Farmer's Portal

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June – 2021

B. Tech. in Computer Science and Engineering

FACULTY OF ENGINEERING AND TECHNOLOGY

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Certificate

*This is to certify that the Project titled "**Farmer's Portal**" is a bonafide work carried out in the Department of Computer Science and Engineering by **Mr. E BHANU PRAKASH** bearing Reg. No. **16ETCS002037** in partial fulfilment of requirements for the award of B. Tech. Degree in Computer Science and Engineering of Ramaiah University of Applied Sciences.*

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<u>Declaration</u>

Farmers Portal

The project work is submitted in partial fulfilment of academic requirements for the award of B. Tech. Degree in the Department of Computer Science and Engineering of the Faculty of Engineering and Technology of Ramaiah University of Applied Sciences. The project report submitted herewith is a result of our own work and in conformance to the guidelines on plagiarism as laid out in the University Student Handbook. All sections of the text and results which have been obtained from other sources are fully referenced. We understand that cheating and plagiarism constitute a breach of University regulations, hence this project report has been passed through plagiarism check and the report has been submitted to the supervisor.

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Date: 20 June 2021

Acknowledgements

It is with extreme pleasure and pride to present the Group Project entitled "**Farmers Portal**" in Ramaiah University, we would like to extend hearty thanks and salutation. we would like to express my sincere thanks and gratitude to the following people, who stood by us throughout, helping us with much required inputs, guidance, knowledge and supported us.

The successful completion of this project could not have been possible without the guidance of **Mr. Kishore S M**, our mentor, whose mentorship was indispensable and also for providing their valuable guidance, comments and suggestions throughout the course of the project.

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Finally, we extend our appreciation to our lecturers for their support and encouragement they provided us during the course of project, without whom the project would have become incomplete. So, thankyou everyone for helping us do our project.

We also thank all our friends who had directly and indirectly assisted us in this project. And we are extremely grateful to our parents for giving us moral, financial and intellectual support in completing this project.

In India, there are four systems of agricultural marketing like sale in village, sale in mandi, sale in market and cooperative marketing. In agricultural marketing transportation cost, inadequate market infrastructure, lack of market information, lack of processing units, storage facility, price fluctuation are the major problems. Eliminating middlemen, enough storage facility, freedom from moneylenders, adequate transportation facilities, availability of loan and training facilities etc. are required for satisfactory agricultural marketing. Some people have suggested that crop insurance and technical guidance should be provided for improvement in agricultural marketing in India. Among all these problems, transportation charges are concerned as a major problem by the maximum number of farmers.

This project proposes a website which helps to the farmers to get the market price for their produced crops. Then, obviously middleman's will decrease simultaneously. So, we are collected the requirements and prepare the software requirement specification of the system. Then, designed a website based on requirements containing many features. Then, integrated implementation with database and validating the functionalities. Finally hosted the website for the smooth use.

As the project proposes completely online except payment and to make the products available to the user directly from farmers without intermediator. The developed website is very helpful for the farmers to get the market price for their produced crops. Finally, after analyzing performance, developed website will work according to the objectives of the project.

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Abbreviation and Acronyms

Rs – Rupees

Mo – Month

Yr - Year

Chapter 1. Introduction

Generally, In India, there are several central government organisations, who are involved in agricultural marketing like, Commission for Agricultural Costs and Prices, Food Corporation of India, Cotton Corporation of India, Jute Corporation of India, etc. There are also specialised marketing bodies for rubber, tea, coffee, tobacco, spices and vegetables. Problems of agricultural marketing in India includes too many intermediates, defective weight and scale, illiteracy and lack of unity, lack of storage, transportation facilities, lack of financial resources, lack of organized marketing system, lack of standardization, lack of awareness of market, distress sale, corrupt policies of mandi, lack of market intelligence, poor quality of product and market news etc. Eliminating middlemen, storage facility, freedom from moneylenders, adequate transportation facility, loan facilities and training facilities etc. are some conditions which are required for satisfactory development of agricultural marketing.

The main concept of our project is farmers to get the market price for their produced crops. Then, obviously middleman's will decrease simultaneously.

1.1 Motivation

As day by day in the growing society, most of us are trying to make profit without any hard work. As in case of agriculture also, farmers are doing hard works throughout the year, but most of them are not getting fair price for their produced crops, instead of farmers, middleman's will fill their pockets without any hard works.

1.2 Scope of the Project

This project proposes a user friendly website which helps to the farmers to get the market price for their produced crops. Then, obviously middleman's will decrease simultaneously.

1.3 Organization of the report

- Chapter – 2: Background Theory

This chapter involves the background theory of the project which involves the purpose of doing the project, literature survey, assumptions, merits and demerits and demonstration of related work and originality in briefly.

- Chapter – 3: Aims and Objectives

In this chapter, the title of the project is written which tells what is the project and also the aim of the project which tells intention of the project. The objectives of the project have been discussed. The methods and methodologies are going to use to implement these objectives have also been discussed.

- Chapter – 4: Problem Solving

In this section, a website has been proposed for Farmers Portal. It explains requirement analysis, design, system setup, software implementation, testing, analysis and how the objectives listed in the previous chapter are competed using the methods and methodologies listed.

- Chapter – 5: Result

In this section the website has been designed and implemented, which will meet the objective of Farmers Portal. Here, complete user friendly website has shown. The concept of of our project is farmers to get the market price for their produced crops.

- Chapter – 6: Conclusions and Suggestions for Future Work

In this section the conclusion of the project has been written. Also, the suggestions for future work have been written. These suggestions can be implemented to increase the features and security of the website.

Chapter2. Background Theory

This chapter involves the background theory of the project which involves the purpose of doing the project, literature survey, assumptions, merits and demerits and demonstration of related work and originality in briefly.

2.1 Background theory:

We come across huge facilities and features for farmers in most of the developed countries. But our farmers are still not getting fair prices for their produced crops. Even some of the farmers are struggling to sale their crops.

So, to avoid this we have come up with this idea of selling crops through online and make them to get fair prices. The main motive is most of us are trying to make profit without any hard work. As in case of agriculture also, farmers are doing hard works throughout the year, but most of them are not getting fair price for their produced crops, instead of farmers, middleman's will fill their pockets without any hard works.

2.2 Literature survey:

- **M.V. George (2009)**

  The research studies revealed that farmers on an average gets 15 per cent higher price and higher share in the consumer's rupee by selling their produced crops to their village customers as compared to the market vendors.

- **Rajkumar, Mahajanashetti, (2011)**

  Research on 'Farmers Coverage under Market Intervention Scheme in Karnataka'. Karnataka has evolved a Market Intervention Scheme (MIS) called the Floor Price Scheme (FPS) for agricultural.

- **Murthy and Subrahmanyam (2018)**

  A comprehensive study on the factors influencing crops prices in India. The study records a good deal of seasonality crops, but farmers are getting low prices for their crops.

2.3 Assumptions:

- We are making sure that users will buy for their own requirements. Otherwise, they can even sell to their own prices outside.

- All payments and delivering of the crops are made offline mode. So, we are assuming that this process goes smooth.

2.4 Merits and Demerits

Merits:

- Farmers will get the market price for their produced crops.

- Then, middleman's will decrease simultaneously.

- Choosing of various varieties in online store.

Demerits:

- Users will not able to order different crops at a time.

- Payment and deliver will not be in the portal. This process we will left with the users and farmers hand.

Methods and methodologies are the steps to achieve objectives. Each objective as listed in the initial part of the chapter will be discussed in brief in tabular form. Tabular columns contain statement of each objective, method/methodology applied and the resources utilized in attaining the corresponding objective.

3.1 Title of the project

❖ Farmers Portal

3.2 Aim

❖ To design a web portal for the farmers to get the market price for their produced crops.

3.3 Objectives

❖ To conduct literature survey on prices getting by the farmers for their crops.

❖ To collect the requirements and prepare the software requirement specification of the system.

❖ To design user interface consisting secured registration panel along with interface to upload the crop details for the farmers and release it to the user interface.

❖ To integrate web application with the backend and validate the functionalities with the test cases.

❖ To document the developed system.

3.4 Methods and Methodology/Approach to attain each objective

Table 3.4.1 Methods and methodology

Objective No.	Statement of the Objective	Method/ Methodology	Resources Utilised
1	To conduct literature survey on prices getting by the farmers for their crops.	• Analyzing the prices getting by the farmers for their crops and comparing with the market prices. • 43.6% respondents said farmers not getting fair price for their crops is a big issue that needs to be addressed. While 19.8% respondents said they are facing many problems due to changing climate, 17% said increasing input costs is giving farmers sleepless nights. • Issues in implemented MSP by the government due to many reasons in society. • Advantages and profits are taken by the middleman's instead of crop producers.	• Papers from various publications.
2	To collect the requirements and prepare the software requirement specification of the system.	• Analyzing the prices getting by the farmers for their crops and comparing with the market prices. • After analyzing the collected requirements, documenting the functional and non-functional requirement.	• Some farmers and local peoples.

		• Analyzing these requirement and prepare a SRS document.	
3	To design user interface consisting secured registration panel along with interface to upload the crop details for the farmers and release it to the user interface.	• Analyzing the security needed for the farmers portal to avoid fake users in place of farmers. • Implement the registration interface for the farmers consisting of tabs like basic details, phone verification and Document verification. • Correspondingly, design the login interface for the verified farmers. • Implementing the web page for uploading crop details for the farmers. • verify and release the uploaded crops to the users. • This enables the users and farmers have direct contact with each other instead of middleman's.	• Programming languages: PHP, HTML, CSS, JavaScript, AJAX, MySQL • VS code
4	To integrate web application with the backend and validate the functionalities with the test cases.	• Using appropriate backend tools, integration of web application will be implemented. • Validating all the functionalities with test cases.	• Programming languages: MySQL • VS code
5	To document the developed system.	• Final document contains complete descriptions about the design and implementation of the project.	• Microsoft word

Chapter 4. Problem Solving Approach

In this section, a website has been proposed for Farmers Portal. It explains requirement analysis, design, system setup, software implementation, testing, analysis and how the objectives listed in the previous chapter are competed using the methods and methodologies listed.

4.1 Requirement Analysis:

In requirement analysis we arrive at a definition of a system, hardware and software requirements. Requirement analysis helps to understand, Interpret, classify, and organize the software requirements in order to assess the feasibility, completeness, and consistency of the requirements.

Requirements analysis consists of functional and non-functional requirements. A functional requirement document defines the functionality of a system or one of its sub systems.

Functional Requirements:

FR1: The application should allow the users and farmers to register and login

FR2: The application should allow the farmers to verify OTP and upload documents in the registration section.

FR3: The application should allow the users to view the crops in home page with different sections.

FR4: The application should allow the users to search the crops.

FR5: The application should allow the farmers to add crops with necessary details.

FR6: The application should allow the users to view the crop details.

FR7: The application should allow the users to options of add to favorite and buy.

FR8: The application should allow the users to confirm and place order option.

FR9: The application should allow the users to view the bill and also download bill option.

FR10: The application should allow the users to update the profile details.

FR11: The application should allow the users to view the orders.

FR12: The application should allow the users to logout from application.

Non-Functional Requirements:

1. Performance: The website should be tested to determine the system parameters in terms of responsiveness at multiple trails and acceptance speed.

2. Stability: The website should be flexible, easier to modify and highly desirable for future extension.

3. Usability: The system should be simple and easy to use.

4.2 Design:
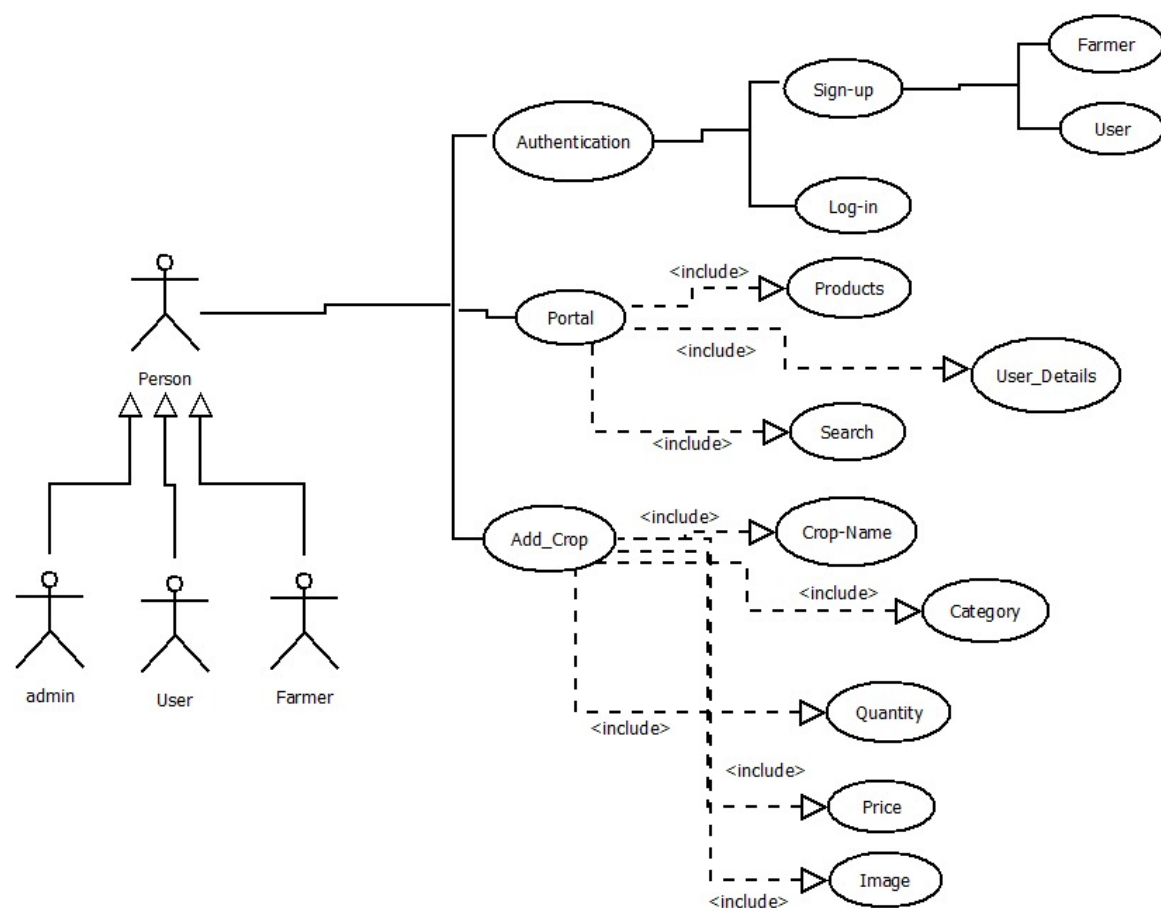
Figure 4.2.1: Use case diagram for the Farmers Portal.

Use Case diagram are usually referred to as behaviour diagrams used to describe a set of actions (use cases) that some system or systems(subject) should or can perform in collaboration with one or more external users of the system(actors).

The function or behaviour of each actor will be denoted by an oval, actors by stick man.

> ➢ **Actors of the system are: -**

- **Admin: -** Admin is the actor who can login and monitor the application**.**

- **User**: - User is the actor who can sign up, login and order the crop**.**

- **Farmer**: - Farmer is the actor who can sign up, login and add the crop**.**

The function which are associated with the actors are mapped by the line to indicate that the behaviour is associated with the actor in the certain way.

Use cases and their attributes of the system are: -

> ➢ Authentication – login, sign up

> ➢ Portal – Products, User details, Search

> ➢ Add crop – Crop name, category, quantity, price, image
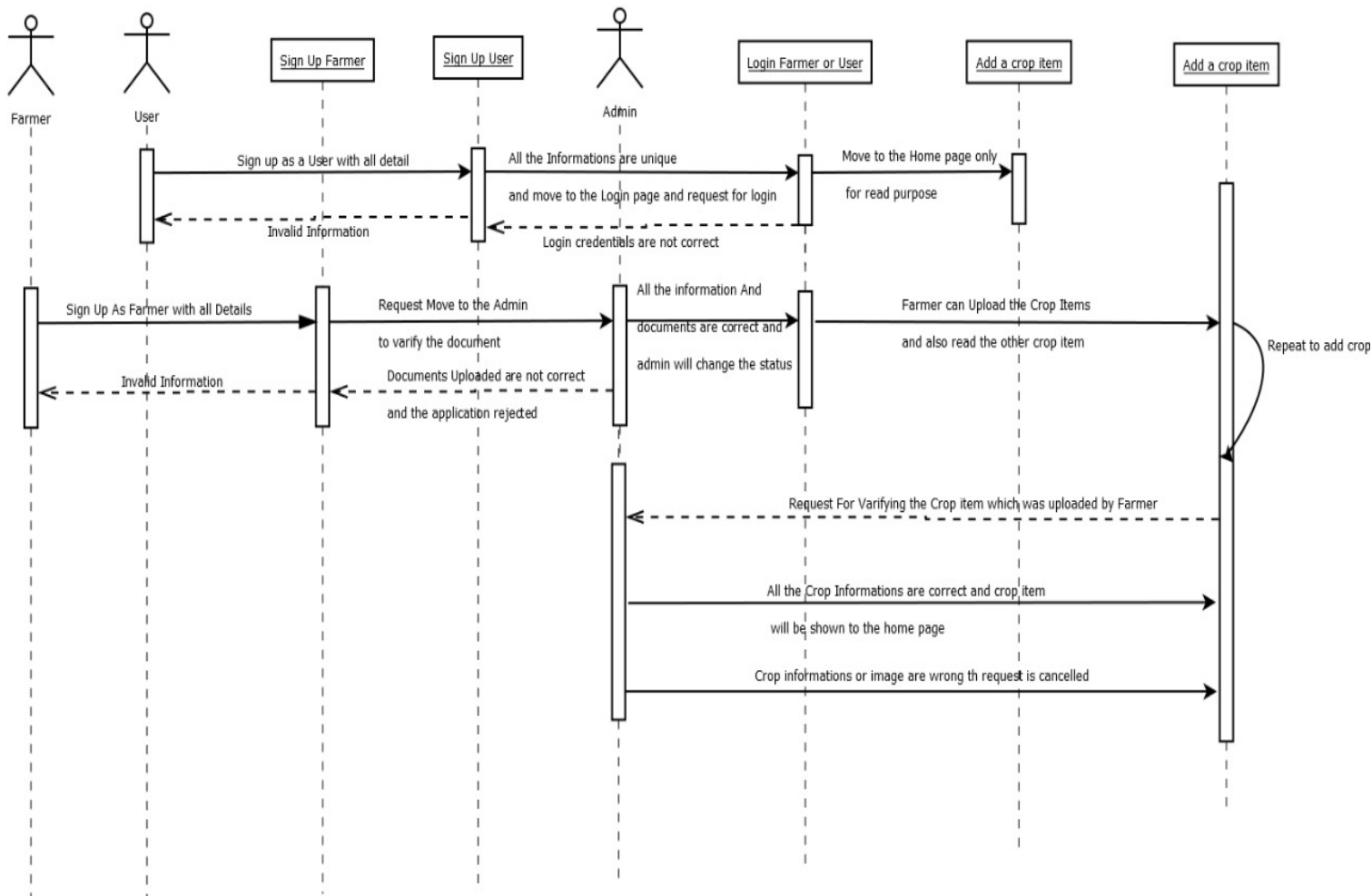
Figure 4.2.2: Sequence diagram for the Farmers Portal.

The above diagram represents the sequence diagram for the Farmers portal. It contains only one system to representing the entire system. It will describe the overview functionality required by the external entity; it can be decomposed into several sub level in hierarchical manner. This diagram does not contain any data storage.

flow diagram has often been used for the following reasons.

- ➢ It describes the logical information flow of the system.
- ➢ Determination of physical system construction requirement.
- ➢ Simplicity of notation.

4.3 Web Implementation:

Explanation of web implementation:

Home page of the farmer's portal containing options like Farmer registration, user registration and login. Firstly, farmer registration containing basic details, phone number verification and also document verification section. Farmer registration will successful only after the document verification which is done manually within half an hour. Secondly, user registration containing basic details and phone number verification. Lastly, login option which is having options either login as farmer or login as user. After successful login of the farmers, they are having add crop option to upload their crops with necessary details. This will approve manually within 2 hours and updated to the user interface to buy the product. After the login of the users, they can view the crops and search the crops. Here, options of different tabs to vegetables, fruits, Food grains and Millets to view. User can view the details of the products. Users to options of add to favourite and buy. Then, users to confirm and place order option. And also user can view and download the order slip from the website. And users are having options of updating the profile and address in the side bar. Also, option of logout from the website.

Implementation of database:

A database is an organized collection of structured information, or data, typically stored electronically in a computer system. A database is usually controlled by a database management system (DBMS). Data within the most common types of databases in operation today is typically modelled in rows and columns in a series of tables to make processing and data querying efficient. The data can then be easily accessed, managed, modified, updated, controlled, and organized. Most databases use structured query language (SQL) for writing and querying data.

Various different database is available, one can select the appropriate database based on the system requirement and specification. For our farmer's portal application MySQL Database is selected, which is a database system used on the web. MySQL is a database system that runs on a server. MySQL is ideal for both small and large applications, hence it is very fast, reliable, and easy to use. MySQL uses standard SQL.
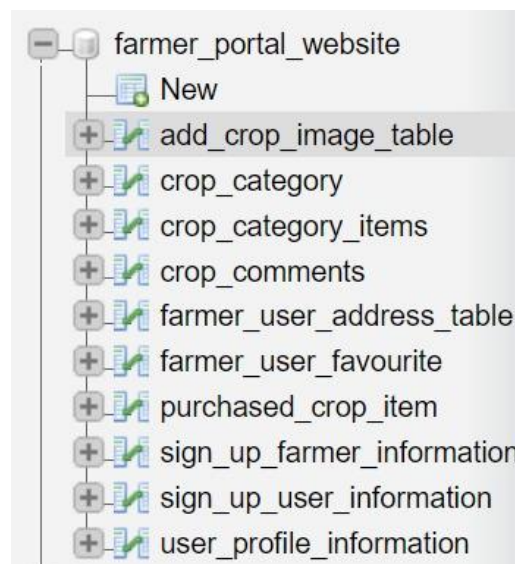
Figure 4.3.1 farmer portal database

Above indicated tables are created for our farmer portal website to store the data in database.

first_name	last_name	E_mail_id	User_Type	date_of_birth	phone_number	P_N_status	profile_picture	land_document
Dinesh	N B	dineshnb66@gmail.com	FARMER	1999-06-07	8660706741	SUCCESS	../UploadedFarmerDocuments/dineshnb66/profile_dine...	../UploadedFarmerDocuments/din...
Akshay	Hegde	akshayhegde56@gmail.com	FARMER	1999-07-06	9837267890	SUCCESS	../UploadedFarmerDocuments/akshayhegde56/profile_a...	../UploadedFarmerDocuments/din...
Ravi	N M	ravinm55@gmail.com	FARMER	1984-04-06	9844430977	SUCCESS	../UploadedFarmerDocuments/ravinm55/profile_ravinm...	../UploadedFarmerDocuments/din...
Mala	H U	malahu56@gmail.com	FARMER	1991-06-04	9378267365	SUCCESS	../UploadedFarmerDocuments/malahu56/profile_malahu...	../UploadedFarmerDocuments/ma...

Figure 4.3.2 farmer registration information

Above image indicates the farmer registration information stored in the database.

ID	full_name	E_mail_id	User_Type	date_of_birth	user_gender	phone_number	cre_password	date_time_of_sign_up
6	Amit Torne	amittorne56@gmail.com	PURCHASER	1999-06-01	Male	7656874690	$2y$10$oyHjgFYii0acAZfefk9Zf.WdYtOHJSsbFXjjzGHamGG...	2021-06-02 13:28:32
7	Abhishek S	abhishek56@gmail.com	PURCHASER	1999-02-01	Male	9880316079	$2y$10$AE6BcMS/xehpaXlNnvOz5OmQtFEPY4CjuYKRyeMZC6H...	2021-06-03 18:35:15
8	Shilpa N J	shilpanj56@gmail.com	PURCHASER	1999-06-09	Female	9482756353	$2y$10$kpV2lhwrbLG4hO00rlH63.cM9SaJ2blO9cjqFOZ19Wq...	2021-06-21 10:18:39
9	Basavarajappa N M	rajappanm56@gmail.com	PURCHASER	1980-06-01	Male	9481215989	$2y$10$OxScQoUYgS1vJk2bPezTo.pavH.kvGzGndPc28yWooj...	2021-06-22 04:45:23

Figure 4.3.3 User registration information

Above image indicates the user registration information stored in the database.

ID	E_mail_id	Profile_Status	Default_profile	Actual_profile_image	date_of_profile_update_info
5	amittorne56@gmail.com	YES	https://previews.123rf.com/images/salamatik/salama...	../UploadUserProfile/User_profile_amittorne56_1009...	2021-06-21 11:55:21
6	abhishek56@gmail.com	YES	https://previews.123rf.com/images/salamatik/salama...	../UploadUserProfile/User_profile_abhishek56_21138...	2021-06-03 20:09:17
7	shilpanj56@gmail.com	NO	https://media.istockphoto.com/vectors/person-gray-...	https://media.istockphoto.com/vectors/person-gray-...	2021-06-21 11:58:17
8	rajappanm56@gmail.com	NO	https://previews.123rf.com/images/salamatik/salama...	https://previews.123rf.com/images/salamatik/salama...	2021-06-22 04:45:23

Figure 4.3.4 User profile information

Above image indicates the user profile information stored in the database.

ID	Crop_id	E_mail_id	crop_name	crop_status	crop_category	crop_quantity	crop_price	crop_image	crop_descript
56	21057	ravinm55@gmail.com	Rice	APPROVED	FoodGrains	14	80	../UploadedFarmerDocuments/ravinm55/UploadedCrop/C...	This is the crop Enriched with Vitamin B and and...
57	22637	dineshnb66@gmail.com	Rice	APPROVED	FoodGrains	50	38	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	this is the only Enriched with Vitamin C and
58	21853	dineshnb66@gmail.com	Varagu	APPROVED	Millets	60	70	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	This is the crop Enriched with Vitamin B and and...
59	21814	dineshnb66@gmail.com	Banana	APPROVED	Fruits	50	40	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	This is the crop Enriched with Vitamin B and and...
60	10091	dineshnb66@gmail.com	Rice	APPROVED	FoodGrains	80	40	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	this is the only Enriched with Vitamin C and
61	25317	dineshnb66@gmail.com	Carrot	APPROVED	Vegetable	80	40	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	This is the crop Enriched with Vitamin B and and...
62	29075	dineshnb66@gmail.com	Bringal	APPROVED	Vegetable	78	40	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	This is the crop Enriched with Vitamin B and and...
64	20514	dineshnb66@gmail.com	Apple	NOTAPPROVED	Fruits	50	60	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	This is the crop Enriched with Vitamin B and and...

Figure 4.3.5 Uploaded crop information

Above image indicates the crop which is added by the farmers stored in the database.

ID	Crop_id	order_id	purchaser_name	crop_rating	comments	date_of_comments
2	21057	279298177752	Dinesh N B	4	this is the good farmer product	2021-06-14 16:38:24
3	17173	285015493358	Dinesh N B	4	this is the good product	2021-06-14 16:45:58
4	17173	136473130156	Dinesh N B	3	This is the very good product from the farmer	2021-06-14 17:47:46
5	17173	314239392973	Amit Torne	5	This is the good product and faster delivery	2021-06-14 18:03:42
6	24806	253784614980	Dinesh N B	5	Very good crop and faster delivery	2021-06-14 19:40:36
7	22637	167170273066	Amit Torne	4	Good Quality Rice and best product	2021-06-14 19:42:50
8	17173	160992550516	Dinesh N B	5	Good Product	2021-06-17 05:22:54
9	21057	140168067113	Dinesh N B	5	Good product	2021-06-17 09:55:57
10	17173	115272422022	Dinesh N B	5	Good Quality	2021-06-20 10:54:48
11	17173	115272422022	Dinesh N B	5	Good Quality	2021-06-20 11:06:30
12	22472	164063578424	Amit Torne	5	Good Product with more faster delivery	2021-06-20 20:20:48
13	17173	199678184720	Dinesh N B	4	Good Quality of crops	2021-06-21 04:26:35
14	22472	164063578424	Amit Torne	5	Good Product with more faster delivery	2021-06-21 10:01:28
15	29306	221286953357	Ravi N M	2	bad quality	2021-06-22 08:19:00
16	77791	129485695573	Dinesh N B	5	Good Product with faster Delivery	2021-06-23 00:53:59

Figure 4.3.6 crop comments information

Above image indicates the comments given by the users for the crops.

ID	first_name	last_name	full_name	E_mail_id	default_address	User_Type	phone_number	pin_code	country	user_state	user_city	village	house_number	landmark
18	Dinesh	N B		dineshnb66@gmail.com	DEFAULT	FARMER	8660706741	577228	India	Karnataka	Tarikere	Neralakere	House No 15, 2 Main Road	Near Navodhaya School
19	Akshay	Hegde		akshayhegde56@gmail.com		FARMER	9837267890	581450	India	Karnataka	Siddapur	Hegnoor	House No 14, 5th Main Road	Near LakShmi Theators
20			Amit Torne	amittorne56@gmail.com	DEFAULT	PURCHASER	7656874690	577228	India	Karnataka	Tarikere	Hunsaghatta	House No 15, 13Th Main Road	Near Main Cirole
21			Abhishek S	abhishek56@gmail.com	DEFAULT	PURCHASER	9880316079	577228	India	Karnataka	Tarikere	Doranalu	House No 12, 4th Main Road	Near Shivakumara Samudhaya bavana
23	Akshay	Hegde		akshayhegde56@gmail.com	DEFAULT	FARMER	9837267890	577228	India	Karnataka	Tarikere	Hunsaghatta	House No 12, 34Th Main Road	Near Large Circle
24	Ravi	N M		ravinm55@gmail.com	DEFAULT	FARMER	9844430977	570004	India	Karnataka	Mysore	Mysore Fort	House No 12, 4Th Main Road	Near Sri Vijaya shree Hotel
25	Mala	H U		malahu56@gmail.com	DEFAULT	FARMER	9378267365	577228	India	Karnataka	Tarikere	Hadikere	Hadikere, Tarikere, Chikkamagaluru	Near main circle
27	Dinesh	N B		dineshnb66@gmail.com		FARMER	8660706741	560043	India	Karnataka	Bangalore North	Kalyananagar	House No 12, 3rd Main Road	Near sai Kumar circle

Figure 4.3.7 user address information

Above image indicates the user address stored in the database which will essentially require in ordering of the crops.

ID	Crop_id	E_mail_id	first_name	last_name
30	21814	akshayhegde56@gmail.com	Dinesh	N B
38	21057	amittorne56@gmail.com	Ravi	N M
40	25317	amittorne56@gmail.com	Dinesh	N B
41	29075	amittorne56@gmail.com	Dinesh	N B
61	22472	amittorne56@gmail.com	Ravi	N M
62	22472	amittorne56@gmail.com	Ravi	N M
63	29075	shilpanj56@gmail.com	Dinesh	N B
65	29075	rajappanm56@gmail.com	Dinesh	N B
66	25317	ravinm55@gmail.com	Dinesh	N B
67	17173	ravinm55@gmail.com	Akshay	Hegde
68	29075	ravinm55@gmail.com	Dinesh	N B
69	29306	ravinm55@gmail.com	Akshay	Hegde

Figure 4.3.8 favourite crop information

Above image indicates the favourite crop added by the users in the website.

ID	order_id	User_Type	Crop_id	crop_name	crop_category	crop_image	crop_price	total_quantity	selected_quantity	total_price	purchaser_name	purchaser_phone_number	farmer_E_mail_id	purchaser_E_mail_id	date_of_order
16	307072833356	FARMER	21814	Banana	Fruits	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	40	80	12	480	Akshay Hegde	9837267890	dineshnb66@gmail.com	akshayhegde56@gmail.com	2021-06-11
17	279298177752	FARMER	21057	Rice	FoodGrains	../UploadedFarmerDocuments/ravinm55/UploadedCrop/C...	80	20	4	320	Dinesh N B	8660706741	ravinm55@gmail.com	dineshnb66@gmail.com	2021-06-11
18	167170273066	PURCHASER	22637	Rice	FoodGrains	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	38	10	8	304	Amit Torne	7656874690	dineshnb66@gmail.com	amittorne56@gmail.com	2021-06-12
19	174505801197	PURCHASER	29075	Bringal	Vegetable	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	40	120	30	1200	Amit Torne	7656874690	dineshnb66@gmail.com	amittorne56@gmail.com	2021-06-13
20	164132588872	PURCHASER	21814	Banana	Fruits	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	40	68	10	400	Amit Torne	7656874690	dineshnb66@gmail.com	amittorne56@gmail.com	2021-06-13
21	285015493358	FARMER	17173	Tomoto	Vegetable	../UploadedFarmerDocuments/akshayhegde56/UploadedC...	20	50	6	120	Dinesh N B	8660706741	akshayhegde56@gmail.com	dineshnb66@gmail.com	2021-06-13
22	253784614980	FARMER	24806	Paddy	FoodGrains	../UploadedFarmerDocuments/ravinm55/UploadedCrop/C...	30	150	20	600	Dinesh N B	8660706741	ravinm55@gmail.com	dineshnb66@gmail.com	2021-06-14
23	136473130156	FARMER	17173	Tomoto	Vegetable	../UploadedFarmerDocuments/akshayhegde56/UploadedC...	20	44	5	100	Dinesh N B	8660706741	akshayhegde56@gmail.com	dineshnb66@gmail.com	2021-06-14
24	314239382973	PURCHASER	17173	Tomoto	Vegetable	../UploadedFarmerDocuments/akshayhegde56/UploadedC...	20	39	6	120	Amit Torne	7656874690	akshayhegde56@gmail.com	amittorne56@gmail.com	2021-06-14
25	160992550516	FARMER	17173	Tomoto	Vegetable	../UploadedFarmerDocuments/akshayhegde56/UploadedC...	20	33	5	100	Dinesh N B	8660706741	akshayhegde56@gmail.com	dineshnb66@gmail.com	2021-06-17
26	358593043603	FARMER	16102	Banana	Fruits	../UploadedFarmerDocuments/akshayhegde56/UploadedC...	40	60	7	280	Dinesh N B	8660706741	akshayhegde56@gmail.com	dineshnb66@gmail.com	2021-06-17
27	140168067113	FARMER	21057	Rice	FoodGrains	../UploadedFarmerDocuments/ravinm55/UploadedCrop/C...	80	16	2	160	Dinesh N B	8660706741	ravinm55@gmail.com	dineshnb66@gmail.com	2021-06-17
28	115272422022	FARMER	17173	Tomoto	Vegetable	../UploadedFarmerDocuments/ravinm55/UploadedCrop/C...	20	28	1	20	Dinesh N B	8660706741	ravinm55@gmail.com	dineshnb66@gmail.com	2021-06-17
29	164063578424	PURCHASER	22472	Banana	Fruits	../UploadedFarmerDocuments/ravinm55/UploadedCrop/C...	30	80	5	150	Amit Torne	7656874690	ravinm55@gmail.com	amittorne56@gmail.com	2021-06-20
30	251938987841	PURCHASER	25317	Carrot	Vegetable	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	40	100	3	120	Abhishek S	9880316079	dineshnb66@gmail.com	abhishek56@gmail.com	2021-06-20
31	199678184720	FARMER	17173	Tomoto	Vegetable	../UploadedFarmerDocuments/akshayhegde56/UploadedC...	20	27	5	100	Dinesh N B	8660706741	akshayhegde56@gmail.com	dineshnb66@gmail.com	2021-06-21
32	200858670125	PURCHASER	29075	Bringal	Vegetable	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	40	90	10	400	Shilpa N J	9482756353	dineshnb66@gmail.com	shilpanj56@gmail.com	2021-06-21
33	876437563871	PURCHASER	25317	Carrot	Vegetable	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	40	97	17	680	Basavarajappa N M	9481215989	dineshnb66@gmail.com	rajappanm56@gmail.com	2021-06-22
34	221289953357	FARMER	29306	Carrot	Vegetable	../UploadedFarmerDocuments/akshayhegde56/UploadedC...	30	70	10	300	Ravi N M	9844430977	akshayhegde56@gmail.com	ravinm55@gmail.com	2021-06-22
35	396984646860	FARMER	29075	Bringal	Vegetable	../UploadedFarmerDocuments/dineshnb66/UploadedCrop...	40	80	2	80	Ravi N M	9844430977	dineshnb66@gmail.com	ravinm55@gmail.com	2021-06-22
36	129485695573	FARMER	77791	Apple	Fruits	../UploadedFarmerDocuments/ravinm55/UploadedCrop/C...	40	67	14	560	Dinesh N B	8660706741	ravinm55@gmail.com	dineshnb66@gmail.com	2021-06-23
37	166564262284	FARMER	22472	Banana	Fruits	../UploadedFarmerDocuments/ravinm55/UploadedCrop/C...	30	75	10	300	Akshay Hegde	9837267890	ravinm55@gmail.com	akshayhegde56@gmail.com	2021-06-23

Figure 4.3.9 purchased crop information

Above image indicates the purchased item by the users.

Implementation of web:

```php
if(isset($_POST['BasicDetailSignUp']))
{
    $_SESSION['firstname']=$_POST['firstname'];
    $_SESSION['lastname']=$_POST['lastname'];
    $_SESSION['email']=$_POST['email'];
    $_SESSION['dateofbirth'] = $_POST['dateofbirth'];
    $_SESSION['createpass']=$_POST['cpass'];
    $_SESSION['confirmpass'] = $_POST['copass'];

    if($_SESSION['createpass'] == $_SESSION['confirmpass'])
    {
        if(preg_match("/^[a-zA-Z]{3,}/",$_SESSION['firstname']))
        {
            if(preg_match("/(.*[a-zA-Z]){2}/",$_SESSION['lastname']))
            {
                if(preg_match("/^([a-zA-Z0-9_\-\.]+)@([a-zA-Z0-9_\-\.]+)\.([a-zA-Z]{2,5})$/",$_SESSION['email']))
                {
                    $emailiduniqueinfarmertable = $pdo->prepare("SELECT COUNT(E_mail_id) AS emailiduniqueinfarmer FROM sign_up_farmer_information WHERE E_mail_id=:E_mail_id");
                    $emailiduniqueinfarmertable->execute(array(':E_mail_id' => $_SESSION['email']));
                    $row1 = $emailiduniqueinfarmertable->fetch(PDO::FETCH_ASSOC);

                    $emailiduniqueinusertable = $pdo->prepare("SELECT COUNT(E_mail_id) AS emailiduniqueinuser FROM sign_up_user_information WHERE E_mail_id=:E_mail_id");
                    $emailiduniqueinusertable->execute(array(':E_mail_id' => $_SESSION['email']));
                    $row11 = $emailiduniqueinusertable->fetch(PDO::FETCH_ASSOC);

                    if($row11['emailiduniqueinuser'] < 1)
                    {
                        if($row1['emailiduniqueinfarmer'] < 1)
                        {
                            if(preg_match("/^(?=.*\d)(?=.*[a-z])(?=.*[A-Z])(?=.*[^a-zA-Z0-9])(?!.*\s).{8,15}$/",$_SESSION['createpass']))
                            {
                                $_SESSION['createpassencrypted'] = password_hash($_SESSION['createpass'], PASSWORD_BCRYPT);
                                header('Location: PhoneNumberInputFeild.php');
                            }
                        }
```

Figure 4.3.10 user registration

In the above part of image, form is used to create a sign-up page, this form has a post method which keeps the password and other sensitive information hidden. Also, this form is wrapped in a div class. To collect the user input the text input box is used, each input field has id and value associated to it which get stored in the database under register table.

```php
// Data for text message. This is the text message data.
$sender = "API Test"; // This is who the message appears to be from.
$numbers = $_SESSION['PhoneNumber']; // A single number or a comma-seperated list of numbers
$otp = mt_rand(100000, 999999);
setcookie("otp", $otp);
$message = "Hai". $_SESSION['firstname']."The OTP is".$otp;
// 612 chars or less
// A single number or a comma-seperated list of numbers
$message = urlencode($message);
$data = "username=".$username."&hash=".$hash."&message=".$message."&sender=".$sender."&numbers=".$numbers."&test=".$test;
$ch = curl_init('http://api.textlocal.in/send/?');
curl_setopt($ch, CURLOPT_POST, true);
curl_setopt($ch, CURLOPT_POSTFIELDS, $data);
curl_setopt($ch, CURLOPT_RETURNTRANSFER, true);
$result = curl_exec($ch); // This is the result from the API
$_SESSION['otpSendedMessage'] = "<h6><i class='fa fa-check fa-lg mr-3'></i>OTP Sended Successfully</h6>";
$_SESSION['otp'] = $otp;
header("Location: OtpVarification.php");
curl_close($ch);
    }
    else{
        $message1 ='<label>Phone Number already registored</label>';
    }
  }
  else{
    $message1 ='<label>You Already Registred As a Purchaser</label>';
  }
}
else{
  $message1 ='<label>Please Enter the Valid Phone Number </label>';
}
```

Figure 4.3.11 Phone number verification

Above code represents the verification of the phone number of the farmers. It will check the phone number is unique or not in this process.

```php
if(in_array($fil1eactualext,$file1allowed))
{
    if($file1size<(1*1024*1024))
    {
        if(in_array($fil2eactualext,$file2allowed))
        {
            if($file2size<(1*1024*1024))
            {
                if(in_array($fil3eactualext,$file3allowed))
                {
                    if($file3size<(1*1024*1024))
                    {
                        $email_given = $_SESSION['email'];
                        $email_split = explode('@',$email_given,2);
                        mkdir('../UploadedFarmerDocuments/'.$email_split[0]);
                        mkdir('../UploadedFarmerDocuments/'.$email_split[0].'/UploadedCrop');
                        $location = '../UploadedFarmerDocuments/'.$email_split[0];
                        $file1namenew="profile_".$email_split[0]."_".$random1.".".$fil1eactualext;
                        $file1destination= $location."/".$file1namenew;
                        move_uploaded_file($file1tempname,$file1destination);

                        $email_given = $_SESSION['email'];
                        $file2namenew="LandDocument_".$email_split[0]."_".$random1.".".$fil2eactualext;
                        $file2destination= $location."/".$file2namenew;
                        move_uploaded_file($file2tempname,$file2destination);
```

Figure 4.3.12 documents verification

```php
if(isset($_POST['LoginFarmerSubmit']))
{
    $_SESSION['emailEmailPhoneNumberInput'] = $_POST['emailEmailPhoneNumberInput'];
    $_SESSION['LoginCreatePasswordInput'] = $_POST['LoginCreatePassword'];
    unset($_SESSION['passwordretriavl']);

    $SearchForEmailIdFarmertable = $pdo->prepare("SELECT E_mail_id, phone_number, cre_password, first_name, last_name, Use
    $SearchForEmailIdFarmertable->execute(array(':E_mail_id' => $_SESSION['emailEmailPhoneNumberInput'],
                                                ':phone_number' => $_SESSION['emailEmailPhoneNumberInput']));
    $FarmerUser = $SearchForEmailIdFarmertable->fetch(PDO::FETCH_ASSOC);

    if($FarmerUser == true)
    {
        $VarifyFarmerPassword = password_verify($_SESSION['LoginCreatePasswordInput'], $FarmerUser['cre_password']);
        if($VarifyFarmerPassword)
        {
            if($FarmerUser['document_status'] === 'ACTIVE')
            {
                $_SESSION['SecureLoginSession'] = $FarmerUser['E_mail_id'];
                $_SESSION['LoginFarmerFirstName'] = $FarmerUser['first_name'];
                $_SESSION['LoginFarmerLastName'] = $FarmerUser['last_name'];
                $_SESSION['LoginFarmerUserType'] = $FarmerUser['User_Type'];
                $_SESSION['emailEmailPhoneNumberInput'] = '';
                $_SESSION['LoginCreatePasswordInput'] = '';
                header("Location: ../FarmerHomePageFolder/HomePageFarmerPortal.php");
            }
            else{
                $message ='<labe>Document Varification Is in Process</label>';
```

Figure 4.3.13 Login page for the users and farmers

Above code indicates the login page for the users as well as farmers. Here, details of the registration need to give for logging in. And also they are having options of forgot password to set new password.

```php
if(isset($_POST['resetpassword']))
{
    $_SESSION['reset_email'] = $_POST['emailresetinput'];
    $_SESSION['reset_dob'] = $_POST['dateofbirth'];

    $forgot_password_query_count = $pdo->prepare("SELECT COUNT(E_mail_id) AS Email_idcount_farmer FROM sign_up_
    $forgot_password_query_count->execute(array(':E_mail_id' => $_SESSION['reset_email']));
    $fetching_the_row_count = $forgot_password_query_count->fetch(PDO::FETCH_ASSOC);

    if($fetching_the_row_count['Email_idcount_farmer'] > 0)
    {
        $selectallreset = $pdo->prepare("SELECT * FROM sign_up_farmer_information WHERE E_mail_id=:E_mail_id");
        $selectallreset->execute(array(':E_mail_id' => $_SESSION['reset_email']));
        $fetchallreset = $selectallreset->fetch(PDO::FETCH_ASSOC);

        if($_SESSION['reset_dob'] == $fetchallreset['date_of_birth'])
        {
            $_SESSION['passwordresetemail'] = $_SESSION['reset_email'];
            $_SESSION['usertypepasswordreset'] = $fetchallreset['User_Type'];
            session_unset($_SESSION['reset_dob']);
            header('Location: PasswordRetrivalFarmeruser.php');
        }
        else
        {
            $errorMessage = 2;
            $message ='<label>Date of birth not matching</label>';
        }
    }
}
```

Figure 4.3.14 forgot password

```php
if(!preg_match("/^((\-(\d*)))$/", $_SESSION['CropQuantity']))
{
    if(preg_match("/^[1-9]{1,}/",$_SESSION['CropPrice']))
    {
        if(!preg_match("/^((\-(\d*)))$/", $_SESSION['CropPrice']))
        {
            if(in_array($CropImageactualext,$CropImageallowed))
            {
                if($CropImageSize<(1*1024*1024))
                {
                    $email_given = $_SESSION['SecureLoginSession'];
                    $email_split = explode('@',$email_given,2);
                    $Croplocation = '../UploadedFarmerDocuments/'.$email_split[0].'/UploadedCrop';
                    $Cropnamenew = "CropImage_".$_SESSION['CropCategoryName']."_".$random1.".".$CropImageactualext;
                    $CropImagedestination= $Croplocation."/".$Cropnamenew;
                    move_uploaded_file($CropImagetmplocation, $CropImagedestination);

                    $editcropidimageremove = $pdo->prepare("SELECT * FROM add_crop_image_table WHERE Crop_id=:Crop_id");
                    $editcropidimageremove->execute(array(':Crop_id' => $editcropidhiddenvalue));
                    $fetcheditimagefromtable = $editcropidimageremove->fetch(PDO::FETCH_ASSOC);

                    $Insereditedcropitem=$pdo->prepare("UPDATE add_crop_image_table SET Crop_id = :Crop_id, crop_name = :crop_n
                                           crop_quantity= :crop_quantity, crop_price = :crop_price, crop_descripti
                    $Insereditedcropitem->execute(array(
                            ':Crop_id' => $random2,
                            ':crop_name' => $_SESSION['CropCategoryName'],
                            ':crop_status' => $NotApproved,
                            ':crop_category' => $_SESSION['CropCategory'],
                            ':crop_quantity' => $_SESSION['CropQuantity'],
                            ':crop_price' => $_SESSION['CropPrice'],
                            ':crop_description' => $_SESSION['crop_description'],
                            ':crop_image' => $CropImagedestination
                    ));
                    unlink($fetcheditimagefromtable['crop_image']);
```

Figure 4.3.15 Add crop options for farmers

After the successful login, farmer can access the option of add crop and add the relevant details displayed in the website with crop image. Then, it will take around 2 hours to verify manually and after successful verification, it will add to the user interface to buy that particular crop.

```
if(isset($_SESSION['SecureLoginSession']))
{
    if(isset($_POST['SearchCropItem']))
    {
        $_SESSION['value_feild'] = $_POST['value_field'];
        $value_filter = $_SESSION['value_feild'];

        $SqlforcropSearchitem = $pdo->prepare("SELECT COUNT(*) AS cropIdCount FROM add_crop_image_table INNER JOIN sign_up_farmer_information ON
                            add_crop_image_table.E_mail_id = sign_up_farmer_information.E_mail_id AND add_crop_image_table.E_mail_id != :E_mail_id AND (crop_na
        $SqlforcropSearchitem->execute(array(':crop_status'=> $Approved, ':E_mail_id' =>$_SESSION['SecureLoginSession']));
        $fetchacropcount = $SqlforcropSearchitem->fetch(PDO::FETCH_ASSOC);
        if($fetchacropcount['cropIdCount'] > 0)
        {
            echo '<div class="row text-center">
                <h3 class="text-white"><b>There are <span class="text-warning">'.$fetchacropcount['cropIdCount'].'</span> matching record.</b></h3>
            </div>';
        }

        $searchcropitemsapproved = $pdo->prepare("SELECT * FROM add_crop_image_table INNER JOIN sign_up_farmer_information ON
                                add_crop_image_table.E_mail_id = sign_up_farmer_information.E_mail_id AND add_crop_image_table.E_mail_id != :E_mail_id
        $searchcropitemsapproved->execute(array(':crop_status' =>$Approved, ':E_mail_id' =>$_SESSION['SecureLoginSession']));
        if($fetchacropcount['cropIdCount'] > 0)
        {
            while($fetchsearchcropitem = $searchcropitemsapproved->fetch(PDO::FETCH_ASSOC))
            {
                crop_product_items_approved_in_home_page($fetchsearchcropitem['Crop_id'],$fetchsearchcropitem['first_name'],$fetchsearchcropitem['last_name'],$fetc
            }
        }
    }
```

Figure 4.3.15 search crop

Users can search the crops in the home page to quickly find the items. In the above part of code, sql query is written to display the searched products and the count of products which matches to the searched item. These products are only displayed to a current user, n different user can access the application and n different search can be made. each user will get only searched product respectively. When a user tries to access a different product, which is not present into the database then a message pops up. From here the user can add a particular product to the favourite or logout from the application or go to the homepage.

```php
echo '<div class="col-md-7 pt-3 pl-3 bg-white" id="box_shadow">';
        echo '<h6 class="text-success">CROP PRICE DETAILS</h6>
            <hr>
            <div class="row price-details">
                <div class="col-6 col-sm-6 col-md-6 pl-3 col-lg-6">';
                    $select_crop_price_details = $pdo->prepare("SELECT * FROM add_crop_image_table WHERE Crop_id = :Crop_id");
                    $select_crop_price_details->execute(array(':Crop_id' => $_SESSION['View_Crop_Id']));
                    $fetch_crop_deatils = $select_crop_price_details->fetch(PDO::FETCH_ASSOC);
                    $total = (int) ($fetch_crop_deatils['crop_price'] * $_SESSION['crop_quantity_selected']);
                    echo '<h5> '.$fetch_crop_deatils['crop_name'].' Per Kg</h5>
                        <h5>Total Quantity in Kg</h5>
                        <h5>Selected Quantity in Kg</h5>
                        <h5>Delivary charges</h5>
                        <hr>
                        <h4 class="text-success">Total Amount</h4>
                </div>
                <div class="col-6 col-sm-6 col-md-6 col-lg-6 pl-5">
                    <h5> ₹ '.$fetch_crop_deatils['crop_price'].' Rs</h5>
                    <h5>'.$fetch_crop_deatils['crop_quantity'].' Kg</h5>
                    <h5 class="text-success">'.$_SESSION['crop_quantity_selected'].' Kg</h5>
                    <h5 class="text-success"><b>FREE</b></h5>
                    <hr>
                    <h3><b> ₹ '.$total.' Rs</b></h3>
                </div>';
            </div>';
```

Figure 4.3.16 ordering of crop

Above code indicates the ordering of the crop by the users. For this process, user need to select the crop with quantity after viewing the crop details.

```php
if(isset($_SESSION['SecureLoginSession']))
{
    if(isset($_SESSION['ORDER_ID']))
    {
        if(isset($_SESSION['order_placed_message'])){
            echo '<div class="alert alert-success col-12 col-sm-12 col-md-12 col-lg-10 offset-md-1 text-center" id="address_center" role="alert"><h4>'.$_SESSI
        }
        $selectorderdetails = $pdo->prepare("SELECT * FROM purchased_crop_item WHERE order_id = :order_id");
        $selectorderdetails->execute(array(':order_id' => $_SESSION['ORDER_ID']));
        $fetchorderdetails = $selectorderdetails->fetch(PDO::FETCH_ASSOC);

        $selectfarmeretails = $pdo->prepare("SELECT * FROM purchased_crop_item INNER JOIN sign_up_farmer_information ON purchased_crop_item.farmer_E_mail_id =
        $selectfarmeretails->execute(array(':order_id' => $_SESSION['ORDER_ID']));
        $fetchfarmerdetails = $selectfarmeretails->fetch(PDO::FETCH_ASSOC);

        $Sqlfordefaultaddressfarmer = $pdo->prepare("SELECT * FROM farmer_user_address_table INNER JOIN purchased_crop_item ON farmer_user_address_table.E_mai
        $Sqlfordefaultaddressfarmer->execute(array(':order_id' => $_SESSION['ORDER_ID'], ':default_address' => 'DEFAULT'));
        $fetchfarmeraddress = $Sqlfordefaultaddressfarmer->fetch(PDO::FETCH_ASSOC);

        $Sqlfordefaultaddressuser = $pdo->prepare("SELECT * FROM farmer_user_address_table INNER JOIN purchased_crop_item ON farmer_user_address_table.E_mail_
        $Sqlfordefaultaddressuser->execute(array(':order_id' => $_SESSION['ORDER_ID'], ':default_address' => 'DEFAULT'));
        $fetchuseraddress = $Sqlfordefaultaddressuser->fetch(PDO::FETCH_ASSOC);

        echo '<div class="row pt-4 justify-content-center" id="main_div_center">
            <div class="col-md-10 justify-content-center bg-white p-3" style="border: 2px solid green;">
                <div class="row text-center">
                    <div class="col-md-3">
                        <img src="../Images/Farmer_Logo.png" class="img-responsive" style="width: 9rem;height: 6rem; border-radius:50%;">
                    </div>
```

Figure 4.3.17 Bill generation

After the successful order of the crops, user will get bill for the ordered crops. Then they can even download option to view the bill offline.

Chapter 5. Results

The following chapter of the report shows the results obtained by this project. In this section each and every outcomes of the project are explained with the appropriate screenshots along with justification.
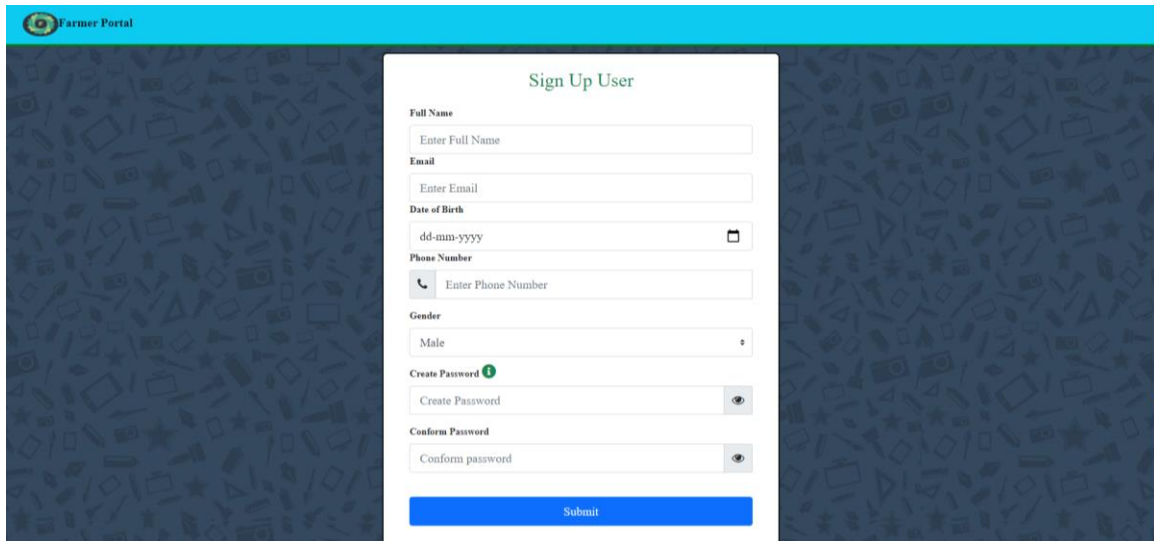
A well designed farmer portal website is successfully hosted which will meet our objectives of the project. This portal plays an important role for the farmers to get the market price for their produced crops.
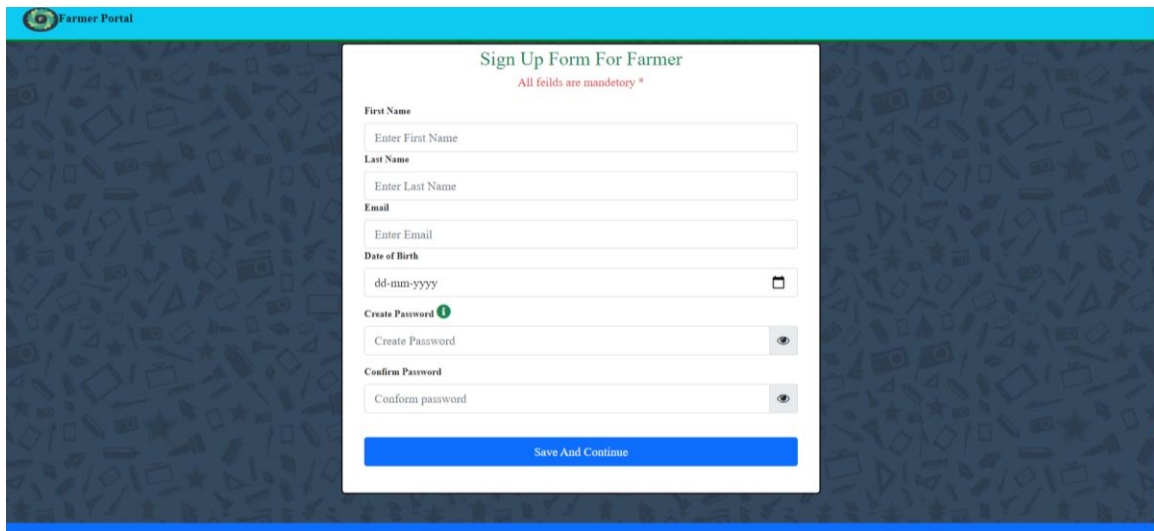
Website link: http://farmerportal.co.in/
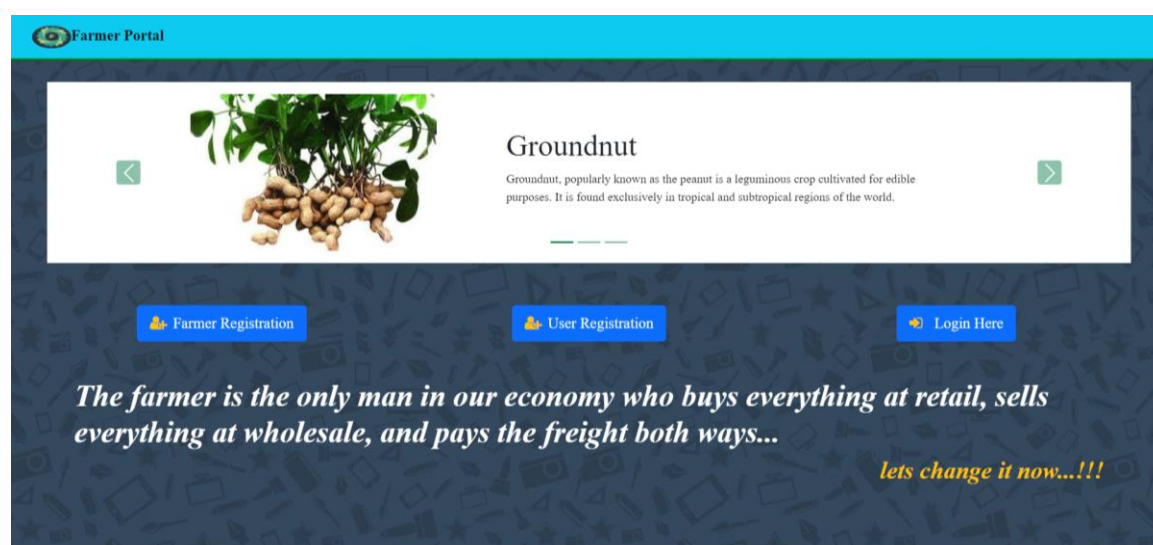
Figure 5.1 farmer portal home page

Farmer portal home page consists of farmer registration, user registration and login. And also it contains carousel, which is showing the advertisements and latest updates for the users.
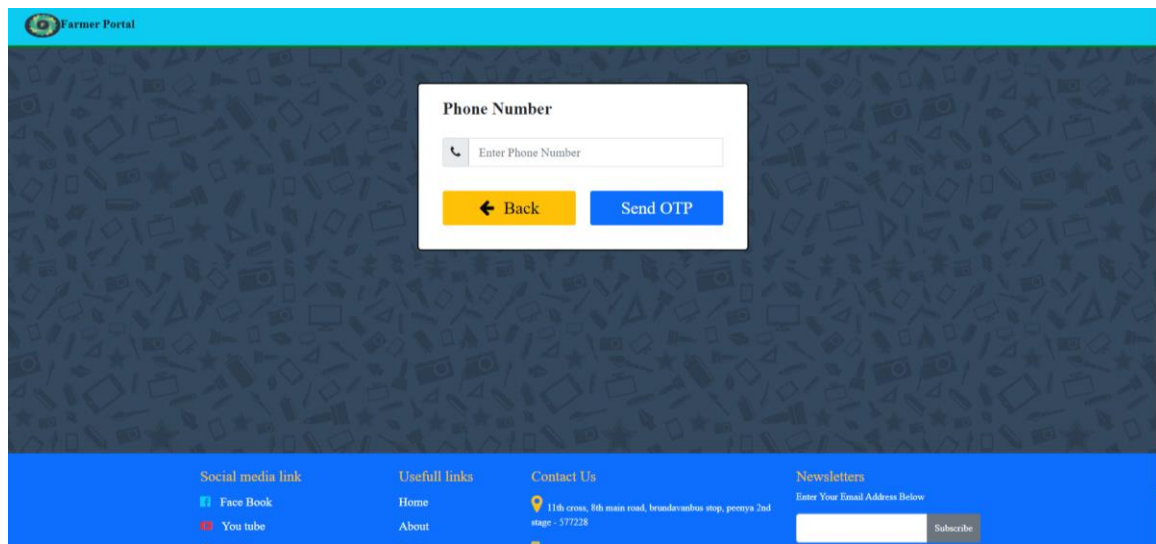
Figure 5.2 User registration page

User need to fill all the details mentioned in the registration page to successfully logging in.
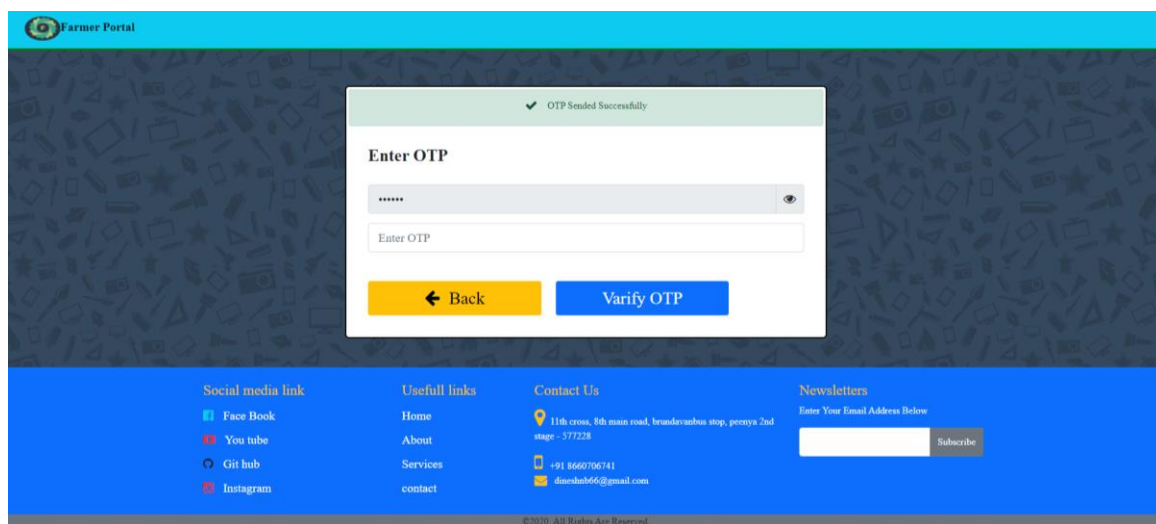
Figure 5.3 Farmer registration page

Farmer need to fill all the details mentioned in the registration page to successfully proceed to further steps.
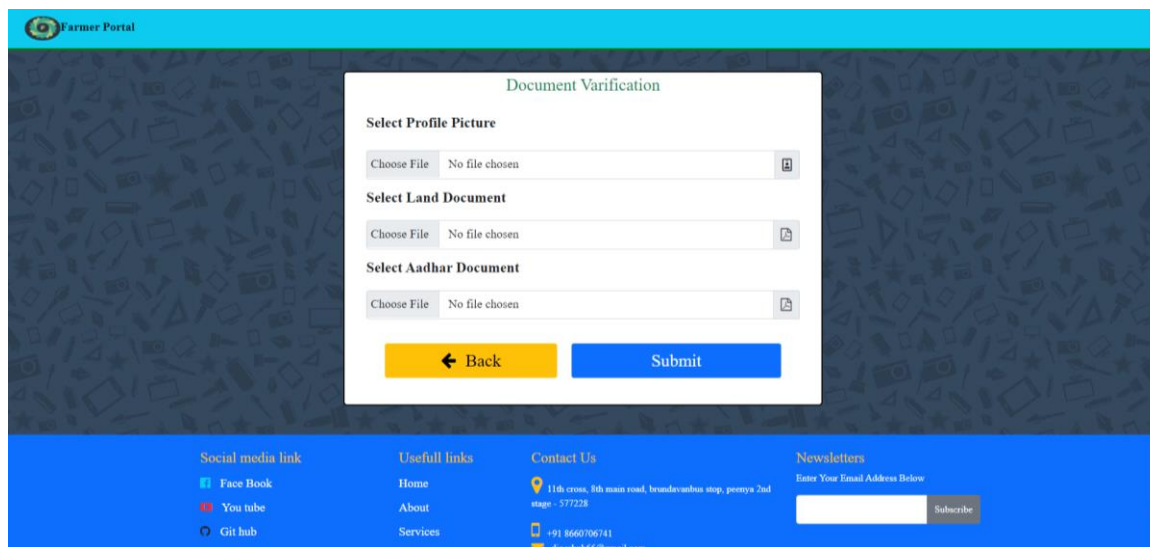
Figure 5.4 Phone number verification

These web pages indicate the phone verification for the farmers. Here it will detect the uniqueness of the phone number.

Figure 5.5 Phone number verification

Figure 5.6 Document verification

After the phone number verification, farmers need to upload necessary documents such as profile picture, land document and aadhar document. Then, it will require 30 minutes to 1 hour for manual verification of these documents uploaded by the farmers.
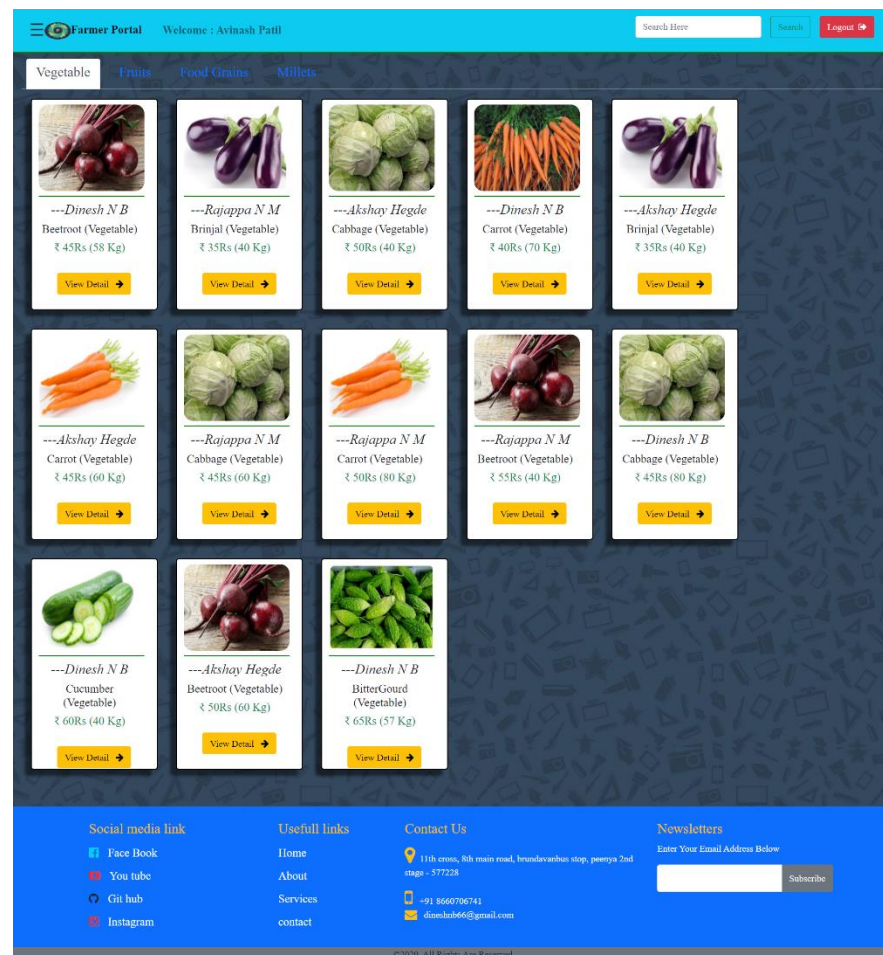
Figure 5.7 Home page

After logging into the website, home page consists of four tabs vegetables, fruits, food grains and millets. User can view all the products in detail. Here, different products will have uploaded by the different farmers.
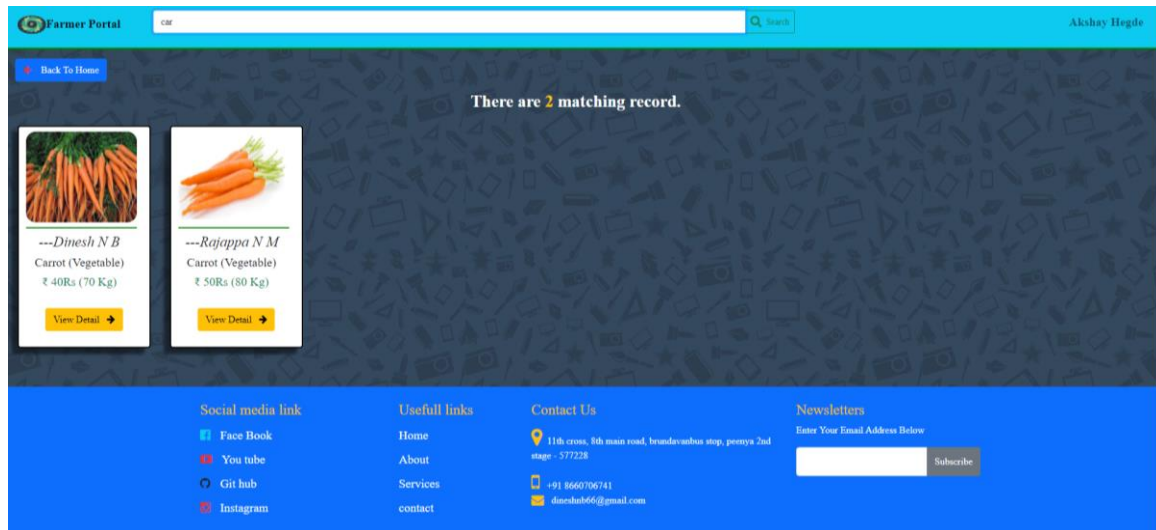
Figure 5.8 Search operation

User can search the crops in different tabs to find the products.
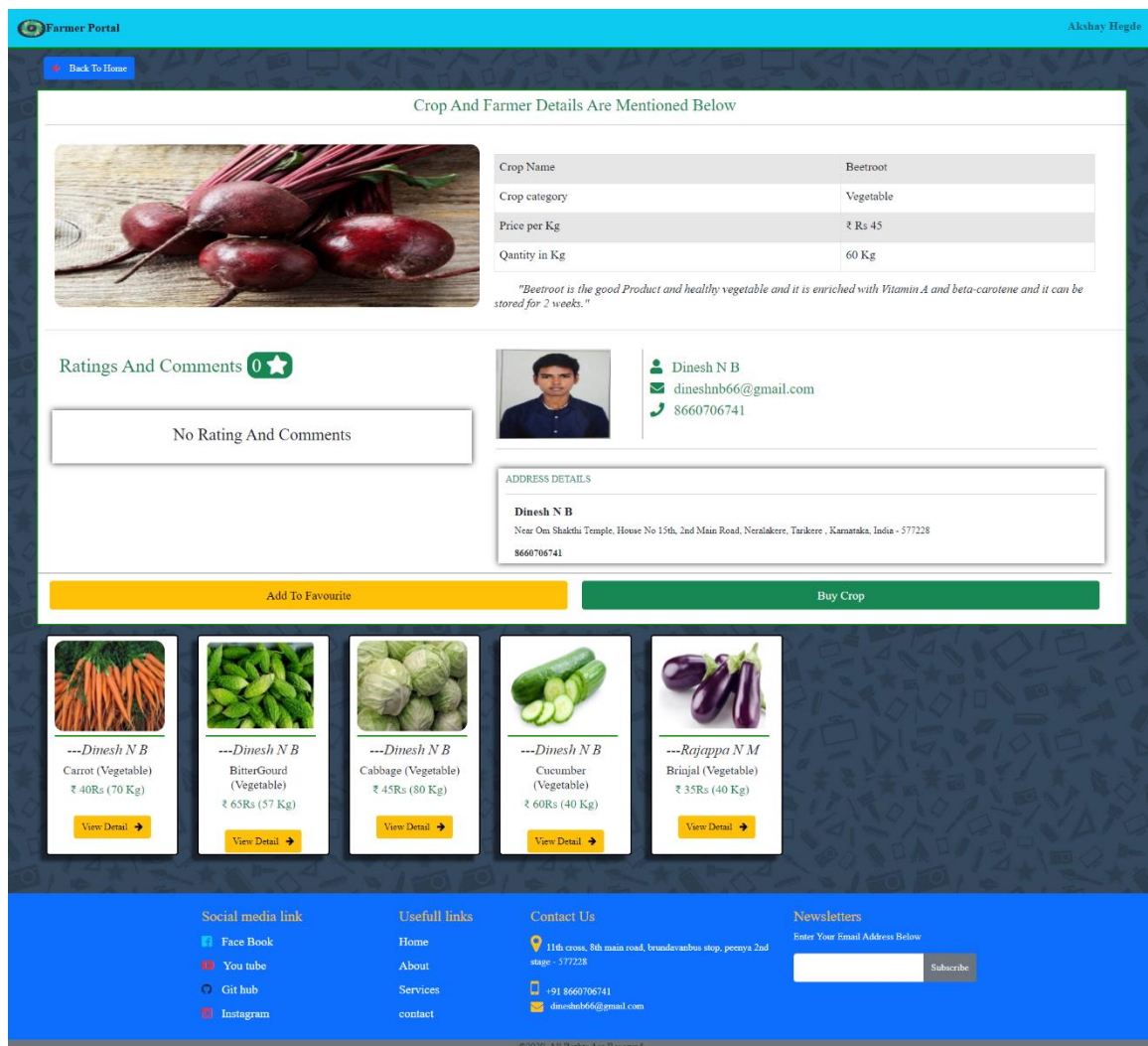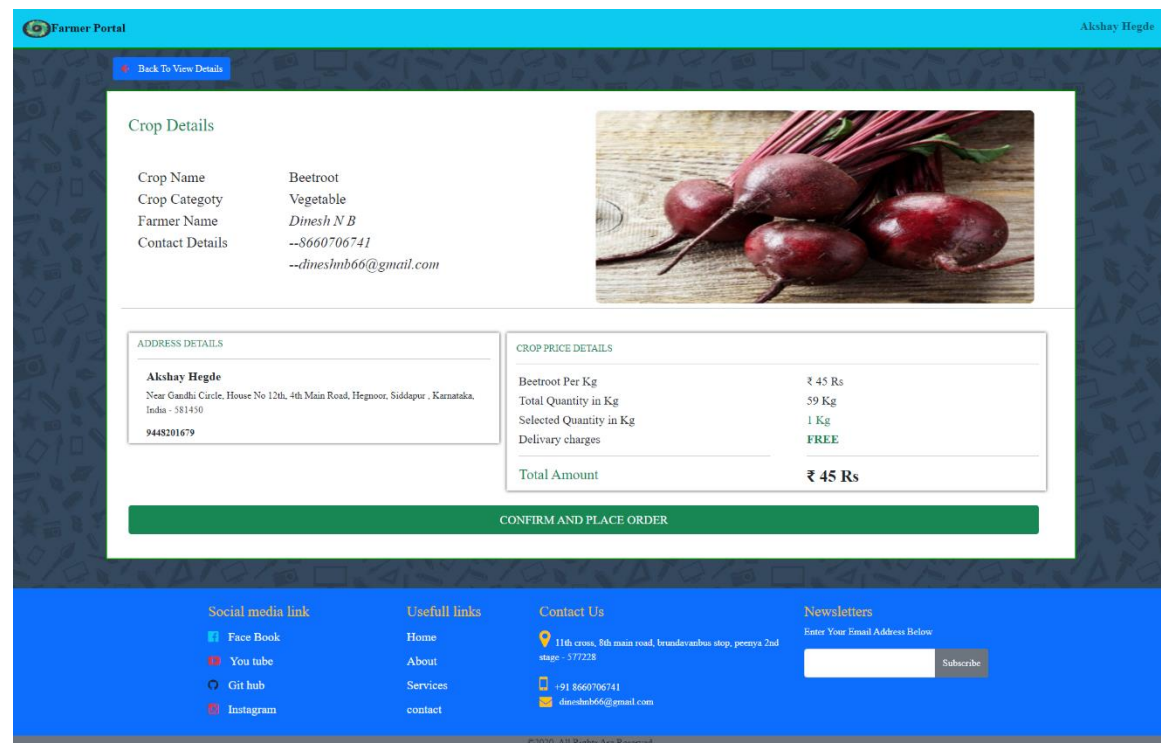
Figure 5.9 view details of particular product

Figure 5.10 placing order of the product

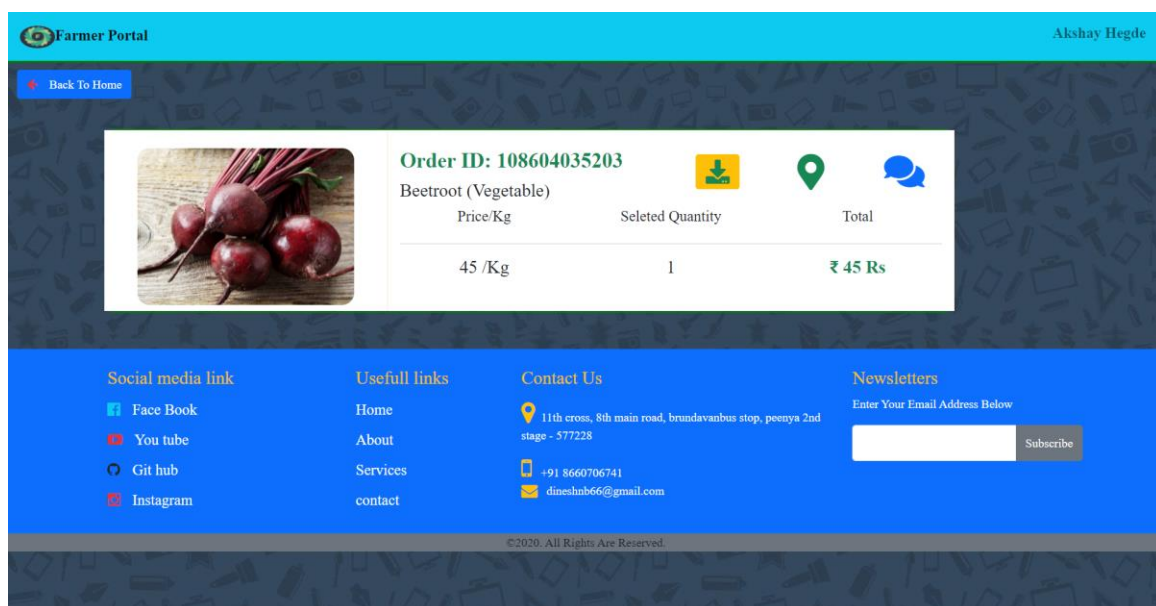User need to select the quantity and address to confirm and place order.

Figure 5.11 bill of the ordered product

User can view the bill of the ordered product and even user can download the bill to view in offline mode.
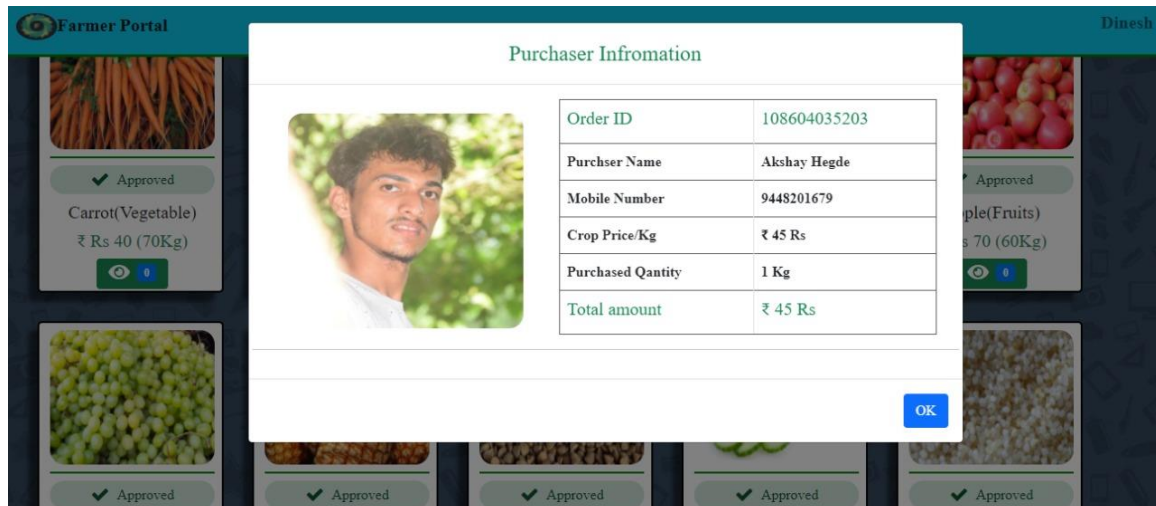
Figure 5.12 Purchaser information

Purchaser information can be viewed by the farmers after the successful order of the product.

Figure 5.13 My order section

User can view their orders and even they can download their order bill to view them offline mode.

Chapter 6. Project Costing

Project Costing is very important, since one needs to pay the developers, testers etc. for the work they have done. They can be paid by the number of hours they work or the numbers of lines of code they have written. For this project the engineers have been paid for the number of hours they worked on the project.

Table 6.1 Project Cost

S.No.	Particulars/Components/Devices	Estimated Cost(Rs)
1	Web Hosting	200/mo=2400/yr
2	Domain Purchase	800/yr
	Total:	3200/yr

Man hours:

Man hours per week (students): 18 *5 students =90

Man hours per week (faculty): 3

Chapter 7. Conclusions and Suggestions for Future Work

This section concludes the report and also suggestions which can be used to increase the accuracy of the Farmer's Portal.

7.1 Conclusions:

Our idea of selling crops through online and make most of the farmers to get fair prices is successful through our website. Our main motive is most of us are trying to make profit without any hard work. As in case of agriculture also, farmers are doing hard works throughout the year, but most of them are not getting fair price for their produced crops, instead of farmers, middleman's will fill their pockets without any hard works.

As the project proposes completely online except payment and to make the products available to the user directly from farmers without intermediator. The developed website is very helpful for the farmers to get the market price for their produced crops. Finally, after analyzing performance, developed website will work according to the objectives of the project.

7.2 Suggestions for Future Work:

- Document verification and uploaded crop verification can be done through system instead of manual verification
- OTP verification can be implemented.
- Fetching of the nearby locations to buy the products from the farmers.
- Make payment systems online instead of only COD.
- Access to buy the multiple products at a time for the users.

References

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