SECURE ONLINE AUCTION SYSTEM

Project report submitted in partial fulfillment of the requirement for the degree of Bachelor of Technology

in

Computer Science and Engineering/Information Technology

By

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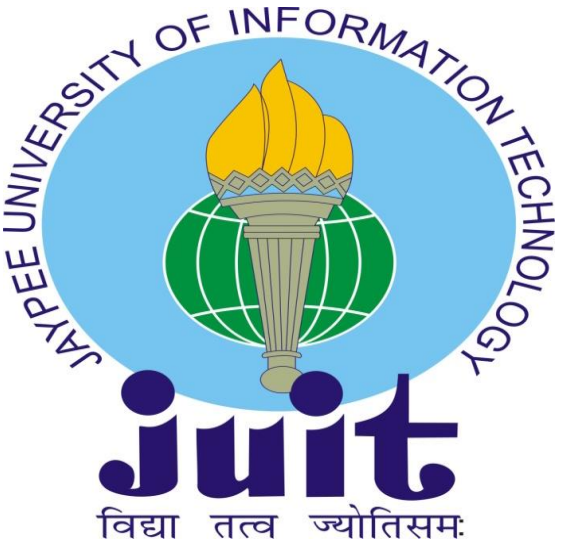
Under the supervision of

Dr. Jagpreet S. Sidhu

to



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CERTIFICATE

I hereby declare that the work presented in this report entitled **" SECURE ONLINE AUCTION SYSTEM "** in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology** in **Computer Science and Engineering** submitted in the department of Computer Science & Engineering and Information Technology**,** Jaypee University of Information Technology Waknaghat is an authentic record of my own work carried out over a period from August 2015 to December 2015 under the supervision of **Dr. Jagpreet S. Sidhu,** Assistant Professor (SG), Department of Computer Science & Engineering and Information Technology.

The matter embodied in the report has not been submitted for the award of any other degree or diploma.

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This is to certify that the above statement made by the candidate is true to the best of my knowledge.

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Firstly, I express my heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the project work successfully.

I really grateful and wish my profound my indebtedness to Supervisor **Dr. Jagpreet Sidhu,** Assistant Professor (SG), Department of CSE Jaypee University of Information Technology,Waknaghat. Deep Knowledge & keen interest of my supervisor in the field of "**INFORMATION SCIENCE AND TECHNOLOGY**" to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts and correcting them at all stage have made it possible to complete this project.

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Pranav Dabra

Ankur Rana

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Chapter 1: INTRODUCTION

1.1 Introduction

The technology has transformed into a vital part of modern life. More over 3 billion individuals throughout the world have internet connection, accounting for around 45 percent of the global population. In the last 15 years, this has climbed from 778 million users, which is a significant and quick development. By the year 2020, overall amount of monthly active users 60%. With all this in view, a pace with which this vast population seeks to purchase products is increasing, as many individuals seek sophisticated and perfect trade ways. Some individuals overspend on transport and a huge amount of time doing so, yet they may not be able to receive the products they want to see at the side of the journey.

The online auction system is a representation in which one takes part in an auction for some goods and services. This bidding set up is made convenient making the use of web-based software in which regulation of the processes is involved.

This system is a web-based programme that allows users to buy and sell anything; they may trade anything by publishing an advertisement. Users may submit their items for auction on this app, and bidders can register and bid on any accessible product. Some existing applications allow users to bid, but because the goods is not accessible in your location, you are unable to check the product before purchasing it. The user of the online Auction programme would be eligible to auction for products that are accessible in his location.

This set up is planned to be enormously having the potential to support a number of participants in a live auction. The requirement of web-based auction or online bidding is that it is often more precisely stated for the customer. It can become an adequate exercise when it is additionally built crystal clear as a situation of certainty. Nowadays, Online Auction has become more extensive in each and every kind of commercial usage. Besides including the products to be vended instead it also includes services which could be supplied. Due to its economic cost, this structure has expanded a lot.

This is significant because the bidder does not have to meet with the seller in person in order to provide the essential services (). The bidder will also have the opportunity to speak

with the vendor and ask him questions regarding the merchandise. This conversation will be private between both the contracting parties, guaranteeing the buyer's privacy. Customers will be guaranteed of receiving the correct products even though they will have some time to analyse and evaluate a variety of listed things before making an informed decision based on their needs and interests. This will save customers time in their quest for things, preventing them from worsening their circumstances and wasting time. This may save funds that would otherwise be spent on travel and bidding on unwanted products. With this online method, bidders will have a cause to grin at the conclusion of the day.

In comparison to traditional online markets, the online auction market provides consumers reduced pricing, better product selection, and higher efficiency. Buyers are more confident because of the seller's decision and the goods they create. It is made up of three parts: the seller's rating, points, and shill operations.

In today's world, Online Auction has been suited as a worthy set up for acquisition process. Users' data can be kept in an exclusive database according to own selection, in a much private way for sustainability and integrity of contractual documentation purposes, and Users can be observed. Numerous participants can be liaised with a considerable benefit.

Certificates, product descriptions and applications, and book value It aims to guarantee that purchasers receive accurate product information. Using Feedback Points, the Decision Help tool gives seller ratings. Previous successful auctioneers might use this information to assess online auction goods providers. These auctioneers provide extensive seller reviews for all elements of the vendor, including how accurate the item description is, how pleased they are with the seller's contact, and how promptly the seller ships the item to them.

1.1.1 Home Page:

The site opens a door for those looking for web users with a home page. The Home Page is designed in such a way that the structure can be used as easily as possible. There is a navigation menu at the top of the page that links to various internal pages. There is a drop-down section on the left for easy use. The centrepiece is for showcasing the latest products in a chronological order.

1.1.2 Login / User Registration:

Those wishing to participate in bidding or selling products on site must register on the site as a seller or buyer. Only authorized users can participate in sales or bidding. The system automatically disallows unauthorized users who attempt to bid or sell on the site.

1.1.3 Register Products:

This module is for introducing bids. Only those who are registered and authorized as sellers can submit their articles to bid. The module collects information such as product name, product details, initial bid price, rising price etc. The program automatically enters the closing date.

1.1.4 Bidding module:

A billing module for any selected item. The applicant must verify before participating in the bid. The system checks whether the bidder inclusion rate is equal to or greater than the minimum incremental price set at the time of product registration. The system sets a record in bidding history compared to the bidding account.

1.2 Problem Statement

The issue with public auctions is that the general people's participation is extremely limited. The project's goal is to socialise the auction so that anyone from all over the world, including across the continent, may participate. The "U Auction" website was created with the goal of eliminating the "Conventional Auction House's" fundamental flaws. The following are the site's key features:

1. Electronic Auction System
2. It is available to anybody at any time and from anywhere.
3. Reliable user validation and verification.
4. Simple online payment.

Our system is intended to be as user-friendly as possible. As a result, any prospective bidder or seller may go to the website and participate in bidding with minimal effort.

Because our system is an online auction house, the seller or bidder does not need to travel; instead, they may participate in the auction from the comfort of their own home, at any time of day or night.

The planned digital portal simplifies the auction procedure. The sole prerequisite for participation in the bidding process is that the user register and authenticate. The system employs HTTP forms authentication, which generates a session cookie for each user that logs in. The cookie is valid for the duration of the session until the user logs out.

An auction house requires items to auction, which is accomplished via the proposed system's product registration module. Users who are registered merchants can use the module, but they must first authenticate before registering any products. The mechanism regulates the termination date by extending 2 weeks towards the submission date, preventing the bidding process from continuing forever.

The "Bidding module" is another crucial component of the proposed solution. The specifics of any product, as well as the bidding history, may be seen here. Any sum more than that or equivalent to the additional bid amount can be entered by the user to bid on that item.

The "Online Management" component is the final but not least. Due to safety concerns, only the development of web - based has access to the component. This component allows system administrators to add product lines, which helps to prevent the development of duplicate categories. The second feature is the ability to alter any item. It will be essential if any of the item's characteristics have to be changed for whatever reasons. The third and final step is the final auction management, when the admin informs both the vendor and the bidder that the deal must be completed.

Other mode works in the side in a similar manner. The component's purpose is to close bids on goods with a closing date which is less than the present date. The procedure is automated and invisible to online users.

To the majority of individuals in the country and throughout the world, searching for products always has been a mind-numbing experience. Folks are always on the " go - to " one's renowned product supplier, or a nearby market centre, and at points of time a local hawker, who ends up going on to stockpile items, and when he could get the object the buyer wants, they mostly give their hands to have the item the client wishes, and at points of time they screw up up by bringing false identity and gluons deliver purloined and bad items. This is due to the fact that untrained individuals deliver things to clients.

Cone-men have long taken advantage of the discrepancy of purchasers by offering item delivery to clients. Many phoney things have made their way into people's hands, or consumers are still in a state of scarcity since they don't acquire the proper items from merchants. When customers are unsuccessful in their search for the proper things, they wish to return home. On the other side, we have competent suppliers and businesspeople who can supply and sell the things, but they have a limited number of individuals who can visit them, especially in the same area.

1.3 Objectives

- The Grail is to thrive a fool proof auction website in which any quite products or services are often bid and provides incremental services to the participants and the purveyors.
- The goods are going to be substantiated and therefore the website gives a secure surrounding for connected users.
- Secure enrolment of all users which includes a exclusive profile.
- Admin would approve the merchandise for auction. Sellers can stow bid date and time including minimum bid worth of a product.
- While signing up, the e-mail is going to be verified.
- During login, reCAPTCHA gets verified to prevent bots using the system.
- Password encryption has been done to secure the details of users in the backend.
- Two Factor Authentication has been set up in the system for giving a secure login to users so that some unknown person must not use the credentials of a user.

1.4 Methodology

- The surveillance errors in the contemporary bidding system influenced us to work on this task.
- We perceive a need of upgrade in the contemporary systems as they are vulnerable to many of the counterfeit ventures.
- Verification of User is required prior to be capable to sale or own products and we tried to gain it by the way of this venture.
- The users have to go through email verification by which we can identify that the user is a valid one.
- Users have a two factor authentication system for a secure login.

Chapter 2: LITERATURE SURVEY

An auction may be the market with a particular set of rules which helps in determining resource allocations and the costs on an idea of bids from the market. An auction is forming a quality that means performing a supply and demand within the market to which effectively helps to form a price for particular goods and services. It establishes a price that is suitable with the participants and bids for selling and buying products and therefore the goods and items are sold to the very best bidder.

An auction is particularly a method to sell some items insufficient for the demands, a way that is based on healthy competition between different buyers. It is a way for the person in marketing and a seller always wish to get the maximum amount of money which he can get for a particular product, and a buyer just wants to get that product for as low as a price possible.

Build a client reselling platform wherever consumers can bid off whatever regionally or internationally available products. Auctioneers will be able to run auctions more efficiently by using an online marketplace management system. Using this tool to create an auction will provide you access to the maximum amount of clients in your area. Bidders and sellers will be able to interact with one another through a feature. Create a platform where shops may reply to consumer requests with comments, answers to inquiries, or invitations to meet with the buyer.

Web auctions are extremely strong, and they may quickly allow an auctioneer to outperform the competition. This results in an online auction seller's natural constant equilibrium for a specific commodity and geographic area. The solo player design seems implausible for some reason.

In the trend Web auction space, the model's approximation estimates reveal the existence of a specific dominant operator.

Because there would be a variety of data transmission, and the enormous datasets will also assess the database, the database should be carefully chosen. A solid database will allow you to query data quickly.

The widespread popularity of auction sites has piqued scholarly curiosity. Although there has been a lot of study carried out to analyse auction sites, there hasn't been much work put into consolidating it and assessing the outcomes of prior research and the state of research

in this field. The goal of this research. A conceptual of reported bid studies will be used to investigate the intellectual growth of consumer behaviour in online auction research. The findings of this research are based on the review of 83 papers on the subject.

Mainly three main things matter in an auction: sellers, buyers, and auctioneers. An auction provides an advantage of easiness in knowing the price which is going on in the market. In a particular case of a physical auction, a seller which wants to sell a product will choose a particular firm for the service. The buyer or seller has to come for the auction or have to send a standby for this particular case. Buyer or seller can join an online auction system in which they can participate from anywhere and anytime whenever they want.

While also improving social wellbeing. The spread of something like the Internet has resulted in a spike in the number of persons bidding on the Internet in recent years. The significant demand for successful implementation is one of the trademarks of online auctions. On its website, the number of buyers and sellers. As a result, high-traffic auction sites have an edge over volume-restricted auction sites. As a result, consumers and sellers become increasingly polarised towards a certain site. In a range of internet and telecom applications that involve interactions between a vast number of objects, this is known as a network effect.

Bids are taken, and objects are subsequently auctioned. Online auctions are one of the next e-business applications. The bidding process will get a significant influence on business-to-business (B2B), business-to-business (B2B) consumer, and consumer-to-consumer (C2C) commerce. Online-based app development, along with contemporary web services, has ushered in a slew of advances in the area of web-based app development. In light of the foregoing, a web-based application to perform auctions to purchase and sell things has been developed. The website serves as a platform for market participants from all around the world to connect. Bidding and participation are simple due to the one location. The most common auctions are English auctions, but the programme also works with foreign bidders, like the Dutch auction.

The auction process is not only limited to computer user but also the mobile user. In online auctions when the buyer wins a particular bid he can send money to the seller online payment gateway which is very secure nowadays and therefore the product which is won will be sent to the buyer after the online transaction is complete.

Online auction is a global thing that offers a buyer a wide range of products and a broader selection. These are particular factors that make the online auction a very suitable thing for the present time.

- **Failure to deliver:** Buyers pay for something, which has never been accepted.
- **Distortion:** Findings do not match the original meaning.
- **Shill Bid:** The seller, or partner, is filing a fraudulent application aimed at raising prices.
- Provide a security system with strict access control that will allow, individually hand, legitimate users access resources, while at the same time, sensitive protection information from hackers and unauthorized users (i.e., all other users).
- OAS must provide secure data transactions from merchants to OAS and from OAS to consumers.

Chapter 3: SYSTEM DEVELOPMENT

3.1 Language Used in This Project

Table 3.1 LANGUAGE USED

S.NO	LANGUAGE USED
1.	HTML/CSS
2.	BOOTSTRAP
3.	PHP
4.	MySQL

3.1.1 HTML/ CSS

- HTML (Hypertext Markup Language) may be a terminology used for describing web documents.
- It comprises element series and expresses the formation of a web-page.
- CSS (Cascading Style Sheets) is a styling language that helps to basically design a HTML document.
- CSS keeps extrinsic stylesheets and is able to rule the blueprint of numerous web pages instantly.

3.1.2 Bootstrap

- Bootstrap is that the hottest framework for building responsive, mobile-first websites.
- It holds outline prototypes for formatting, forms, togglers, navigation and other constituents, also JavaScript extensions.
- It focuses the convenience of the evolution of zestful websites and web implementations.

3.1.3 PHP

- PHP is Hypertext Pre-processor, which may be a programing language helping website contrivers to form zestful content which interrelate with databases.
- PHP code is often parsed on a web server using a PHP parser, which could be deployed as a plugin, a server, or a Universal Internet Connection (CGI) executable.
- PHP is a dynamically typed language. It saves numbers in a console range as a 32, 64, or 128-bit signed integer, which is identical towards the C-language long kind.
- The core language of PHP specifies a vast number of functions, many of which are also accessible via extension; these processes are thoroughly described in the web PHP documentation.
- PHP 3 offered basic object-oriented programming features, which was enhanced in PHP 4. PHP was able to gain more complexity as a result, making creative work easier for PHP programmers.
-
- It is an established, open-source devising language
- Its devisions are implemented over the server
- It creates zestful content
- It also can encrypt data.

3.1.4 MD5 Encryption

- 'Message-Digest algorithm 5' is abbreviated as MD5.
- The MD5 algorithm is a file encryption and fingerprinting mechanism.
- MD5 may produce a file fingerprint to confirm that a file is same after a transfer.
- 32 hexadecimal characters make up an MD5 hash.
- In 1991, Ronald Rivest devised MD5 to supersede the Sha-256 cryptographic hash function, and in 1992, RFC 1321 was released.
- MD5 will still be widely used within 2019, notwithstanding it is very well faults and repudiation by intelligence analysts.
- On a machine with a 2.6 GHz Pentium 4 CPU, a collision attack may identify collisions in seconds.

- The introduction of off-the-shelf GPUs has substantially increased the capacity to locate collisions.
- MD5 digests are commonly used in the software industry to ensure that a transmitted file arrives in good condition.
- MD5 converts a variable-length message into a 128-bit fixed-length output.
- The input message is divided into 512-bit blocks (sixteen 32-bit words) and padded to be divisible by 512.
- First, a single bit, 1, is attached to the end of the message.
- MD5 hashes are commonly encoded as a series of 32 hexadecimal digits, which are 128 bits (16 bytes).

3.1.5 reCAPTCHA

- The encryption technology reCAPTCHA lets providers to distinguish among real vs robotic webpage accesses.
- Users had to interpret difficult-to-read text or match photos in the original edition. V2 asked users to decode data or identify photos if caches and canvases processing suggested the page was being read dynamically.
- reCAPTCHA has never interrupted users since version 3 and is designed to run automatically when users load pages or click buttons. The tool reCAPTCHA is owned by Google.
- The first version of the service was a crowdsourcing platform for digitising books, especially those that were too unreadable to be scanned by machines.
- The technology assisted in the digitization archives and was later used by Google Books for similar purposes.
- In 2013, reCAPTCHA started using behavioural analysis of browser interactions to determine if a user was human or a bot.
- Google introduced a special "hidden" reCAPTCHA during 2017, in which authentication occurs inside this backend but no problems are displayed is if client is deemed low risk, which we employ in this system.
- The reCAPTCHA tests are shown from the reCAPTCHA project's central site, which provides the words to be decoded. This is accomplished via a JavaScript API, with the server sending a callback to reCAPTCHA after the request is submitted.
- To make this procedure easier, the reCAPTCHA project provides libraries for several computer languages and applications. Although reCAPTCHA is a free tool that websites may use to help with deciphering, the reCAPTCHA software is not open-source.
- A CAPTCHA system's principal goal is to keep spambots out while letting human users in.
- Images are not increasingly emphasised in one of the CAPTCHA problems, but instead fade away when clicked and are replaced with a new picture fading in, similar to whack-a-mole.

3.1.6 Multi-Factor Authentication

- After effectively providing two or more parts of proof to an identity provider: knowledge, ownership, and inherence, is a user granted internet access or program.
- MFA safeguards user data, such as personal information or financial assets, from being accessed by an unauthorised third party who may have discovered it.
- A third-party authenticator (TPA) software provides two-factor authentication by displaying a constantly changing, randomly generated code.
- When someone attempts to log into the system, authentication takes place. The resource requests that the user provide the verification by which the user is recognised by the resource, as well as proof of the user's claim to that identity.
- Simple identification only requires one piece of proof, generally a password. For further protection, the asset will need more than a element—multi-factor identification or 2 different identification in cases when precisely large pairs of evidence are required.
- Multiple authentication factors are used to establish one's identity since an unauthorised actor is unlikely to be able to offer the elements necessary for access.
- When at minimum a few of the elements is missing or provided incorrectly during an identification effort, the user's existence is not sufficiently validated, and admittance here to property secured by sub verification is refused.
- Instead of sending an SMS or utilising another technique, a third-party authenticator app allows users to use a random made and continually refreshing code.
- These apps have the advantage of continuing to operate even when there is no internet connection.
- To make multi-factor authentication systems operate, many multi-factor authentication technologies need users to install client software.
- Credentials for web access and VPN connections. In order to utilise the token or smart card, four or five distinct software programmes may be required to be downloaded to the client PC.
- The restrictions of cross identification are prohibiting many approaches of becoming extensively used. Some people have problems recalling where they placed that USB connector or electronic token.

- Multi-factor systems, in general, need a higher initial investment as well as ongoing maintenance expenditures. The majority of hardware token-based systems are proprietary, and some suppliers levy a per-user yearly fee.

3.2 Technical Requirements (Hardware)

To run this project, we need a PC, Smartphone or Tablet with stable internet connection.

3.3 Feasibility Study

This concept is for a web places where users may put items for bidding. The things will come with a description, a value of sales, and a picture show for the customer to see. If a bidder is passionate about an object, he or she might bid for and then inspect it in person before finalising the deal with the seller.

The bidder is the one who can flexibly from anywhere and anytime due to online process. Also there is no limit of time you can place your bid anytime. Buyer and sellers can also work from anywhere using the desktop, smartphone or tablet.

The details of the product are clearly shown on the web site. User can check the details about the product prior to participation in auction. Online auction saves time and money. There is no particular place or destination where the auction takes place. Simply by logging into the auction site makes it possible for user to participate in auction and it lowers down money spent for conducting the auction.

This is significant because the bidder doesn't have to meet with the seller in person in order to provide the essential services. The bidder will have the opportunity to speak with the owner and ask him questions regarding the merchandise. This conversation will be private in between buyers and sellers, guaranteeing the buyer's privacy. Customers will be guaranteed of receiving the correct products because they will have the time to analyse and evaluate a variety of listed things before making an informed decision based on their need for it desire. This will save customers time in their quest for things, preventing them from worsening their circumstances and wasting time. This will save money that would otherwise be spent on travel and bidding on unwanted products. With this online method, bidders will have a cause to grin at the conclusion of the day.

As user participate through online medium, the result of a particular bid will be shown instantly. The amount is updated once bid is placed. The result is displayed on website when user wins the bid. When a person is going to an auction people usually schedule the auction in business hours.

Online auction is open 24/7 until provided end date and time. This is for the people who have busy schedule. It is one of the best dominances of an online auction. A person can also bid from foreign through website and can win bid.

3.4 Requirements on Major Project

Whenever you design a model, you see how effective they are, whether they are running properly or not, how useful they are. You should know how long your model is taking. How useful your model is for the society?

System Requirements can be divided into two parts:

3.4.1 Functional-Requirements

The utilitarian abilities which make an e-commerce system acceptable for public acquisition are designated as the following-

- Many-to-many functionality
- Market participants who are not centralised
- Find vendors by brand, industry, location, or barcode.
- Generate buy orders while including optionalr approver workflows
- Receive goods into the system
- Permit for "purchase criteria" to be customised.
- Market Participant data management.

To Run :

PC, Smartphone or Tablet and a stable Internet Connection

3.4.2 Non-Functional Requirements

• Performance-

The system have to be interactive and the delay must not be involved or must be less. So the system must respond to action immediately there should be no delays..

• Safety-

Information must be safely transferred to server without making any replacements in it.

• Security-

The security worry is for the user account and there should be a proper login system must be also used avoid hacking.The E-mail Verification is a way to check spam activites so that hacking activites can be avoided. Password Encryption is done in the database to prevent the passwords of the users to be known by the backend users of the system such as the admin. reCAPTCHA has been put up to prevent bots from using the system. Last but not the least, Multi-Factor Authentication has been added for confirmation of the user logging into the system such no one else must use the system using a user's credentials if one gets them.

• Usability-

The system is convenient for handling and navigating in a way with which there is no delay. In this exposition, the server needs to react according to it and transverse fastly between its states.

• Availability-

If by any chance, network connection gets disrupted at time when information is being sent to server, the data can be sent to the server for verification once more.

3.5 Use-Case Diagram of the Major Project

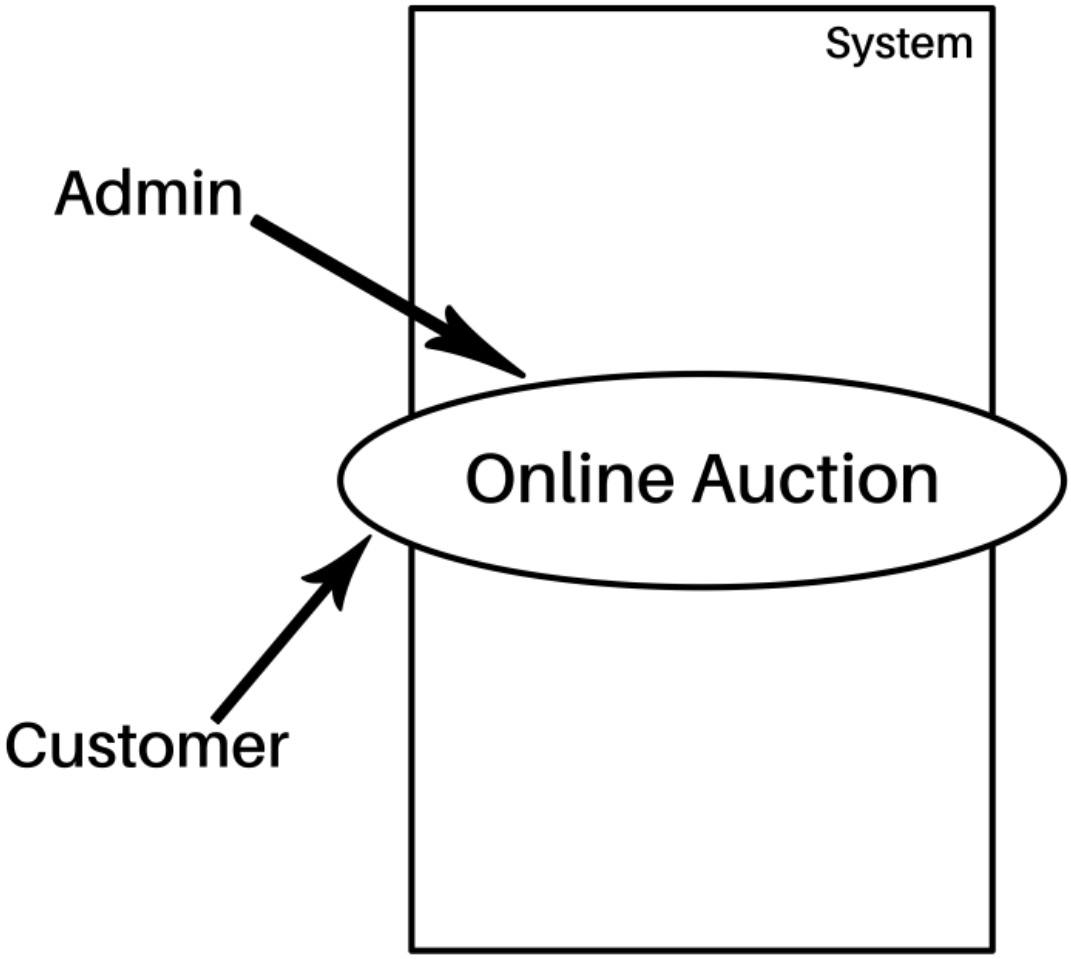


Figure 3.5.1 Use Case Diagram of the Project

3.6 Use Case Diagram of Admin

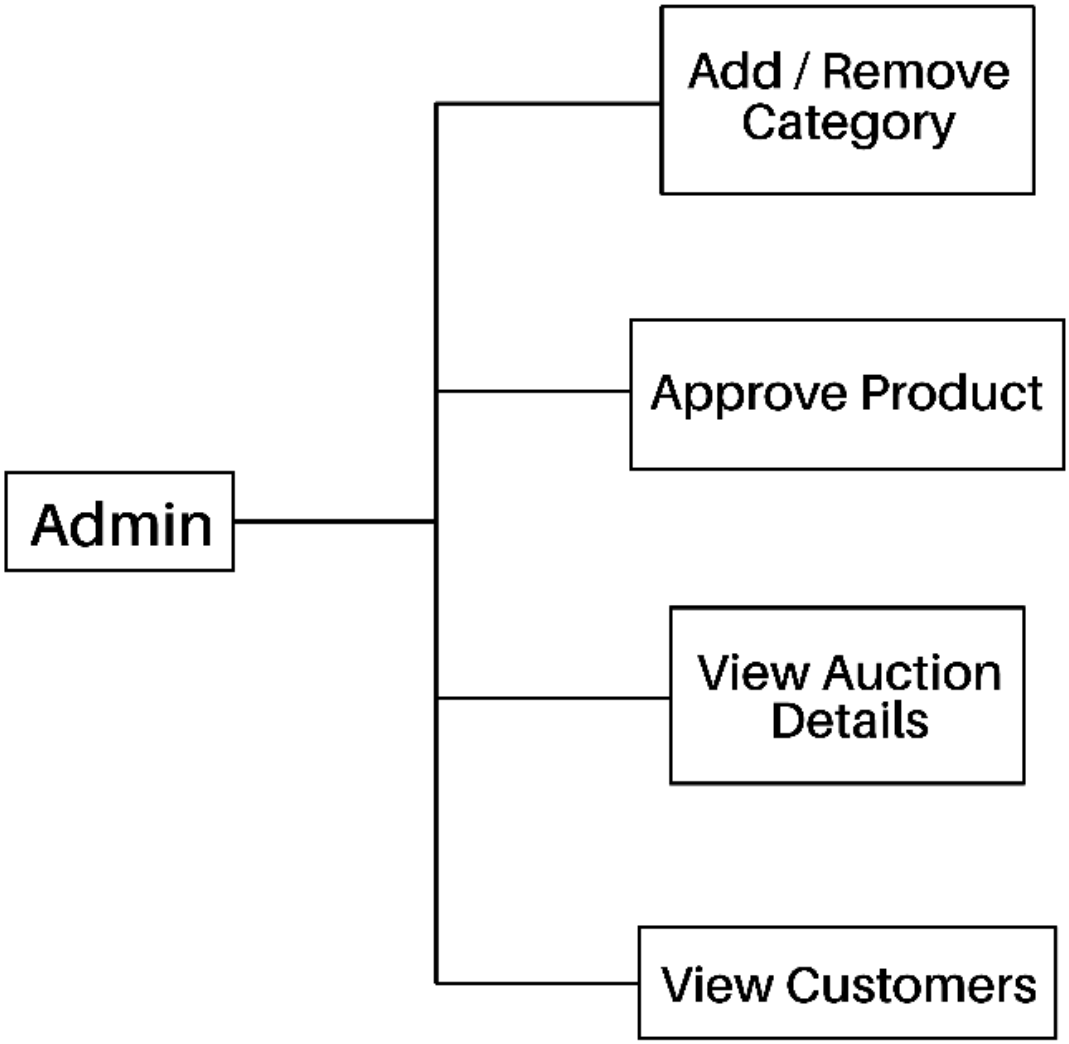


Figure 3.6.1 Use Case Diagram of Admin

3.7 Use Case Diagram of User

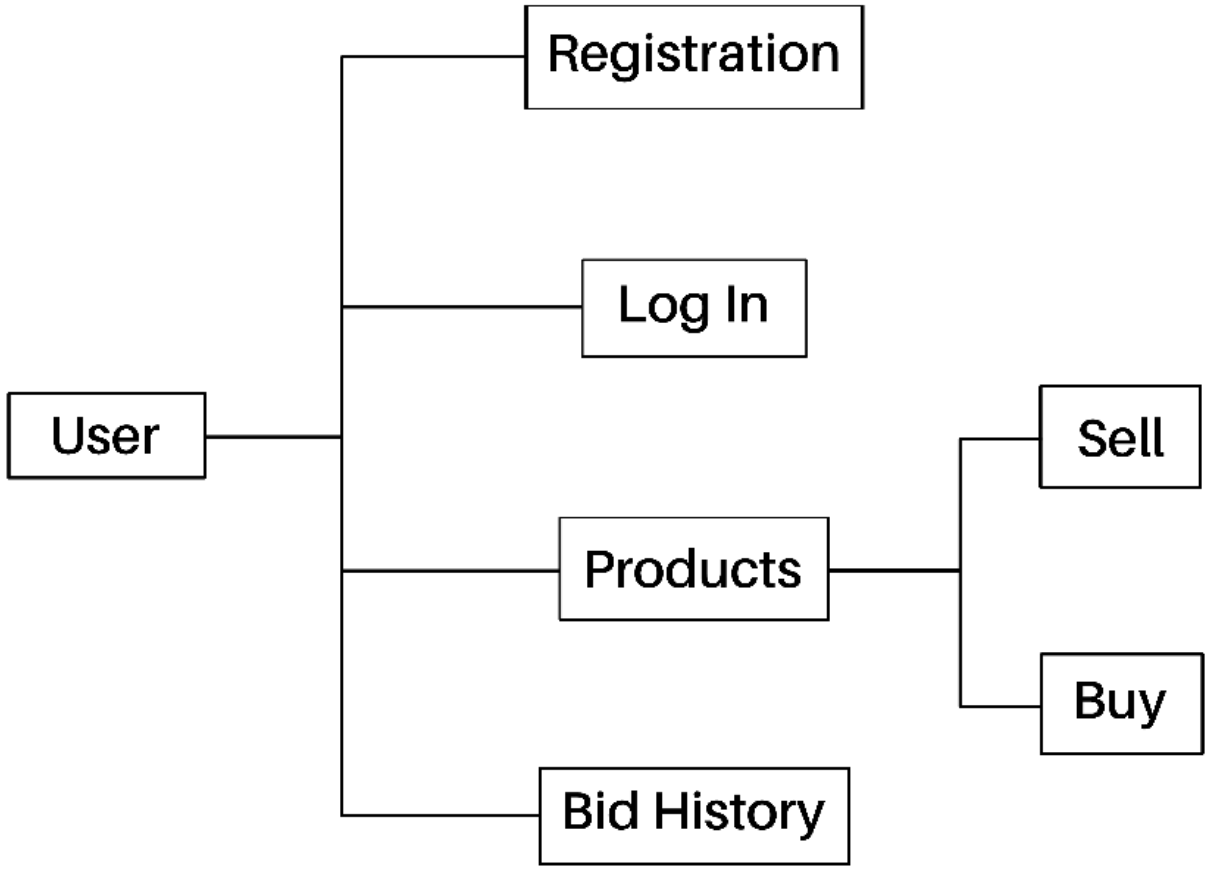


Figure 3.7.1 Use Case Diagram of User

3.8 DFD Diagram of the Major Project

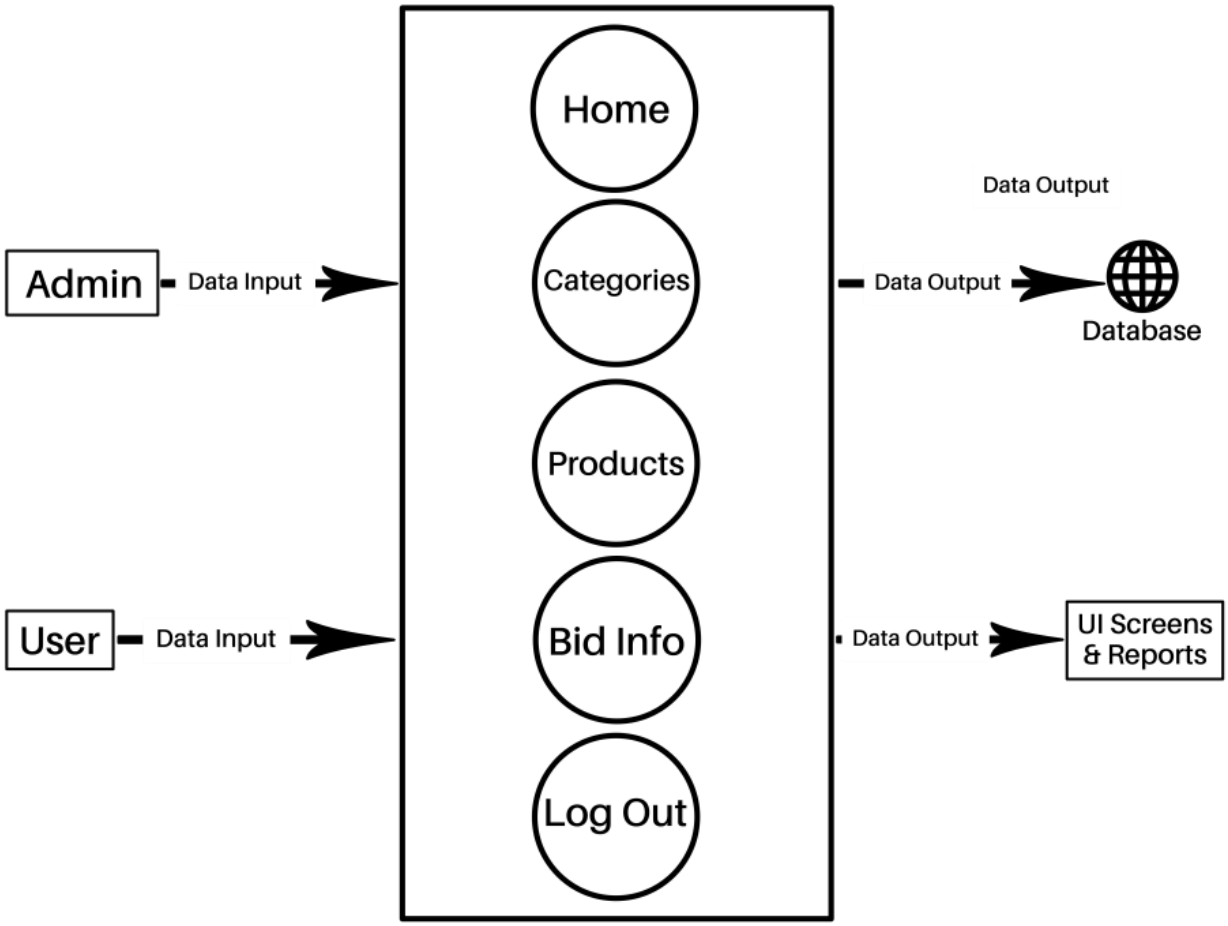


Figure 3.8.1 Data Flow Diagram

3.9 Implementation of the Major project

3.9.1 Data Set Used in the Major Project

The dataset used in online auction system are-

- Admin Info
- View Items
- View Customers
- Edit Categories
- Edit Product
- Registration
- Login
- Products

3.9.2 Data Set Features

Types of Datasets used:

- **Admin Info-**
  Admin can change edit and delete the different types of products entered in the system.
- **View Items-**
  Customer can view items in viewitem category where he can see the product up for the auction.
- **View Customer-**
  Customer can be both buyer and the seller. The person who has added his product in the auction list is seller and one who place the auction is buyer.
- **Edit Categories-**
  Admin can edit different kind of categories in the auction portal which makes easy for the customer to add and buy their product.
- **Registration-**

The customer has to register into the portal by signing up and to keep it safe the email verification link will be sent to the customer.

- **Login-**

  The customer can login once the signup is complete and verification of candidate is done.

- **Products-**

  Then the customers can see the different items listed in the auction portal.

3.9.3 Design of Problem Statement

- The demand is to thrive a structure that delivers paramount extent of surveillance as artefacts are engaged inside the operation.
- The structure should provide entire approach to the consumers and sellers to set up the goods for auction and bidding.
- The enrolment of the users should be authenticated by a proper email id that might be traced just on occurrence of a counterfeit pursuit.
- This structure will give safe enrolment and administration of the users.
- Admin would approve the merchandise for biding, sellers put up bid dates & least bid price for that artefact
- Ahead of any auction, the participant's email should be verified and approved.

3.9.4 Algorithm / Pseudo code of the Project Problem

The forepart of the gateway is delineated by the use of HTML and CSS that helped us to build a apparent time gateway for bidding. Bootstrap is accustomed to personalize the gateway for a responsive view of smartphone, tablet or PC.

For the backend, we have utilized MySQL for the database and PHP as a server. The commands were put down in MySQL then taken to PHP and connected to the front end.

3.10 Flow graph of the Major Project

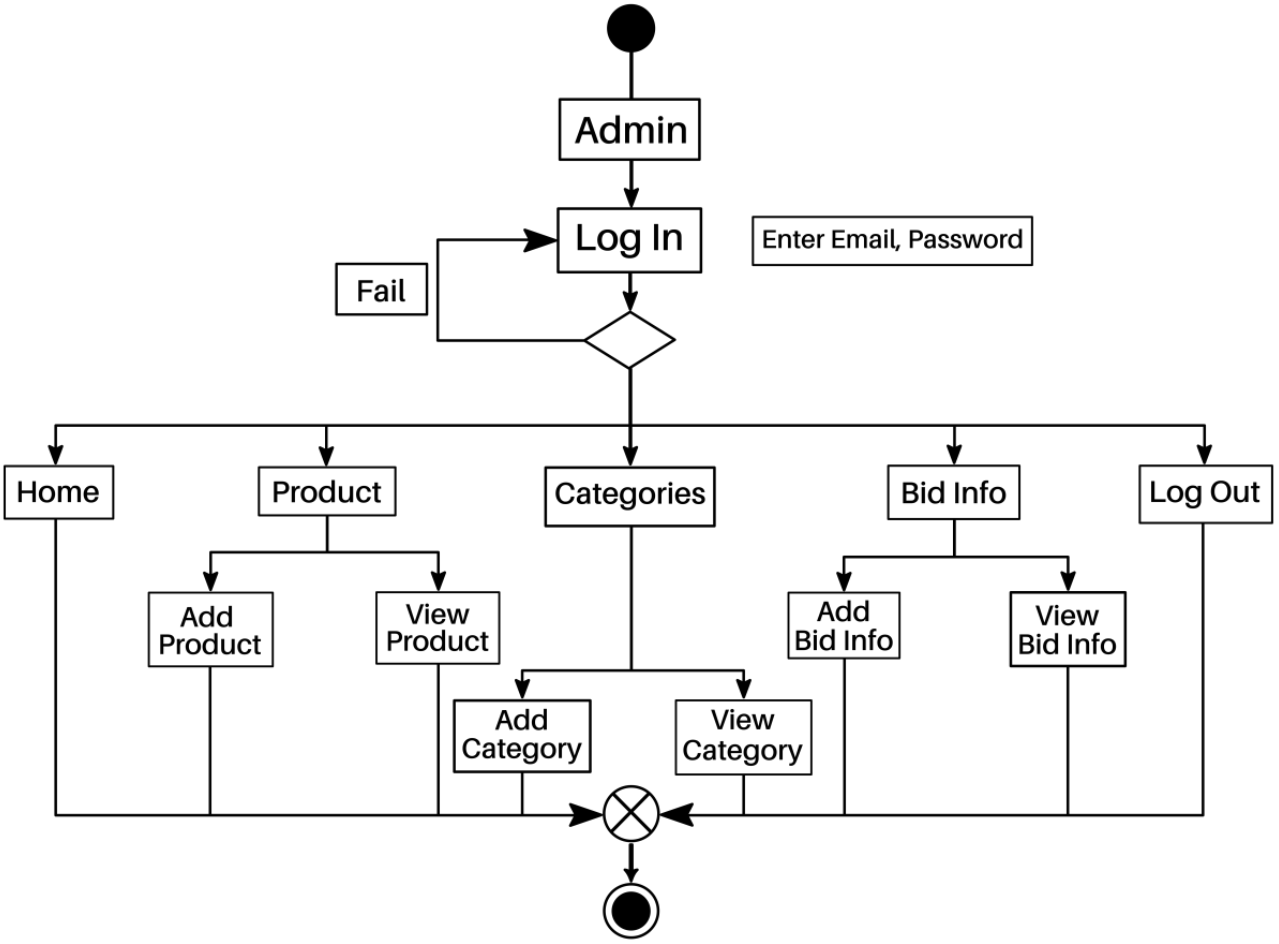


Figure 3.10.1 Flow Chart

3.11 Screenshots of the various stages of the Project

3.11.1 Log In

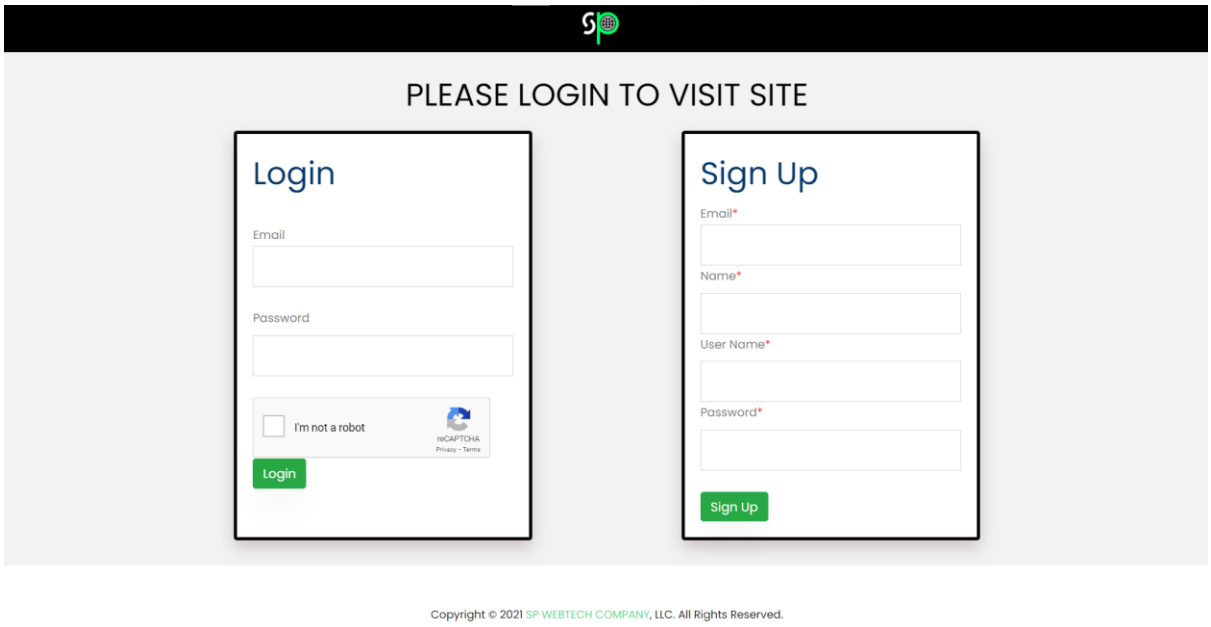


Figure 3.11.1 Log In Page using reCAPTCHA for Log In

3.11.2 Email Verification

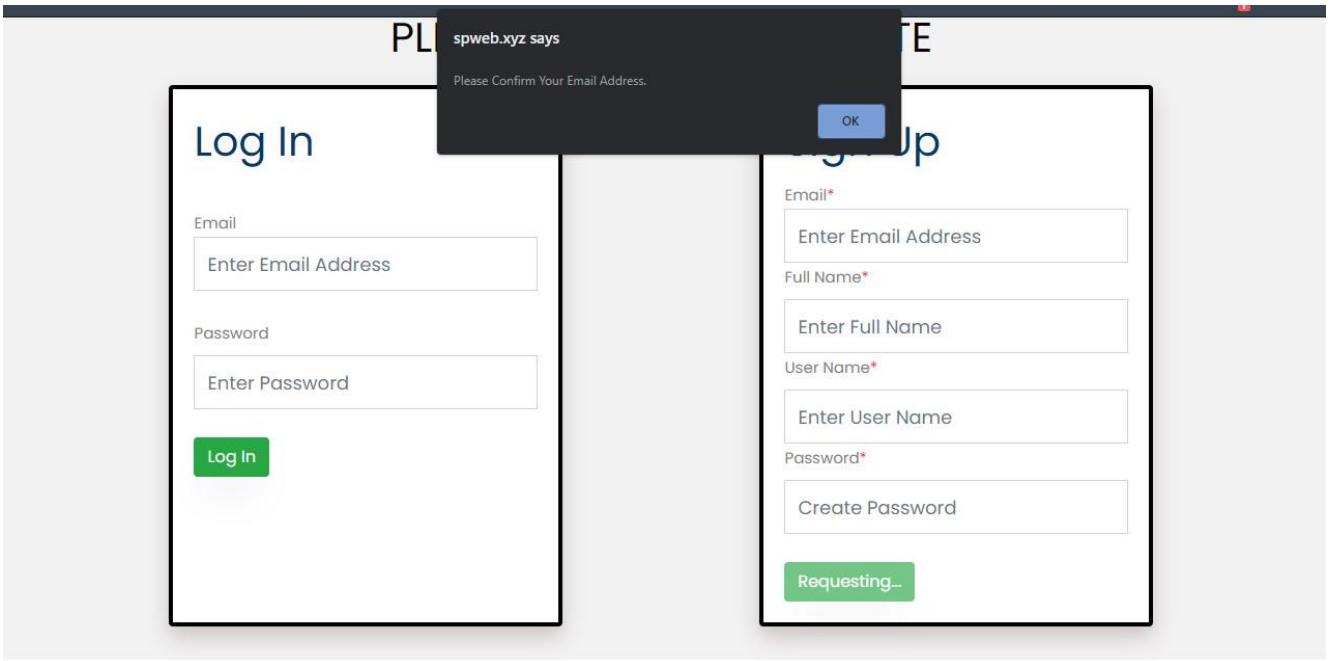


Figure 3.11.2.1 Email Verification

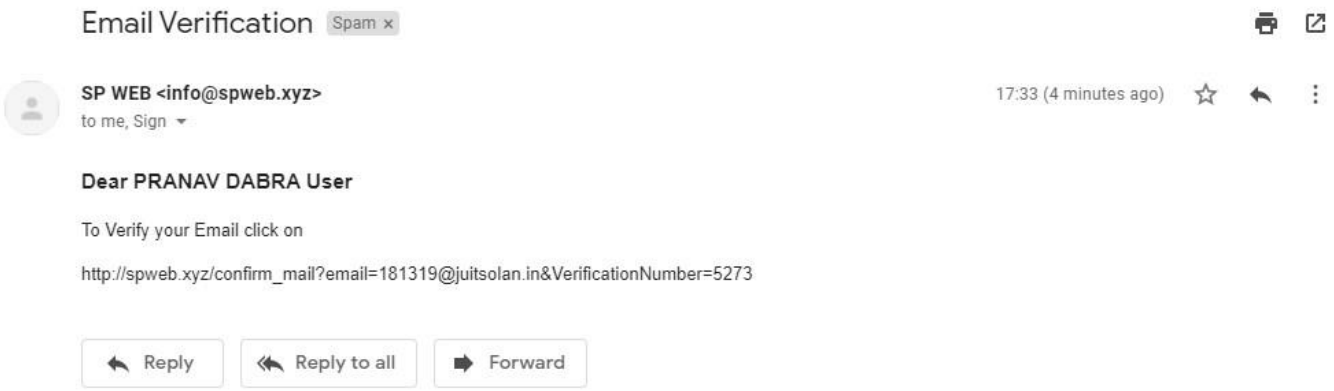


Figure 3.11.2.2 Email Verification In Mail box

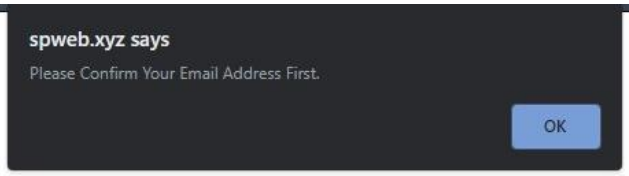
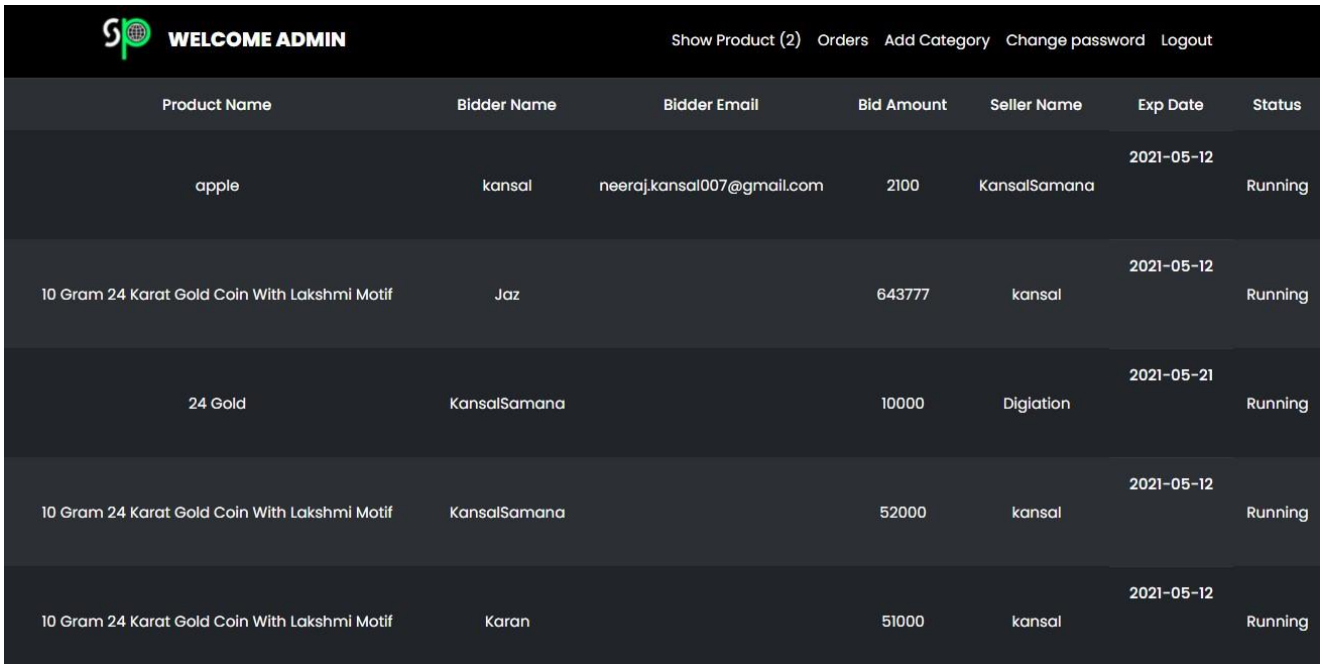


Figure 3.11.2.3 Log In Without Confirmation

Figure 3.11.2.4 Email Verified

3.11.3 Admin Portal

Figure 3.11.3.1 Admin Home Page



Product Name	Bidder Name	Bidder Email	Bid Amount	Seller Name	Exp Date	Status
apple	kansal	neeraj.kansal007@gmail.com	2100	KansalSamana	2021-05-12	Running
10 Gram 24 Karat Gold Coin With Lakshmi Motif	Jaz		643777	kansal	2021-05-12	Running
24 Gold	KansalSamana		10000	Digiation	2021-05-21	Running
10 Gram 24 Karat Gold Coin With Lakshmi Motif	KansalSamana		52000	kansal	2021-05-12	Running
10 Gram 24 Karat Gold Coin With Lakshmi Motif	Karan		51000	kansal	2021-05-12	Running

Figure 3.11.3.2 Admin View Orders

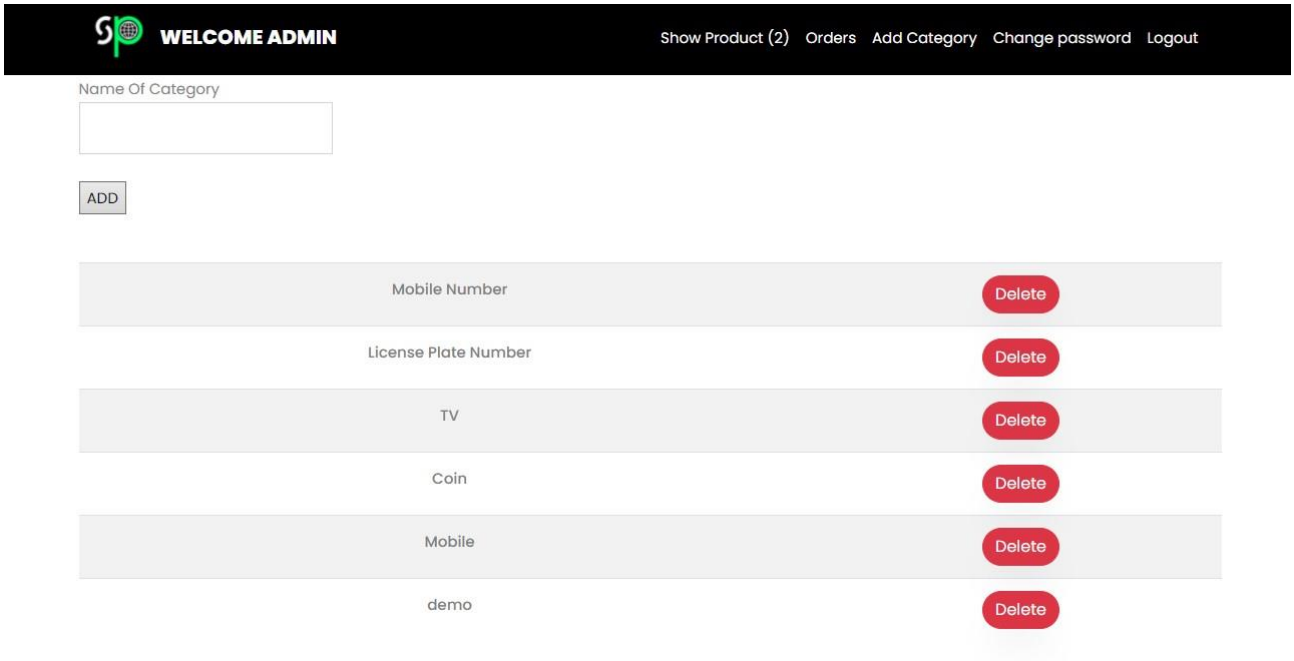


Figure 3.11.3.3 Add Category

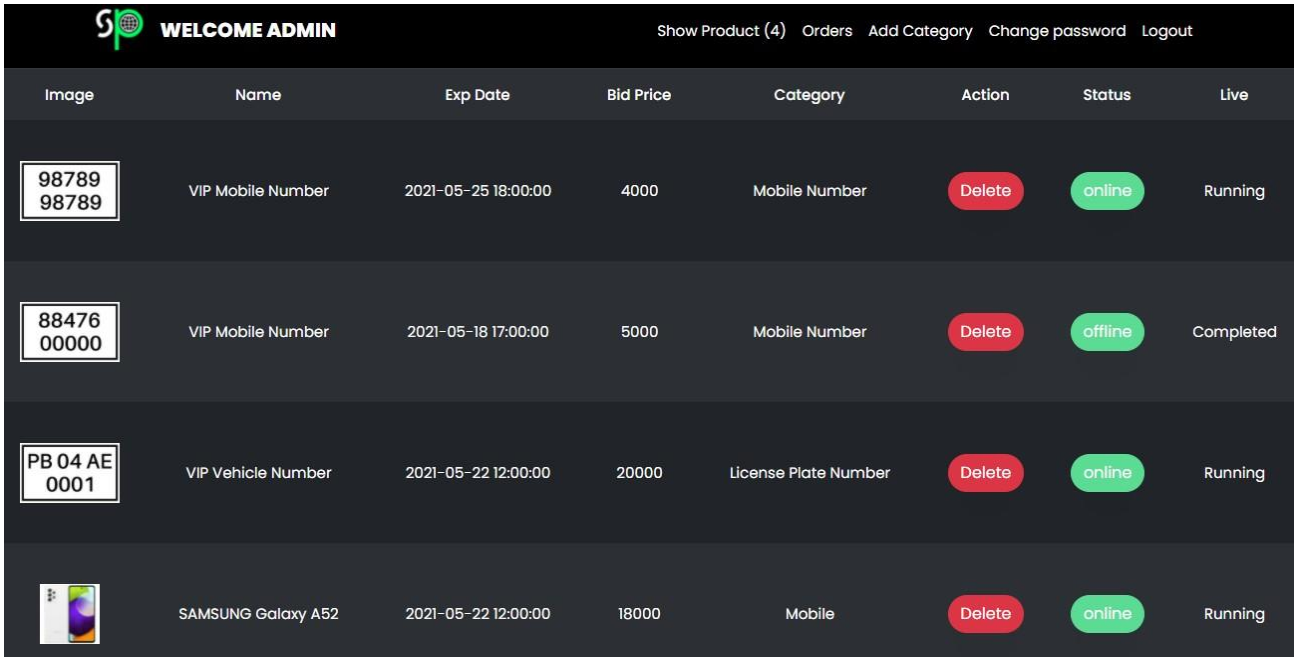


Figure 3.11.3.4 Admin Show and Approve Products for Auction

3.11.4 User Portal

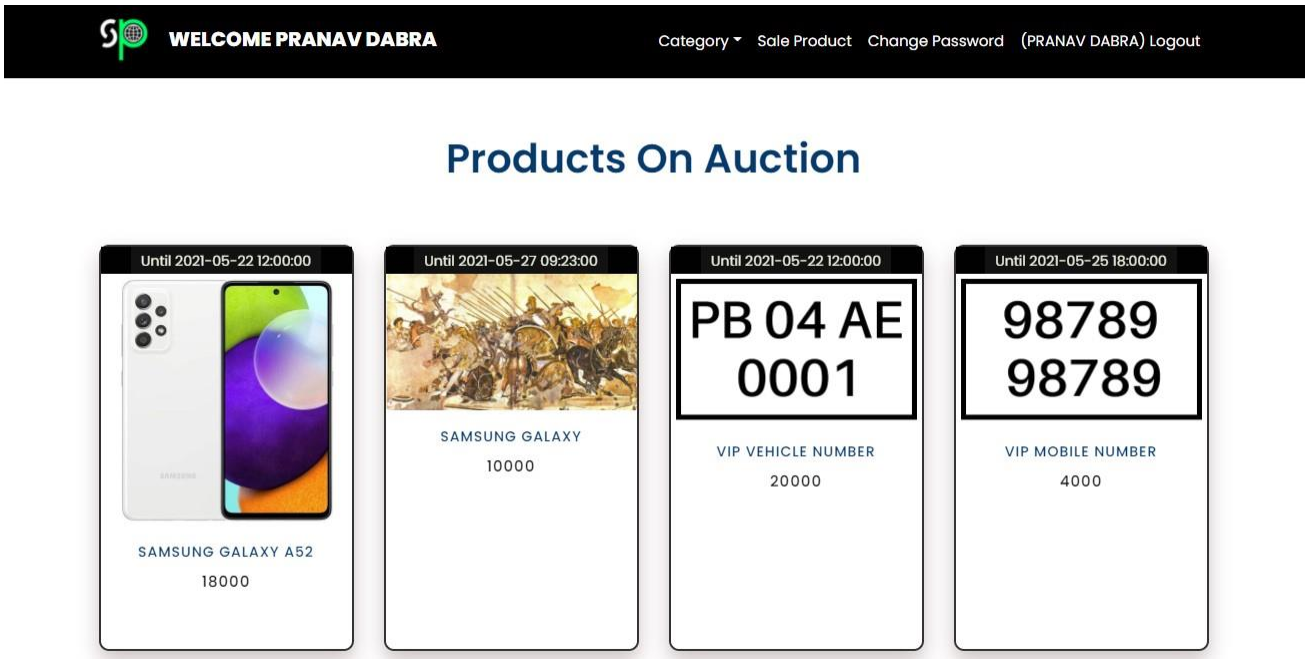


Figure 3.11.4.1 User Home Page

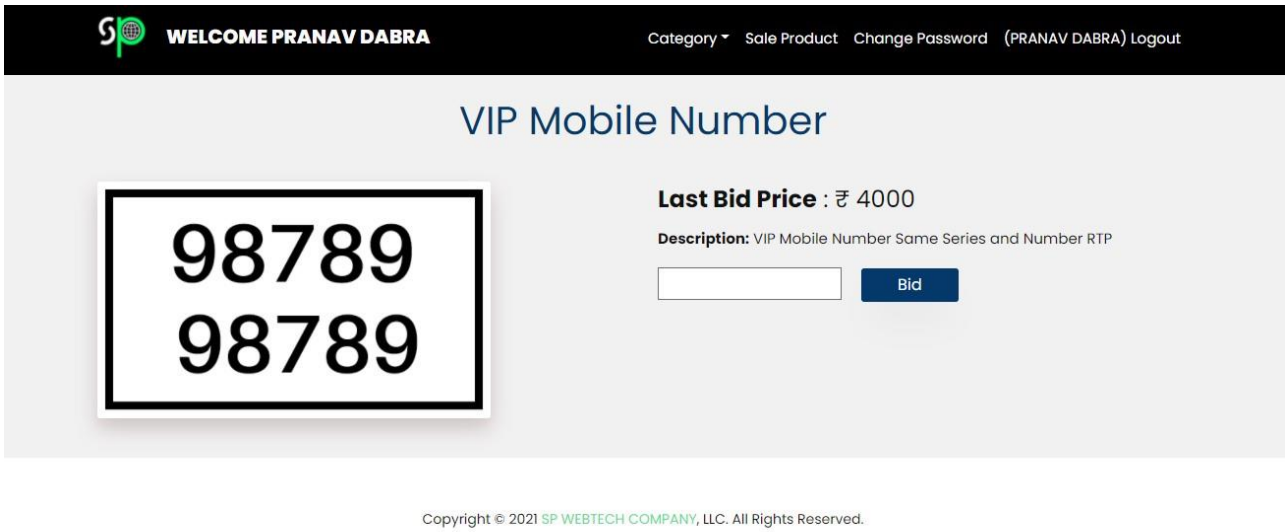


Figure 3.11.4.2 Live Auction

3.11.5 Seller Portal

Figure 3.11.5.1 Seller Home Page

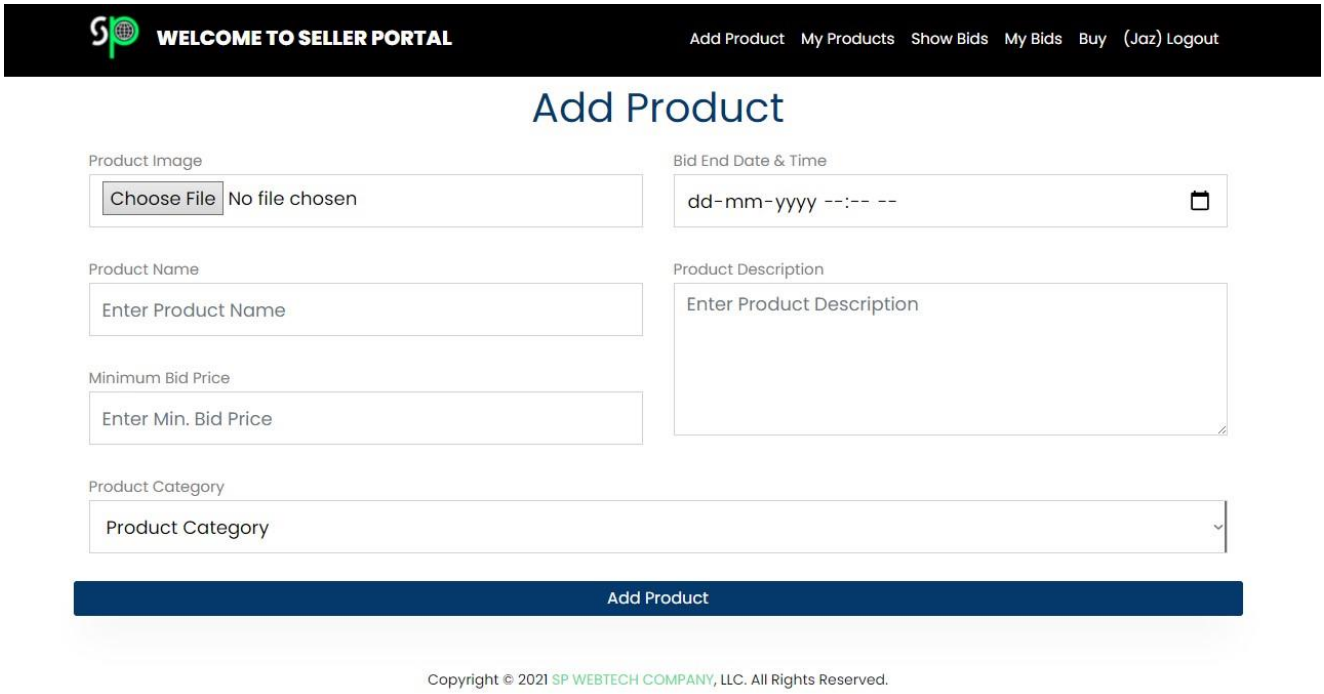


Figure 3.11.5.2 Add Product

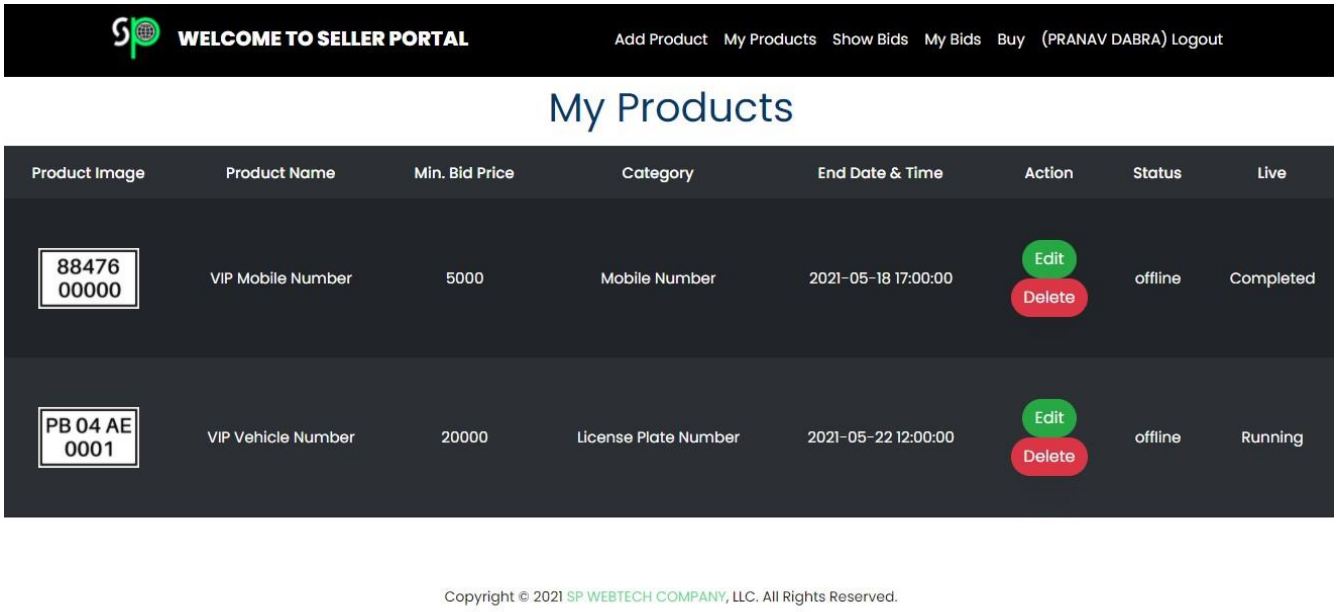


Figure 3.11.5.3 Seller Inventory

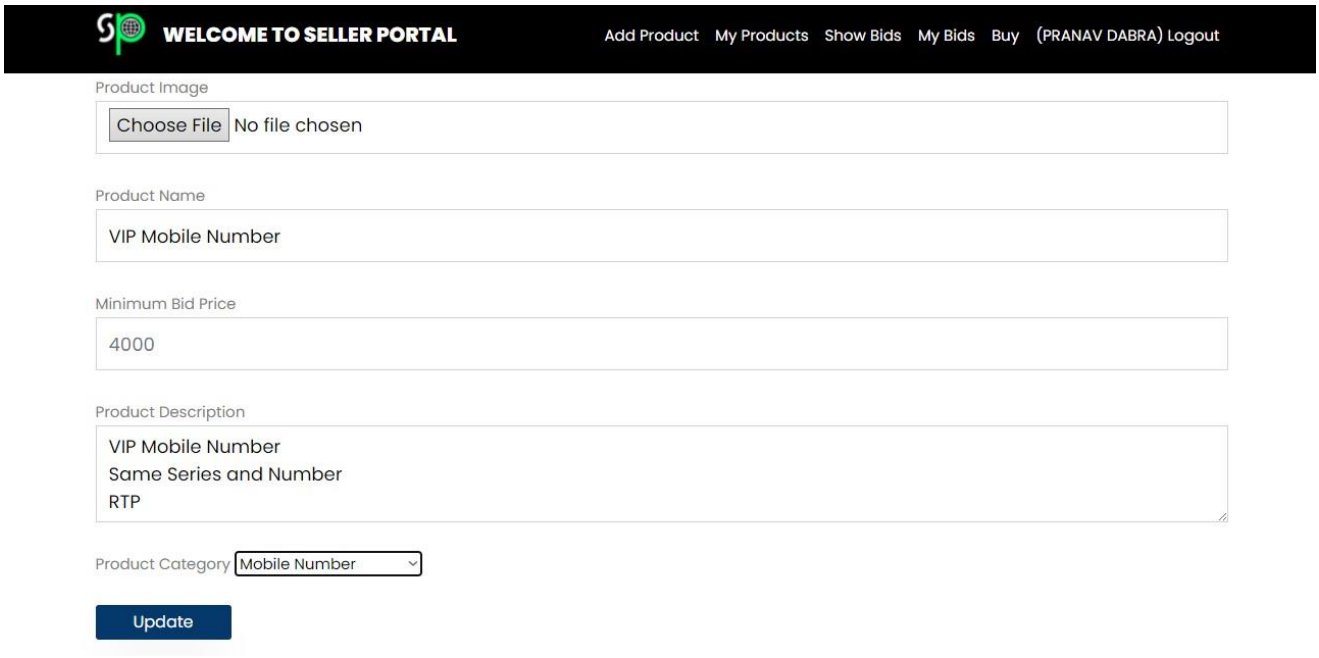


Figure 3.11.5.4 Edit Product Details

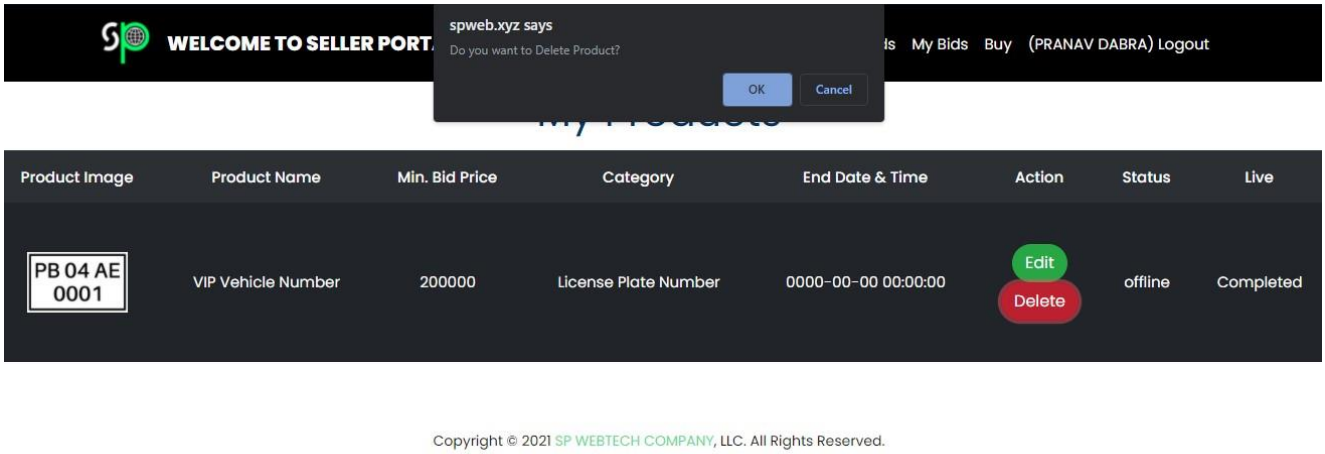


Figure 3.11.5.5 Delete Product

3.11.6 Change Password

Figure 3.11.6.1 Change Password

3.11.7 Incorrect Login Credentials

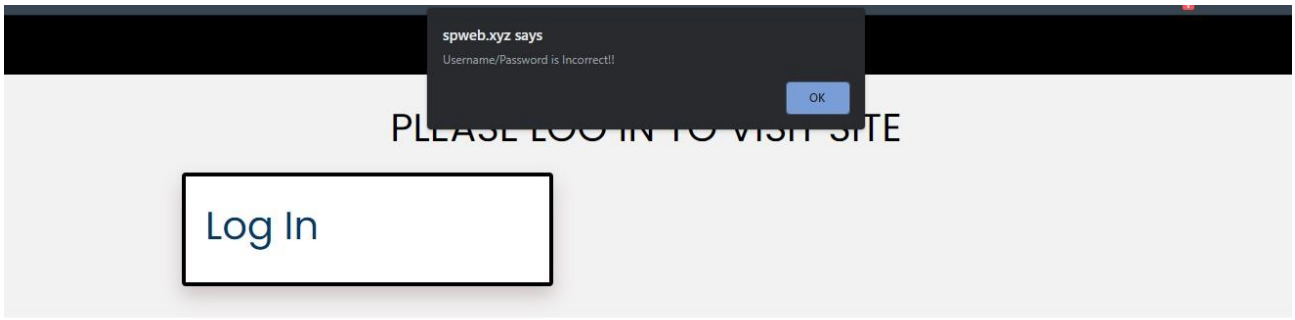


Figure 3.11.7.1 Incorrect Login Credentials

3.11.8 Password Encryption in Database

+ Options

	id	email	username	user_password	full_name	status	r_number
Edit Copy Delete	5	kansal.samana007@gmail.com	kara	d731e2c5239a8e2cfb07422a40f3763d	Neeraj	1	4193
Edit Copy Delete	6	pranavdabra@gmail.com	pranav.dabra_94	c6a77d6ff35567aaa0510760d0c17d4b	PRANAV DABRA	1	1168
Edit Copy Delete	7	jazarora94@gmail.com	jazarora94	baf13951d630298cfa259d8e9bbacb1b	Jaz Arora	1	2112
Edit Copy Delete	8	ishita.ishistar@gmail.com	Ishita_06	7b5e3aa957ad55491e2109cf7377ed8b	Ishita arora	1	8022
Edit Copy Delete	9	gabrus975@gmail.com	gabrus975	996ecdd0d8e64e2735b401bf0791df47	Gabru Singh	1	7807
Edit Copy Delete	10	181319@juitsolan.in	pd94	313994dd2b12e89e964e65875a2f9c43	PD	1	3706
Edit Copy Delete	11	digiationsolutions@gmail.com	digiation	e0631b65d76adcea00b71f2805f0a231	Digiation Solutions	0	2786
Edit Copy Delete	12	anirudhmaheshwary0889@gmail.com	its_ani.rudh	0f00b1e6bb6446fae57d769ec482fc00	Anirudh Maheshwary	0	2214
Edit Copy Delete	13	adabra004@gmail.com	anshul_dabra_	ef6b1882d521fbf7a900baa04dafb76d	Anshul Dabra	1	2386
Edit Copy Delete	14	rajmandirsales96@gmail.com	raj_mandir	b0ccbceb59c14b4d4be5c8f5a287f7bd	Mahesh Dabra	0	9531
Edit Copy Delete	15	dabra694@gmail.com	dabra694	9f6685cdb622e0f5cb5914e15f6b832e	Shivangi Dabra	1	7089
Edit Copy Delete	16	rahulraj@gmail.com	rahul	0df01ae7dd51cec48fed56952f40842b	Rahul	0	8259

Check all With selected: Edit Copy Delete Export

Chapter 4: PERFORMANCE ANALYSIS

4.1 Performance

There must be minimum delays in the system and it must be interactive. As a consequence, the system's action replies are not delayed in any way. While drafty windows applications, popping error warnings, or storing settings or sessions, there is still a lag of less than 2 seconds; when visiting records, sifting queries, or assessing, there is no delay.

For opening, sorting, and calculating, the procedure takes less than 2 seconds. > 95% of the files were uploaded. Also, the delay when connecting to the server is dependant on editing because of the distance between the two systems and the arrangement between them. For the purpose of argument, the chance of a successful connection in less than 20 seconds of effective communication.

4.2 Safety

Information must be safely transferred to server without making any replacements in it.

4.3 Security

The security worry is for the user account and there should be a proper login system must be also used avoid hacking. The E-mail Verification is a way to check spam activities so that hacking activities can be avoided.

4.4 Usability

The system is convenient for handling and navigating in a way with which there is no delay. In this exposition, the server needs to react according to it and transverse quickly between its states.

4.5 Availability

If by any chance, network connection gets disrupted at time when information is being sent to server, the data can be sent to the server for verification once more.

Chapter 5: CONCLUSIONS

5.1 Discussion on the Conclusions Achieved

Secure Online Auction System is a new experience for the people but it has somehow greatly impacted lives of customers in very short time of coming into the existence and it is expected to grow further constantly in future together with new advancements in technology. This system has made customers more practical and more efficient for the formal business tactics and idea driven to the business for a replacement level, making everyone to adjust for the changes to succeed in the new market of literate customers. Internet has become a effective medium to do various business and with online auction a part of it more people will become comfortable with buying and selling their products in a rate which it deserves.

5.2 Application of the Major Project

- As technology is advancing the business over internet is becoming more popular e-commerce will become vital for the business of a company.

- With a understanding with the customers the online auction will help companies getting more customers over the internet and will increase their revenue

- At present time people are more comfortable in buying things online for a good price and online auction is a platform that will help them to provide with that.

- With increase in number of people over the internet and advancement in technology the online customers will become consumers over internet.

- The change in business and business environment it will definitely affect the online auction behavior.

- With the knowledge and technology, the online auction is believed to grow and will become very important part of business revenue and also part of people standard of living.

5.3 Limitation of the Major Project

- ❖ The limitation of online bidding is so as we can perceive the dummy email id which will be put in the system by the user.
- ❖ The security of the system is still low people can login and buy items with no proper checking Aadhar UID checking system is needed in the system.
- ❖ The dummy auction placed by the bidder so didn't buy the merchandise is additionally one in every of the most concerns here.

5.4 Future Work

It is uphill to thrive a structure which creates every necessity for the user.

A number of the long run advancements that may be done to the present system are:

- ➢ With the emergence of technology, it's feasible to upgrade the structure and could be adaptable as changes are often easily adaptable. Such as to support the long run security issues, security can be often improved with time.
- ➢ We have integrated a chatbot into the web-based system for the convenience of consumers.
- ➢ We are working to add a fingerprint verification feature at the time of log in after entering the password by the user for enhancing security of the system.
- ➢ Our main grail in future is to feature Aadhar UID Verification so that the system becomes safer and fraudulent activities is stopped.
- ➢ The long run proposal of this set up is the enhancement of design, execution and documentation in a way that anybody can utilize this set up for superior performance.

- In coming time, we are planning to attach the subsequent component for superior enhancement of the set up.

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- Lin, Z., Li, D., Janamanchi, B. and Huang, W., 2010. Reputation distribution and consumer-to-consumer online auction market structure: an exploratory study. Decision Support Systems, 41(2)
- Rotman, G., Rotman, R. and Martin, J., Paid Inc, 2008. Method and system for improved online auction. U.S. Patent 7,324,968.