A Mini Project Report on

Crop Assistance for Farmers

T.E. - I.T Engineering

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CERTIFICATE

This to certify that the Internet Programming Lab (IPL) Mini Project report on Crop Assistance For Farmers has been submitted by **Sindura Dasi (19104015), Ekta Gujar (19104026), Abdul Ansari (19104022)),** who are a Bonafide students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in **Information Technology**, during the academic year **2021-2022** in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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    a. Identify tools (Hardware and Software requirements)
    b. Working of project (Server Side Programming: website using server side scripting in PHP and database connectivity using MySQL (PHP framework like Laravel/Joomla can be used)
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    d. Developing RIA using AJAX including -A browser built-in XMLHttpRequest object (to request data from a web server) and JavaScript and HTML DOM (to display or use the data) Building Amazon/Yahoo /Google Web Mashups for the website.
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Chapter 1:

Introduction

The farmers who grow crops according to the season and fertility of the soil, after growing the crops they accumulate the crops, further process and pack them and contact the wholesale vendors regarding the availability of stock. The wholesale vendor first asks the price to the farmer who tells the price at which he/she can trade at. The wholesale vendor aiming for his own profits negotiates with the farmer regarding the price the poor framers sacrificing their profits generally accept the price quoted by the wholesale vendor. So, he/she sell their stock at low prices due to some unfavorable conditions such as financial problems, unavailability of wholesale vendors or market etc. Some farmers who live very near to the cities bring their stock directly to the wholesale markets and sell their stock to the retailers and end customers. But for the farmers who live in the remote areas, it is not possible for them to come to the cities do frequently and sell their stock directly in their quoted price. Hence, they have no other option but to contact the wholesale vendor for selling their products in the market. It is indeed a very long process to grow crop since there are various other conditions such as weather issues, soil infertility, seed defects etc. They expect to get some profits for many such issues they face.

The wholesale vendor after buying the stock from the farmers in their quoted price, they sell it to the retailer vendors and customers as well. The retailer vendors then sell it to the end consumer. The price changes stage to stage depending upon the negation done either earning profits or saving money. The sellers negotiate for profit quoting high but on the other hand the buyers want to purchase the stock at feasible and low rates availing maximum stock at minimum amount. Hence, from the growth of stock till it is sold to the end customers is a long process in which farmers play a vital role. The typical situation of a farmer is not as good as a person living in the city. They may have taken some loans from banks for financing agricultural material, seeds, pesticides, manure etc. Some of the weather conditions such as droughts and floods prevent stock from growing and also destroy the already grown stock, this is the biggest challenge in front of the farmer. Since these stocks then are unable to be sold and hence, farmers cannot repay their loans on time and have to bear high rates of interests.

When the crops are grown in a healthy way and are ready to be sold to the wholesale vendors, they negotiate with the farmers and quote a rate even bellow the quoted price of the farmer, giving no choice to the farmer but to sell the stock at the desired rate of the wholesale vendors. Keeping in mind the various issues which a farmer. Faces such as poor financial

conditions, indebtedness, etc. for these problems, the farmers expect to get profit or even the price quoted at par for some or other improvement. But then he/she has to agree upon the low price quoted by the wholesale vendors due to some situation such as absence of unreachability of to the market, unavailability of other wholesale vendors etc., with expectation of some improvement though the money earned he/she bears lots as well. This happens due to the negotiation and saving mentality of the buyer. The seller quotes the high price aiming at his high profit but the buyer negotiates at low price considering their savings and due to the poor conditions of the farmers they are obliged to accept the low price from the wholesale vendors with expectation of some income. Hence, the farmers are unable to make profits. Despite of all the hard work and patience to grow the stock, farmers play a major role in the agriculture life cycle but still they fail to get profit due to their poor conditions.

India, a commodity-based economy where two-third of the one billion population depends on agricultural commodities, surprisingly has an under developed commodity and commodity futures market. This is so because the trades in the commodity futures market were banned for almost four decades in India. There must be reasons for and against such ban but one thing it has done is to paralyze the research and knowledge creation in the domain and more so in the Indian context. It has been progressing in terms of technology, transparency and trading activity with the removal of government protection from a number of commodities. This action of our government has thus, allowed the market forces i.e., supply and demand, to rule the commodity. The existence of the commodity market in India dates back to ancient times. These markets influence the dynamics of production and resource allocation in the primary sector, along with pricing system of this market. The greatest achievement of this system was the establishment of the focused market. The prime impetus of this market is to provide a mechanism to determine the prospects of the future production and consumption which shall be brought to bear on the present prices. Thus, this market established a link between the present and future production and consumption cycles thereby facilitating the inter-temporal smoothing of prices. At present the Indian commodity market adopts a two-tier structure for the mechanism of the system, viz. regional structures and Country wide structure.

Chapter 2:

2. Problem Statement:

To build a user-friendly e-farming website so that the farmers can eliminate the middle man for selling their goods.

a. Motivation:

- To escape the dissatisfaction with their current job for something significant.
- To promote healthy lifestyles with fresh food.
- To achieve job independence and autonomy.
- To take advantage of the economic opportunities of the developing industry, and benefit from its profitability.

b. Objective:

- The main objective of the project is to build website which will help farmers to sell their products directly to the customers.
- To maintain sustainable production system without damaging resources/environment. Achieve agro-ecological equilibrium through the reduction in the build-up of pests and diseases, through natural cropping system management and the reduction in the use of chemicals (in-organic fertilizers and pesticides).
- Farmers will get unique interface where they can avail everything right from learning to the market information they can perform marketing, get the current rates of market, get in touch with SMS through the cell phones, can gather the knowledge of different schemes and apply as well as check status of application.
- This website will act as unique and secure way to perform agro-marketing.
- To allow farmers to reach the market directly.
- To ensure a healthy communication relationship exists between the market and the farmers.
- To improve the services of buyers and producers eliminating the middlemen between them.

3. System Architecture:

a. State Diagram/Workflow:

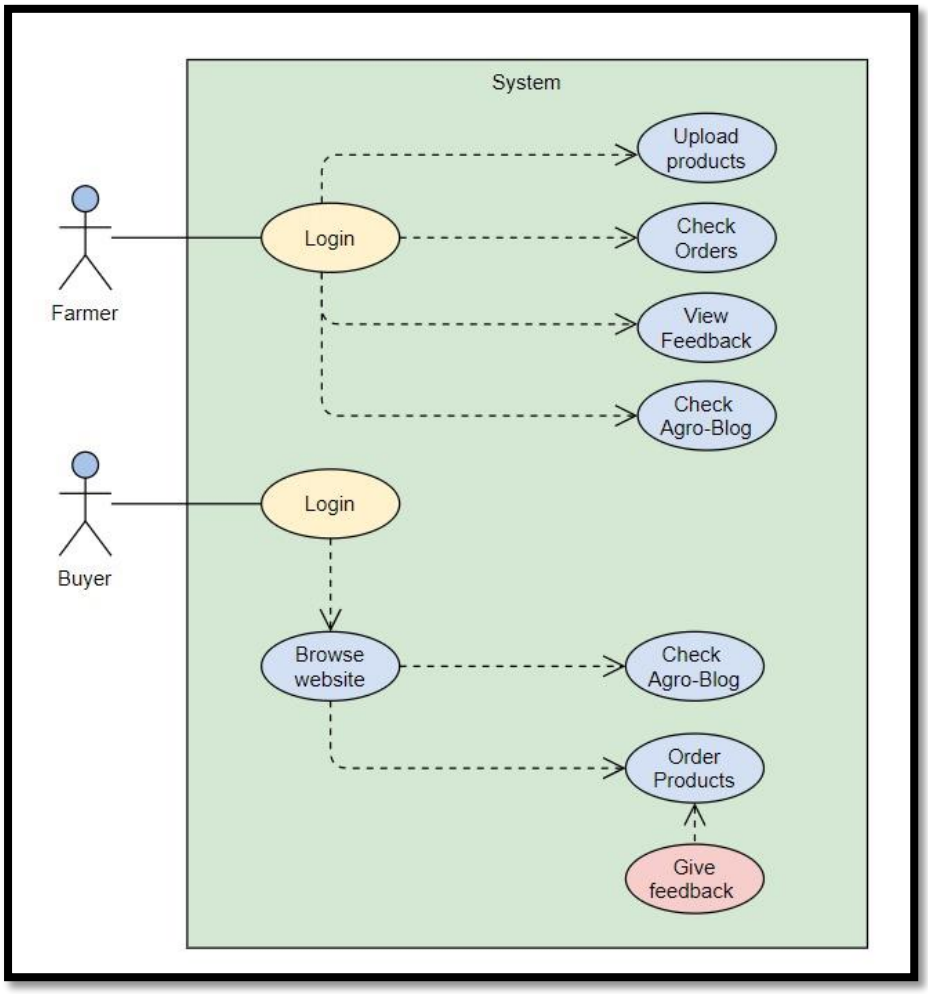


Fig. Data Flow Diagram

Chapter 4

4. Project Timeline

Date	Work
22 August 2021	Building basic overview of the website.
28 August 2021	Working on Home Page.
3 September 2021	Home Page implementation completed
5 September 2021	Working on Signup form.
10 September 2021	Signup form implementation completed.
13 September 2021	Login Form.
17 September 2021	Done with Login Form implementation
22 September 2021	Profile Page.
26 September 2021	Completed with profile page implementation
30 September 2021	Product Upload page for Farmers.
5 October 2021	Transaction Page.
9 October 2021	Blog Page.
16 October 2021	Market Page.
20 October 2021	Item Search Page
21 October 2021	Buy Item Page.
25 October 2021	Blog Writing Page:

Chapter 5:

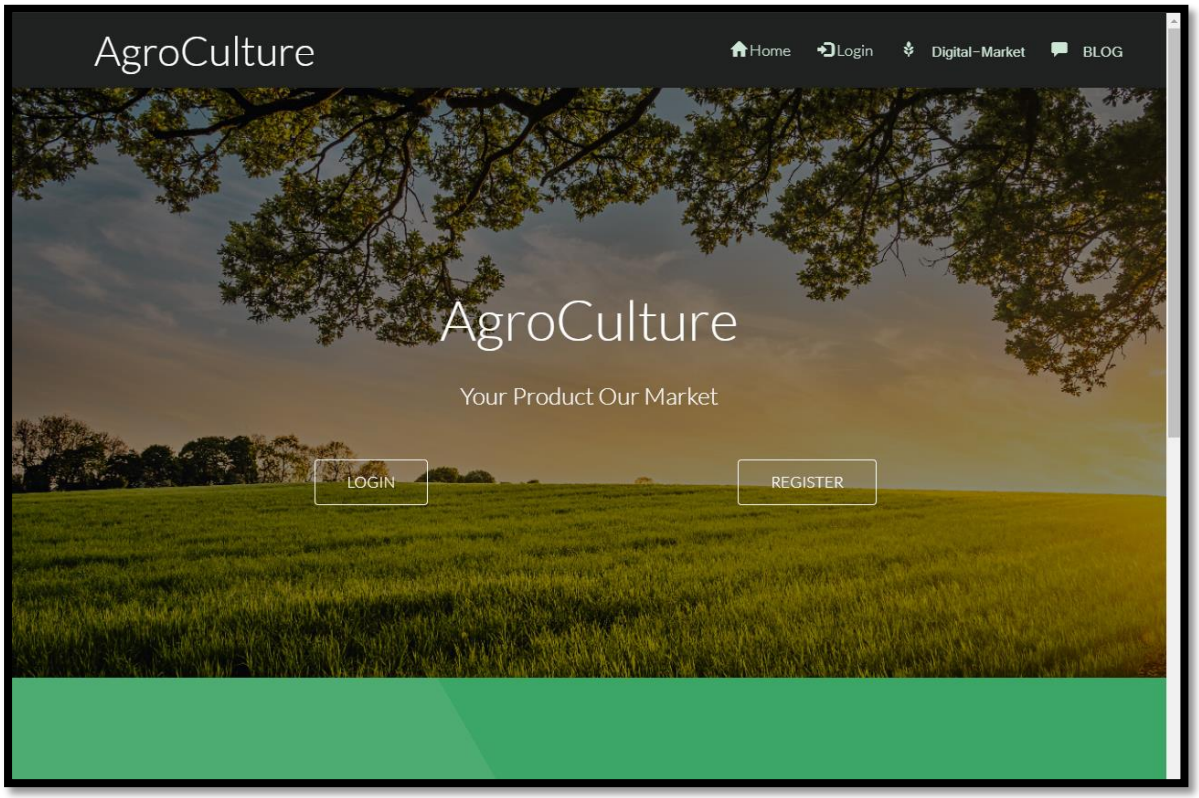
5. Implementation:

a. Software and Hardware Requirements:

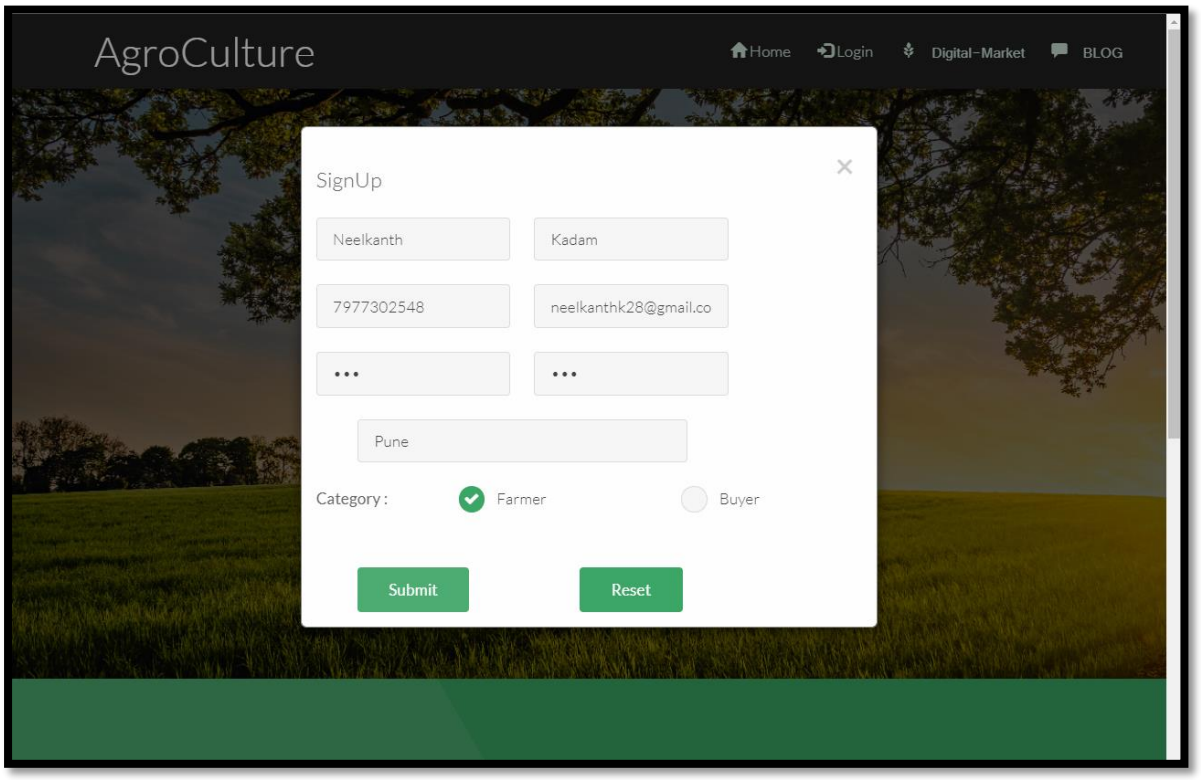
Operating System	:	Windows 10/Linux
User Interface	:	HTML, CSS
Client-side Scripting	:	JavaScript
IDE	:	Visual Studio Code
Database	:	SQL
Processor	:	Intel **c**ore i3
RAM	:	2 GB

b. Working of the project:

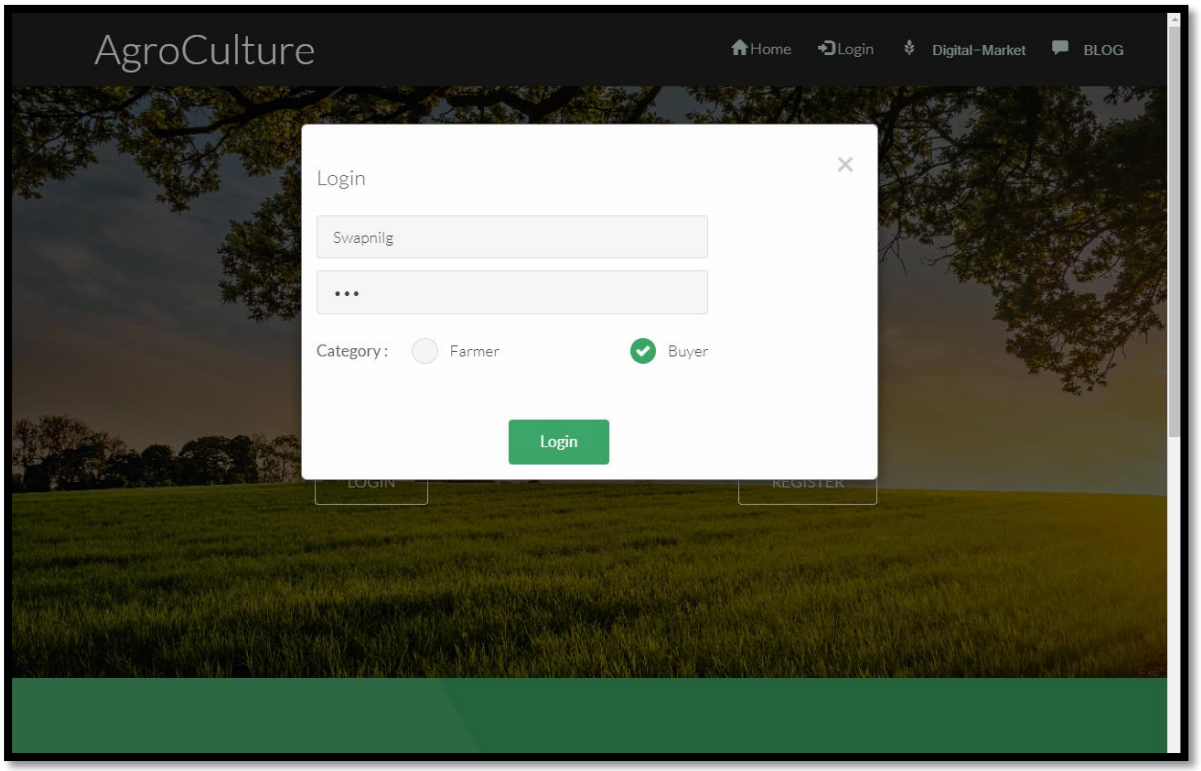
Home Page:



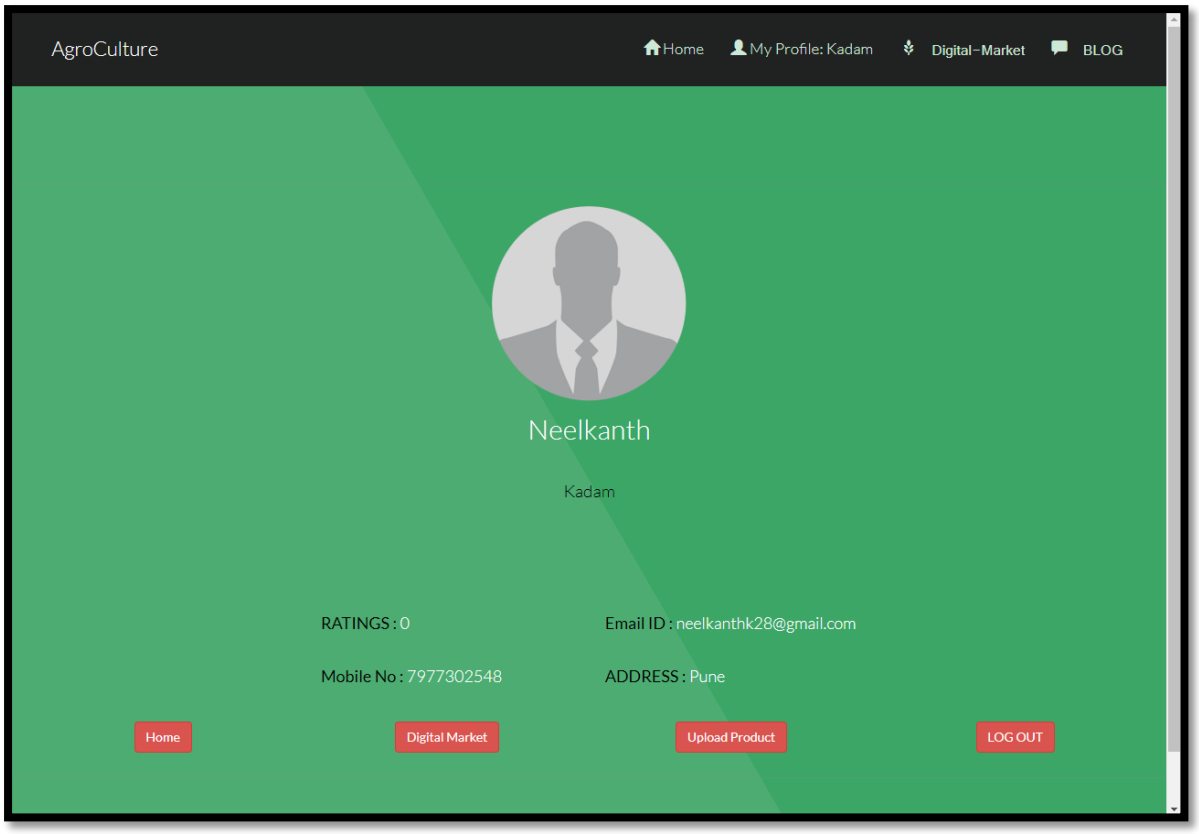
Signup Form:



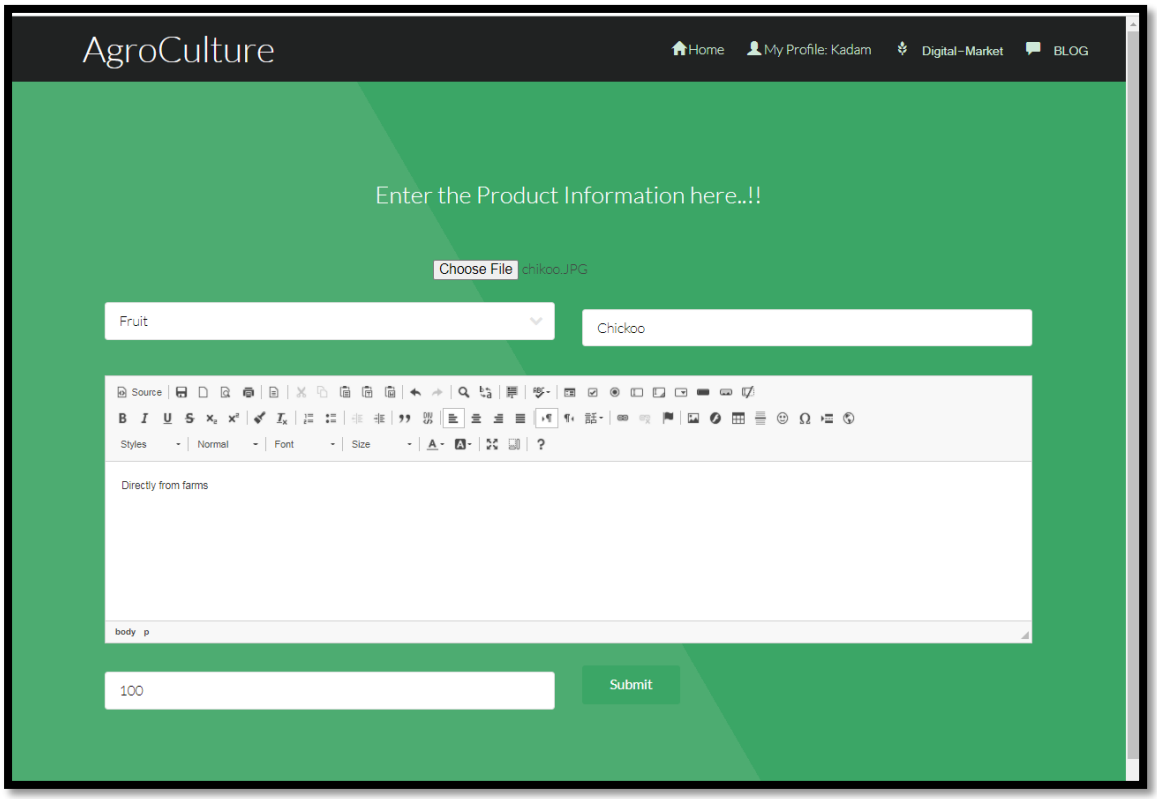
Login Form:



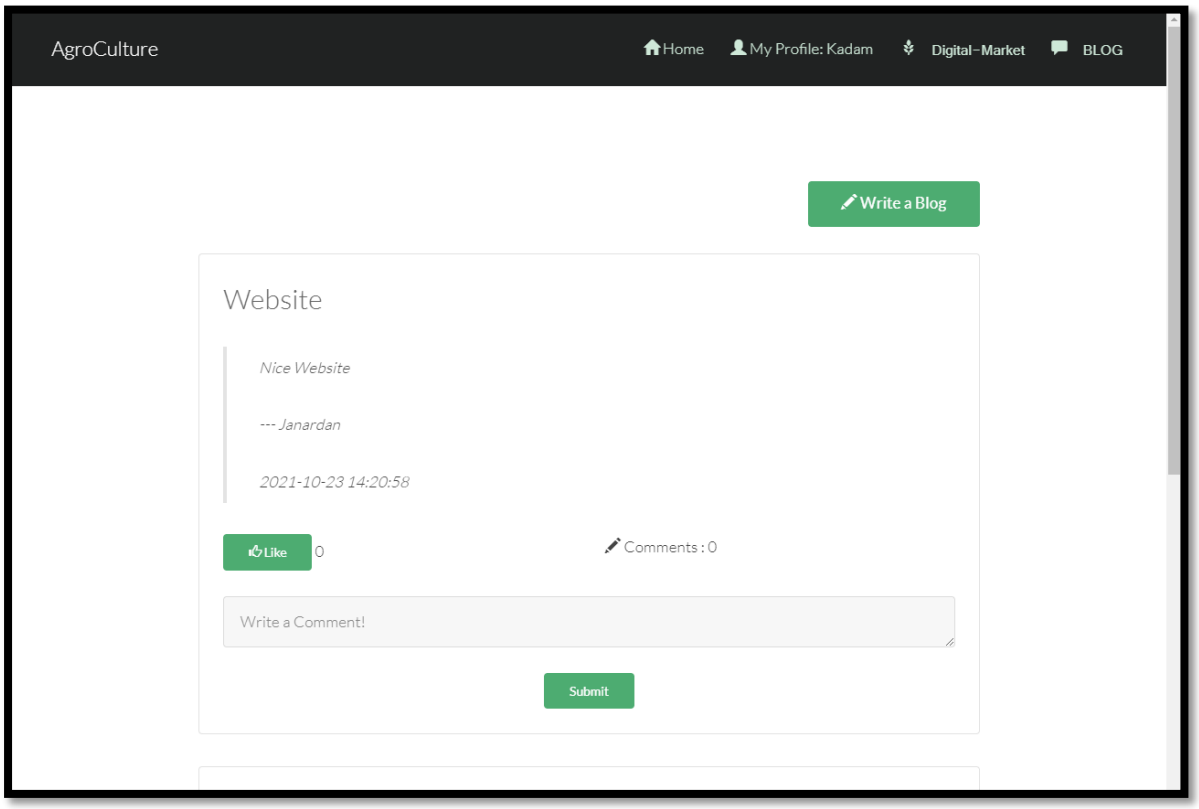
Profile Page:



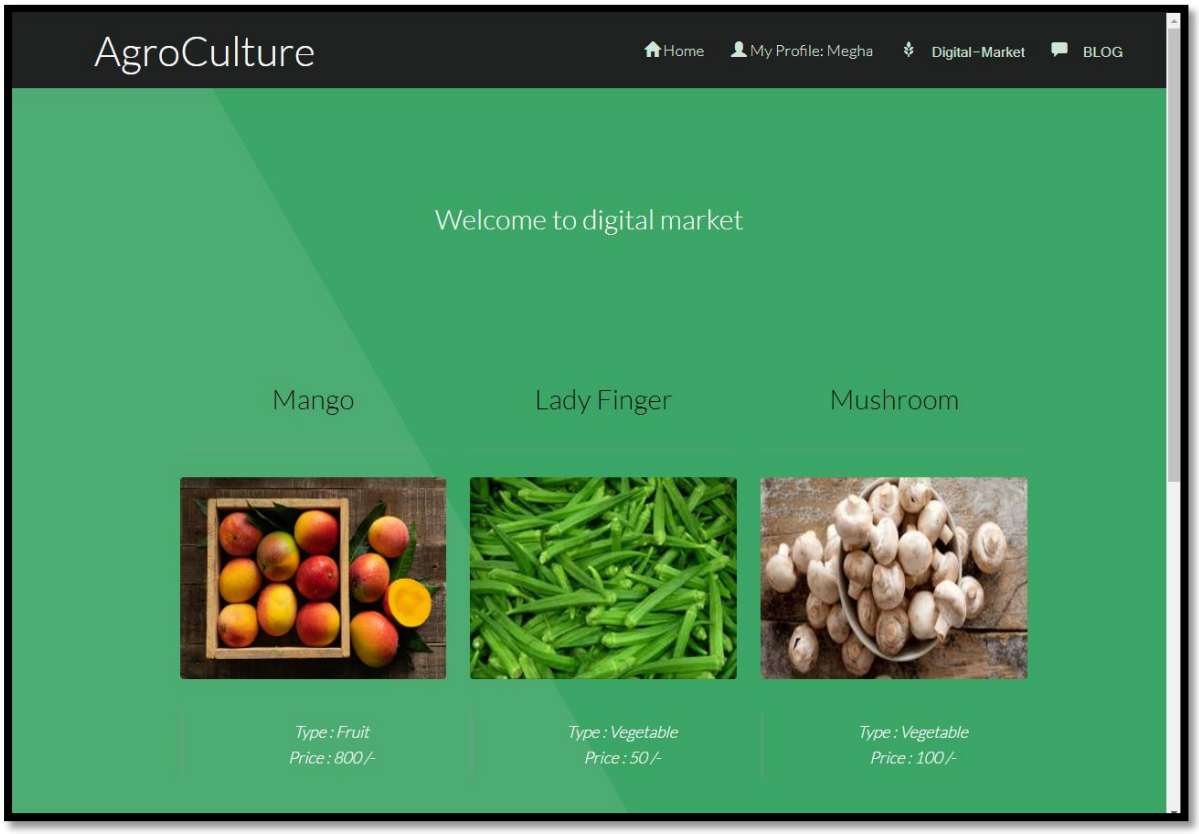
Product Upload page for Farmers:



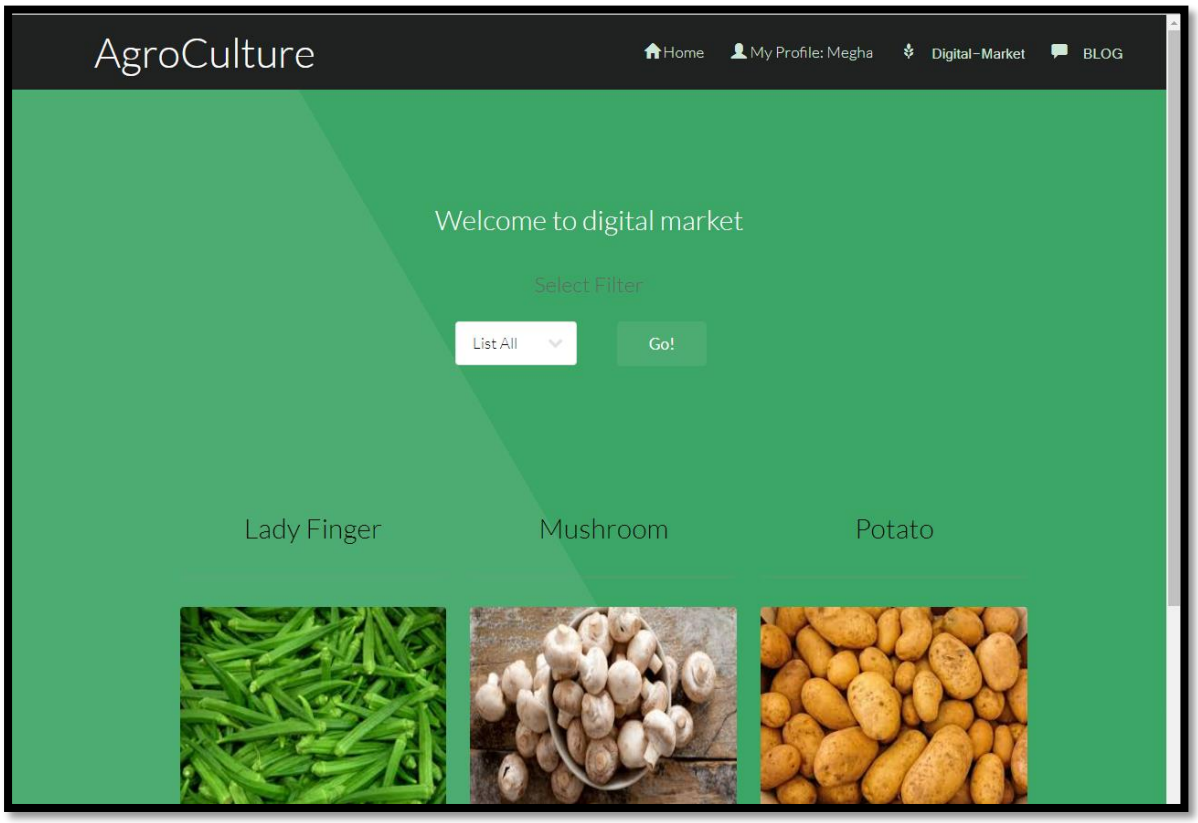
Blog Page:



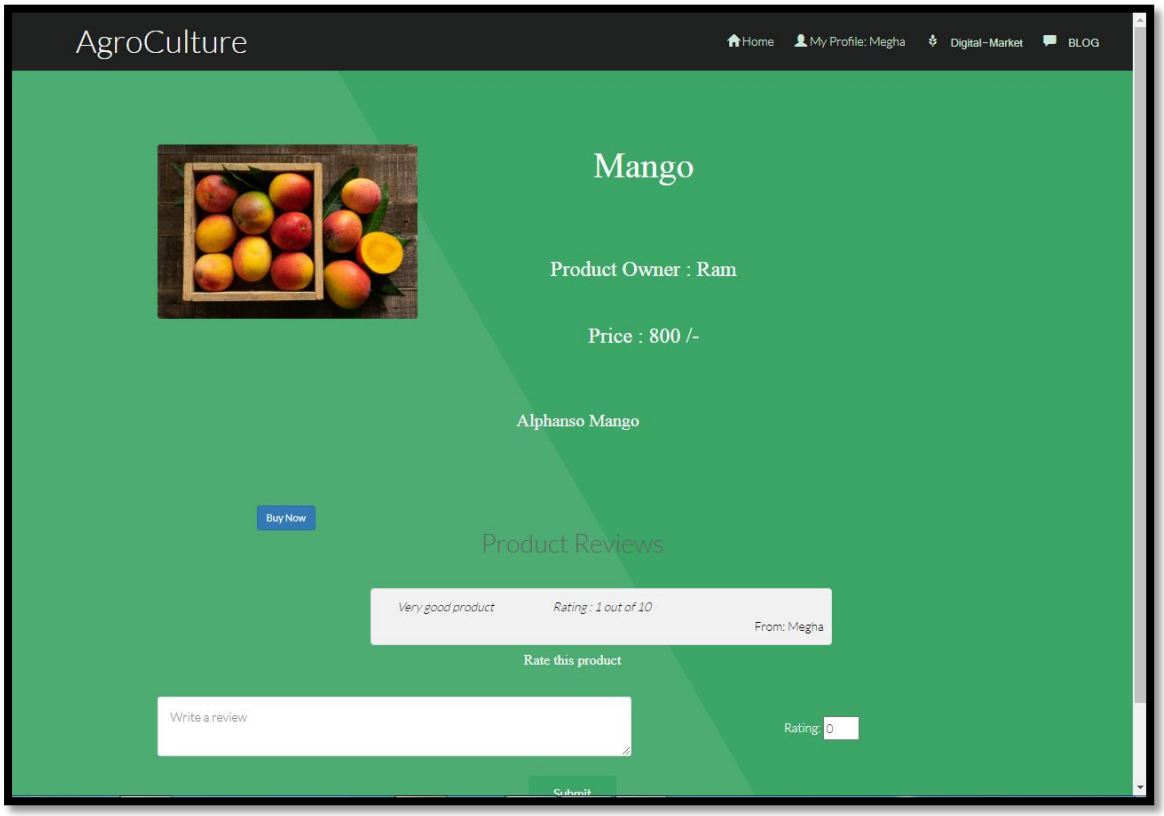
Market Page:



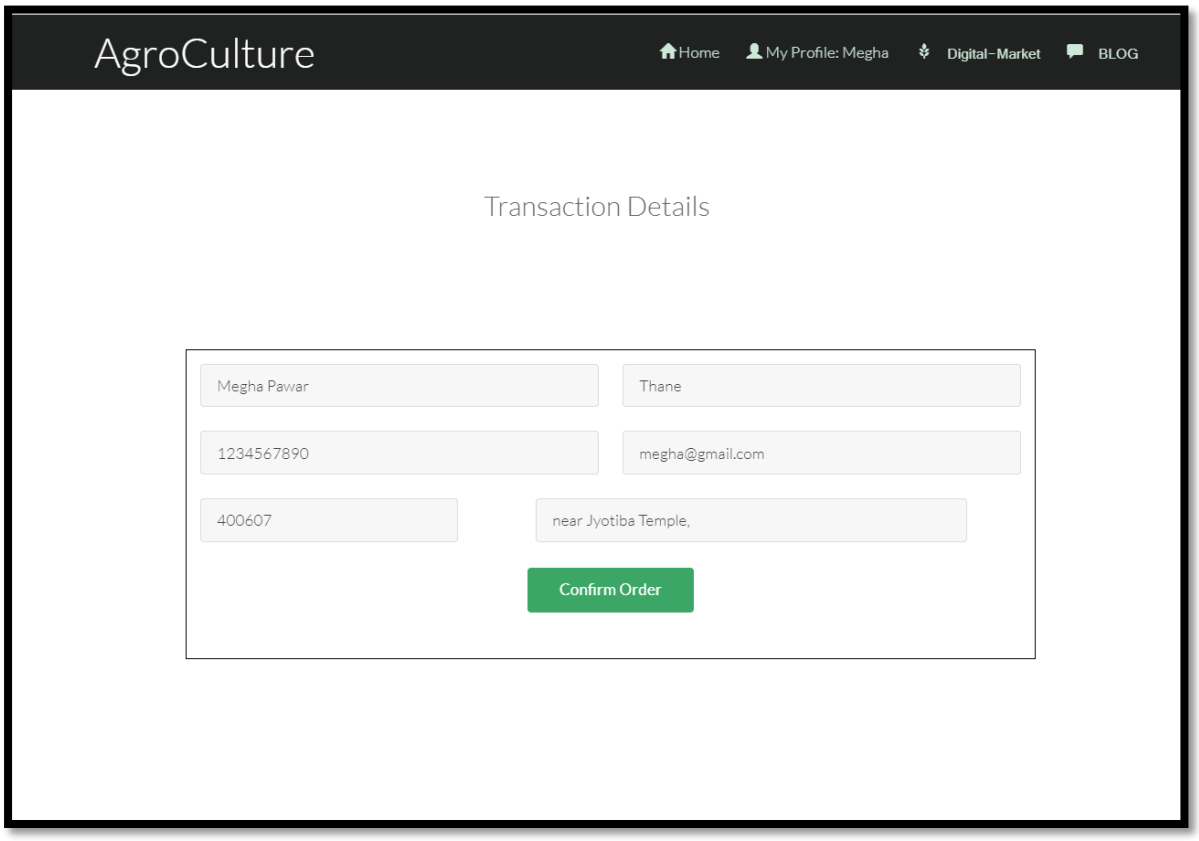
Item Search Page:



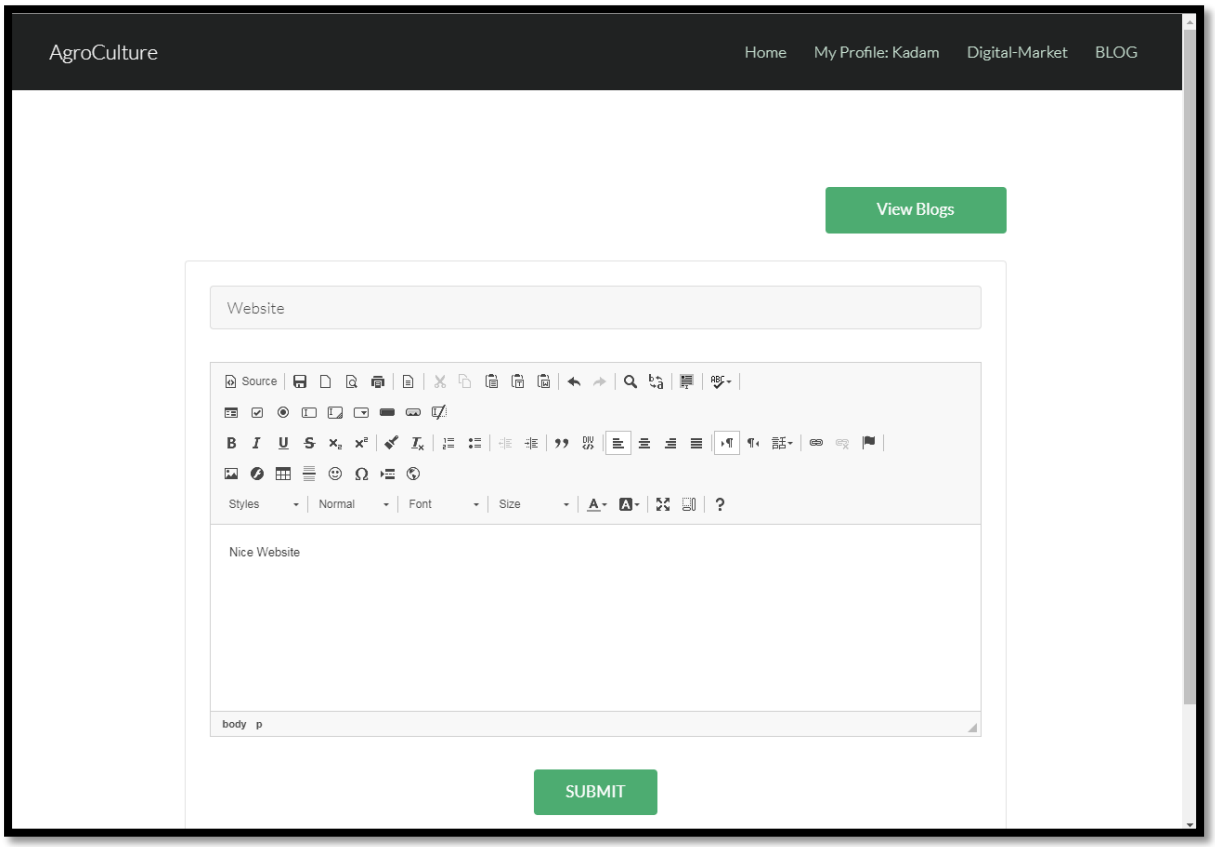
Buy Item Page:



Transaction Page:



Blog Writing Page:



c. Technology Used:

HTML: The **HyperText Markup Language**, or **HTML** is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by *tags*, written using angle brackets. Tags such as <img /> and <input /> directly introduce content into the page. Other tags such as <p> surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

CSS: **Cascading Style Sheets** (**CSS**) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .CSS file which reduces complexity and repetition in the structural content as well as enabling the .CSS file to be cached to improve the page load speed between the pages that share the file and its formatting. Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

JavaScript: **JavaScript** often abbreviated as **JS**, is a programming language that conforms to the ECMAScript specification. JavaScript is high-level, often just-in-time compiled, and multi-paradigm. It has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions. Alongside HTML and CSS, JavaScript is one of the core technologies of

the World Wide Web. Over 97% of websites use it client-side for web page behavior, often incorporating third-party libraries. Most web browsers have a dedicated JavaScript engine to execute the code on the user's device. As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM).The ECMAScript standard does not include any input/output (I/O), such as networking, storage, or graphics facilities. In practice, the web browser or other runtime system provides JavaScript APIs for I/JavaScript engines were originally used only in web browsers, but they are now core components of other software systems, most notably servers and a variety of applications.

Chapter 6:

Conclusion

Based on the results obtained from the above, the following conclusions were made. The application is planned so that future changes can be effectively done. The following conclusion can be accepted from the improvement of the project. Automation of the whole application improves the great association. It delivers a well friendly graphical UI and gives proper access to approved users depending upon their approvals. It successfully overcomes the delay in communications. Refreshing information turns out to be simpler. Application security, information security, and reliability are striking features. The System has a tolerable extension for adjustment later on in the event that it is basic. The System has a passable scope for modification in the future if it is essential.

Future Scope:

- We can add 'Track order' option for customer.
- We can give more advanced features to farmers like we crop to grow, expert assistance using Machine Learning.
- We can host the website on servers to make it run worldwide.
- Implement backup mechanism for taking database backup frequently.

References

- Agricultural Marketing S.S. Acharya ISBN - 81-7188-387-7 Pages-259
- Agricultural marketing information and research network. (agmarket.nic.in)
- National level journal on agricultural marketing Vol. XLVI, No.2ISSN-0002 1555
- Subsidies in Indian Agriculture and Their Beneficiaries. Agricultural Situation in India, LXII (5), Special Number, August, pp. 251.60.
- Agricultural Price Policy and Development: Some Facts and Emerging Issues., Presidential Address, Indian Journal of Agricultural Economics, 52(1)
- N.L. Agarwal (2004), Agricultural Marketing in India,4th edn, Oxford and IBH, New Delhi