IACSD

INSTITUTE FOR ADVANCED
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SOFTWARE DEVELOPMENT
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Documentation On

"E-FARMER'S MARKET"

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Project Guide

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1. Introduction

Farming is the Prime Occupation in India in spite of this, today the people involved in farming belongs to the lower class and is in deep poverty. The Advanced techniques and the Automated machines which are leading the world to new heights, is been lagging when it is concerned to farming, either the lack of awareness of the advanced facilities or the unavailability leads to the poverty in farming. Even after all the hard work and the production done by the farmers, in today's market the farmers are cheated by the Agents, leading to the poverty. E-Farmer's Market is the web application that will help the farmers to perform the agriculture-marketing leading to achieve success and increase in their standard of living. The Marketing facility would allow the farmers to have a view of the bills created and the related information in their accounts. An Authorized-agent would serve as a way for the farmers to sell their products in the market. Also, the customers must be able to perform the basic operations such as adding the items to the Cart or deleting the items if not required. This project provides an interactive way to order the crops from their home. This project also aims to provide an online platform to the farmers for selling their crops.

Document Purpose

The E-farmer's Market is a web application that is intended to provide a platform for farmers as well as buyers in order to sell a crop or buy it respectively. It provides an easy way for both of them to buy the product in online mode without the hassle to visit the shop physically. Farmers here have the specific functionality to add or delete the crops as per the need whereas the customers can purchase the products which are available on a single click. They can add the quantity of crops they need and can manage their cart accordingly.

Problem Statement

The Farmer's E-Market is created to help bring together all local vendors. We want to help make each stronger individually as a collective whole by providing simple lines of communication and support within the relationship of farmers to buyers and farmers to farmers & essentially creating an online farmers market for that offers consistent connection between all farmers and buyers. The main motive of the project is to sell local and buy local.

Product Scope

- The central concept of the application is to allow the buyer to shop virtually using internet and allow customers to buy products of their own choice.
- The users could subscribe for price alerts which would enable them to receive messages when price for products fall below a particular level.
- Improve the services of buyers and producers eliminating the middlemen between them.
- Since, all the data are stored in the database analysis of data can be done. The admin can keep record of what product is sold to which buyer from which farmer. Every data can be accessed and analysis can be done which will help in generation of reports for future use.

Aims & Objectives

Specific goals are: -

- To provide a web-based system that allows the farmers to edit the crops as per the need and sell them in an interactive manner worldwide.
- To ease customers ordering the product in an interactive online manner.
- To view the products online in an easy way and to add the

Overall Description

Product Perspective:

2.1.1 Existing system function:

In the existing system all transactions, dealings of products, purchasing of products were done manually which is time consuming. Reports are prepared manually as and when needed. Maintaining of reports is tedious task. To buy any product user has to collect information about it either by visiting the shop or by asking people which is better. There is no computer system for handling payments. All calculations are performed manually which may not always be accurate. Maintaining records is difficult. Any internet user can use this existing website to search for any kind of products, select particular product from wide range of products. Once they make up their mind to purchase any particular thing they can place an order and make payment through net banking. The existing E-Farmer's Market website is static which makes it less interactive. It has a database connectivity. The home page, farmer interface, the user interface has been prepared. The system information updates according to the changes in technology and store products. In this system, the producer can update, sell and check details about their products accordingly. They can put information about their products which are to be displayed in the website Buyer can avail benefits of the user-friendly web-based system in choosing products available and buying them. Moreover, the buyer can contact admin in case of faulty products. Alerts and real time reporting through emails (to both buyer and producer). Buyer as well as producer can contact admin for any information required. Management of wish list is done where all items that are to be purchased can be reviewed after the item is brought from wish list.

III. PROPOSED SYSTEM

Product functionality:

The project includes functionalities for Customer (User), farmer. The functionalities can be defined as follows:

Customer Management:

Customers can view a specific product which is available on the website, add them to the cart or remove them from the cart if not needed. Customers can also order the product by confirming the order. The customers have a login page which can be accessed by logging by entering the valid credentials on the page.

Farmer Management:

Farmers can perform the login by entering the valid credentials. The functions of the seller include add the products on the website, delete the products from the website as per the requirement. The farmer can view the orders and manage them.

Benefits of E-Farmer's Market

- This online store is fully functional and flexible.
- It is very easy to use.
- It saves a lot of time, money and labor.
- The application acts as an office that is open 24/7.
- It increases the efficiency of the management at offering quality services to the customers.
- It provides custom features development and support with the application.

Users and Characteristics

Farmers

- Farmers can login to the system.
- View his/her details.
- View products.
- Add or delete products.

Customers

- Customers can login to the system.
- View his/her details.
- View products.
- Add or delete products from the Cart.
- Order Products.
- View the Shopping Cart

Requirements:

Hardware and Software Requirements:

Processor: Intel® Core I3 Processor

HDD: Minimum 500GB Disk Space

RAM: Minimum 4 GB

OS: Windows 10

Database: MySQL

Software Requirements:

Operating System: Windows 10

Browser: Google Chrome

Front End : VS Code

Backend : Spring Tool Suite, MySQL

Design and Implementation Constraints:

- The application will use React, Ajax, JavaScript, jQuery and css as main web technologies.
- HTTP and FTP protocols are used as communication protocols. FTP is used to upload the web application in live domain and the client can access it via HTTP protocol.
- Several types of validations make this web application a secured one and SQL Injections can also be prevented.
- Database used in the project is MySQL in which the tables are Created and used in backend.
- Spring Boot is used in the project as Back End Technology.

Specific Requirement

External Interface Requirements:

User Interfaces:

- A Default Home Page will appear when the browser is launched. This page contains Login Button which when clicked asks the users a username and a password.
- After being authenticated by correct username and password, user will be redirect to their corresponding page where different products will be available.
- The user interface will be simple and consistence, using terminology commonly understood by intended users of the system. The system will have simple interface, consistence with standard interface, to eliminate need for user training of infrequent users.

Hardware Interfaces:

- No extra hardware interfaces are needed.
- The system will use the standard hardware and data communication resources.
- This includes, but not limited to, general network connection at the server/hosting site, network server and network management tools.

Application Interfaces:

OS: Windows 7, Linux

Web Browser:

The system is a web-based application; clients need a modern web browser such as Mozilla Firebox, Internet Explorer, Opera, and Chrome. The computer must have an Internet connection in order to be able to access the system.

Communications Interfaces:

- This system uses communication resources which includes but not limited to, HTTP protocol for communication with the web browser and web server and TCP/IP network protocol with HTTP protocol.

System Design

ER Diagram

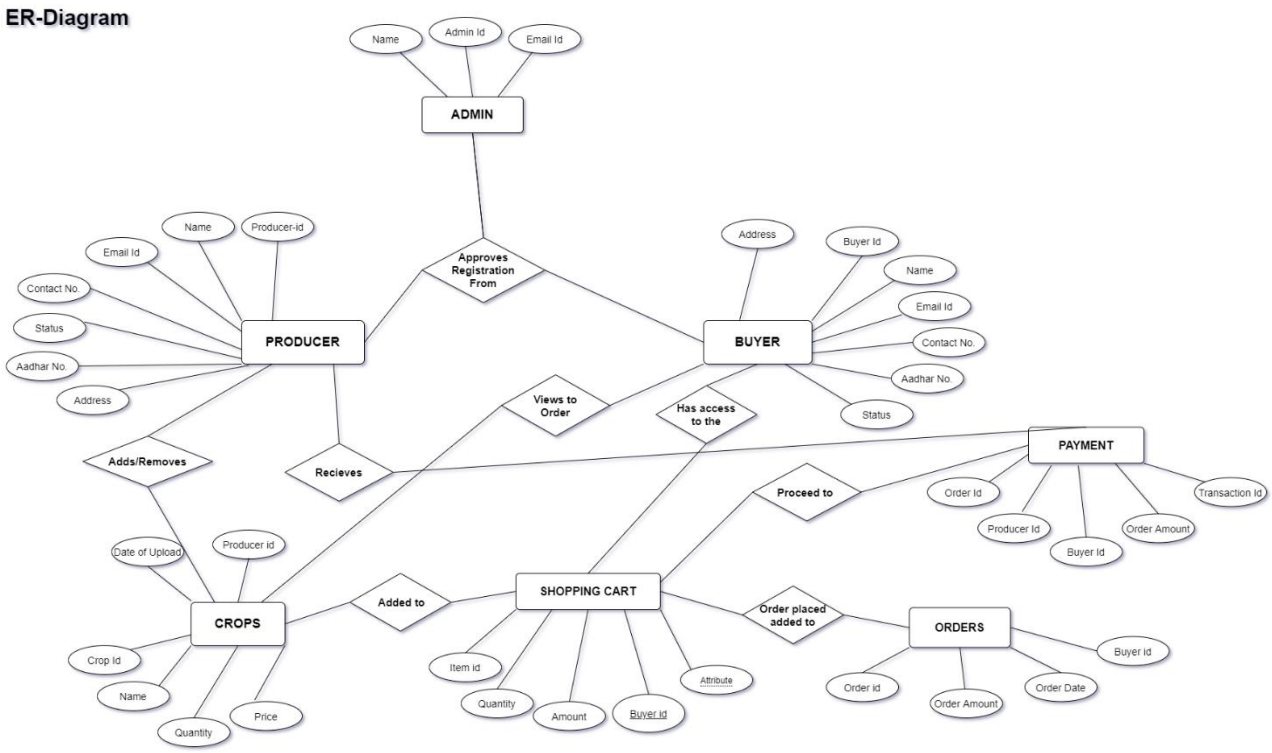


Figure 1: ER Diagram

Use Case Diagram

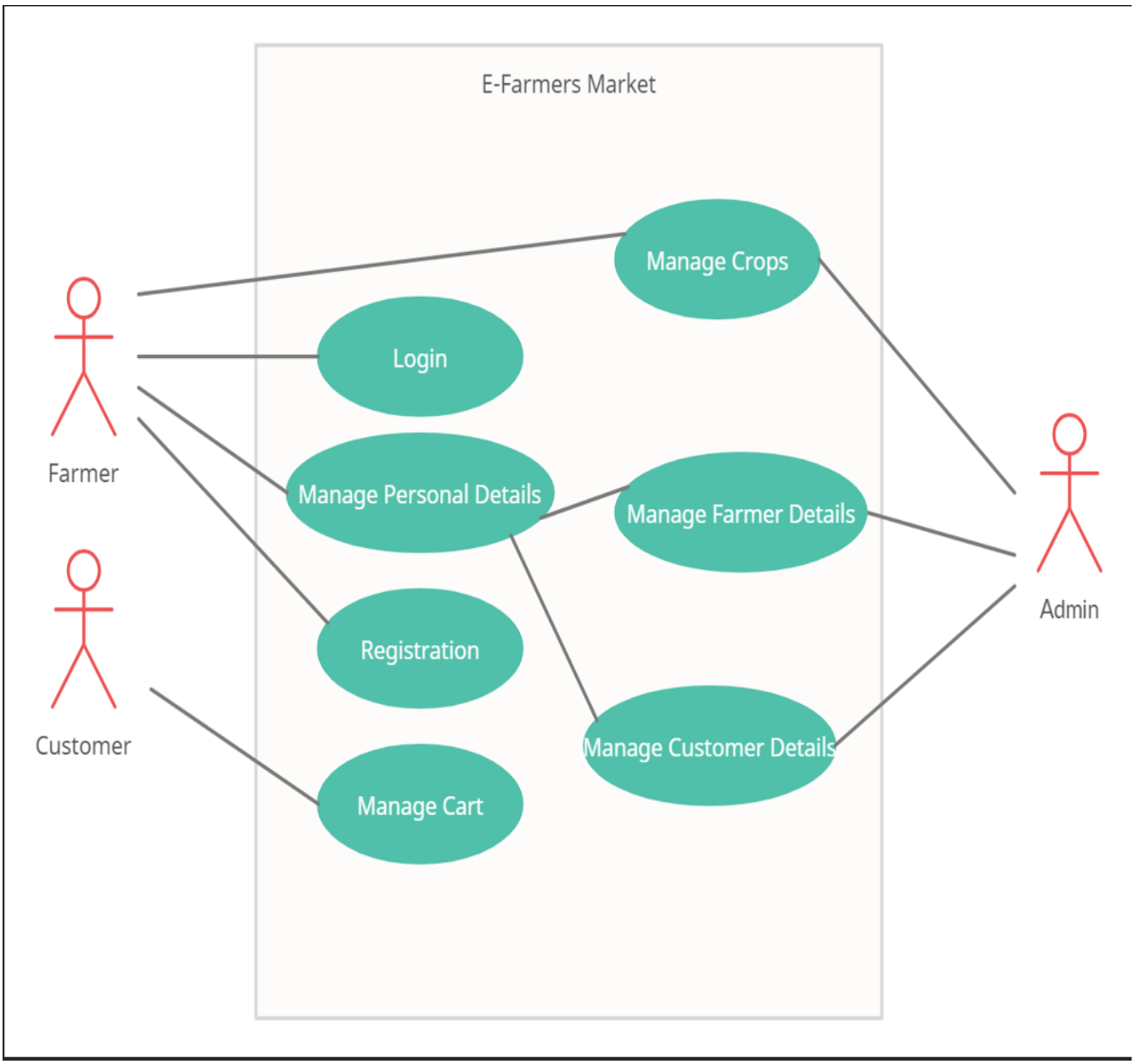
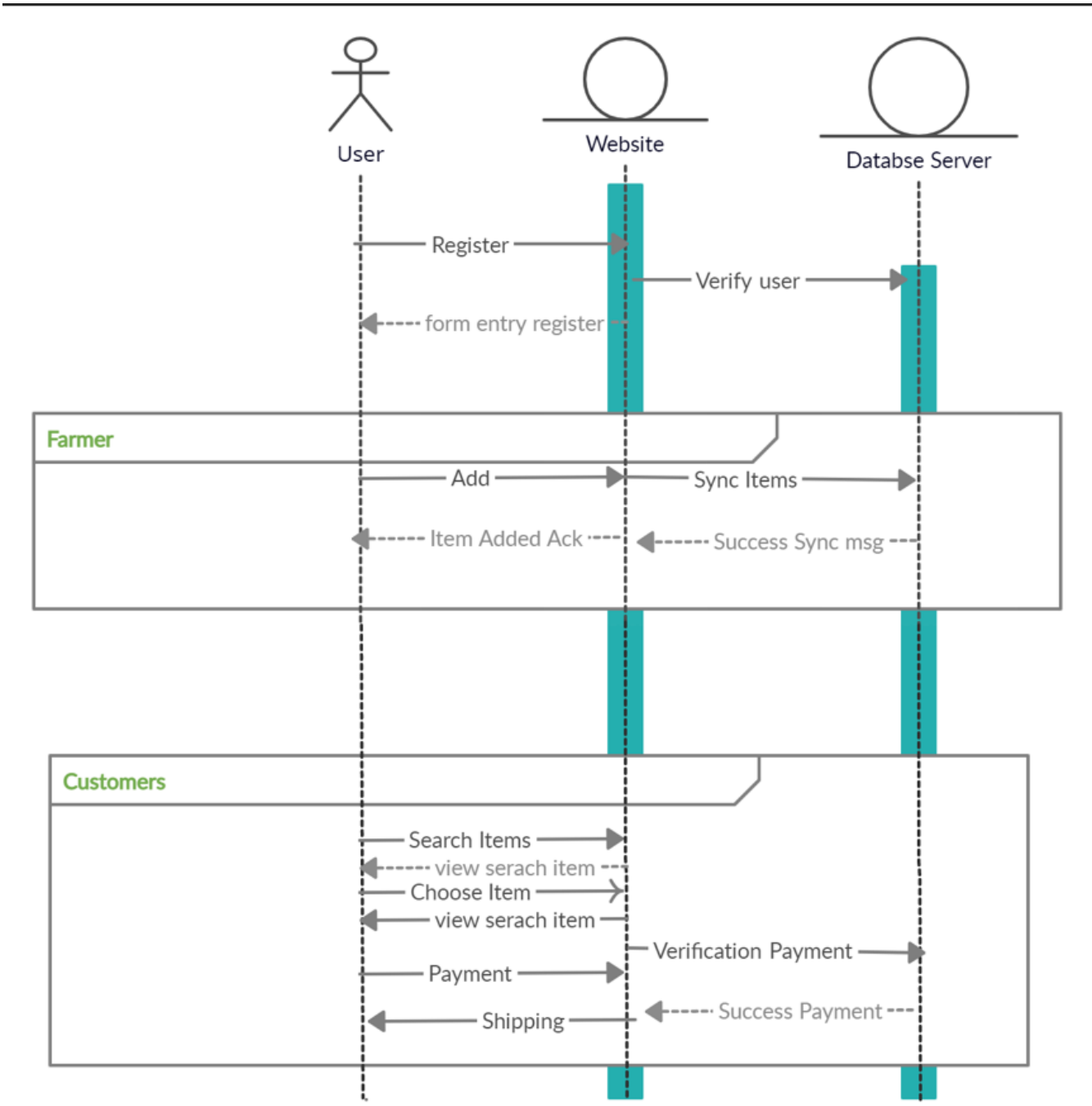


Figure 2: Use Case Diagram



Sequence Diag.

Table Structure

User:

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
name	varchar(45)	NO		NULL	
email	varchar(45)	NO		NULL	
city	varchar(45)	NO		NULL	
state	varchar(45)	NO		NULL	
adhar_no	varchar(10)	NO		NULL	
contact_no	varchar(10)	NO		NULL	
role	varchar(45)	YES		NULL	
password	varchar(45)	NO		NULL	
status	int	YES		NULL	

Crop:

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
crop_name	varchar(45)	NO		NULL	
quantity	int	NO		NULL	
price	int	YES		NULL	
date_of_upload	date	YES		NULL	
status	int	YES		NULL	
version	int	YES		NULL	

Crops_user:

Field	Type	Null	Key	Default	Extra
crop_id	int	NO	PRI	NULL	
producer_id	int	NO	PRI	NULL	

Shopping_cart:

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
quantity	int	YES		NULL	
date_of_order	date	YES		NULL	
buyer_id	int	YES	MUL	NULL	
price	double	YES		NULL	

Items_crops:

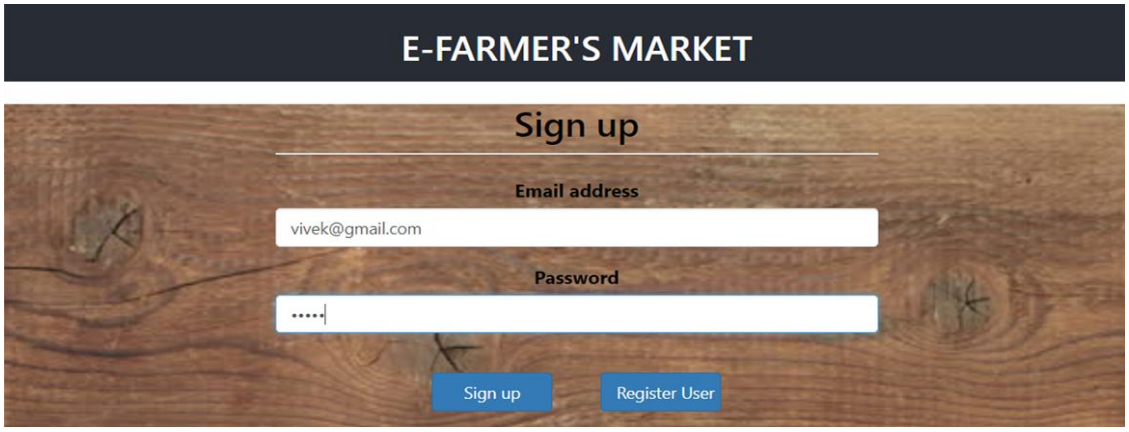
Field	Type	Null	Key	Default	Extra
item_id	int	NO	PRI	NULL	
crop_id	int	NO	PRI	NULL	

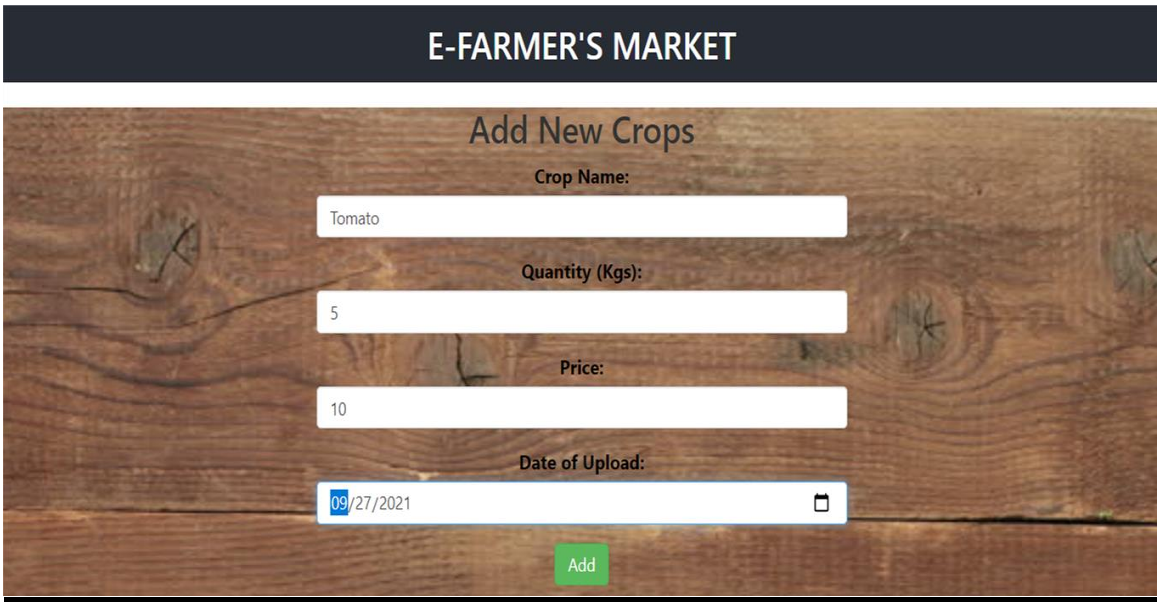
Orders:

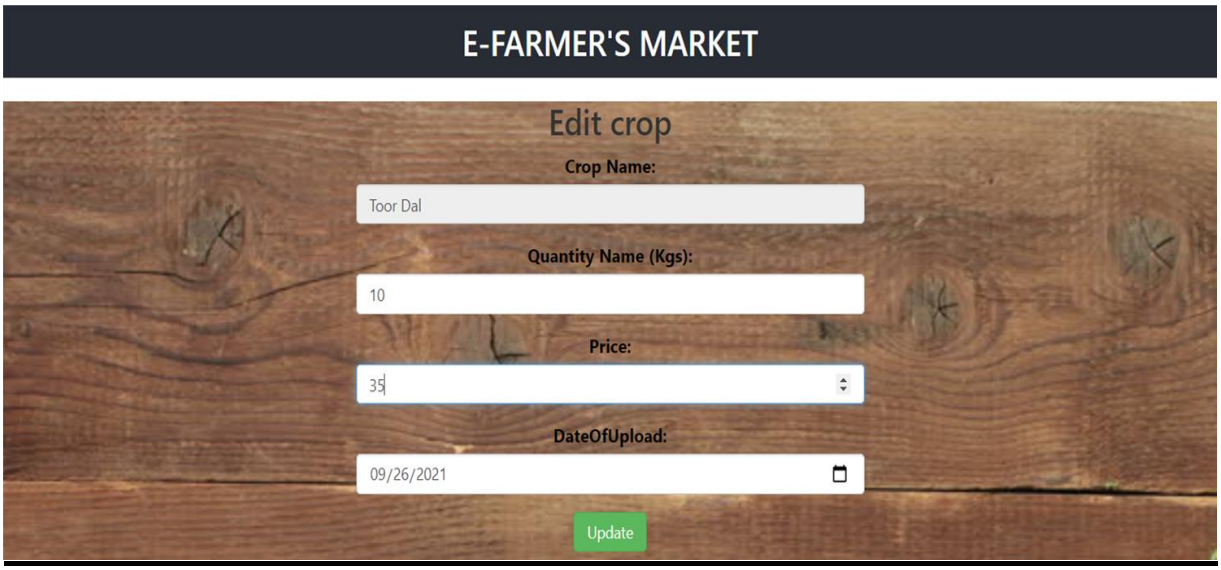
Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
order_amount	int	YES		NULL	
order_date	date	YES		NULL	
buyer_id	int	YES	MUL	NULL	

Test Screens

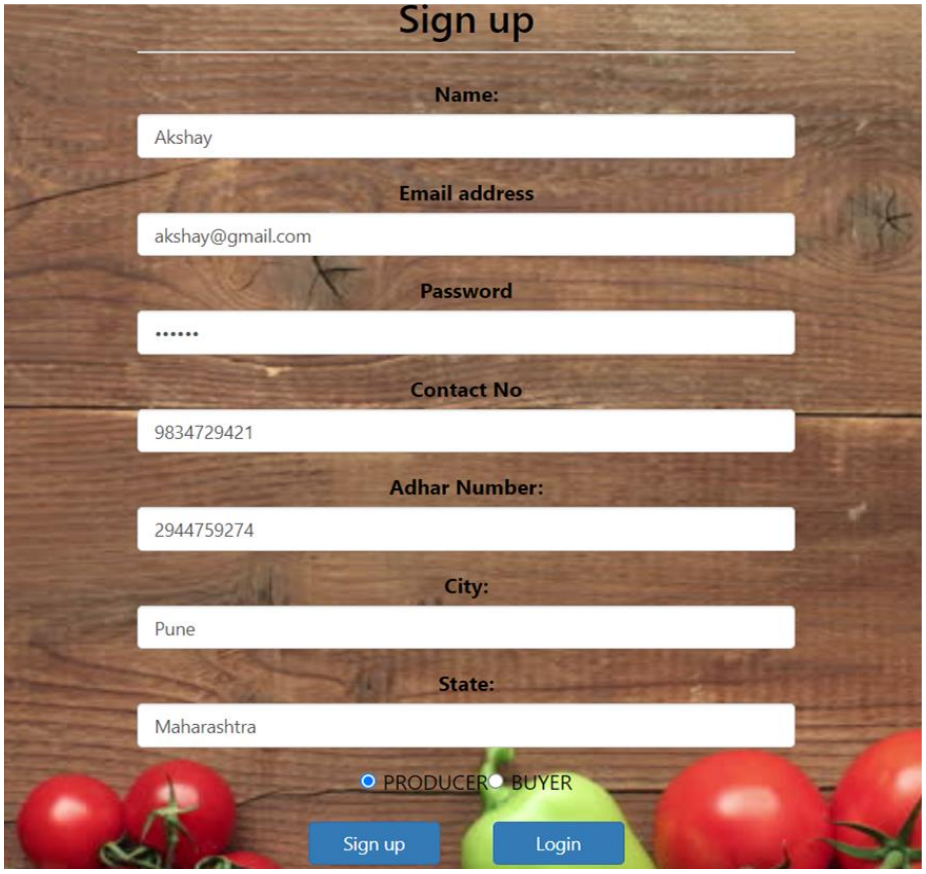
Producer Flow:



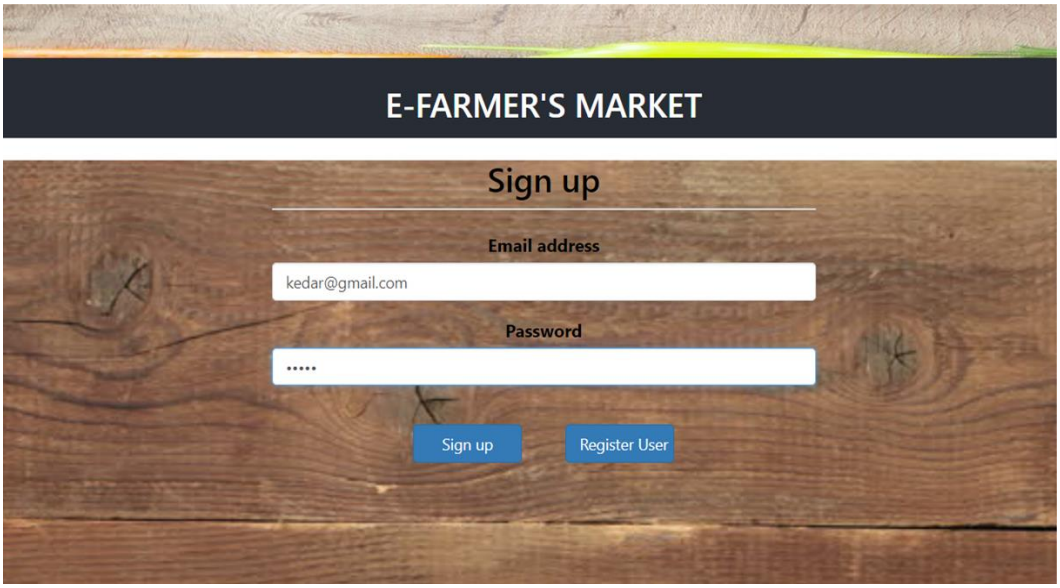


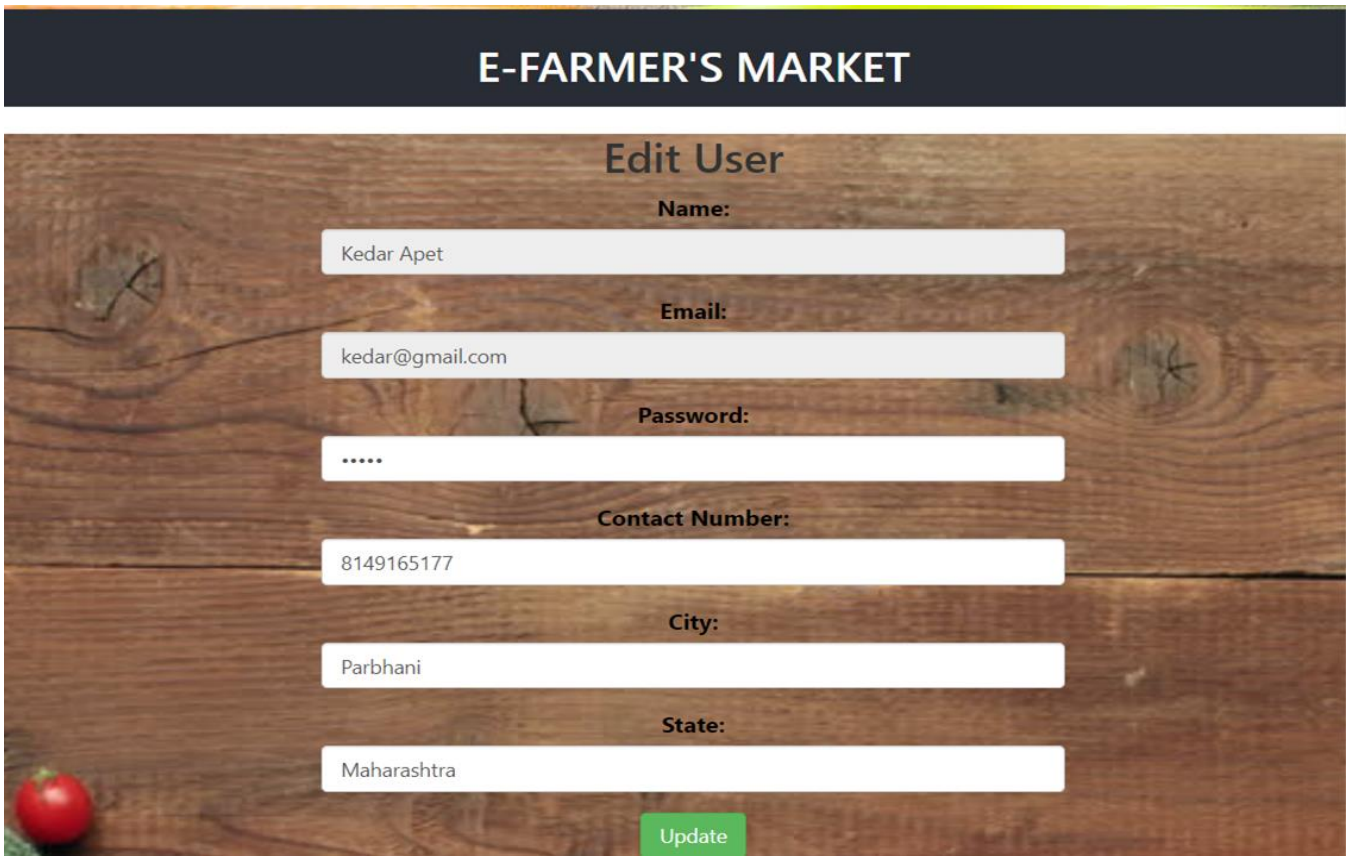

E-FARMER'S MARKET
Edit crop
Crop Name:
Toor Dal
Quantity Name (Kgs):
10
Price:
35
DateOfUpload:
09/26/2021
Update

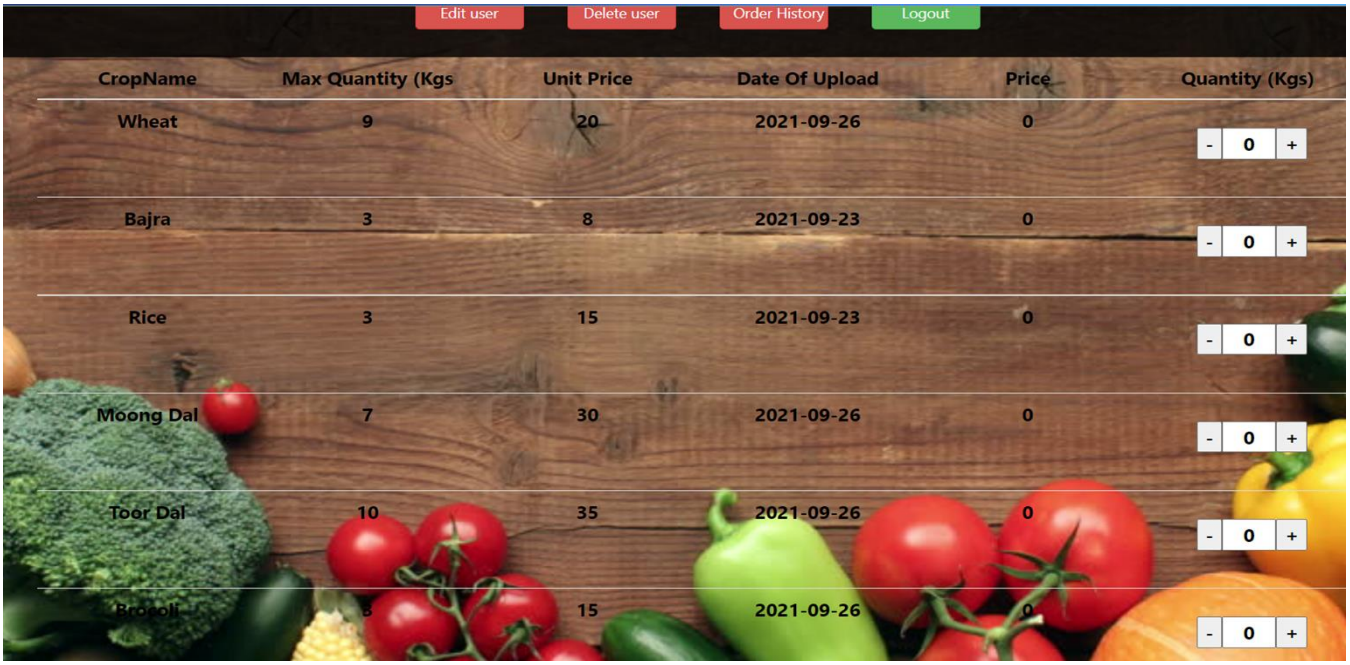

E-FARMER'S MARKET
Crop Details
Add Crop
Edit user
Delete user
Logout
CropName
Quantity (Kgs)
Price
Date Of Upload
Wheat 9 20 2021-09-26 Delete Edit
Bajra 3 8 2021-09-23 Delete Edit
Rice 3 15 2021-09-23 Delete Edit
Toor Dal 10 35 2021-09-26 Delete Edit
Brocoli 3 15 2021-09-26 Delete Edit


Sign up
Name:
Akshay
Email address
akshay@gmail.com
Password
Contact No
9834729421
Adhar Number:
2944759274
City:
Pune
State:
Maharashtra
PRODUCER
BUYER
Sign up
Login

Buyer Flow:

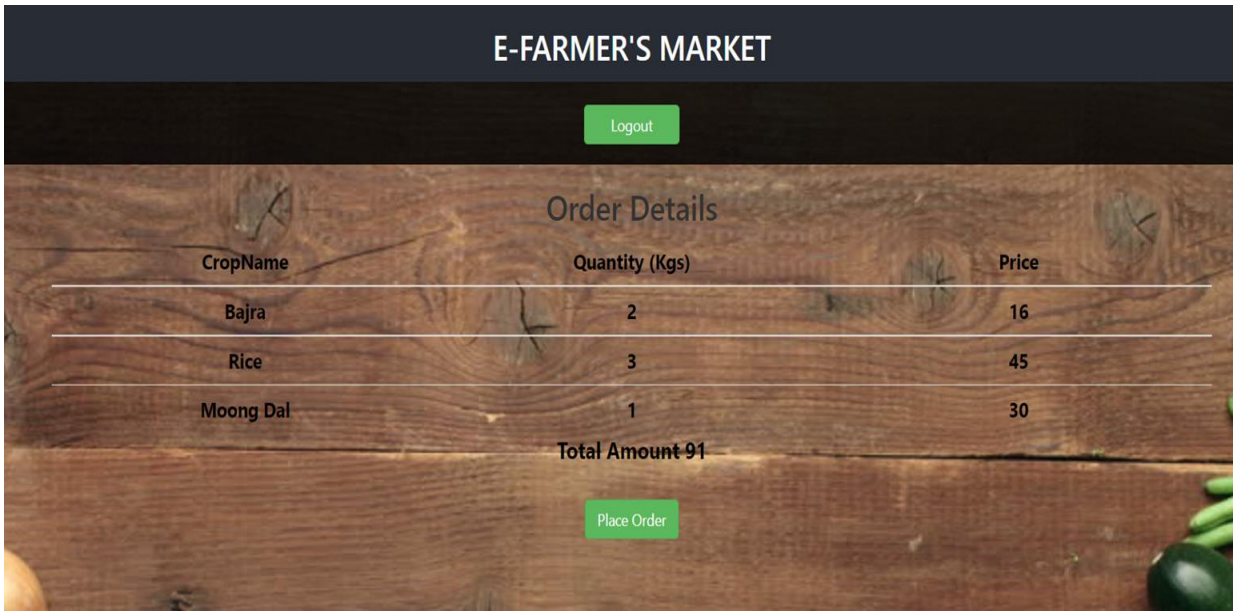

E-FARMER'S MARKET
Sign up
Email address
kedar@gmail.com
Password
Sign up
Register User

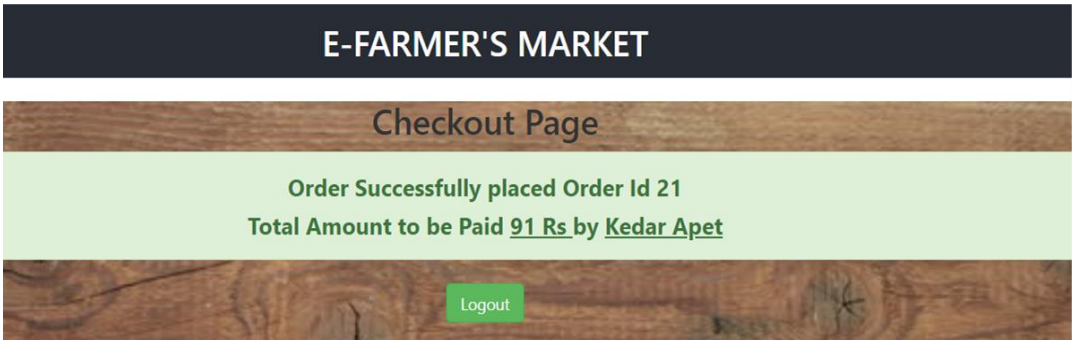

E-FARMER'S MARKET
Edit User
Name:
Kedar Apet
Email:
kedar@gmail.com
Password:
Contact Number:
8149165177
City:
Parbhani
State:
Maharashtra
Update


Edit user
Delete user
Order History
Logout
CropName
Max Quantity (Kgs
Unit Price
Date Of Upload
Price
Quantity (Kgs)
Wheat 9 20 2021-09-26 0 - 0 +
Bajra 3 8 2021-09-23 0 - 0 +
Rice 3 15 2021-09-23 0 - 0 +
Moong Dal 7 30 2021-09-26 0 - 0 +
Toor Dal 10 35 2021-09-26 0 - 0 +
15 2021-09-26 - 0 +


E-FARMER'S MARKET
Crop Details
Add Crop
Edit user
Delete user
Logout
CropName
Quantity (Kgs)
Price
Date Of Upload
Wheat 9 20 2021-09-26 Delete Edit
Bajra 3 8 2021-09-23 Delete Edit
Rice 3 15 2021-09-23 Delete Edit
Toor Dal 10 30 2021-09-26 Delete Edit
Brocoli 3 15 2021-09-26 Delete Edit
Tomato 5 10 2021-09-27 Delete Edit


E-FARMER'S MARKET
Crop Details
Show Cart
Logout
Order Id
Amount
Order Date
11
28
2021-09-24
15
60
2021-09-26
16
0
2021-09-26
17
20
2021-09-26
18
16
2021-09-26
19
45
2021-09-26
20
99
2021-09-26
21
91
2021-09-27


E-FARMER'S MARKET
Logout
Order Details
CropName
Quantity (Kgs)
Price
Bajra
2
16
Rice
3
45
Moong Dal
1
30
Total Amount 91
Place Order


E-FARMER'S MARKET
Checkout Page
Order Successfully placed Order Id 21
Total Amount to be Paid 91 Rs by Kedar Apet
Logout

Conclusion

This project helps in understanding the creation of an interactive web page and the technologies used to implement it. The building of the project has given us the idea and a precise knowledge about how the application can be developed, how it connects to the database and how the data and web pages are modified as required.

The main motive for the project was to provide dynamic online farmers' management system to help farmers in every possible way and provide them a stable platform where they can perform every transaction with ease.

Future Scope

- **Payment Gateway**:

  In this project we have designed false transaction which will show only that transaction is successful, similar to virtual transaction for better understanding. Since the implementation of payment gateway is not possible right now, it will be implemented in future.

- **Data analysis:**

  With all the information stored in database Admin can generate reports. The report will include all the information about the transaction and also what all products are sold by which farmers. This analysis will be very useful for future use.

7.0 References

[1] www.google.com.

[2] Wikipedia.com.

[3] http://farmersweb.com/

[4] Java and Other Official Documentations

[5] http://localvendorscoalition.org/