -g json-server` (Install JSON mock server)

Step 7: `npm install -g @angular/cli _` (Install angular CLI)

Step 8: Open two terminal/command prompt

Step 9: In one run command: `ng serve`

Step IO: Another one run command: `son-server --watch mck-api-data.json`

Now you can ready to go

Step 11: Open your browser and type: `http://localhost:4200`

If you want to see the mock api on your browser you can hit the link:

<http://localhost:3000/>

If you want to learn more on mock API you can go through the doc

<https://www.npmjs.com/package/json-server>

### 3. LITERATURE SURVEY

From the analysis and research, we get to know there are some e farming websites are there and there are not user-friendly. It is a B2B (business to business) application which any seller can sell the product which may be not a branded or genuine. Farmer didn't, have any idea about the product and buy it, which cause the farmer to cause losses. To avoid this we have come up with a new idea which is B2C (business to customer). Where admin will add a branded product directly from the company and farmer buy it through this we can avoid farmer getting losses. Some Farmer didn't have proper knowledge about the pesticides, fertilizers, seeds and irrigation tools. So our web app helps the farmer to select the right product and genuine product.

This project is like a commerce portal where some of the users (Seller) who want to sell the product and services using this and some of the users (Buyer/End user) who need the product they can buy from the user (Seller). On top of these two users there is another user (Admin) we named as admin, who has controlled all the operations like, he/she can delete the product, buyer, seller, can edit and update also. This project is like amazon, flipkart, snapdeal etc., but we haven't implemented all the features as they implemented. It gives you the knowledge of how the b2b portal is working. This project is like amazon, flipkart, snapdeal etc., but we haven't implemented all the features as they implemented. It will give you the knowledge of how the b2b portal is working. This is only an overview, you can get the overall idea. I am sure this will help you a lot. From the above we get to know three types of user roles present, we will discuss the role and what they are able to do in this project below.

## 4. METHODOLOGY

- For the development of project the designing of database was done db.json (the database stored in db.json format) , Frontend we used angular js . and Backend we used Python django .
- Software methodologies are concerned with the process of creating software - not so much the technical side but the organizational aspects. Several software development approaches have been used since the origin information technology.

## SOFTWARE & HARDWARE REQUIREMENTS

### Hardware requirements:

- Any processor after Pentium 4.
- Any version of Windows 7 or later.
- Processor speed: 2.0 GHz
- RAM : 1GB
- Hard disk: 20GB to 30 GB

### Software requirements:

- Database : db.json
- Frontend : HTML,CSS , ANGULAR JS
- Scripting Language : JavaScript
- IDE : VScode IDE
- Technology : angular and python
- Any Version of browser after Mozilla Firefox 4.0, Internet Explorer 6.0, chrome

## 5. FEASIBILITY STUDY

Whenever we design a new system, normally the management will ask for a feasibility report of the new system. The management wants to know the technicalities and cost involved in creation of new system.

- Technical feasibility
- Economic feasibility
- Physical feasibility

### **Technical feasibility:**

Technical feasibility involves study to establish the technical capability of the system being created to accomplish all requirements to the user. The system should be capable of handling the proposed volume of data and provide users and operating environment to increase their efficiency.

For example, system should be capable of handling the proposed volume of data and provide users.

### **Economic feasibility:**

Economic feasibility involves study to establish the cost benefit analysis. Money spent on the system must be recorded in the form of benefit from the system. The benefits are of two types:

#### **Tangible benefits:**

- Saving man labor to do tedious tasks saves time.

#### **Intangible benefits:**

- Improves the quality of temple organization.

### **Physical feasibility:**

It involves study to establish the time responses of the new system being created. For e.g., if the new system takes more than one day to prepare crucial finance statement for the management, wherever it was required in an hour, the system fails to provide the same. It should be clearly established that the new system requirements in the form of time responses would be completely met with. It may call for increase in cost. If the required cost is sacrificed then the purpose of the new system may not be achieved even if it was found to be technically feasible. The scope of the e-farming online programme encompasses the development and implementation of a comprehensive

web application that connects farmers, retailers/merchants, administrators, and store owners within the agricultural sector. The project aims to address various challenges faced by participants in the agricultural value chain and provide practical solutions to improve productivity, transparency, and profitability.

The different types of modules present in this project are:

1. Admin
2. Farmer
3. Merchant
4. Krushi Kendra /shop
5. Chatbot

#### **Admin:**

The Admin module serves as the structural support for the e-farming web application. Administrators have access to tools and features that enable them to manage user accounts, monitor transactions, and ensure data security. They play a crucial role in upholding the platform's integrity, mediating conflicts, and providing assistance to users. The module also allows for the integration of external services, such as payment gateways and delivery operations, to enhance the overall user experience.

#### **Farmers:**

The Farmer module of our e-farming web application is tailored to meet the needs of agricultural producers. It equips farmers with essential tools and resources to enhance their productivity, optimize crop management, and maximize profits. From monitoring weather conditions and accessing real-time market prices to providing expert advice on crop selection and cultivation techniques, our platform empowers farmers with valuable insights and actionable information.

#### **Merchants:**

The Merchant module of our application serves as a virtual marketplace, connecting farmers with potential buyers and facilitating transparent and secure transactions. Merchants can browse through a wide range of agricultural produce, evaluate quality and pricing, and directly communicate with farmers. This module also includes features such as inventory management, order tracking, and seamless payment integration, ensuring a seamless and efficient supply chain.

The scope of the project includes ensuring a seamless and efficient user experience for all participants in the agricultural sector. This involves developing user-friendly interfaces, implementing robust security measures, and integrating various functionalities within the web application. The project also encompasses providing support and maintenance services to ensure the continued functionality and effectiveness of the platform. Overall, the scope of the e-farming online programme is to create a comprehensive and practical digital platform that connects farmers, retailers, administrators, and store owners. It aims to improve productivity, transparency, and profitability within the agricultural sector by leveraging digital technology. The project focuses on empowering farmers, facilitating direct interactions between farmers and customers, optimizing business operations for merchants, and providing efficient management and support through the Admin module.

### **Chatbot:**

A chatbot is a computer program or an artificial intelligence (AI) system designed to simulate human conversation and interact with users through text or voice-based interfaces. Chatbots are typically used to provide automated customer support, answer frequently asked questions, assist with tasks, and engage in general conversation with users. Chatbots use natural language processing (NLP) techniques to understand user inputs and generate relevant responses. They are trained on vast amounts of data, including pre-defined conversation patterns and user interactions, to improve their ability to understand and respond accurately. Chatbots can be implemented in various platforms, such as messaging apps, websites, mobile apps, or voice assistants. They can be rule-based, following a predefined set of rules, or they can be powered by machine learning algorithms, enabling them to learn and adapt to user inputs over time.

## 6. MODELING AND DESIGN

### System Design

Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization. Once the software requirements have been analyzed and specified the software design involves three technical activities - design, coding, implementation and testing that are required to build and verify the software. The design activities are of main importance in this phase, because in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing upon reliability and maintainability of the system. Design is the only way to accurately translate the customer's requirements into finished software or a system.

Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data.

### Unified Modelling Language Diagrams (UML):

- The unified modelling language allows the software engineer to express an analysis model using the modelling notation that is governed by a set of syntactic semantic and pragmatic rules.
- A UML system is represented using five different views that describe the system from distinctly different perspective. Each view is defined by a set of diagram, which is as follows.

### User Model View

- i. This view represents the system from the user's perspective.
- ii. The analysis representation describes a usage scenario from the end-users perspective.

**Structural model view :** In this model the data and functionality are arrived from inside the system. This model view models the static structures.



**Behavioural Model View :** It represents the dynamic of behavioural as parts of the system, depicting the interactions of collection between various structural elements described in the user model and structural model view.

**Implementation Model View :** In this the structural and behavioural as parts of the system are represented as they are to be built.

**Environmental Model View :** In this the structural and behavioural aspects of the environment in which the system is to be implemented are represented. UML is specifically constructed through two different domains they are UML Analysis modelling, which focuses on the user model and structural model views of the system? UML design modelling, which focuses on the behavioural modelling, implementation modelling and environmental model views.

FIG 1.1 FARMER USER CASE DIAGRAM

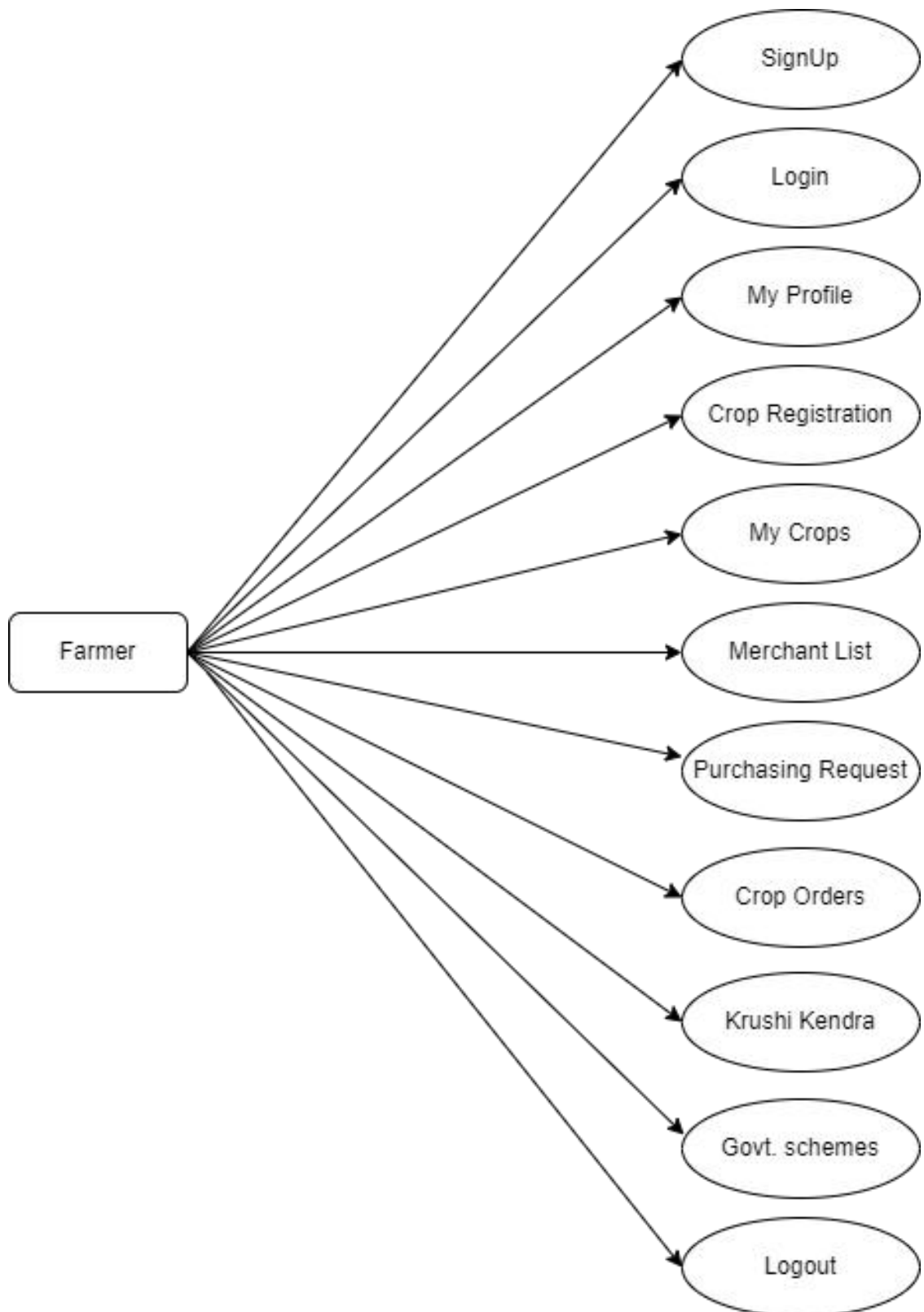


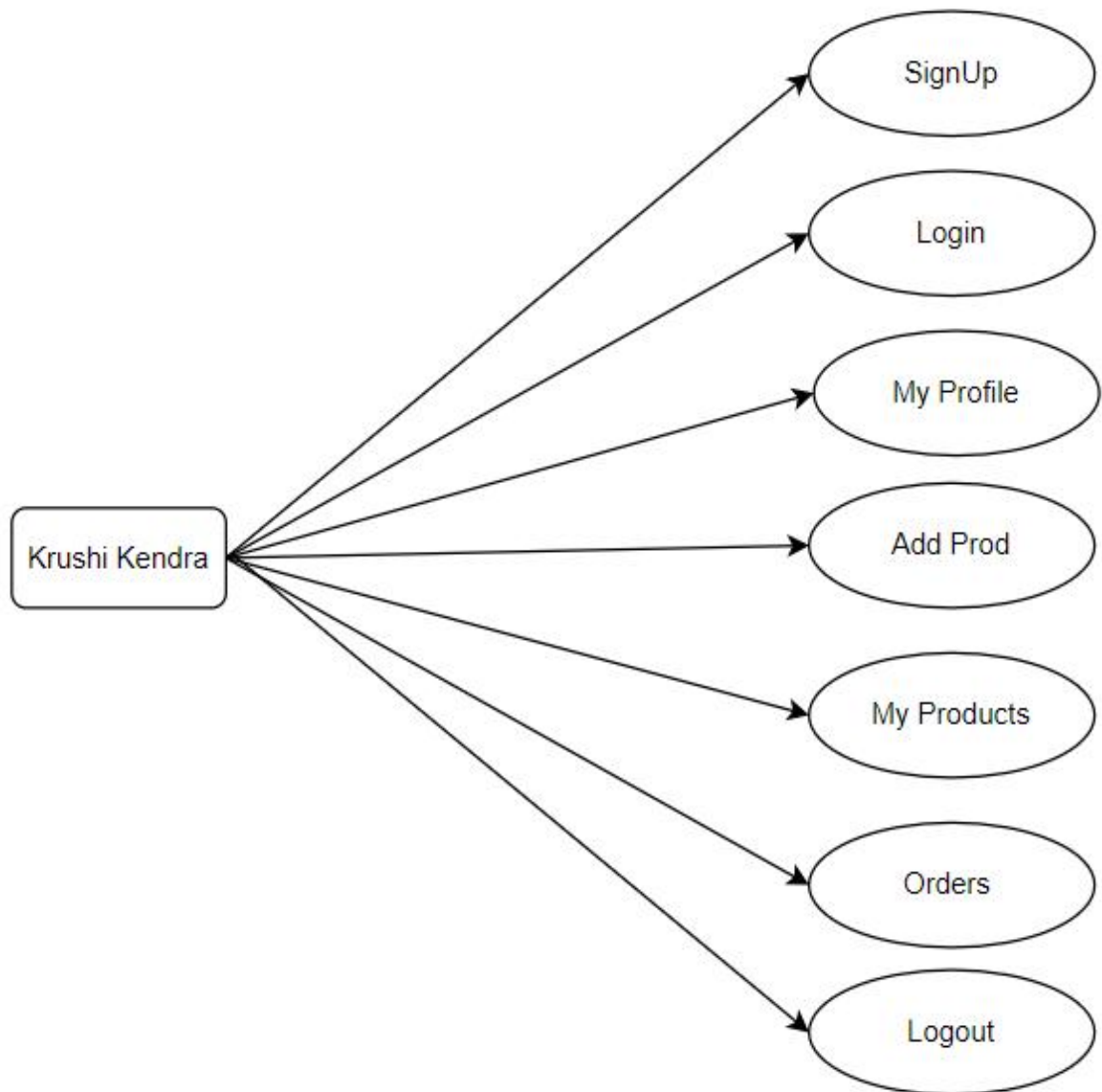
FIG 1.2 MERCHANT USERCASE DIAGRAM



FIG 1.3 ADMIN USECASE DIAGRAM



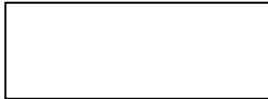
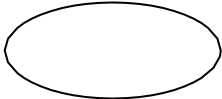
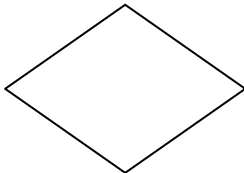

FIG 1.4 KRUSHI KENDRA / SHOP USECASE DIAGRAM



## ENTITY - RELEATIONSHIP DIAGRAM

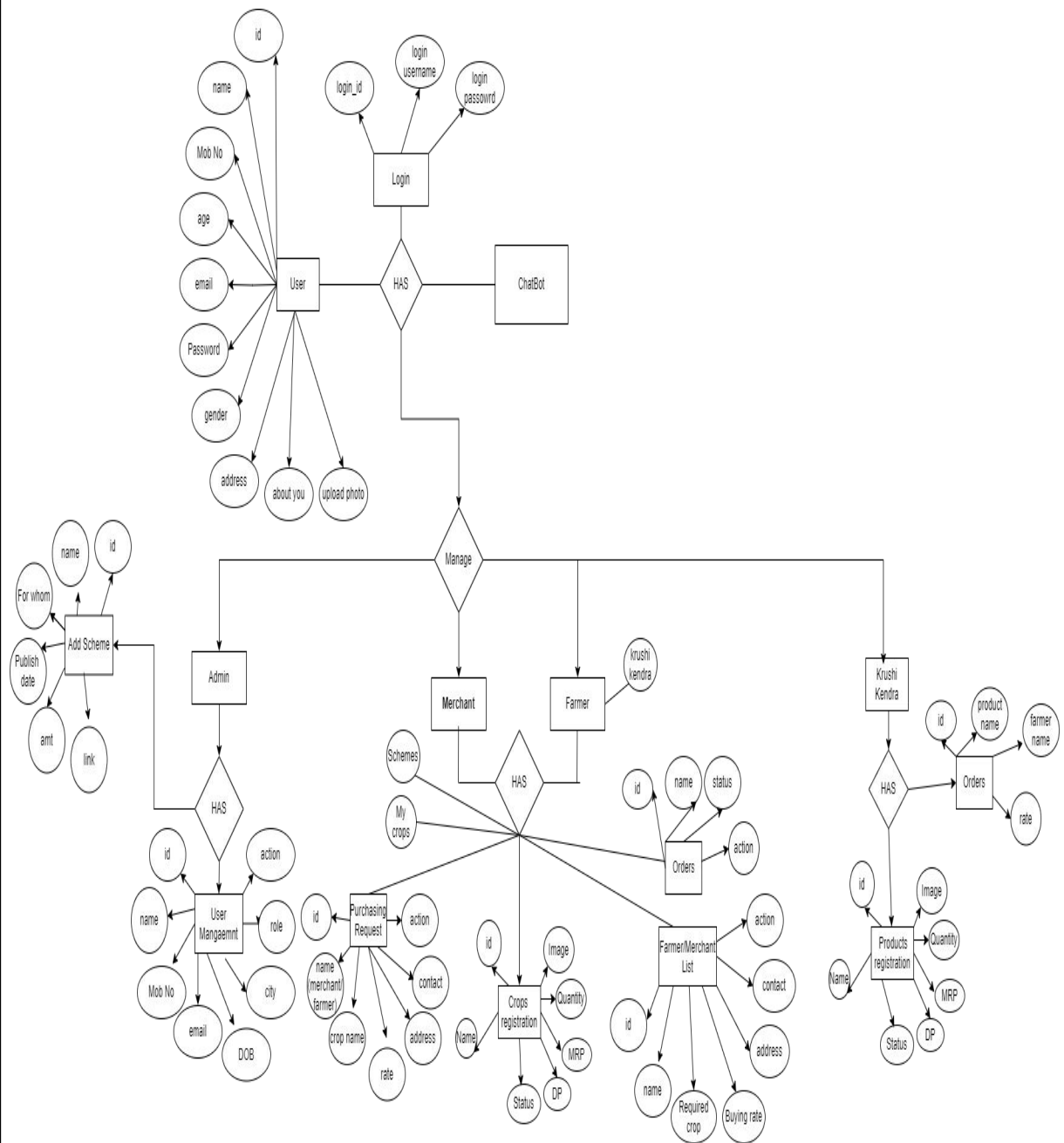
E-R (Entity-Relationship) Diagram is used to represents the relationship between entities in the table.

**The symbols used in E-R diagrams are:**

<u>SYMBOL</u>	<u>PURPOSE</u>
	Represents Entity sets.
	Represent attributes.
	Represent Relationship Sets.
	Line represents flow

Stuctured analysis is a set of tools and techniques that the analyst .to develop a new kind of system : The traditional approach focuses on the cost benefit an feasibility analysis , Project management hardware and software selection a personal consideration.

FIG 2. ER DIAGRAM :



## DATA FLOW DIAGRAM :

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It can be manual, automated, or a combination of both. It shows how data enters and leaves the system, what changes the information, and where data is stored.

The objective of a DFD is to show the scope and boundaries of a system as a whole. It may be used as a communication tool between a system analyst and any person who plays a part in the order that acts as a starting point for redesigning a system. The DFD is also called as a data flow graph or bubble chart.

### **The following observations about DFDs are essential:**

1. All names should be unique. This makes it easier to refer to elements in the DFD.
2. Remember that DFD is not a flow chart. Arrows in a flow chart represent the order of events; arrows in DFD represent flowing data. A DFD does not involve any order of events.
3. Suppress logical decisions. If we ever have the urge to draw a diamond-shaped box in a DFD, suppress that urge! A diamond-shaped box is used in flow charts to represent decision points with multiple existing paths of which the only one is taken. This implies an ordering of events, which makes no sense in a DFD.
4. Do not become bogged down with details. Defer error conditions and error handling until the end of the analysis.

Standard symbols for DFDs are derived from the electric circuit diagram analysis and are shown in figures:


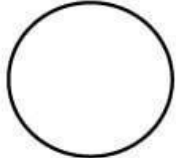

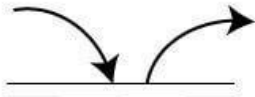
**Circle:** A circle (bubble) shows a process that transforms data inputs into data outputs.

**Data Flow:** A curved line shows the flow of data into or out of a process or data store.

**Data Store:** A set of parallel lines shows a place for the collection of data items. A data store indicates that the data is stored which can be used at a later stage or by the other processes in a different order. The data store can have an element or group of elements.



**Source or Sink:** Source or Sink is an external entity and acts as a source of system inputs or sink of system outputs.

Symbol	Name	Function
	Data flow	Used to Connect Processes to each other, to sources or Sinks; the arrow head indicates direction of data flow.
	Process	Performs Some transformation of Input data to yield output data.
	Source of Sink (External Entity)	A Source of System inputs or Sink of System outputs.
	Data Store	A repository of data; the arrow heads indicate net inputs and net outputs to store.

**Symbols for Data Flow Diagrams**

**FIG 3. ZERO LEVEL DFD**

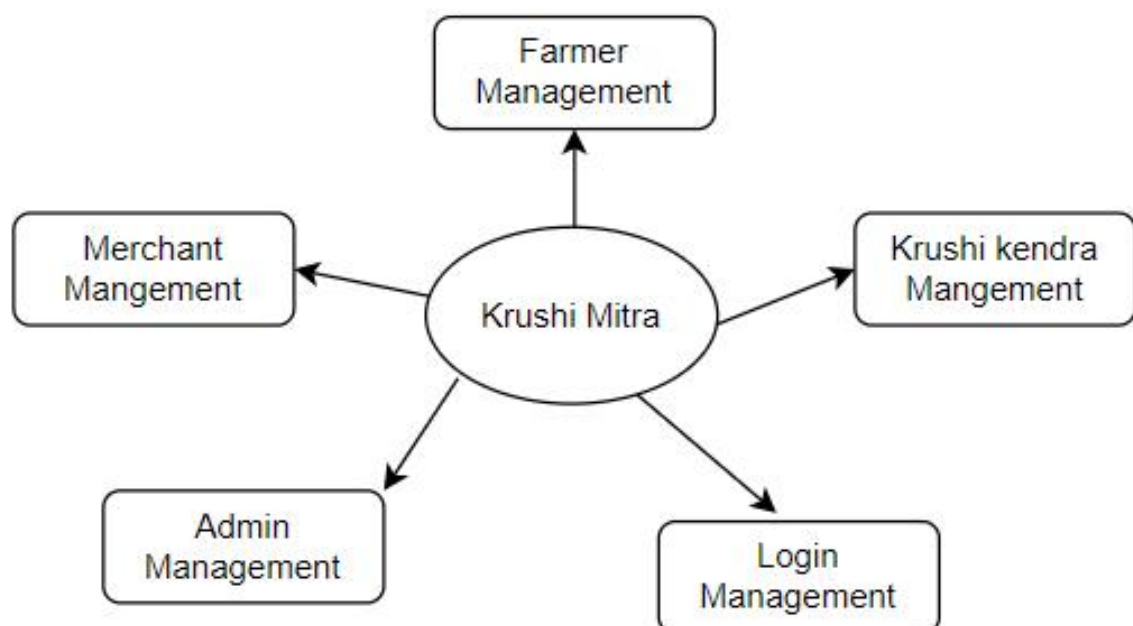


FIG 3.2 FIRST LEVEL DFD

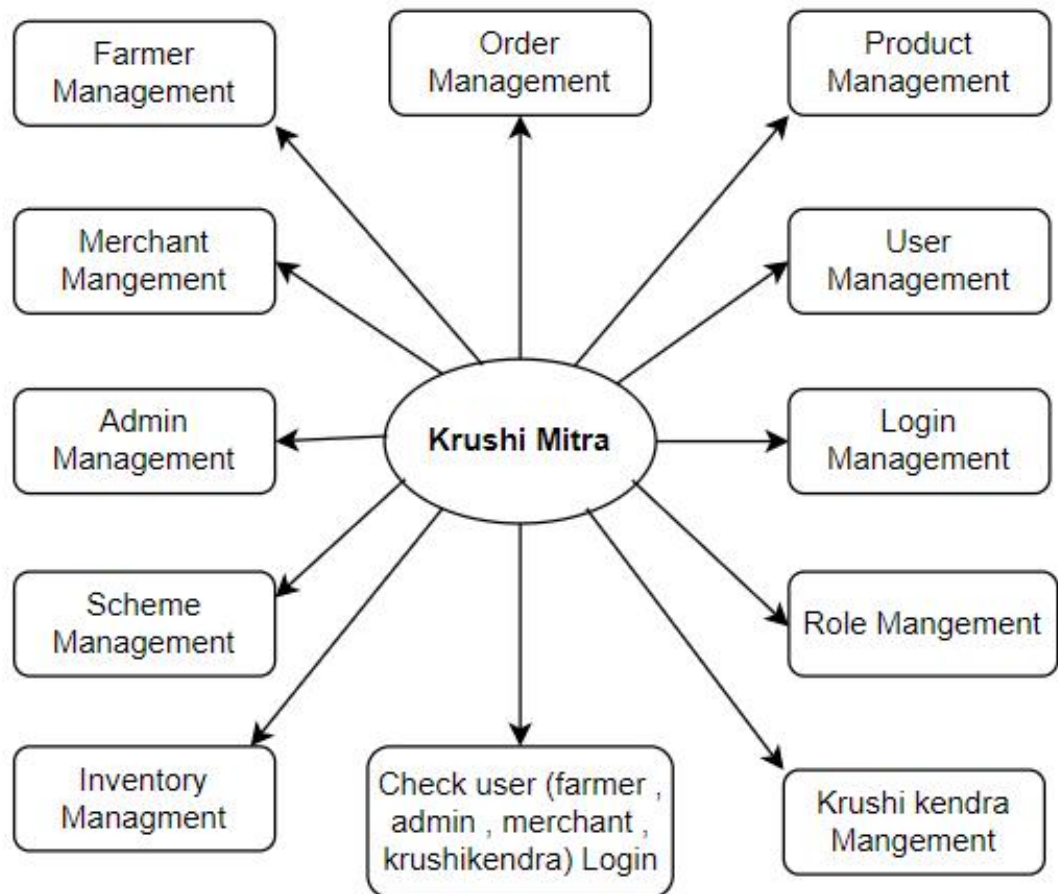
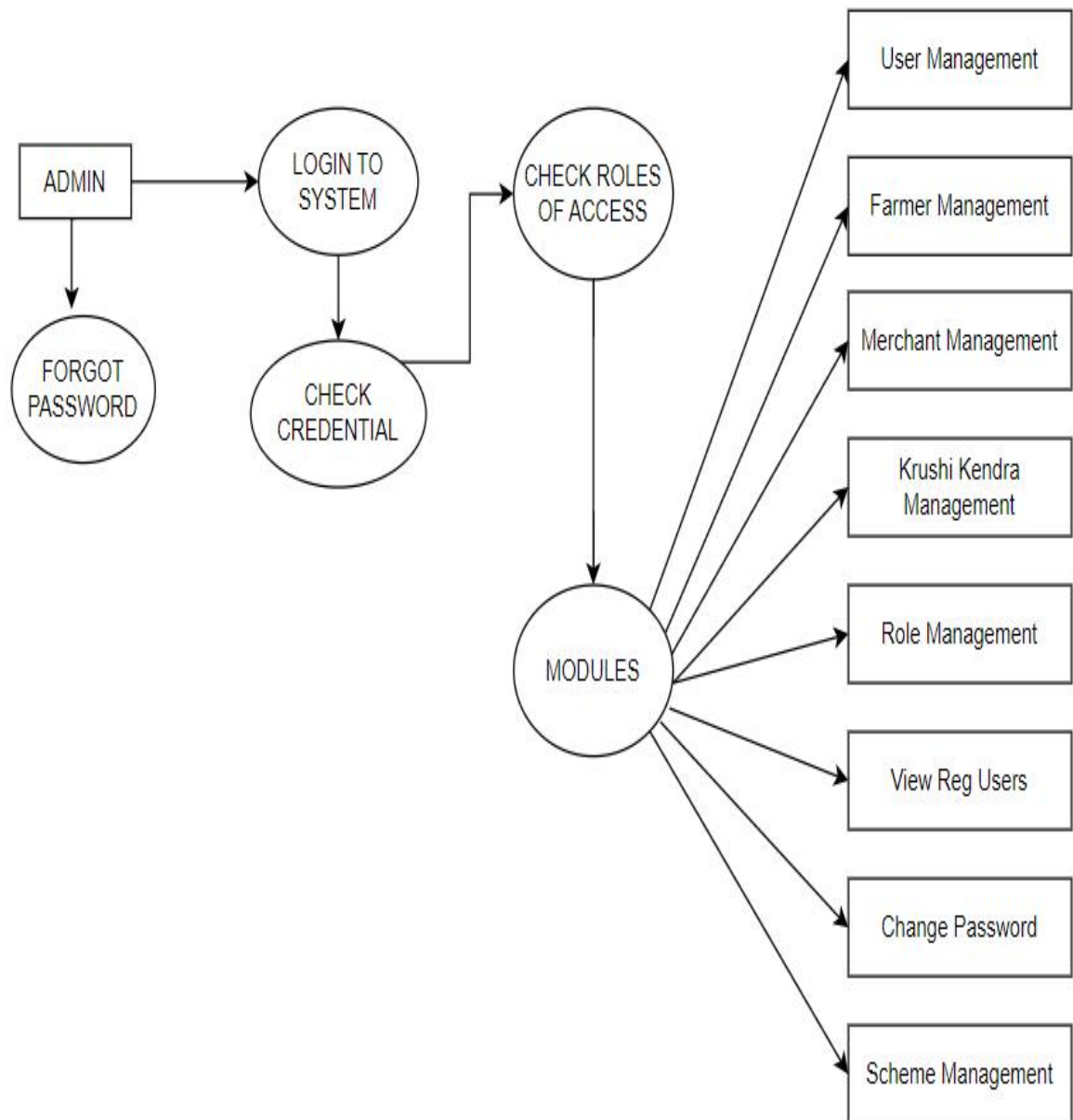
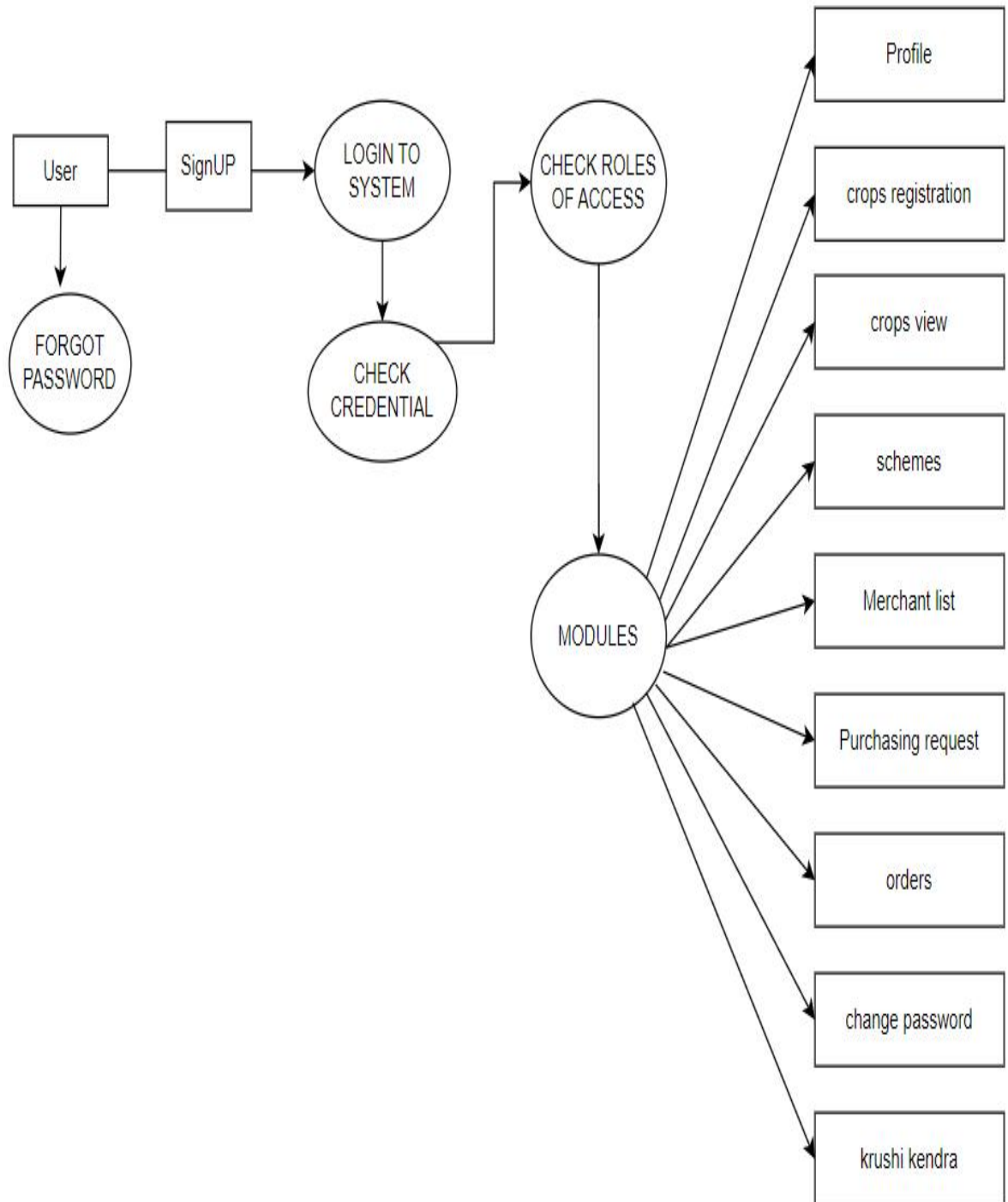


FIG 3.3 SECOND LEVEL DFD

For Admin :



For User :



## Database Design:

The data in the system has to be stored and retrieved from database. Designing the database is part of system design. Data elements and data structures to be stored have been identified at analysis stage. They are structured and put together to design the data storage and retrieval system.

A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make database access easy, quick, inexpensive and flexible for the user. Relationships are established between the data items and unnecessary data items are removed. Normalization is done to get an internal consistency of data and to have minimum redundancy and maximum stability. This ensures minimizing data storage required, minimizing chances of data inconsistencies and optimizing for updates. The db.json database has been chosen for developing the relevant databases.

**JSON DATABASE :** A JSON database is a document-type NoSQL database, ideal for storing semi-structured data. It's much more flexible compared to the row-columns format, which is fixed and expensive when it comes to implementing even small schema changes. With relational databases, JSON data needs to be parsed or stored using the NVARCHAR column (LOB storage). However, document databases like MongoDB can store JSON data in its natural format, which is readable by humans and machines. KRUSHI MITRA contains DB.JSON DATABASE:

### User Table :

```
{
  "user": {
    "id": {
      "type": "INT",
      "unsigned": true,
      "notNull": true,
      "autoIncrement": true,
      "primaryKey": true
    },
    "username": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "password": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    }
  }
}
```

```

    },
    "farmer_id": {
      "type": "INT",
      "notNull": true
    },
    "merchant_id": {
      "type": "INT",
      "notNull": true
    },
    "admin_id": {
      "type": "INT",
      "notNull": true
    },
    "krushi_kendra_id": {
      "type": "INT",
      "notNull": true
    },
    "name": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "dob": {
      "type": "DATE",
      "notNull": true
    },
    "gender": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "address": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "zipcode": {
      "type": "INT",
      "notNull": true
    },
    "about_you": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "role": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    }
  }
}

```

**Krushhi Kendra :**

```
{
  "krushi_Kendra": {
    "id": {
      "type": "INT",
      "unsigned": true,
      "notNull": true,
      "autoIncrement": true,
      "primaryKey": true
    },
    "name": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "product_id": {
      "type": "INT",
      "notNull": true
    },
    "orders_id": {
      "type": "INT",
      "notNull": true
    }
  }
}
```

**Crops :**

```
{
  "crops": {
    "id": {
      "type": "INT",
      "unsigned": true,
      "notNull": true,
      "autoIncrement": true,
      "primaryKey": true
    },
    "name": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "quantity": {
      "type": "BIGINT",
      "notNull": true
    },
    "MRP": {
      "type": "INT",
      "notNull": true
    },
    "dp": {
      "type": "INT",
      "notNull": true
    }
  }
}
```

**Product :**

```
{
  "products": {
    "id": {
      "type": "BIGINT",
      "unsigned": true,
      "notNull": true,
      "autoIncrement": true,
      "primaryKey": true
    },
    "name": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "quantity": {
      "type": "BIGINT",
      "notNull": true
    },
    "MRP": {
      "type": "INT",
      "notNull": true
    },
    "dp": {
      "type": "INT",
      "notNull": true
    }
  }
}
```

**Merchant :**

```
{
  "Merchant": {
    "id": {
      "type": "INT",
      "unsigned": true,
      "notNull": true,
      "autoIncrement": true,
      "primaryKey": true
    },
    "email": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "password": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "product_id": {
      "type": "INT",
      "notNull": true
    },
    "orders_id": {
      "type": "INT",

```



```

        "notNull": true
      },
      "crops_id": {
        "type": "INT",
        "notNull": true
      }
    }
  }
}

```

#### **Admin :**

```

{
  "Admin": {
    "id": {
      "type": "INT",
      "unsigned": true,
      "notNull": true,
      "autoIncrement": true,
      "primaryKey": true
    },
    "email": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "password": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "product_id": {
      "type": "INT",
      "notNull": true
    },
    "orders_id": {
      "type": "INT",
      "notNull": true
    },
    "crops_id": {
      "type": "INT",
      "notNull": true
    }
  }
}

```

#### **Farmer:**

```

{
  "Farmer": {
    "id": {
      "type": "INT",
      "unsigned": true,
      "notNull": true,
      "autoIncrement": true,
      "primaryKey": true
    },
    "email": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    }
  }
}

```

```

    },
    "password": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "product_id": {
      "type": "INT",
      "notNull": true
    },
    "schemes_id": {
      "type": "INT",
      "notNull": true
    },
    "orders_id": {
      "type": "INT",
      "notNull": true
    },
    "crops_id": {
      "type": "INT",
      "notNull": true
    }
  }
}

```

### **Orders:**

```

{
  "orders": {
    "id": {
      "type": "BIGINT",
      "unsigned": true,
      "notNull": true,
      "autoIncrement": true,
      "primaryKey": true
    },
    "name": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    },
    "quantity": {
      "type": "BIGINT",
      "notNull": true
    },
    "status": {
      "type": "VARCHAR",
      "length": 255,
      "notNull": true
    }
  }
}

```

```

[
  {
    "ALTER TABLE": "Admin",
    "ADD CONSTRAINT": "admin_orders_id_foreign",

```

```

"FOREIGN KEY": "orders_id",
"REFERENCES": "orders",
"id"
},
{
"ALTER TABLE": "Merchant",
"ADD CONSTRAINT": "merchant_product_id_foreign",
"FOREIGN KEY": "product_id",
"REFERENCES": "products",
"id"
},
{
"ALTER TABLE": "Farmer",
"ADD CONSTRAINT": "farmer_schemes_id_foreign",
"FOREIGN KEY": "schemes_id",
"REFERENCES": "schemes",
"id"
},
{
"ALTER TABLE": "user",
"ADD CONSTRAINT": "user_merchant_id_foreign",
"FOREIGN KEY": "merchant_id",
"REFERENCES": "Merchant",
"id"
},
{
"ALTER TABLE": "krushi Kendra",
"ADD CONSTRAINT": "krushi_kendra_product_id_foreign",
"FOREIGN KEY": "product_id",
"REFERENCES": "products",
"id"
},
{
"ALTER TABLE": "Admin",
"ADD CONSTRAINT": "admin_product_id_foreign",
"FOREIGN KEY": "product_id",
"REFERENCES": "products",
"id"
},
{
"ALTER TABLE": "Merchant",
"ADD CONSTRAINT": "merchant_crops_id_foreign",
"FOREIGN KEY": "crops_id",
"REFERENCES": "crops",
"id"
},
{
"ALTER TABLE": "Admin",
"ADD CONSTRAINT": "admin_crops_id_foreign",
"FOREIGN KEY": "crops_id",
"REFERENCES": "crops",
"id"
},
{
"ALTER TABLE": "user",
"ADD CONSTRAINT": "user_farmer_id_foreign",
"FOREIGN KEY": "farmer_id",
"REFERENCES": "Farmer",
"id"
},

```

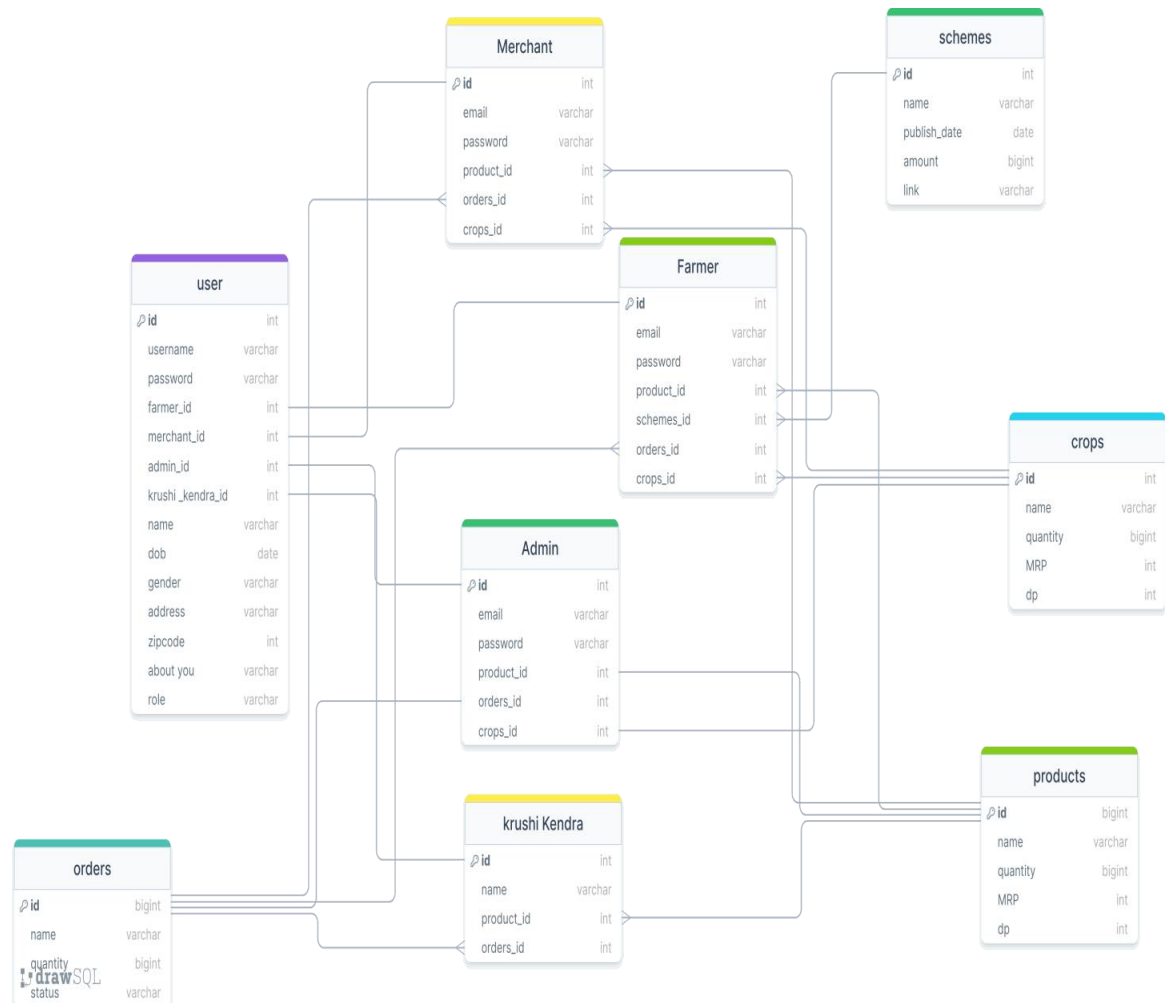
```

{
  "ALTER TABLE": "krushi Kendra",
  "ADD CONSTRAINT": "krushi_kendra_orders_id_foreign",
  "FOREIGN KEY": "orders_id",
  "REFERENCES": "orders",
  "id"
},
{
  "ALTER TABLE": "Merchant",
  "ADD CONSTRAINT": "merchant_orders_id_foreign",
  "FOREIGN KEY": "orders_id",
  "REFERENCES": "orders",
  "id"
},
{
  "ALTER TABLE": "Farmer",
  "ADD CONSTRAINT": "farmer_product_id_foreign",
  "FOREIGN KEY": "product_id",
  "REFERENCES": "products",
  "id"
},
{
  "ALTER TABLE": "Farmer",
  "ADD CONSTRAINT": "farmer_orders_id_foreign",
  "FOREIGN KEY": "orders_id",
  "REFERENCES": "orders",
  "id"
},
{
  "ALTER TABLE": "Farmer",
  "ADD CONSTRAINT": "farmer_crops_id_foreign",
  "FOREIGN KEY": "crops_id",
  "REFERENCES": "crops",
  "id"
},
{
  "ALTER TABLE": "user",
  "ADD CONSTRAINT": "user_krushi_kendra_id_foreign",
  "FOREIGN KEY": "krushi_kendra_id",
  "REFERENCES": "krushi Kendra",
  "id"
},
{
  "ALTER TABLE": "user",
  "ADD CONSTRAINT": "user_admin_id_foreign",
  "FOREIGN KEY": "admin_id",
  "REFERENCES": "Admin",
  "id"
}
]

```

## CLASS DIAGRAM :

The class diagram shows a set of classes, interfaces, collaborations and their relationships.



## **7. TESTING**

### **SYSTEM TESTING**

#### **SOFTWARE TESTING TECHNIQUES:**

Software testing is a critical element of software quality assurance and represents the ultimate review of specification, designing and coding.

#### **OBJECTIVES:**

1. Testing is process of executing a program with the intent of finding an error.
2. A good test case design is one that has a probability of finding an as yet undiscovered error.
3. A successful test is one that uncovers an as yet undiscovered error.

These above objectives imply a dramatic change in view port. Testing cannot show the absence of defects, it can only show that software errors are present. There are three types of testing strategies

1. Unit test
2. Integration test
3. Performance test

#### **Unit Testing:**

Unit testing focuses verification efforts on the smallest unit of software design module. The unit test is always white box oriented. The tests that occur as part of unit testing are testing the module interface, examining the local data structures, testing the boundary conditions, execution all the independent paths and testing error- handling paths.

#### **Integration Testing:**

Integration testing is a systematic technique or construction the program structure while at the same time conducting tests to uncover errors associated with interfacing. Scope of testing summarizes the specific functional, performance, and internal design characteristics that are to be tested. It employs top-down testing and bottom-up testing methods for this case.

**Performance Testing:**

Timing for both read and update transactions should be gathered to determine whether system functions are being performed in an acceptable time frame.

TEST CASES FOLLOWING :

**1. Test Cases For Login Functionality**

Test case ID: Login	
Test Priority: High	Module name: Login
Test Title: Validation of Login Module	
Description: This test case will validate the login functionality	
Precondition: User should enter the correct URL and should have registered username and password.	
Post condition: User should navigate to dashboard page.	

Sr.No	Test Step	Test Data	Expected Result	Actual Result	Status
01.	1.Enter URL 2.Enter Username & password 3.Click on Login Button	Username: Vishal123 Password: Vishal@123	It should navigate user to Dashboard	It navigate user to Dashboard	Pass
		Username: Vishal231 Password: Vishal@231	It should display Invalid Username or Password	It should display Invalid Username or Password	Pass

## 2. Test Case For Register User Functionality

Sr.No	Test Step	Test Data	Expected Result	Actual Result	Status
01.	1.Click on Register 2.Fill the Required Details 3.Click on submit button	Username: Vishal123 Password: Vishal@123 Email:Vishal123@gmail.com	It should add user and save data in database	User Added Successfully	Pass
		Username: Vishal231 Password: Vishal@231 Email:Vishal321@gmail.com	It should displayed Invalid Credentials	It should display validation error	Pass

## 3.Test Case For Add Crops Functionality

Sr.No	Test Step	Test Data	Expected Result	Actual Result	Status
01.	1.after login 2.login into Farmer / Merchant module 3.Crops registration	Crop name : xx Crop Image:xx Quantity:5 MRP:100 DP:80 Status :active/ inactive	It should display in My crops dashboard of farmer / merchant	It display all crops in my crops dashboard of farmer / merchant	Pass
		Crop name : xx Crop Image:xx Quantity:5 MRP:700 DP:650 Status :active/ inactive	It should display in My crops dashboard of farmer / merchant	It display all crops in my crops dashboard of farmer / merchant	Pass



### 3. Test Case For Add Products in Krushi Kendra Functionality

Sr.No	Test Step	Test Data	Expected Result	Actual Result	Status
01.	1.after login 2.login into shopowner 3.add products	Prod name : xx Prod Image:xx Quantity:5 MRP:1000 DP:800 Status :active/ inactive	It should navigate My products Dashboard	It should navigate My products Dashboard	Pass
		Prod name : xx Prod Image:xx Quantity:5 MRP:900 DP:800 Status :active/ inactive	It should navigate My products Dashboard	It should navigate My products Dashboard	Pass

### 4. Test Case For Buy Products / Crops Functionality

Sr.No	Test Step	Test Data	Expected Result	Actual Result	Status
01.	1.after login 2.login into farmer / merchant 3.buy products /crops	Prod name : xx Prod Image:xx Quantity:5 MRP:1000 DP:800	It should navigate purchasing request Dashboard	It should navigate purchasing request Dashboard	Pass
		Prod name : xx Prod Image:xx Quantity:5 MRP:1900 DP:1800	It should navigate purchasing request Dashboard	It should navigate purchasing request Dashboard	Pass

### 5. Test Case For Add schemes Functionality

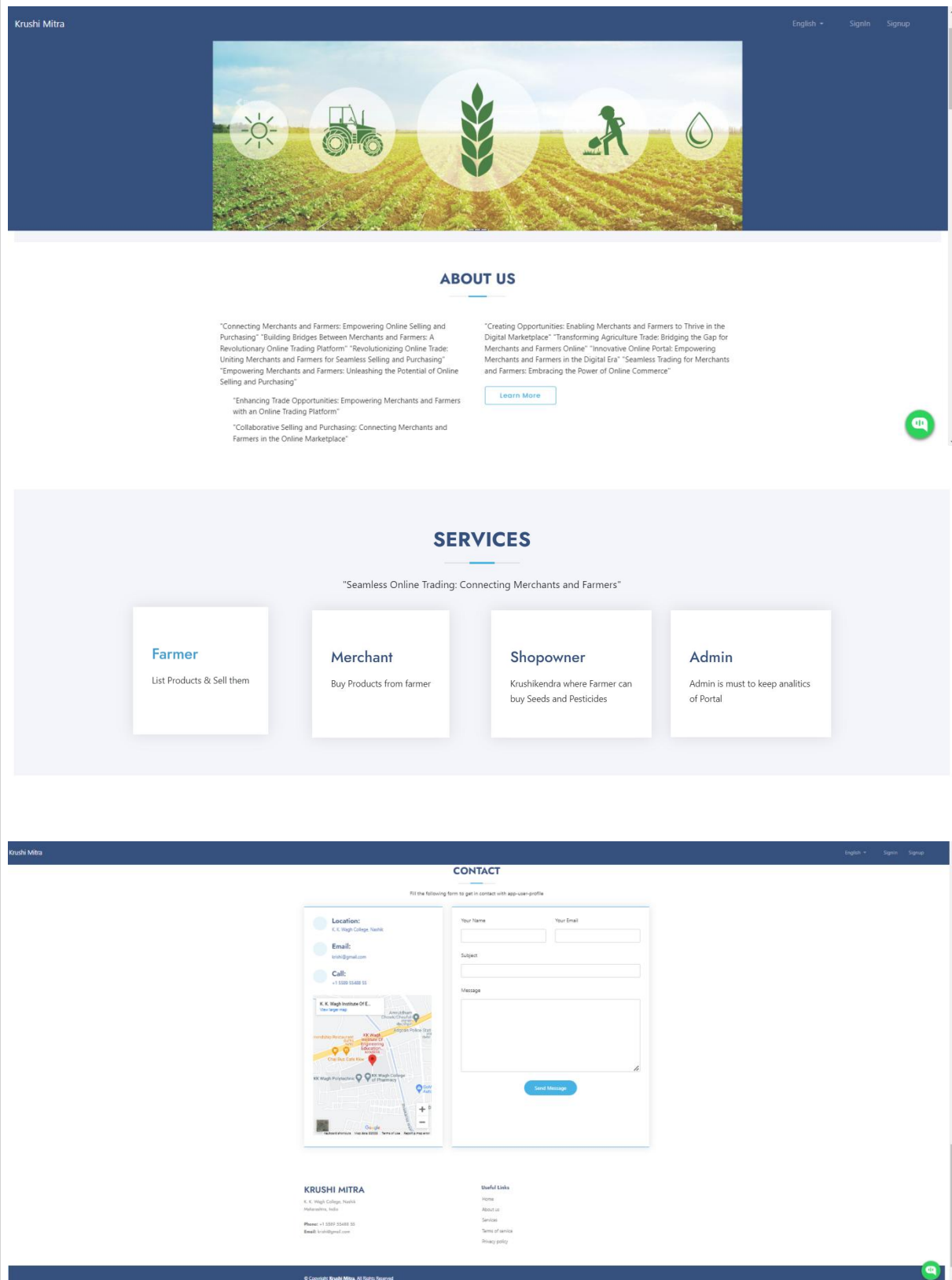
Sr.No	Test Step	Test Data	Expected Result	Actual Result	Status
01.	1.after login 2.login into admin 3.add govt.scheme	scheme name : xx scehem desc:xx amountt:0xxx0 Link:https://0x xx0x.in	It should display all schemes in farmer govt.scheme Dashboard	It should display all schemes in farmer govt.scheme Dashboard	Pass
		scheme name : xx scehem desc:xx amountt:0xxx0 Link:https://0x xx0x.in	It should display all schemes in farmer govt.scheme Dashboard	It should display all schemes in farmer govt.scheme Dashboard	Pass

### 6. Test Case For chatbot functionality

Sr.No	Test Step	Test Data	Expected Result	Actual Result	Status
01.	1. Chatbot	Chatbot Intent User query Chatbot answer	It should displaying in chatbot	It should displaying in chatbot	Pass
		Chatbot Intent User query Chatbot answer	It should displaying in chatbot	It should displaying in chatbot	Pass

## 8. Screenshots

### Home page



## Log In

Krushmi Mitra

English ▾

SignIn

Signup


### Sign In

vishal@gmail.com

\*\*\*\*\*

☐ Remember password

SIGN IN

 SIGN IN WITH GOOGLE

 SIGN IN WITH FACEBOOK

Krushmi Mitra



## sign up

Krushmi Mitra

English ▾

SignIn

Signup

### Krushmi Mitra - Register Here

Name

Mobile Number

Enter Your Age

Enter Your DOB

dd-mm-yyyy

Email

vishal@gmail.com

Password

\*\*\*\*\*

Address

1234 Main St

Address 2

Apartment, studio, or floor

City

State

Zip

Gender

☐ Male ☐ Female ☐ Other (disabled)

☐ Agree our term and condition

What You Want To Do

Register

## My Profile

Krushimi Mitra merchant

English Home vishal My Profile SignOut

Crop Registration

My Crops

Farmer List

Purchasing Requests1

Government Schemes

My Orders

My Profile

Name

vishal

Phone

9876543215

Age

23

DOB

2000-01-03

Email

vishal@gmail.com

Address

City

nashik

State

Maharashtra

Zip Code

422002

Gender

Male

Update Profile

## Update Profile

Krushimi Mitra merchant

English Home vishal My Profile SignOut

Crop Registration

My Crops

Farmer List

Purchasing Requests1

Government Schemes

My Orders

Name

Mobile Number

Enter Your Age

Enter Your DOB

dd-mm-yyyy

Email

vishal@gmail.com

Password

\*\*\*\*\*

Address

1234 Main St

Address 2

Apartment, studio, or floor

City

State

Zip

Gender

☐ Male

☐ Female

☐ Other (disabled)

Update Your Profile

# Crops Registration

Krushmi Mitramerchant

EnglishHomevishalMy ProfileSignOut

Crop Registration

My Crops

Farmer List

Purchasing Requests1

Government Schemes

My Orders

Crop Registration

Product Name

Product Image URL

Quantity

MRP

DP

Status

Add New

Krushmi Mitra

# My Crops

Krushmi Mitramerchant

EnglishHomevishalMy ProfileSignOut

Crop Registration

My Crops

Farmer List

Purchasing Requests1

Government Schemes

My Orders





All Crops List

Search here

Add New Crop

List ViewGrid View

My Crops

#	Crop Name	Quantity	MRP	DP	Status	Action
1	Sugarcane m1	100	150000	125000	active	 
2	Bajara m2	250	30000	25000	active	 

Krushmi Mitra

## Farmer List

Krush Mitra merchant

English Home vishal My Profile SignOut

Crop Registration

My Crops

Farmer List




Purchasing Requests1

Government Schemes

My Orders

Farmer List

List of Products By farmer for selling

#	Name of Farmer	Crop	Price	Quantity	Phone	Address	Photo	action
1	vivek	cotton	150000	20 quintel	9876543215	nashik		<a href="#">Request</a>
2	vivek	Corn F1	24000	50 kg	9876543215	nashik		<a href="#">Request</a>
3	vivek	OAT f2	44000	200 kg	9876543215	nashik		<a href="#">Request</a>

## Purchasing request

Krush Mitra merchant

English Home vishal My Profile SignOut

Crop Registration

My Crops

Farmer List

Purchasing Requests1

Government Schemes











My Orders

Purchasing Request

Request created by **Farmer to Merchant**

Registration by merchant to buy crop from farmer

orders

sr.no	Name	Product Description	buying rate	contact	requestby	time	Negotiated Price	Negotiated quantity	Status	action
1	Galaxy	2	1800			6/15/2023			<a href="#">requested</a>	 
2	Galaxy	2	1800			6/17/2023	6/17/2023	6/17/2023	<a href="#">Ordered</a>	 
3	Boxer Insecticide	2	1850			6/17/2023			<a href="#">requested</a>	 
4	sugarcane	10	290000			6/17/2023	6/17/2023	6/17/2023	<a href="#">Ordered</a>	 
5	Sugarcane	100	125000	9876543215	vivek	6/19/2023			<a href="#">Ordered</a>	 

## Govt Schemes

Krush Mitra merchant

English Home vishal My Profile SignOut

Crop Registration

My Crops

Farmer List

Purchasing Requests1

Government Schemes

My Orders

All Schemes

Search here

Scheme

SR NO.	SCHEME NAME	TOTAL BENIFITS	DATE OF PUBLISH	SCHEME FOR MERCHANT/ FARMER	GOV. LINK
--------	-------------	----------------	-----------------	-----------------------------	-----------

## My Orders

Krushi Mitra

merchant

English

Home

vishal

My Profile

SignOut

Crop Registration

My Crops

Farmer List

Purchasing Requests1

Government Schemes

My Orders

orders

orderId	Crop Name	Quantity	Price	contact	time	Farmer Name	Status	action
12	Sugarcane m1	100	125000	9876543215	6/19/2023	vivek	Ordered	<a href="#">Pay Now</a>
13	Bajara m2	250	25000	9876543215	6/19/2023	vivek	Ordered	<a href="#">Pay Now</a>
14	Corn F1	50 kg	24000	9876543215	6/19/2023	vivek	Ordered	<a href="#">Pay Now</a>
15	OAT f2	200 kg	44000	9876543215	6/19/2023	vivek	Ordered	<a href="#">Pay Now</a>
18	Bajara m2	250	25000	9876543215	6/20/2023	vivek	Ordered	<a href="#">Pay Now</a>

## Payment

Krushi Mitra

merchant

English

Home

vishal

My Profile

SignOut

Crop Registration

My Crops

Farmer List

Purchasing Requests1

Government Schemes

My Orders

orders

orderId	Crop Name	Quantity	Price	contact	time	Farmer Name	Status	action
12	Sugarcane m1	100	125000	9876543215	6/19/2023	vivek	Ordered	<a href="#">Pay Now</a>
13	Bajara m2	250	25000	9876543215	6/19/2023	vivek	Ordered	<a href="#">Pay Now</a>
14	Corn F1	50 kg	24000	9876543215	6/19/2023	vivek	Ordered	<a href="#">Pay Now</a>
15	OAT f2	200 kg	44000	9876543215	6/19/2023	vivek	Ordered	<a href="#">Pay Now</a>
18	Bajara m2	250	25000	9876543215	6/20/2023	vivek	Ordered	<a href="#">Pay Now</a>

Krushi kendra

Pay With UPI QR

Scan the QR using any UPI app on your phone.

QR Code is valid for 11:53 minutes

Cards, UPI & More

Card

VISA Mastercard & more

UPI / QR

& more

Netbanking

All Indian banks

Wallet

₹ 30

View Details

Pay Now

## ChatBot

Krushi Mitra

Learn More

Enhancing Trade Opportunities: Empowering Merchants and Farmers with an Online Trading Platform"

"Collaborative Selling and Purchasing: Connecting Merchants and Farmers in the Online Marketplace"

Services

Seamless Online Trading: Connecting Merchants and Farmers"

Farmer

List Products & Sell them

Merchant

Buy Products from farmer

Shopowner

Krushikendra where Farmer can buy Seeds and Pesticides

Krushi Mitra Online

Hi ! My name is krushimitra . How can I help you?

Jun 19, 9:54 PM

Chatbot by Kommunicate.io

KRUSHI MITRA

48



## Farmer My Crops

Krushi Mitra **farmer**

English Home **vivek** My Profile SignOut

Crop Registration

My Crops

Merchant List

Purchasing Requests

Krushi Kendra

Government Schemes

Crop Orders







All Crops List

Search here

Add New Crop

List View Grid View

My Crops

#	Crop Name	Quantity	MRP	DP	Status	Action
1	cotton	20 quintel	150000	150000	active	 
2	Corn F1	50 kg	25000	24000	inactive	 
3	OAT f2	200 kg	45000	44000	active	 

Krushi Mitra

## Merchant List

Krushi Mitra **farmer**

English Home **vivek** My Profile SignOut

Crop Registration

My Crops

Merchant List

Purchasing Requests

Krushi Kendra



Government Schemes

Crop Orders

Merchant List

List of all Merchants

Selling request by crop registration by merchant

#	Name of Merchant	required crop	buying rate	Quantity	address	contact	Photo	Action
1	vishal	Sugarcane m1	125000	100	9876543215	nashik		<a href="#">Proceed</a>
2	vishal	Bajara m2	25000	250	9876543215	nashik		<a href="#">Proceed</a>

## Purchasing Request Merchant to Farmer

Krushi Mitra **farmer**

English Home **vivek** My Profile SignOut

Crop Registration

My Crops

Merchant List

Purchasing Requests













Krushi Kendra

Government Schemes

Crop Orders

Request created by Merchant to farmer

orders

sr.no	Name	Quantity	buying rate	contact	time	Request By	Negotiated Price	Negotiated quantity	Status	action
1	cotton	20 quintel	150000	9876543215	6/15/2023		6/15/2023	6/15/2023	<a href="#">Ordered</a>	 
2	cotton	20 quintel	150000	9876543215	6/15/2023		6/15/2023	6/15/2023	<a href="#">Ordered</a>	 
3	cotton	20 quintel	150000	9876543215	6/17/2023		6/17/2023	6/17/2023	<a href="#">Ordered</a>	 
4	Corn F1	50 kg	24000	9876543215	6/19/2023	vishal	20000	40	<a href="#">Ordered</a>	 
5	OAT f2	200 kg	44000	9876543215	6/19/2023	vishal			<a href="#">Ordered</a>	 
6	Corn F1	50 kg	24000	9876543215	20/6/2023	vishal	20000	20	<a href="#">requested</a>	 

## Krushi Kendra In Farmer Module

Krushi Mitra

farmer

English Home **livek** My Profile SignOut

Crop Registration

My Crops

Merchant List

Purchasing Requests


Krushi Kendra

Government Schemes

Crop Orders

Farmer / Krushi Kendra / Cart / Order History

Krushi Kendra Page




Police cotton seeds

MRP: 2400 DP: 2000

3

Added by:- om




Boxer Insecticide

MRP: 1400 DP: 1200

2

Added by:- sarthak sonone

Buy Now



seed

MRP: 20000 DP: 19000

33

Added by:- sarthak sonone

Buy Now

## Krushi Kendra Orders In Farmer Module

Krushi Mitra

farmer

English Home **livek** My Profile SignOut

Crop Registration

My Crops

Merchant List

Purchasing Requests

Krushi Kendra

Government Schemes

Crop Orders

Farmer / Orders

orderId	Name	Quantity	buying rate	contact	Date	Status
5	Police cotton seeds	3	2000	9876543215	6/15/2023	Ordered
6	Police cotton seeds	3	2000	9876543215	6/15/2023	Ordered
16	Boxer Insecticide	2	2200	9876543215	6/19/2023	Ordered
17	Boxer Insecticide	2	2200	9876543215	6/20/2023	Ordered
19	Boxer Insecticide	2	2200	9876543215	6/20/2023	Ordered
20	Boxer Insecticide	2	1200	9876543215	6/20/2023	Ordered

Krushi Mitra

## Crops Orders

Krushi Mitra

farmer

English Home **livek** My Profile SignOut

Crop Registration

My Crops

Merchant List

Purchasing Requests

Krushi Kendra

Government Schemes

Crop Orders

Farmer / Orders

orderId	Name	Quantity	buying rate	contact	time	merchant name	Status
14	Corn F1	50 kg	24000	9876543215	6/19/2023	vishal	Ordered
15	OAT f2	200 kg	44000	9876543215	6/19/2023	vishal	Ordered
16	Boxer Insecticide	2	2200	7894561234	6/19/2023	Ordered	
17	Boxer Insecticide	2	2200	7894561234	6/20/2023	Ordered	
18	Sugarcane m1	100	125000	9876543215	6/20/2023	vishal	Ordered
19	Boxer Insecticide	2	2200	7894561234	6/20/2023	Ordered	
20	Boxer Insecticide	2	1200	7894561234	6/20/2023	Ordered	
21	Bajara m2	250	25000	9876543215	6/20/2023	vishal	Ordered

## My Profile

Krushi Mitra shopowner English Home sarthak sonone My Profile SignOut

[Add Products](#)  
[Products](#)  
[Orders](#)

### My Profile

Name	sarthak sonone
Phone	7894561234
Age	18
DOB	2005-02-01
Email	sarthak@gmail.com
Address	
City	nashik
State	maharashtra
Zip Code	422002
Gender	Male

Update Profile

## Products

Krushi Mitra shopowner English Home sarthak sonone My Profile SignOut

[Add Products](#)  
[Products](#)  
[Orders](#)

### All Products List

Search here

Add New Product

#### My Products

#	Product Name	Quantity	MRP	DP	Status	Action
1	Boxer Insecticide	2	1400	1200	active	<a href="#">Edit</a> <a href="#">Delete</a>
2	seed	33	20000	19000	active	<a href="#">Edit</a> <a href="#">Delete</a>

## Add Products

Krushi Mitra shopowner English Home sarthak sonone My Profile SignOut

[Add Products](#)  
[Products](#)  
[Orders](#)

### All Products List

Search here

Add New Product

#### My Products

#	Product Name	Quantity	MRP	DP	Status	Action
1	Boxer Insecticide	2	1400	1200	active	<a href="#">Edit</a> <a href="#">Delete</a>
2	seed	33	20000	19000	active	<a href="#">Edit</a> <a href="#">Delete</a>

### Add product

Product Name

Product Image URL

Quantity

MRP

DP

Status

Add New

Krushi Mitra

## Orders

Krushi Mitra

shopowner

English

Home

sarthak sonone

My Profile

SignOut

Add Products

Products

Orders

orderid	Name	Quantity	buying rate	contact	Date	Status
5	Police cotton seeds	3	2000	9876543215	6/15/2023	Ordered
6	Police cotton seeds	3	2000	9876543215	6/15/2023	Ordered
16	Boxer Insecticide	2	2200	9876543215	6/19/2023	Ordered
17	Boxer Insecticide	2	2200	9876543215	6/20/2023	Ordered
19	Boxer Insecticide	2	2200	9876543215	6/20/2023	Ordered
20	Boxer Insecticide	2	1200	9876543215	6/20/2023	Ordered

## Admin

Krushi Mitraadmin

EnglishHomesarthak sononeMy ProfileSignOut

Gov. Schemes

User Management


Product Management

Order Management


Feedbacks

Admin / Dashboard


Sales | Till now

22

Revenue | Till now

494185

Customers | Till now

8

Recent Sales | Today

#	Customer	Product	Price	Status
---	----------	---------	-------	--------

## Add Govt.scheme

Krushi Mitraadmin

EnglishHomesarthak sononeMy ProfileSignOut

All Schemes

Search here

Add Scheme

Gov. Schemes

User Management

Product Management

Order Management

Feedbacks

Scheme

SR NO.	SCHEME NAME	TOTAL BENIFITS	DATE OF PUBLISH	SCHEME FOR MERCHANT/ FARMER	GOV. LINK	ACTION
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## UserManagement

Krushi Mitra

admin

EnglishHome

sarthak sonone

My ProfileSignOut

Gov. Schemes

User Management

Product Management









Order Management

Feedbacks

All User List

Search here

Add New User

#	Name	Mob	Email	DOB	City	Role	Action
1	Srikrushna Pal	1234567891	admin@gmail.com	1992-09-17	Bangalore	admin	
2	Bijay	0123456789	farmer@gmail.com	2019-12-31	Bangalore	farmer	
3	saurabh solanke	0123456789	merchant@gmail.com	2017-11-30	Bangalore	merchant	
4	Saurabh Sunil Solanke	+919028066793	saurabh.solanke@gmail.com	1997-05-10	Aurangabad(Maharash	merchant	
5	vivek	9876543215	vivek@gmail.com	1999-01-01	nashik	farmer	
6	vishal	9876543215	vishal@gmail.com	2000-01-03	nashik	merchant	
7	aakash	8574961236	aakash@gmail.com	1988-05-01	dhule	shopowner	
8	sarthak sonone	7894561234	sarthak@gmail.com	2005-02-01	nashik	shopowner	

## 9.CONCLUSION

The E-Farming Online Programme has made significant strides in revolutionizing the agricultural sector by providing a practical and efficient digital platform for farmers, retailers, administrators, and store owners. The project has successfully implemented the Farmer, Merchant, and Admin modules, bringing transparency, productivity, and profitability to the agricultural value chain. With further enhancements and continuous improvement, the e-farming web application is poised to make a lasting impact on the agricultural industry. E-Farming web application aims to revolutionize the agricultural sector by harnessing the potential of technology to connect farmers, merchants, administrators, and shops. By providing a user-friendly and efficient platform, E-Farming empowers farmers with the necessary tools and resources, facilitates fair trade between farmers and merchants, and streamlines administrative processes. Ultimately, this comprehensive solution has the potential to transform traditional farming practices, promote sustainability, and contribute to the growth of the agricultural industry as a whole.

## 10.BIBLIOGRAPHY

### For AngularJS

- "Mastering Web Application Development with AngularJS" by Pawel Kozlowski and Peter Bacon Darwin
- "AngularJS: Up and Running" by Shyam Seshadri and Brad Green
- <https://www.angularjs.org/tutorial>
- <https://www.w3schools.com/angular/>

### For JavaScript

- HTML and JavaScript – Ivan Bayross
- <https://www.programiz.com/javascript>

### For dbjson server

- <https://www.npmjs.com/package/json-server>
- <https://www.javatpoint.com/json-server>

### For Chatbot

- <https://kommunicate.io/>

## 11. ACKNOWLEDGEMENT

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**Date:**

**Place: Nashik**

**Name of the students**

**Signature**