# ONLINE AGROSALES

# A PROJECT REPORT

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***in partial fulfillment for the award of the degree of***

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BONAFIDE CERTIFICATE

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**ABSTRACT**

Technological importance plays an essential role in various fields, especially in agriculture. Agricultural advancements haven't been much for the past few years due to a lack of Agriculture knowledge and technological improvements. e-Agriculture is a platform for supporting the marketing of agricultural products and also cutting off unnecessary losses in transit. The technique implemented here is to minimize the role of the middle man and improve the overall profit for both farmers and vendors alike in e-Commerce. Previous profits of farmers indicate that a portion of their yield is lost via transit of middle man. The main aim of this paper is to reach farmers for their awareness, usage, and efficiency in agriculture.

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**CHAPTER I**

**INTRODUCTION**

# OVERVIEW

# Agriculture is the backbone of India, saying this, many of the agriculturists face so many problems in the agriculture that includes improper value for the products they produce and there are no proper discussion platforms where they could discuss or clarify their doubts regarding the agriculture. Thus here a new method is tried to find a solution to make the farmers to sell their products and also to discuss the issues.

# Unlike the normal website; this auction model website is hosted in the 000webhost server which could be a reliable environment for this kind of system [1]. The cloud servers are not only reliable but also provide so many advantages such as scalability and cost effectiveness [6]. English Auction model is of the forward auction type where a single item is considered for sale [4-5]. Usually here, the bidding moves from low price to progressively high price. The auction is closed when higher bid for the item is made.

# In this model, the seller sets a margin price. No item is sold below the margin price. The auction is aborted if there is a bid lesser than the margin price. The Dutch Auction is an auction model where the share price of the bidding item lowered to a level where there are enough bids to sell all the shares.Vickery Auction was invented by the Canadian Nobel laureate economist William Vickrey. Here the auction is carried out such a way that the buyer or seller pays the second best price for the bidding item. This auction serves the potential buyer to offer a value to the item in his or her own judgment. Next auction type which resembles gambling is the Reserve auction. In is auction type, many sellers offer their items and compete for the bidding. In this model the buyer can accept any bid, by paying for every bid he is placing or can reject all the items. In this model, there is a change for the buyer to lose money or will not get anything back in return. The auctioneer will make money by offering of bids and collecting the amount for the item bided. In First sealed price auction model, the bidder can bid only once and the bidder who bids the highest price will win. This model is different from the English model in such way that, here the bids are closed and this system is open-bidding type.

# OBJECTIVE

# To make farmers get the best price for their products and to Eliminate middlemen so that the farmers get the total benefit. Here the Farmers can choose their customers who quote more i.e. they can choose whom to sell their products on the basis of the price the customers are ready to pay. Farmers also get to know the demand in the market of the products they are selling. This will help them to concentrate on the crops which are in high demand. The Online Bidding Application helps the farmers meet the potential customers directly.

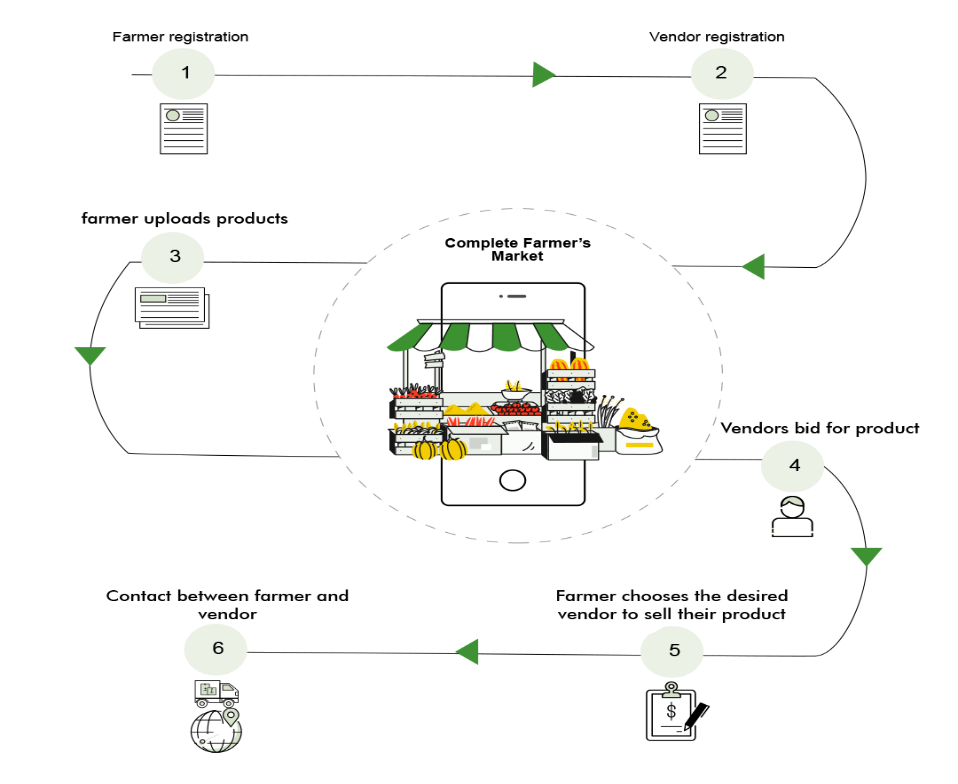
# CHAPTER II LITERATURE REVIEW

In case of auction the first thing comes in mind how to sell a product. Simply it means in auction the seller waits for the high number of prices and waits for the bidder who remains active till the last of the auction process. There are various types of bidding a product. To overcome a traditional auction process, this online auction process had been used which is detailed in[1].Secondly, a various types of auctions had been described such as English auction(ascending bid auction),the Dutch auction (descending-bid auction), the first-price sealed-bid auction, and the Vickrey auction (second-price sealed-bid auction) as explained in [2]. It also described the steps of how auction will be carried out and what information should be carried on. The internet auction is the most simple to use for maintaining the data then the traditional auction which is to be carried on the paper. And most of the auction has been learned by the economists for the understanding purpose to study their properties and how it works. In [3], it describes how the auction is carried out on the internet and what the information is provided before the auction and after the auction process. It also describes auction such as user agents and mobile agents. User agent mostly done on the user’s PC with the help of the some services or some expert advices while mobile agent deals with the execution of program through remote base server. In addition to this the auction time is provided with the help of auction date and the last date of ending the auction. Earlier auction products were like electrical equipments,etc. But now Agricultural Product can also been auctioned. First product was Tea Auction. Now-a-days auctioning process has been became a competitive in the market. The auction can be done from anywhere in the world at any time and anyone can auction the products which is detailed in [4].In additional to single item auctioning, it also consists of multi-item auctioning where n number of items are auctioned simultaneously as described in[6]. In multi-item auction it provides more opportunities for online auction market in large market over the world with higher efficiency.This multi-item auction has come into existence because now-a-days very small markets does the auctioning of similar items which results into less efficiency.Multi-attribute auctions consists of practical and theoretical problems which has been detailed in[7].In case of practical problems the users should know the product and market characteristics. With help of this term the auction is also referred as the common value based. Sometimes it becomes difficult to arrange the behavior of the goods which may result in difficult for the analysis of the product. The analysis of the product is also done in case of reverse auction. Because of this the economist’s theory and experiments which is used for the developmental testing. Along with traditional auction the internet auction has been more popular. For the internet auction there are various security requirements. Firstly the seller should know whether he/she is going to post a product in large scale or not. Then the user who is interested should register first and then access the site. The security requirement is used to know whether the site is used by the registered person. Therefore an administrator is used as a trusted third party to keep the records of all the procedures happening which has been explained in[8].Auction application is carried with the help of auction rules which defines the auction schedule, templates for creating the auction and the individual auction rules for the individual auction product.As e-commerce auction is used widely it has featured many security protocols[9]. It has described some security properties such as atomicity of the transaction, weak private keys and weak public keys

In case of voting or bidding the product it consists of much work on the verification of the users and the product which is to be handled in the area of privacy.As auction is defined as mobile agents which deals with the execution of program on the remote server database. The mobile agents in electronic auction is slightly different as described in[10]. The mobile agents in electronic auction first visits the site of auction and then the user may actively participate in auction process. If the user is disconnected for some time then in behalf of user it can participate for a specific time period. After registering it as server, the mobile agents itself creates its own user profile

# CHAPTER III PROPOSED SYSTEM

The idea here is to develop an online bidding web application that would help the farmers and the customers contact each other directly and do the business. This would include a cloud platform and database that would store the data of the registered users(farmers and customers) .The cloud platform will be a live cloud (Platform as a Service).The application will include membership module for loyal farmers (registered farmers) to participate in it.Farmers get to know the actual demand in the market through the requests that customers post on the application. The application would help the farmers bid the price and the highest bidder(customer)will get away with the product. This application will be made available to anyone across the globe via accessing the URL.After successful completion of bidding from the vendor side,the famer can be able to view the list of bidders for their product and can choose the winning bidder based on his choice of factors(Bidding price/Locality/Vendor Loyalty).



**Fig.no:3.1** Structure view of agridbid application

# CHAPTER IV REQUIREMENTS

# Software Requirements:

# Text Editor- Sublime text

# Internet Browser – Google Chrome/Microsoft Edge/Firefox etc

# Server – 000webhostapp.com

# Front-End

Front-end web development is the practice of converting data to a graphical interface, through the use of HTML, CSS, and JavaScript, so that users can view and interact with that data.



**Fig.no:4.1** Web application developing tools

**Html:**

Hyper Text Markup Language (HTML) is the backbone of any website development process, without which a web page doesn't exist. Hypertext means that text has links, termed hyperlinks, embedded in it. When a user clicks on a word or a phrase that has a hyperlink, it will bring another web-page. A markup language indicates text can be turned into images, tables, links, and other representations. It is the HTML code that provides an overall framework of how the site will look.

**CSS:**

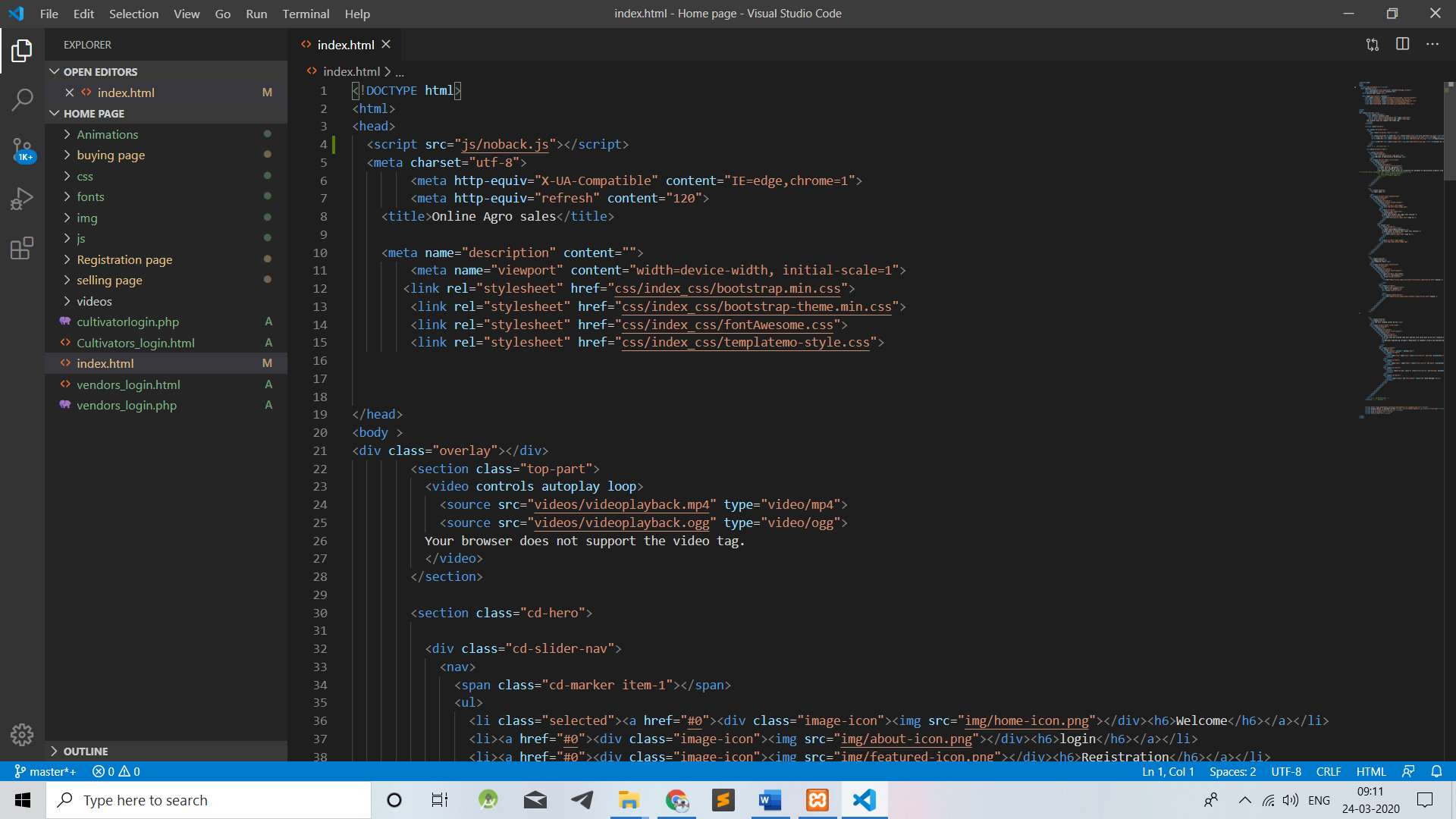
Cascading Style Sheets (CSS) controls the presentation aspect of the site and allows your site to have its own unique look. It does this by maintaining style sheets which sit on top of other style rules and are triggered based on other inputs, such as device screen size and resolution.

**Javascript:**

JavaScript is an event-based imperative programming language (as opposed to HTML's declarative language model) that is used to transform a static HTML page into a dynamic interface. JavaScript code can use the [Document Object Model] (DOM), provided by the HTML standard, to manipulate a web page in response to events, like user input.

**Bootstrap:**

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.



**Fig.no:4.2** Visual Code

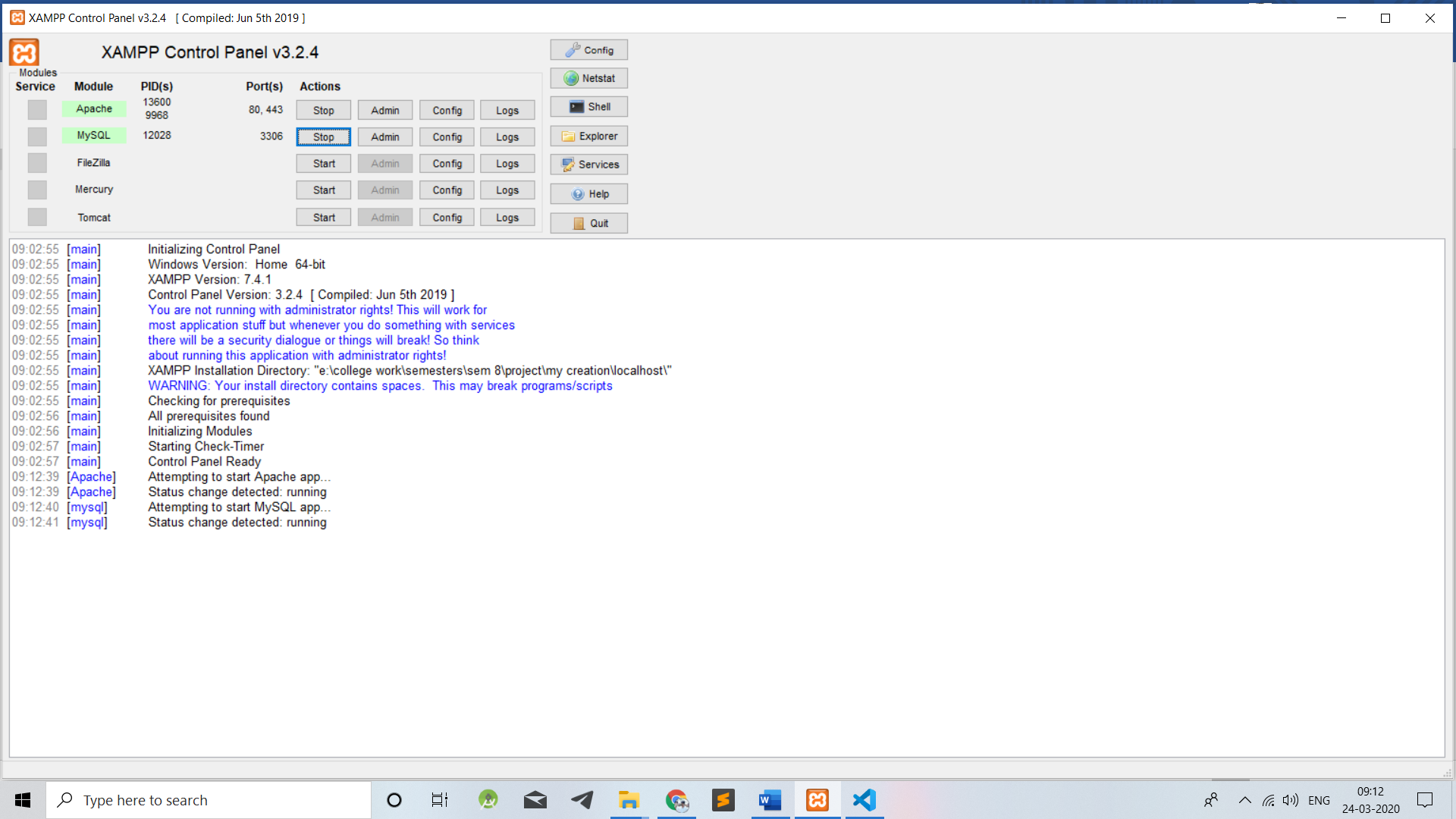
# Back-End

# The ****backend**** (or “server-side”) is the portion of the website you don’t see. It’s responsible for storing and organizing data, and ensuring everything on the client-side actually works. The backend communicates with the front-end, sending and receiving information to be displayed as a web page. Whenever you fill out a contact form, type in a web address, or make a purchase (any user interaction on the client-side), your browser sends a request to the server-side, which returns information in the form of frontend code that the browser can interpret and display.



**Fig.no:4.3** XAMPP Server

XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages.



**Fig.no:4.4** XAMPP Control Panel

# PHPMyadmin

phpMyAdmin is an open-source software tool introduced on September 9, 1998, which is written in PHP. Basically, it is a third-party tool to manage the tables and data inside the database. phpMyAdmin supports various type of operations on MariaDB and MySQL

It is the most popular application for MySQL database management. We can create, update, drop, alter, delete, import, and export MySQL database tables by using this software. phpMyAdmin also supports a wide range of operation like **managing databases, relations, tables, columns, indexes, permissions, and users**, etc., on MySQL and MariaDB. These operations can be performed via user interface, while we still have the ability to execute any SQL statement.



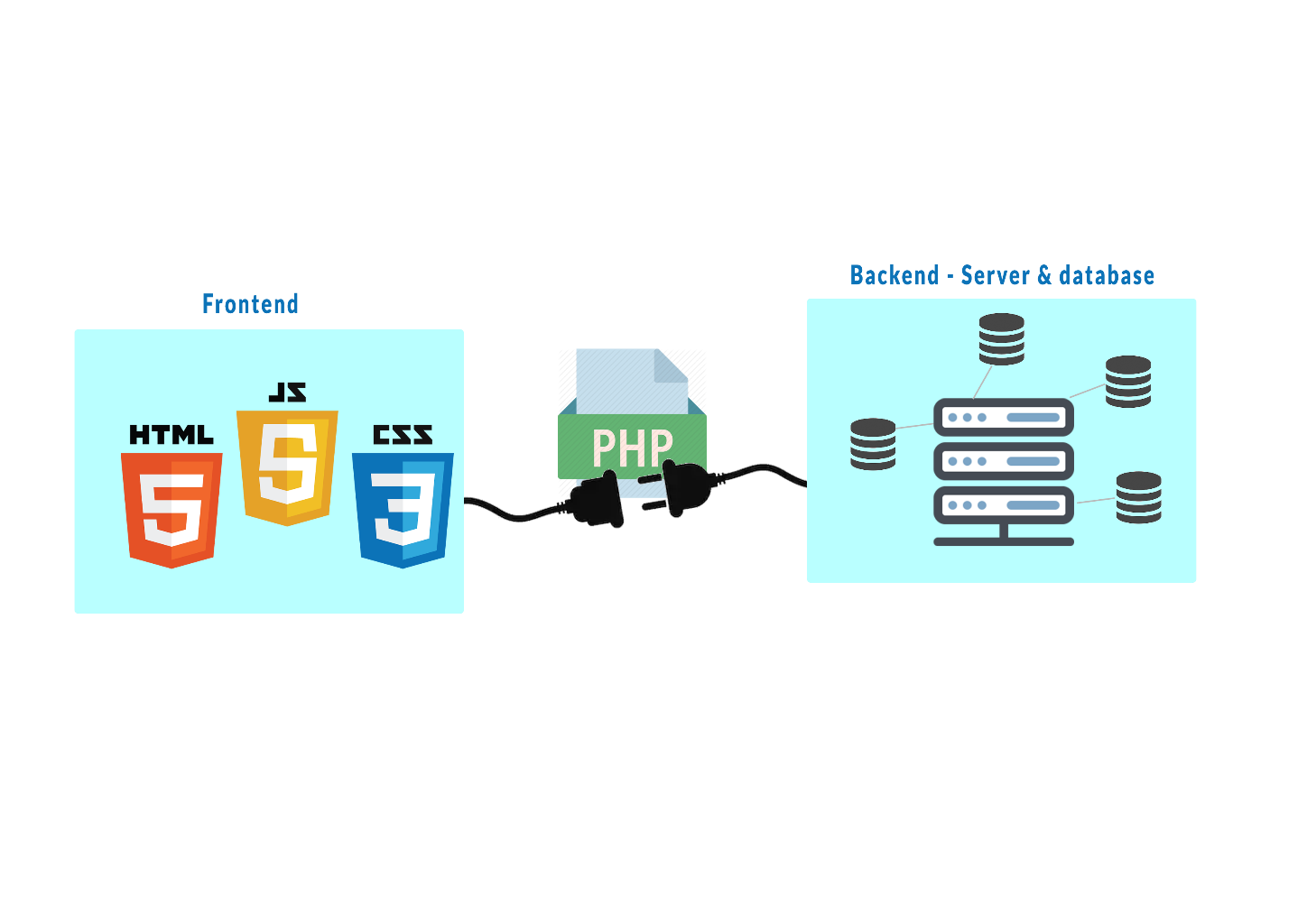
**Fig.no:4.5** PHP MyAdmin

# Integration of front and back end

**Front End development and Back End development** are responsible for the internet you interact with — all day, every day. **Front End development** uses programming languages to create what the user sees in a browser. **Back End development** uses programming languages to fulfil those requests on the server side. Combined, it creates a seamless experience for the user.

Diving deeper, this exact page was created using three Front End languages. The words you’re reading are laid out in HTML. The spacing and colors are defined by CSS. The interactive graphics are the result of JavaScript. Back End languages working in the background include Ruby, Python, and PHP.

Let’s get away from the technical for a second. In many ways, it’s similar to a city or a house. In a city, there’s the surface level that you’re interacting with and the infrastructure that’s then supporting that surface level. It could be the plumbing system, or the electrical grid powering the city. But, there’s always something you’re seeing and something that’s working behind that. In a house, the foundation and frame could be considered HTML. CSS adds the design elements while JavaScript could be all the things that make a house a home. The back end could be the utilities and other necessary services.



**Fig.no:4.6** Integration of front end and back end

# REQUIREMENTS

# 4.3.1 Text Editor:

# A text editor is a type of computer program that edits plain text. Such programs are sometimes known as "notepad" software, following the naming of Microsoft Notepad.Text editors are provided with operating systems and software development packages, and can be used to change files such as configuration files, documentation files and programming language source code.

# Some notable text editors include

* [Sublime Text](https://kinsta.com/blog/best-text-editors/#sublime-text)
* [Atom](https://kinsta.com/blog/best-text-editors/#atom)
* [Notepad++](https://kinsta.com/blog/best-text-editors/#notepad-plus-plus)
* [TextMate](https://kinsta.com/blog/best-text-editors/#textmate)
* [UltraEdit](https://kinsta.com/blog/best-text-editors/#ultraedit)
* [BBEdit](https://kinsta.com/blog/best-text-editors/#bbedit)
* [Komodo Edit](https://kinsta.com/blog/best-text-editors/#komodo-edit)
* [Visual Studio Code](https://kinsta.com/blog/best-text-editors/#visual-studio-code)
* [Brackets](https://kinsta.com/blog/best-text-editors/#brackets)
* [CodeShare](https://kinsta.com/blog/best-text-editors/#codeshare)

# 4.3.2 Internet Browser:

A web browser (commonly referred to as a browser) is a [software application](https://en.wikipedia.org/wiki/Software_application) for accessing information on the [World Wide Web](https://en.wikipedia.org/wiki/World_Wide_Web). When a [user](https://en.wikipedia.org/wiki/User_(computing)) requests a particular [website](https://en.wikipedia.org/wiki/Website), the web browser retrieves the necessary content from a [web server](https://en.wikipedia.org/wiki/Web_server) and then displays the resulting [web page](https://en.wikipedia.org/wiki/Web_page) on the user's device.

A web browser is not the same thing as a [search engine](https://en.wikipedia.org/wiki/Web_search_engine), though the two are often confused. For a user, a search engine is just a website, such as [Google Search](https://en.wikipedia.org/wiki/Google_Search), [Bing](https://en.wikipedia.org/wiki/Bing_(search_engine)), or [DuckDuckGo](https://en.wikipedia.org/wiki/DuckDuckGo), that stores searchable data about other websites. However, to connect to a website's server and display its web pages, a user must have a web browser installed.

# 4.3.3 Server:

# Servers can run on any computer including dedicated computers, which individually are also often referred to as “the server”. In many cases, a computer can provide several services and have several servers running. A client is a piece of computer hardware or software that accesses a service made available by a server.The servers which we use belong to 000webhost.com..000webhost servers use advanced firewalls and include DDoS protection. A dedicated admin team also monitors the server around the clock to prevent downtime.

**CHAPTER V**

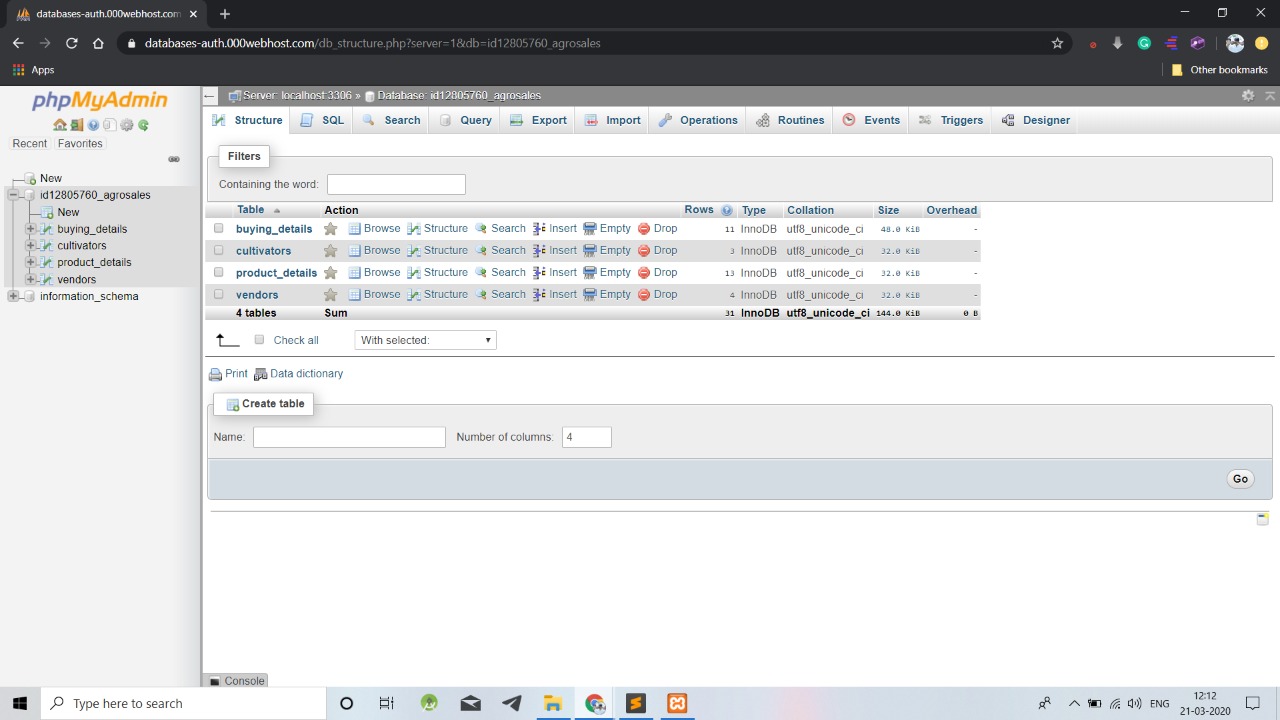
**IMPLEMENTATION AND RESULTS**

**5.1** **WORKFLOW**

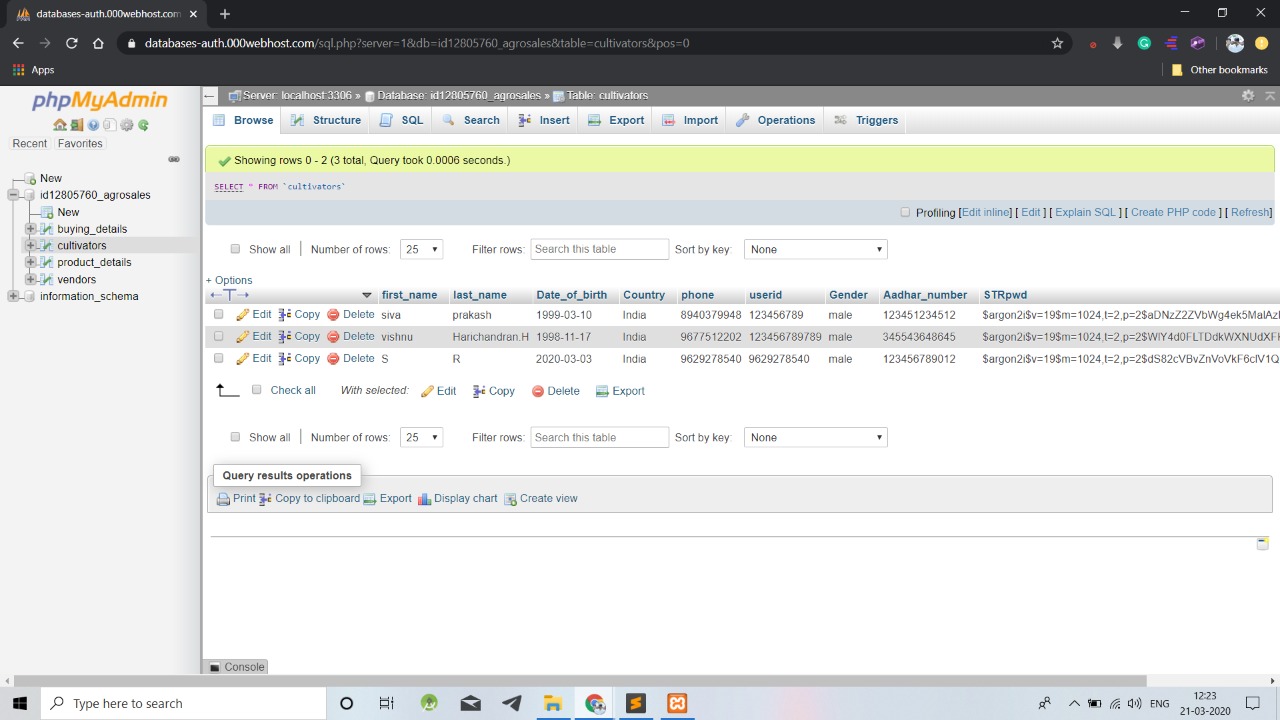
1. Account creation in 000webhost.com
2. Choosing a domain name for the website
3. Creating a database with 4 tables(Customer details,vendor details,product details and buying details)
4. Setting up separate user registration for both farmers and vendors
5. Logging In with unique ID and passwords
6. Storing the hashed passwords in the database with the help of argon2i hash function
7. Farmer’s Side:
   1. Logging In
   2. Product entry
   3. View Cart
8. Vendor’s Side:
   1. Loggin In
   2. Viewing the Products
   3. Bidding for products
   4. Contact Farmer
9. After successful completion of bidding,the farmer can view the list of vendors willing to buy the products and farrmers can choose whom to contact in case of selling.

**5.2 IMPLEMENTATION:**

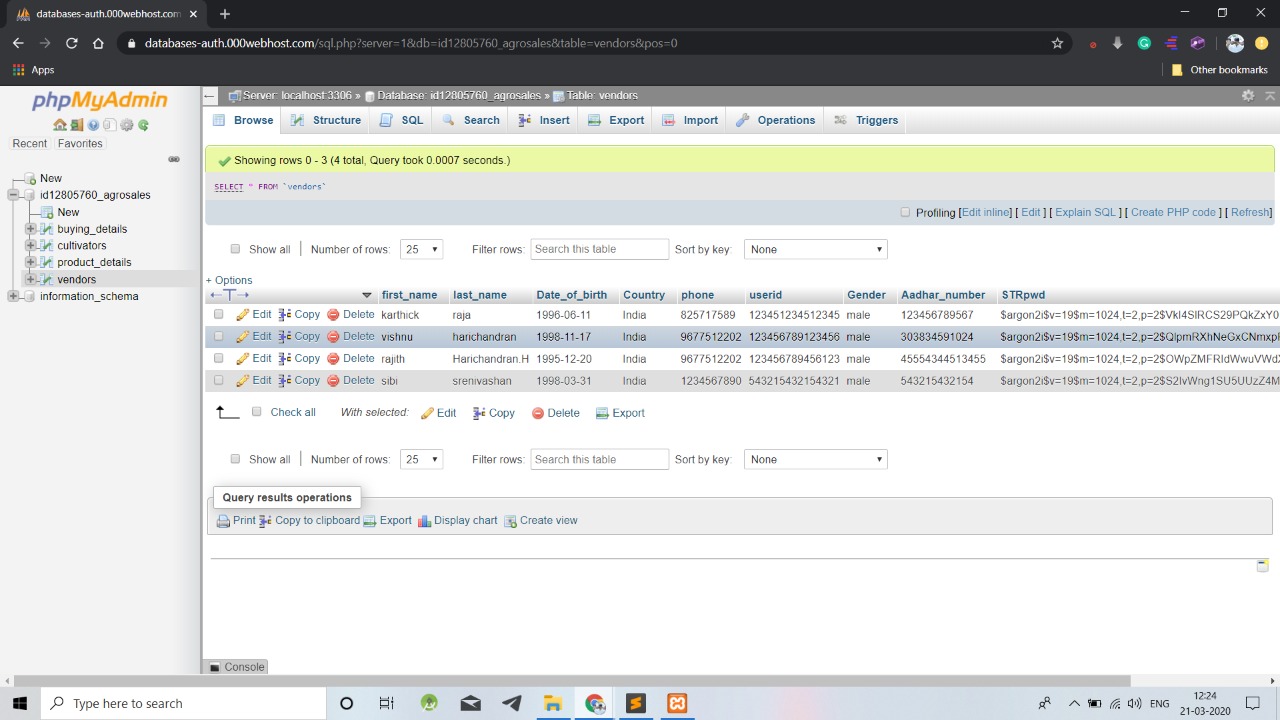
Once the website has been hosted onto the 000webhost servers,users from anywhere can utilize this website to sell their products online.



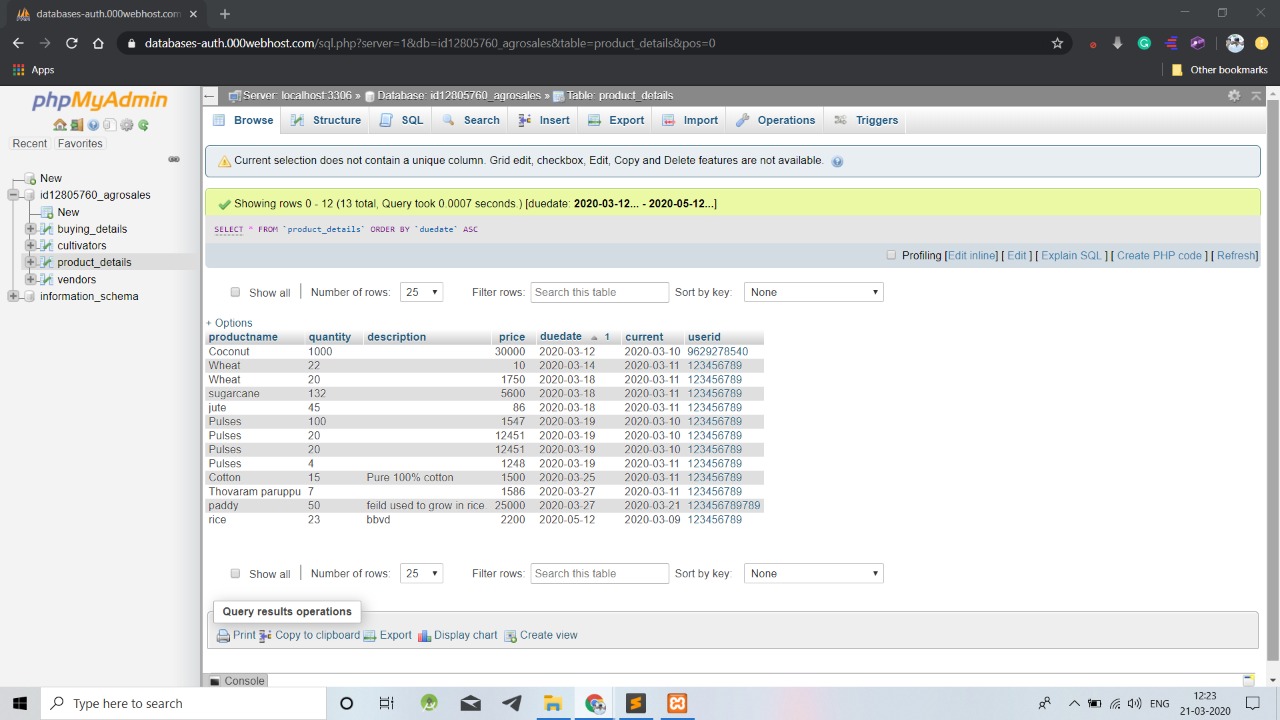
**Fig.no:5.1** Agrosales database and tables



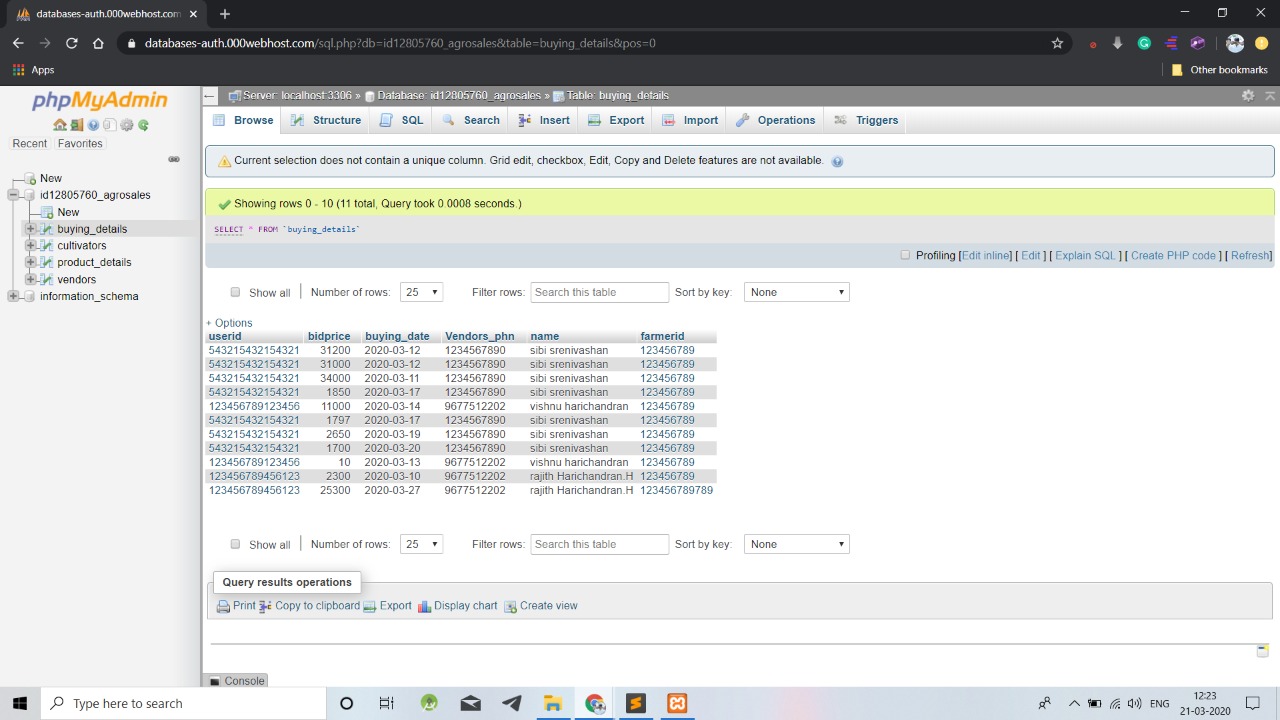
**Fig.no:5.2** Cultivators Table and fields



**Fig.no:5.3** Vendors Table and fields



**Fig.no:5.4** Product\_details Table and fields

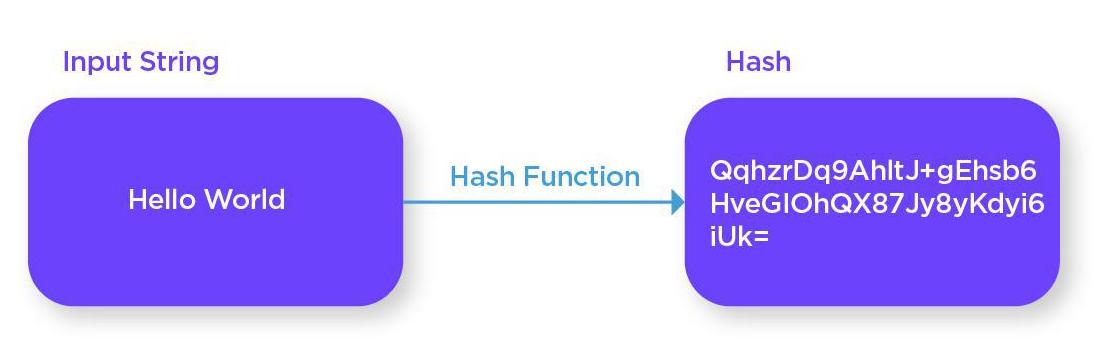


**Fig.no:5.5** Buying\_details Table and fields

* + 1. **Password Hashing**

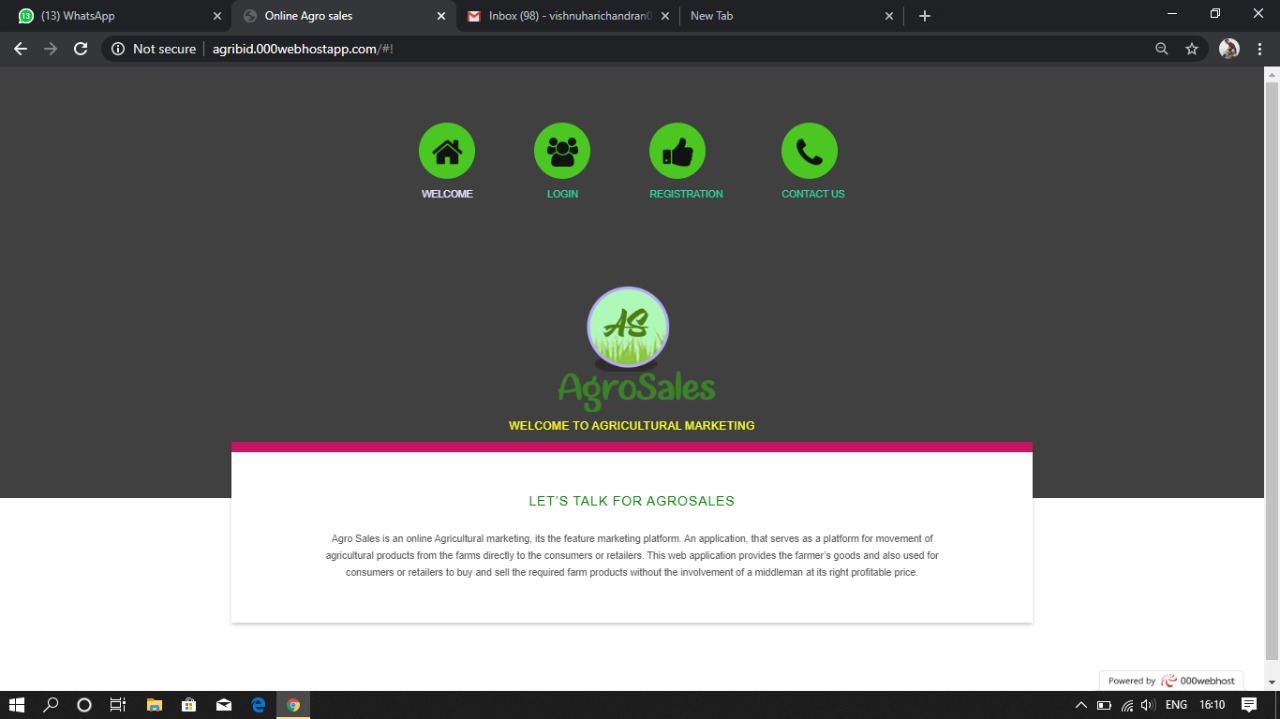
Hashing passwords is the common approach to storing passwords securely. Hashing a password is good because it is quick and it is easy to store. Instead of storing the user's password as plain text, which is open for anyone to read, it is stored as a hash which is impossible for a human to read.

So many Hash functions are in there we use Argon2i. It provides security against brute force attacks using a predefined memory size, CPU time, and a degree of parallelism to prevent GPU attacks. It uses 3 parameters that control the memory requirements, the execution time, and the parallelism level.



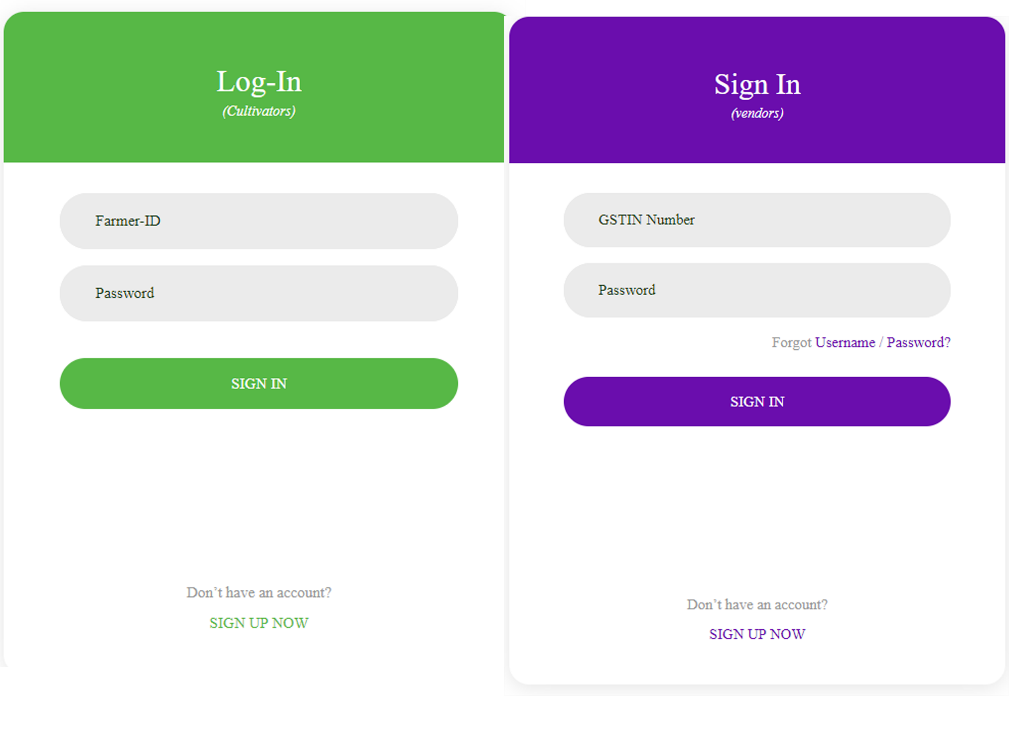
**Fig.no:5.6** Hash Password

* 1. **RESULT**



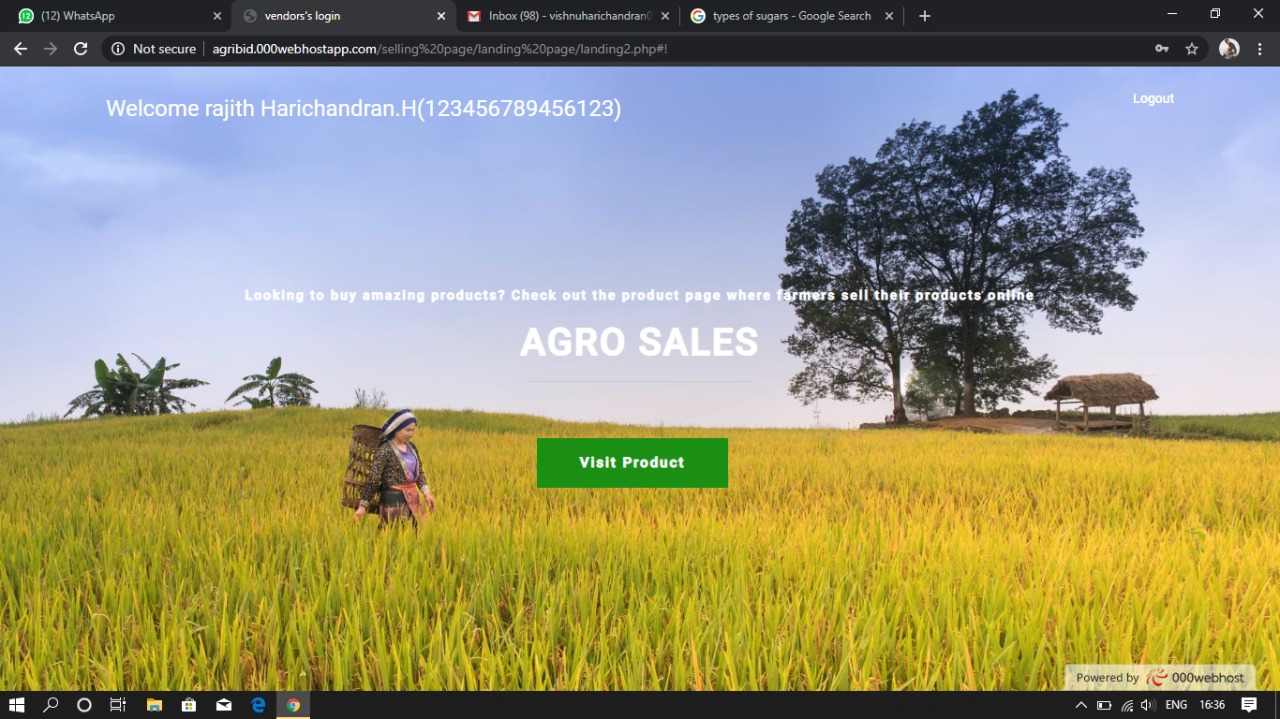
**Fig.no:5.7** Agribid webpage

New users have to sign up under the registration tab,After successful registration the users can login into their designative Login section.



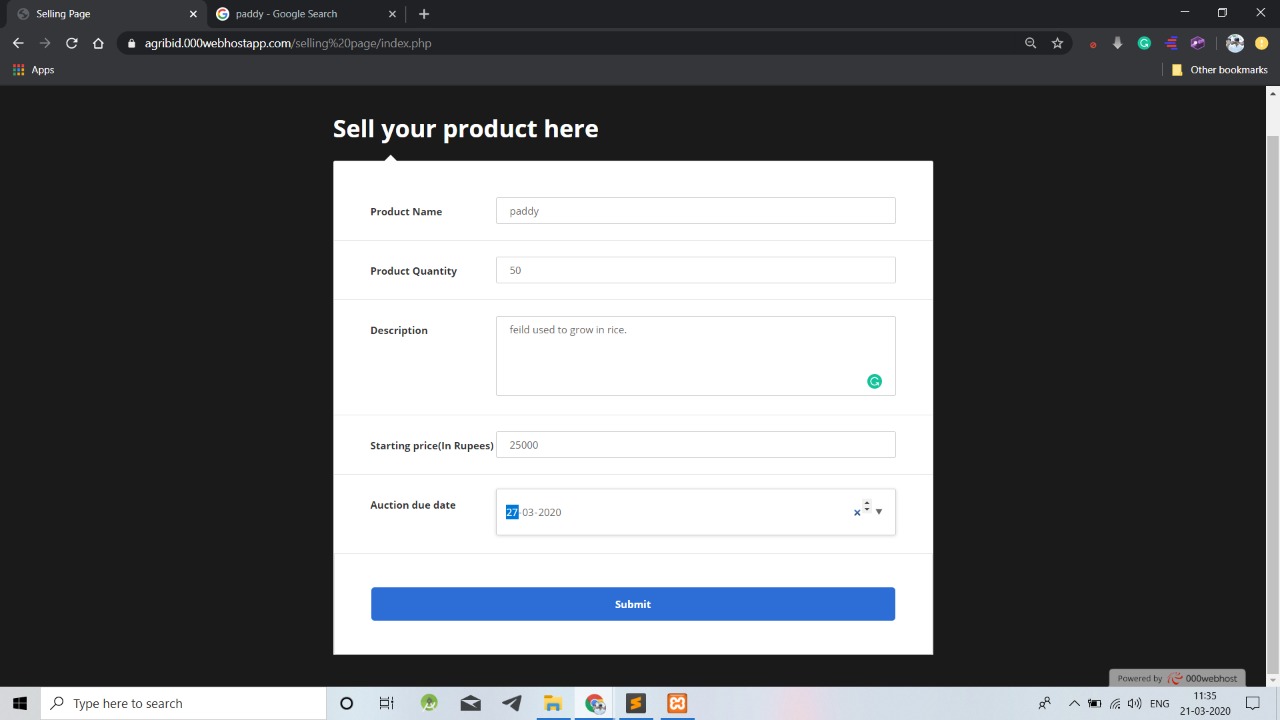
**Fig.no:5.8** Login page for cultivators and vendors

For security purposes,any password that an user submits is never stored in the database as plaintext.This vulnerability may even lead to exploitation by hackers.That is why the passwords are hashed by a secure hashing algorithm called argon 2i before entry into the database.This means that even the website administrators do not know the plaintexts of the password.This security feature is provided by an inbuilt function in PHP 7.Upon Login,the plaintext of the password is hashed and verified with the hash stored in our database.

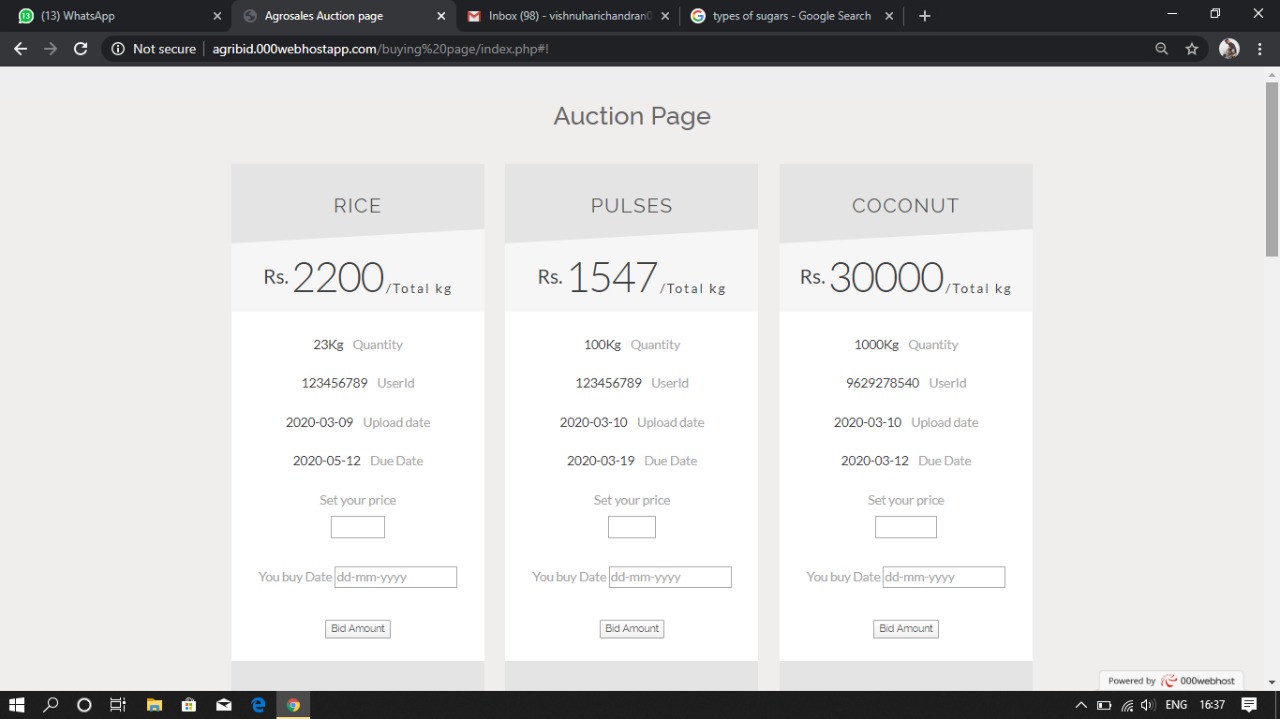


**Fig.no:5.9** vendor’s home page

After Logging in,The users are led to a landing page where they are welcomed by their Usernames and their unique identification.

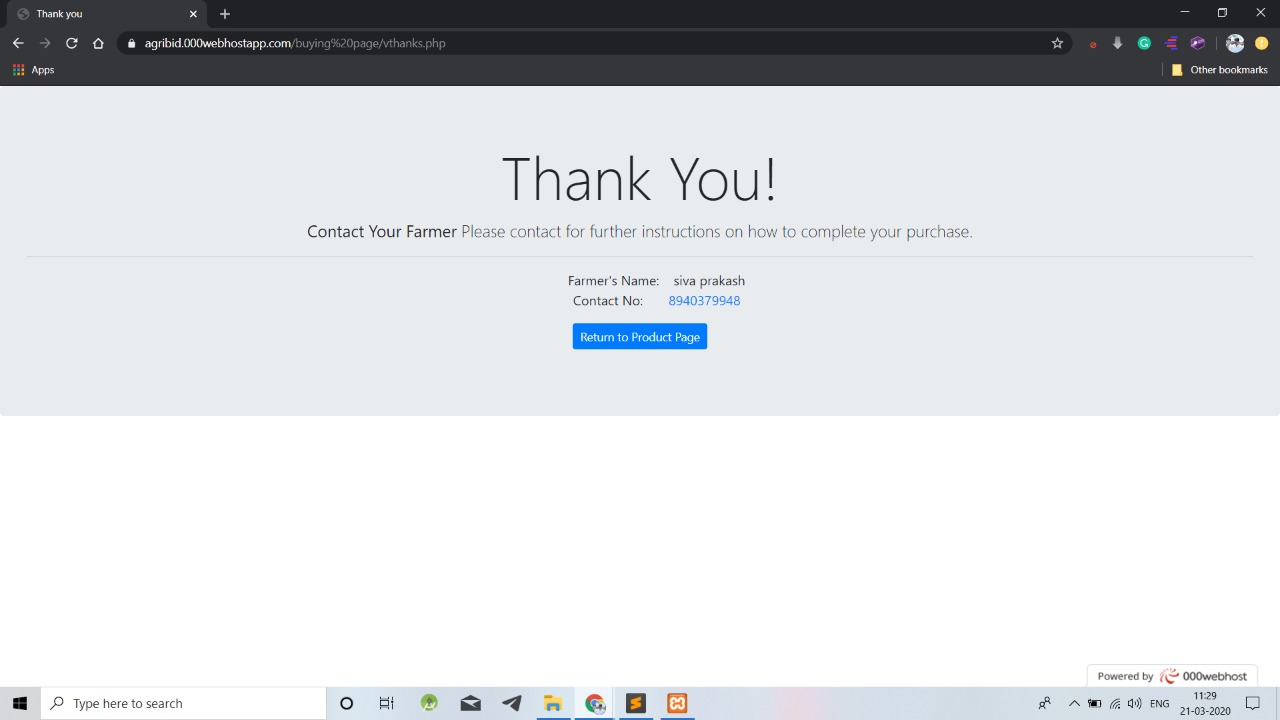
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**Fig.no:5.10** Farmer’s Selling page



**Fig.no:5.11** Vendor’s Buying Page

The vendor can quote his desired price for buying the product,The price can be a maximum of 5times the original product price. Based on the price of bidding,the vendor’s chance of getting increases/decreases respectively.



**Fig.no:5.12** Thankyou page

Once the product has been bidded the vendor can call the farmer to explain his interests to buy his product,This can improve social relationships between the farmer and the vendor.

# CHAPTER VI

* 1. **CONCLUSION**

An Online Bidding application deployed on CloudPlatform as a Service(PaaS) for sales of agricultural products and deploys end to end live application feature. The project is completely related to the farmers and the customers. It would benefit both of them equally. Farmers will get the complete price of their hard work. Customers need to pay only the price of the product and not the intermediate charges which are applied due to the involvement of the middlemen. This application completely eliminates middlemen hence it’s a direct communication platform between thefarmers and the customers. This web application not only provides the highest price for the farmers but also it possess many additional features which serve the application as the most easy, reliable and user friendly application which would in-turn help the users who are new to this computer era. In addition to all these facilities, cloud technology is used for hosting with which the website runs at the maximum speed without any interruption.

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