CLOUD COMPUTING PROJECT

**On**

## REVERSE AUCTION

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**2021**

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## Declaration

I hereby declare that the work which is being presented in the Cloud Computing- project **“Reverse Auction”,** is an authentic record of our work carriedd under the supervision of Mr. Saurabh Singhal.

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**Chapter 1: Introduction**

The main aim of project is to develop a website named “Reversed Auction” that will people to get different type item what they want at low cost from market and also can sell their item on same source and this will also easy their work of buying and selling of item. This website is based on hostel life as we need many things in hostel like straightener, hair dryer, curler, etc. which we can get through this website we only need to visited the site and bid for item. This site will available for 24/7 we can buy it any time.

* 1. **Motivation and Overview**

The main purpose of this project is to make things available for students in hostel which are not available form them easily. As we all know everything are not available in hostel and also, they are not allowed to keep it and also some cannot afford it, so they can choose this method to use it and without spending more money.

* 1. **Objective**

The primary objective of reverse auction is to drive purchase price downward.

In a reverse auction seller compete to obtain business.

**Chapter 2: Software Requirement Analysis:**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| Date  (dd/mm/Year) | Version | Description | Author |
| 30/03/2021 | 1.0 | Due to progressively inventions of the technology, everything can be seen innovative and latest features. As there are a lot of computer software are developed now with interesting and very useful features, therefore there should be a source also where person can get specific software’s (registered) and also can  Download it either free or paid. This project is to develop a website named “Reverse Auction” that will contain different types of item and for which there will be a bid and whoever win the bid will get the item. | Mansi Verma  Monika Singh  Diksha Khandelwal  Srishti Mishra |

**Reverse Auction**

**Project Domain/Category:**

Web Application

**Abstract /Introduction**:

The main aim of project is to develop a website named “Reversed Auction” that will people to get different type item what they want at low cost from market and also can sell their item on same source and this will also easy their work of buying and selling of item. This website is based on hostel life as we need many things in hostel like straightener, hair dryer, curler, etc. which we can get through this website we only need to visited the site and bid for item. This site will available for 24/7 we can buy it any time.

**Functional Requirement:**

* Sign up page for new user.
* Sign in page for buyer/seller.
* Only registered user can buy/sell item.
* Seller will maintain the availability of item.
* Buyer will maintain the item to be sold to him/her.

**Scope:**

E-reverse auctioning is only one of the latest applications using Internet technology for doing business. It has become publicly known due to the emergence of e-auction market sites such as eBay. eBay epitomises bargain buy for everybody 1 – and so do e-reverse auctions for companies: Using e-reverse auctioning, companies make average savings of between 5% and 30%, or in some cases even more (Barling, 2001). The great interest in this new application is supported by findings of a recent AMR Research study that the realities of user interest in the current market are highest for bidding events and bid analysis, negotiation, and contract management with 20% for each of those processes.

In the United States, every state uses reverse auctions for public procurement. Pennsylvania used a reverse auction to save $17.5 million on road salt. Florida agencies and localities use reverse auctions to buy everything from office supplies to cement. Texas school districts use reverse auctions to save money on trash service.

The U.S. government also uses reverse auctions for many purchases, saving taxpayers millions. Typically, agencies use a commercial provider, who is paid a fee (no more than 3 per cent) calculated against the winning bid. As the U.S. Government Accountability Office (GAO) remarks, “Reverse auctions are one tool used by federal agencies to increase competition and reduce the cost of certain items.” At the same time, the GAO recommends agencies use multiple bid facilitators and urged the executive branch to develop clear guidelines and safeguards for agency use of reverse auctions.

**Functional Requirement**:

According to Weaver, the functional requirements of a system include descriptions of the actions or processes the system should carry out. This is in accordance with interviewee who points out:

Hence, the reverse auction software needs to support the following functions:

• Registering suppliers.

• Confirming the registration of the suppliers.

• Approving the e-reverse auction by the relevant authorities.

• Starting the e-reverse auction.

• Inviting the suppliers

• Submitting the bids.

• Evaluating the bids

• Giving feedback to suppliers

• Reformulating the bids.

• Closing a round.

• Closing the auction.

The functional requirements of the e-reverse auction tool are listed with their relevant descriptions.

**Non -Functional Requirement:**

However, the e-reverse auction software also needs to satisfy certain non-functional requirements. Non-functional requirements detail how or within what limits a functional requirement should be met.

Storing and accessing supplier data in the database is not only crucial for the supplier’s registration and invitation to the e-reverse auction. It may also be an important decision support when selecting and inviting suppliers to e-reverse auctions. As information relating to suppliers needs to be accessed frequently, it is important to make it available in the database because this allows for easy access. Data about suppliers may include external information about suppliers such as credit assessment, turnover etc. but also internal information such as quality assessment, performance etc.

In order to allow relevant authorities (e.g., buyers, managers, controlling or cost centres) to access data related to e-reverse auctions appropriately, it is indispensable to integrate the new software within existing systems and applications.

This allows for sharing, accessing, updating, and storing data appropriately. In order to ensure that suppliers can take part in the e-reverse auction independently from the software system they are currently using, they need to have web-based access:

This would not only allow for more competition between the suppliers but is at the same time an essential requirement if the system is going to be used as a marketplace. As for marketplaces, web-based access even becomes a crucial requirement for conducting e-reverse auction. In this case, both buyers and suppliers would need to access the system from ‘outside’. Due to the low transaction costs on the Internet, web-based access represents the only feasible way to integrate a great number of different participants is the best choice to enable a great number of people to take part in e-reverse auctions independent from the system they are currently using.

Only when all attributes describing the product are the same, a reverse auction can be conducted to cut down the price.

Regarding the development costs for e-reverse auction software, it seems sensible to first implement only the most common type of e-reverse auctions: the English reverse auction. This may reduce the development cost and risk. Thus, the software needs to comprise the algorithms relevant for this type of e-reverse auction.

All non-functional requirements are summarized and described below.

**Use Case Diagram**:

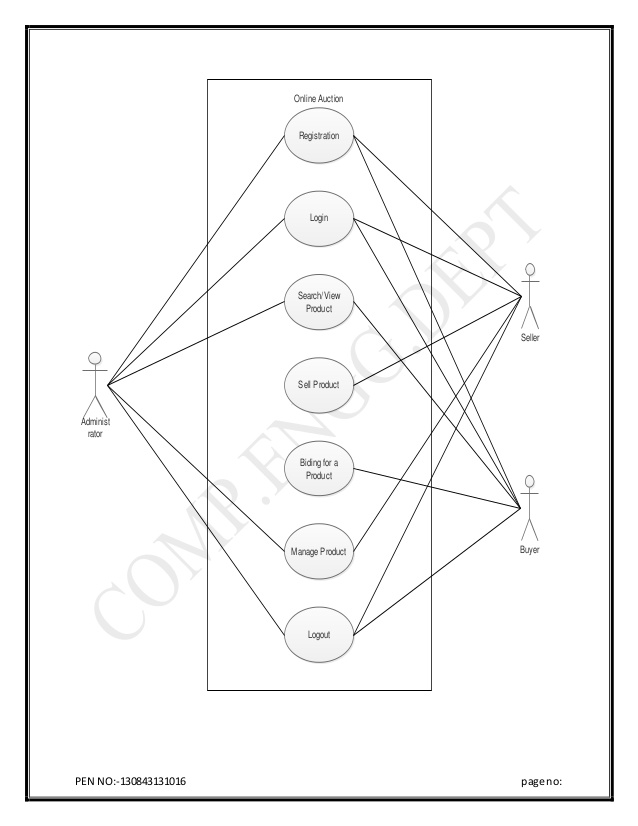


Fig 1: use case diagram of reverse auction.

Chapter 3: Software Design

Data flow Diagram-

Level 0:



Fig 2: DFD of reverse auction level 0.

Flow Chart:

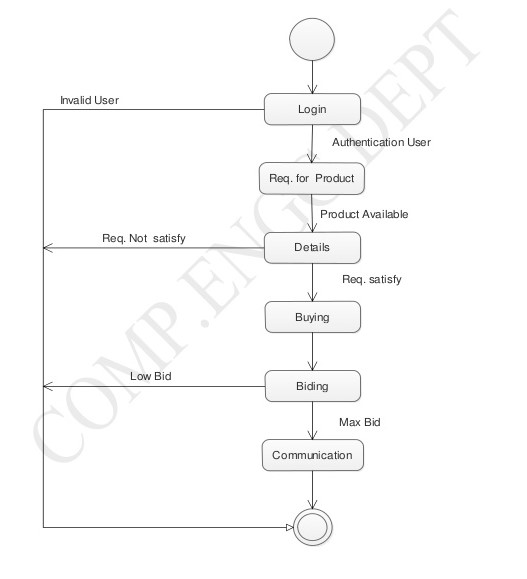


Fig 3: Flow chart of reverse auction.

UML Diagram:

Class Diagram:

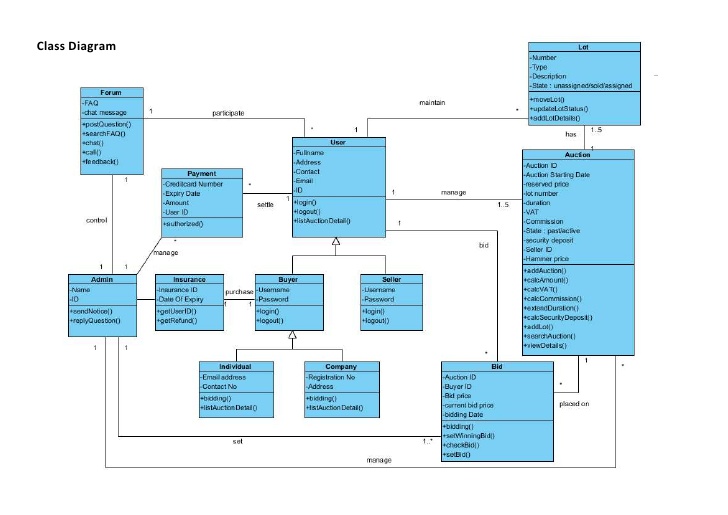


Fig 4: class diagram for reverse auction

Sequence Diagram:

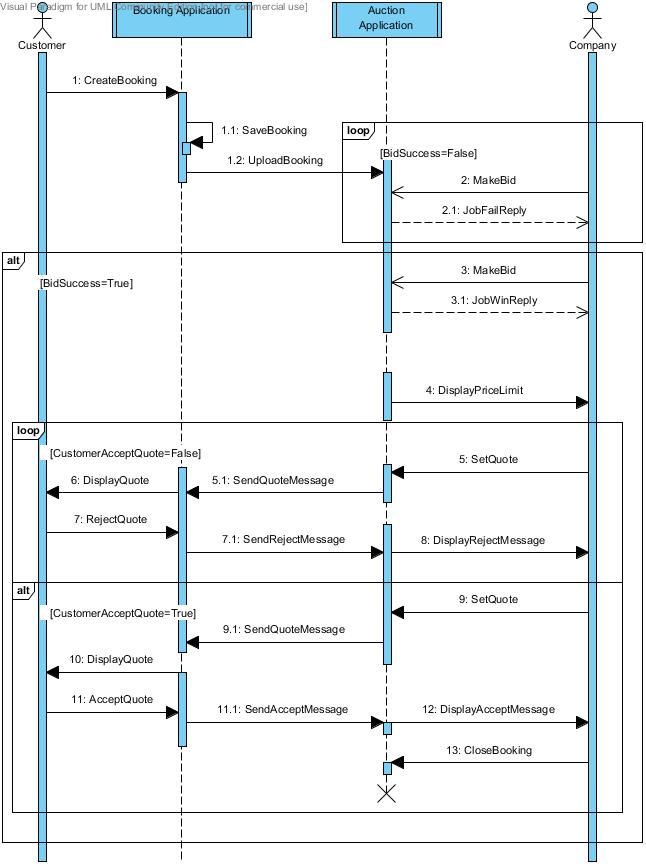


Fig 5: sequence diagram for reverse auction.

Collaboration Diagram:

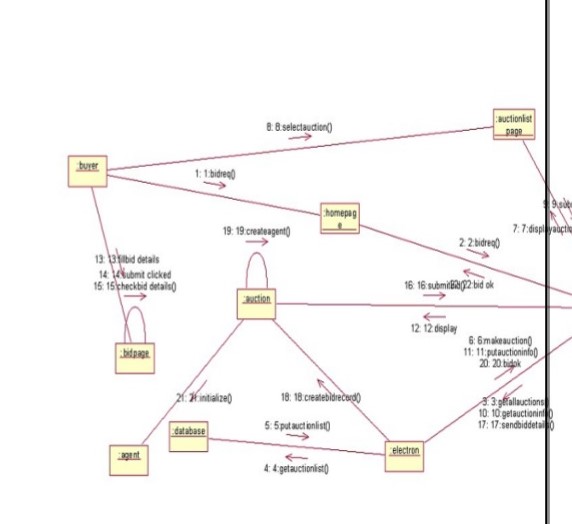


Fig 6: collaboration diagram for reverse auction

**4.Implementation:**

**4.1 Landing Page:**

The Landing Page of this website mainly consists of the website's approach, consists of some of the additional information about the websites, explaining how the websites work, followed by the explanation of the Reverse Auction, followed by the values on which this website works and the contact information for any queries.

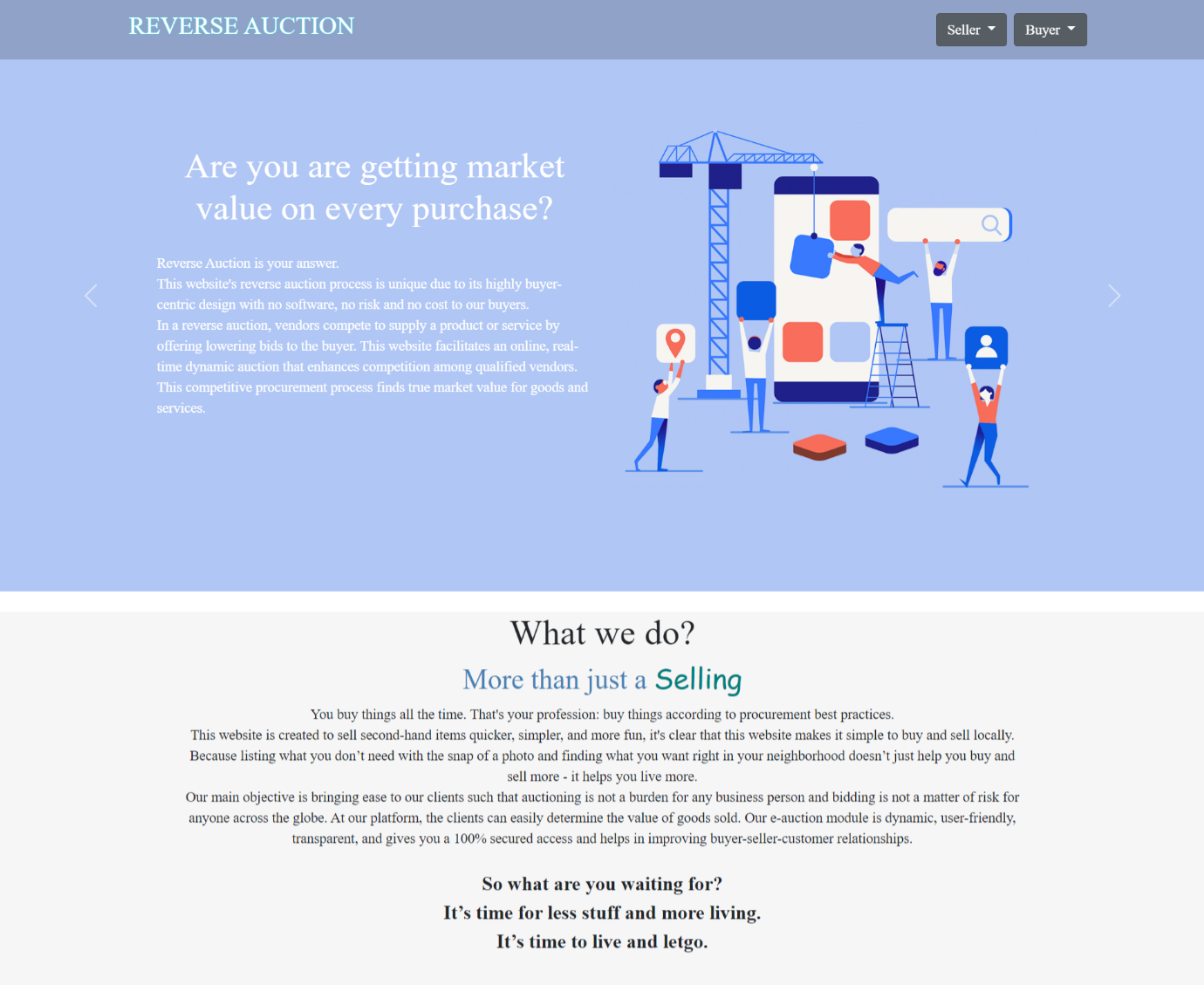


Fig 7.1 Landing Page Image-1

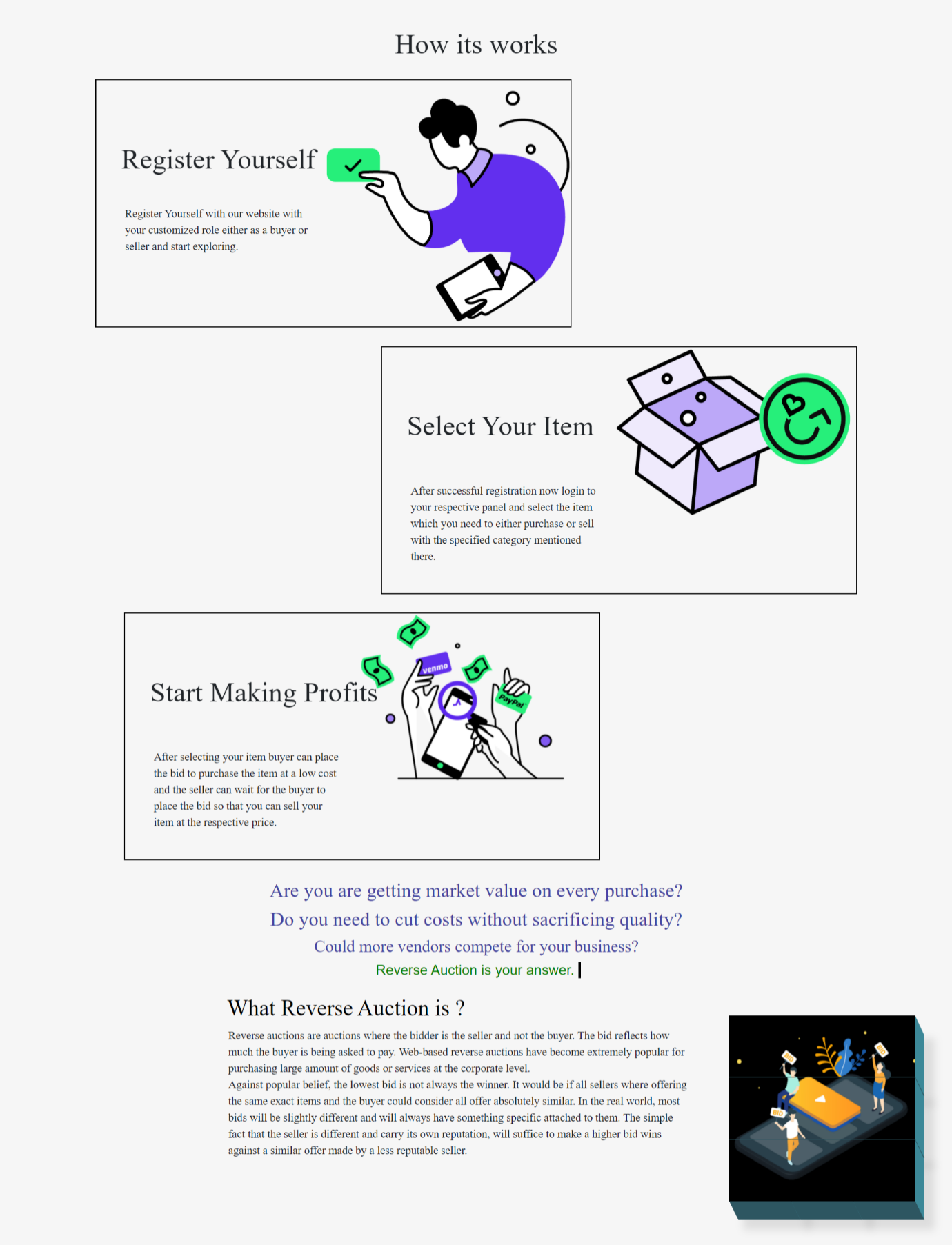


Fig 7.2 Landing Page Image-2

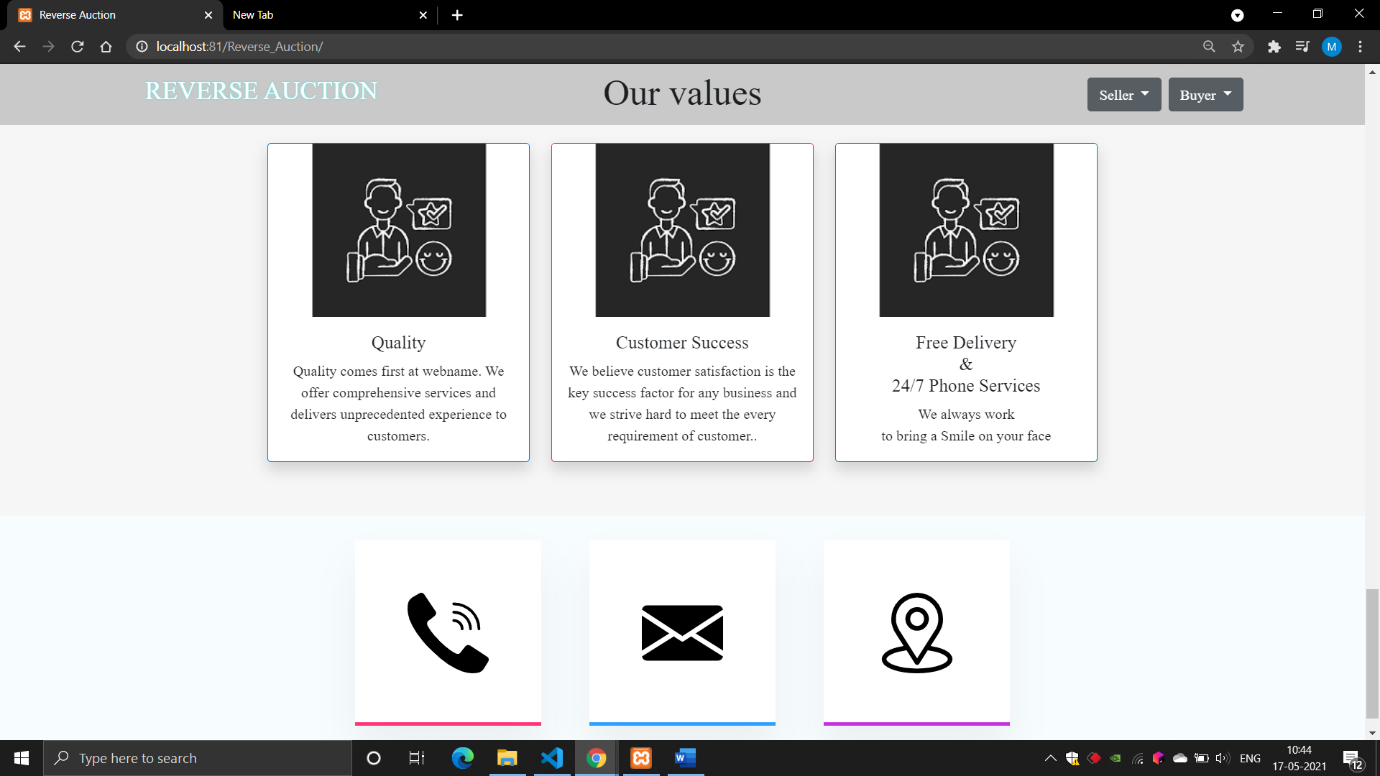


Fig 7.3 Landing Page Image-3

**4.2 Buyer/Seller Login:**

The users with the user type as bidder or seller will be able to log in to the system.

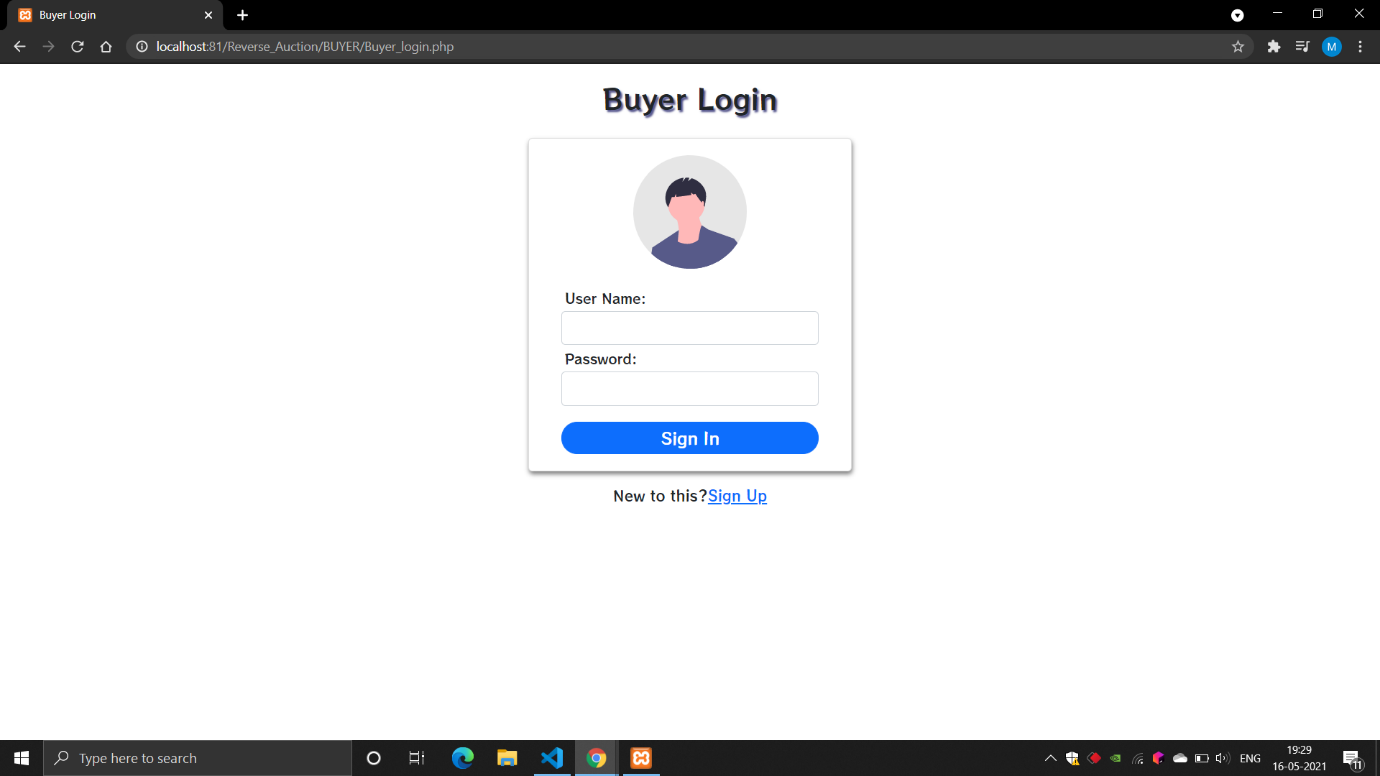


Fig 7.4 Buyer Login Panel

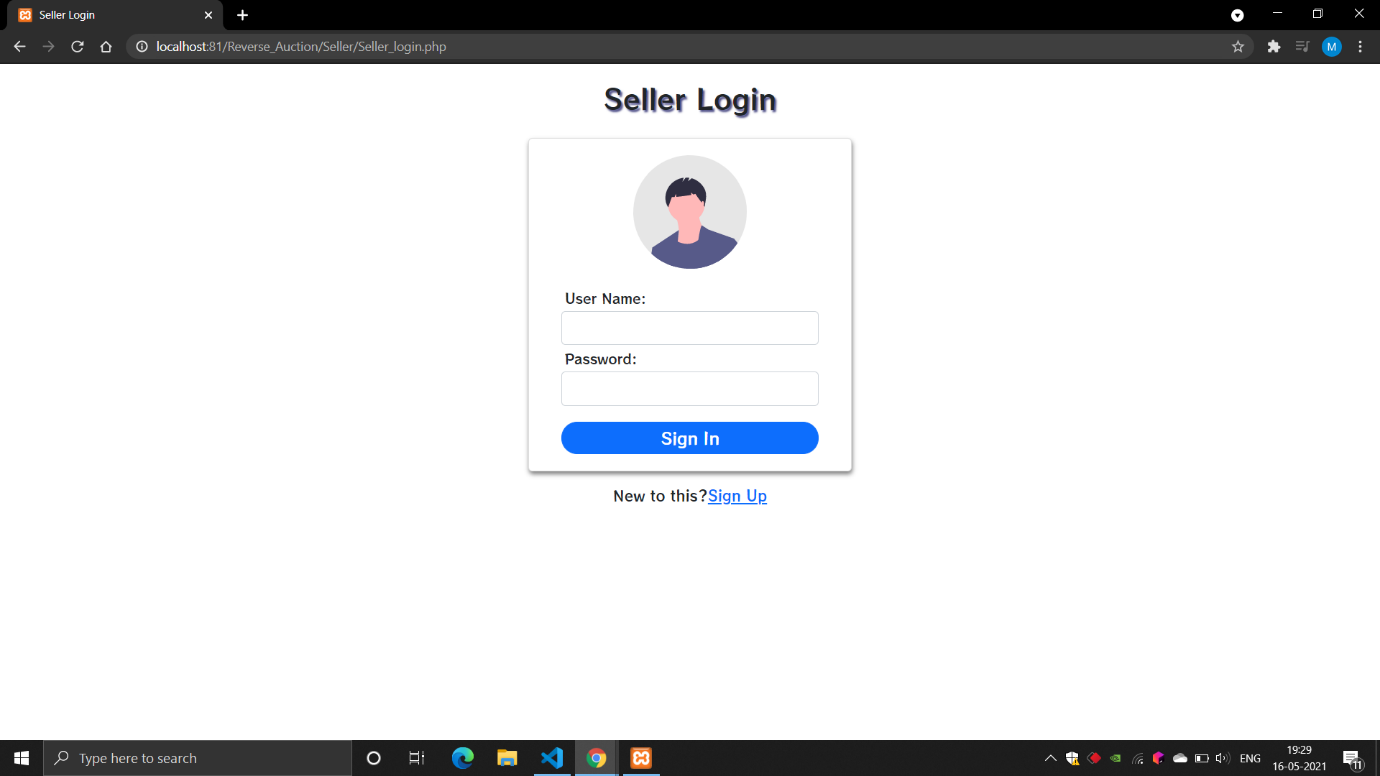


Fig 7.5 Seller Login Panel

**4.3 User Registration:**

In case of the absence of the user id and password, the user will be able to register themselves in the system. The user can register themselves here with their customized role either as a buyer or seller.

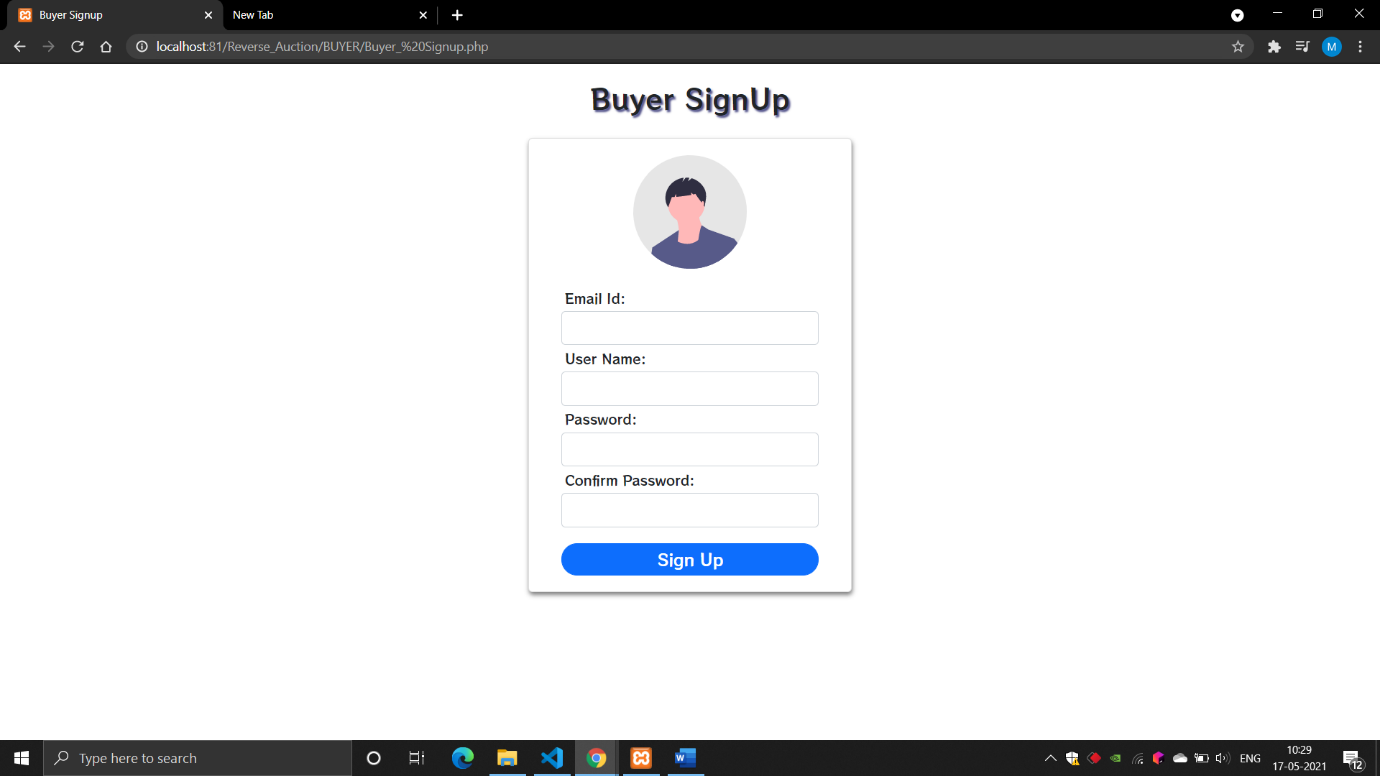


Fig 7.6 Buyer Registration Panel

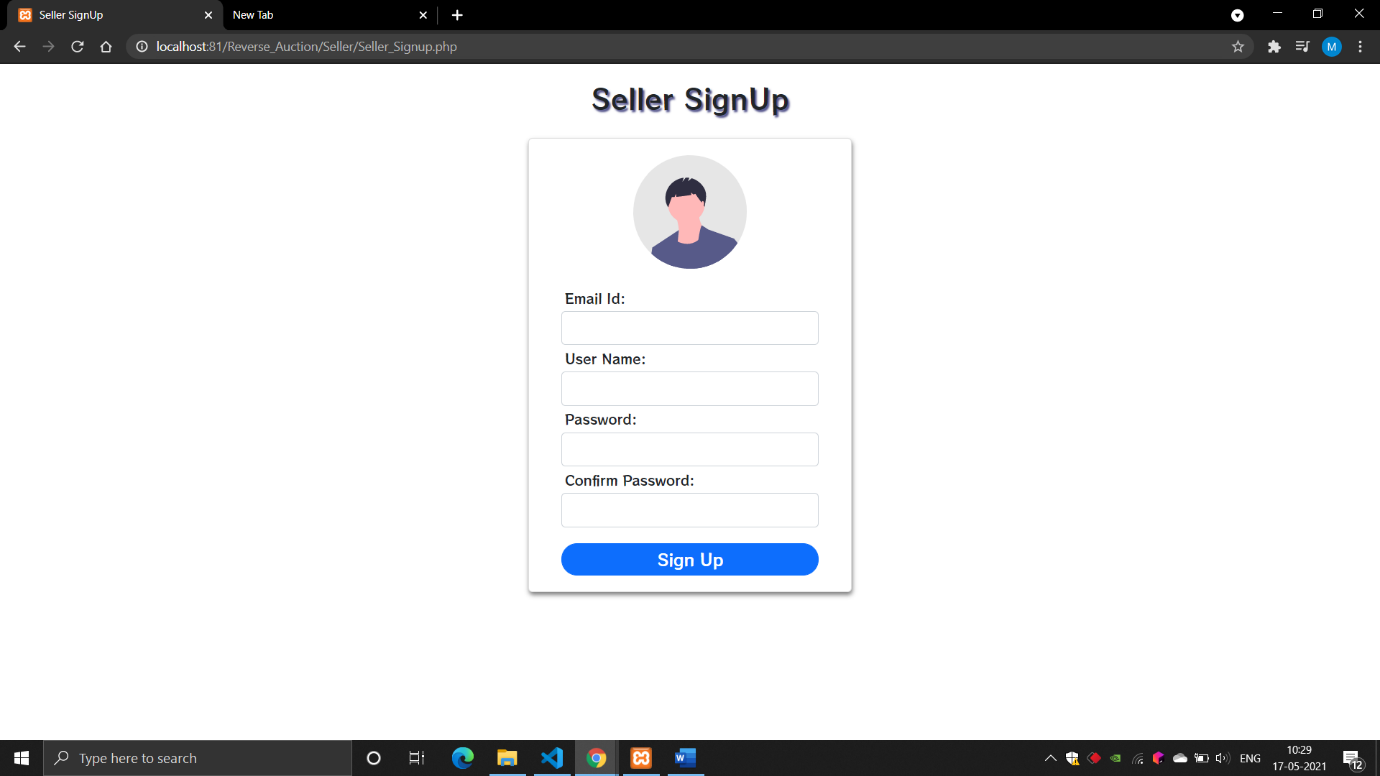


Fig 7.7 Seller Registration Panel

**4.5 Dashboard:**

**Buyer Dashboard:**

In this panel, the buyer can see all the product which are posted on the website by the seller which is to be auctioned. The buyer can see all the information about the product. If the bidder is interested to buy that product, then he can place the bid amount. At last, at the end of the auctioning the bidder will get to know the result.

Buyer can also search the products directly with the help of categories mentioned in the sidebar.

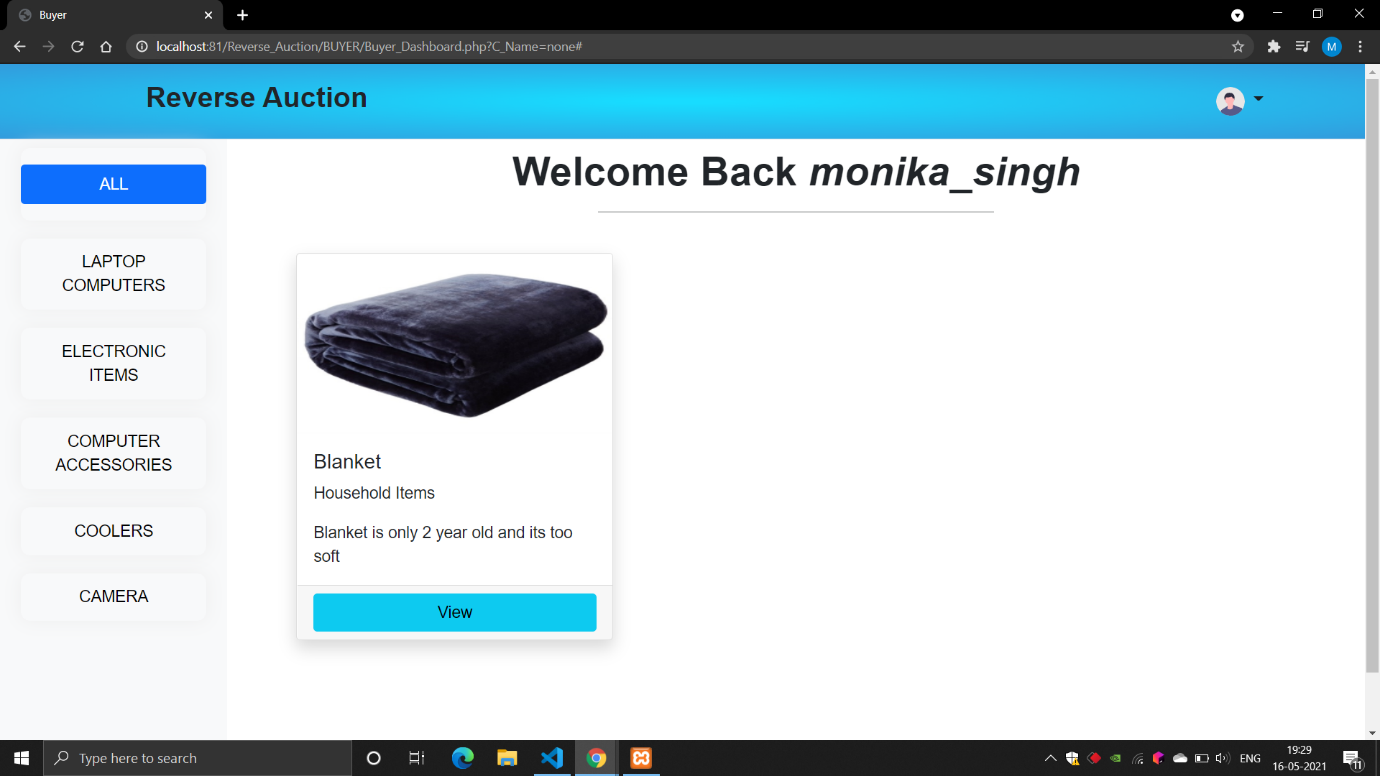


Fig 7.8 Buyer Dashboard Image-1

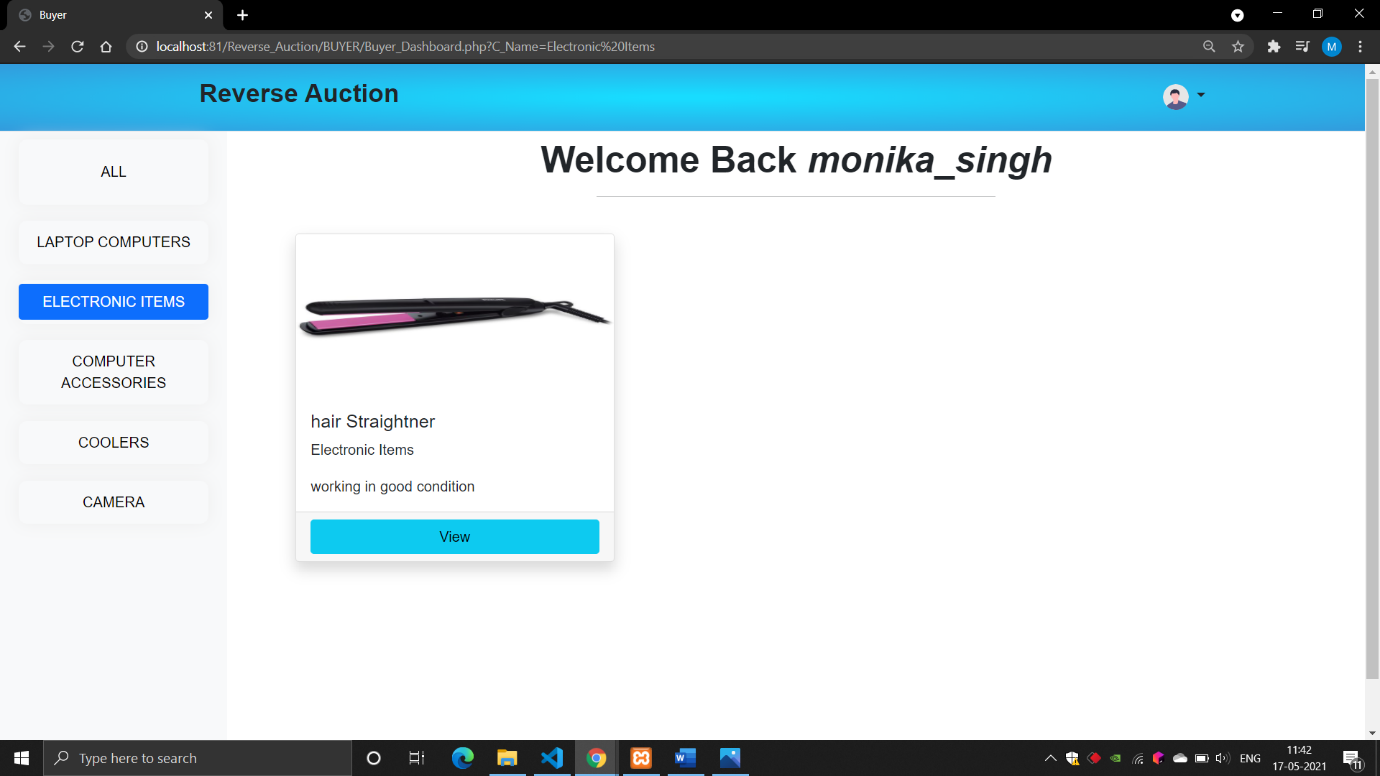


Fig 7.9 Buyer Dashboard Image-2

**Seller Dashboard:**

In this Panel, the seller will post the product information which they want to sell or auction the product through online. In this module the seller can post the image of the product by using add image and all the necessary information about the product such as the product name, its description.

Sellers can also add the category on which they want to place their products.

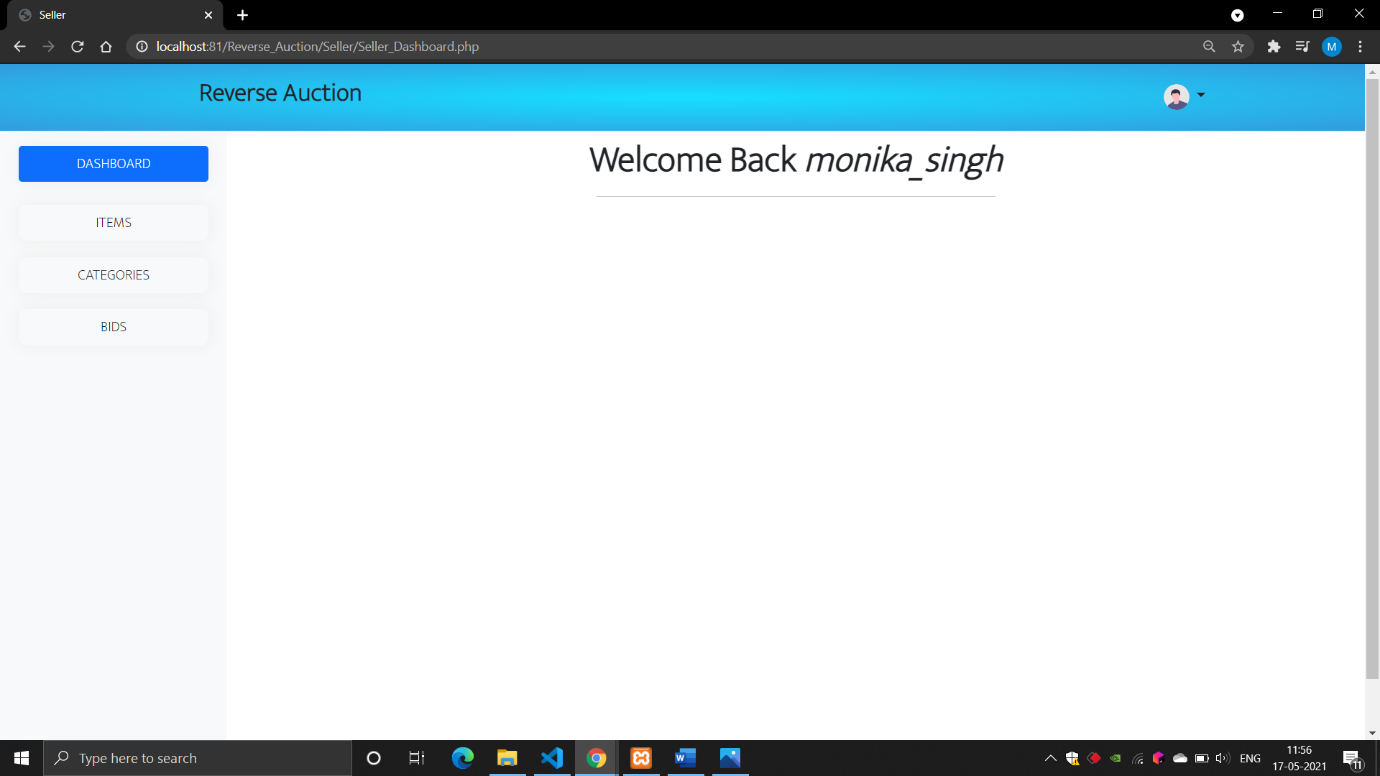


Fig 8.0 Seller Dashboard Image-1

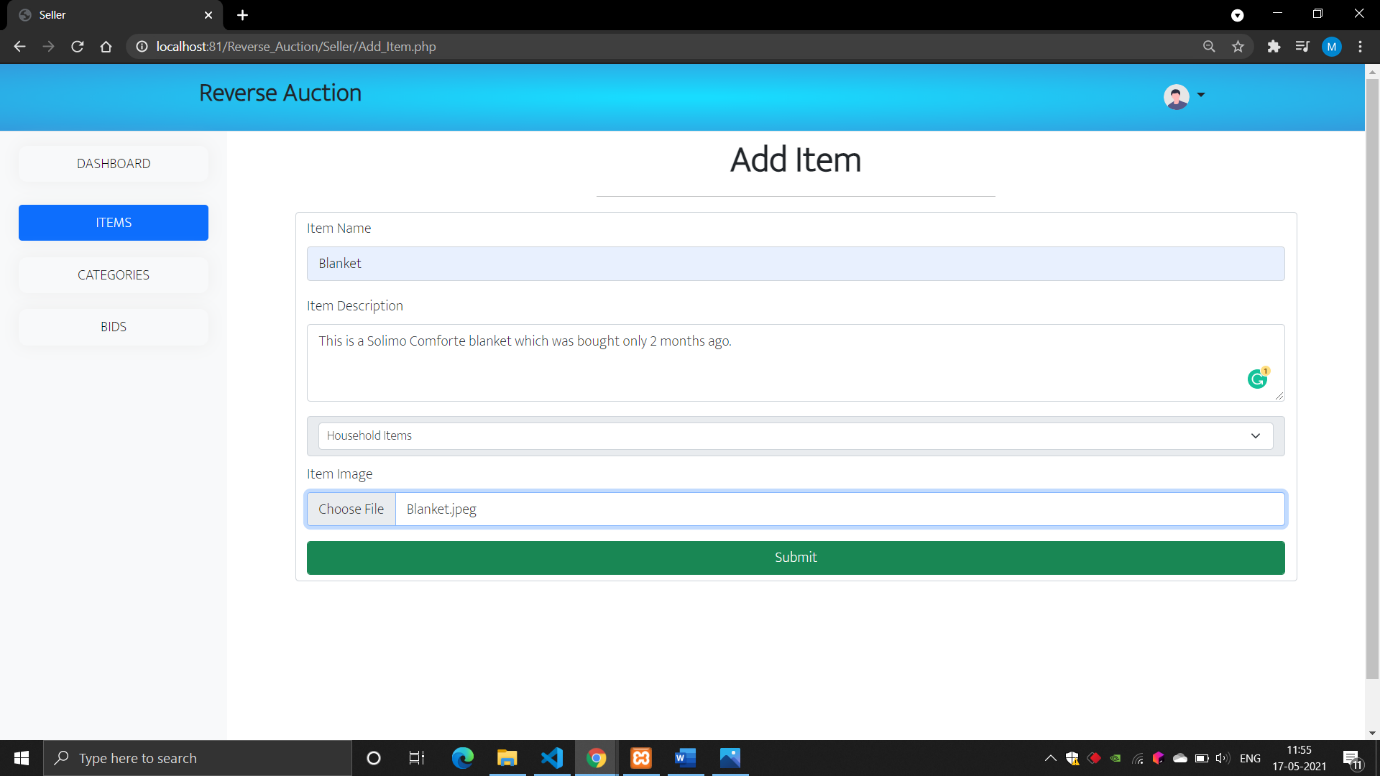


Fig 8.1 Seller Dashboard Image-2

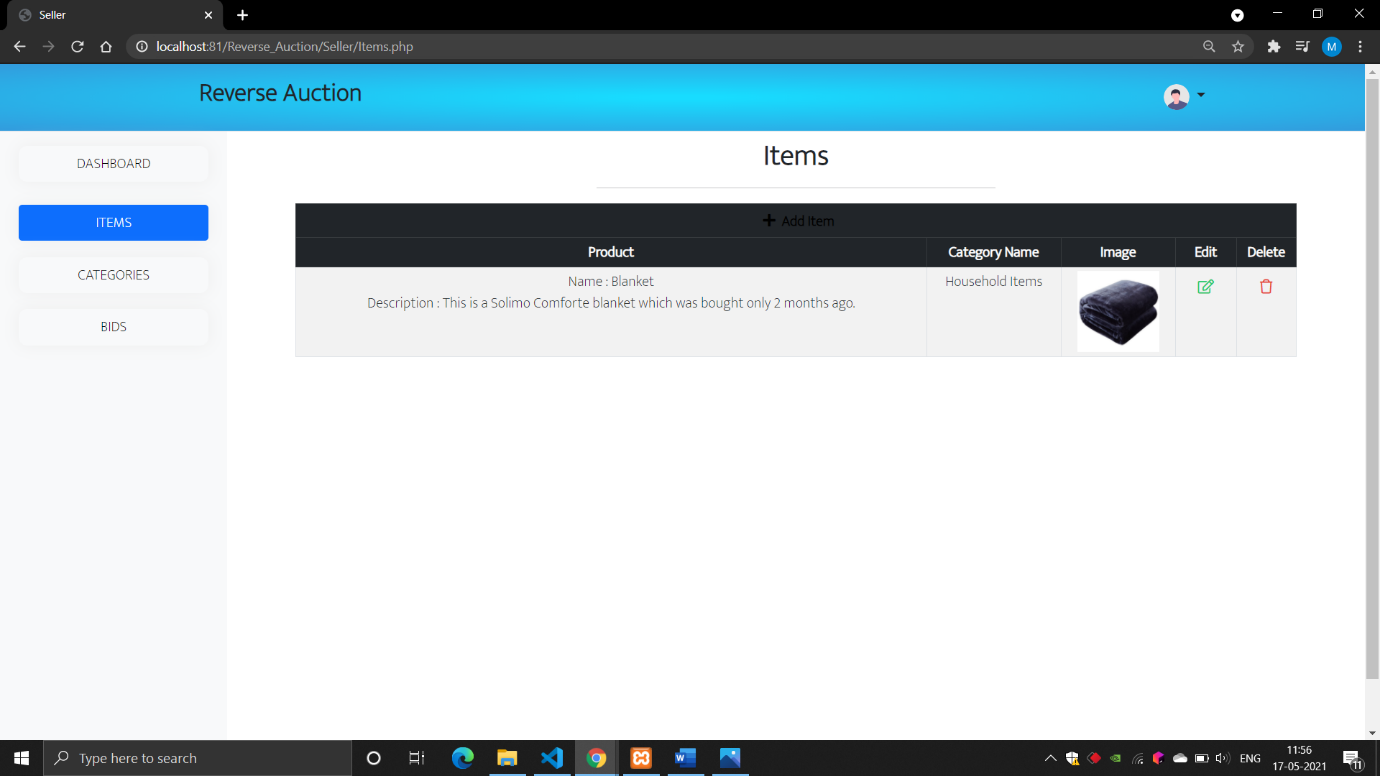


Fig 8.2 Seller Dashboard Image-3

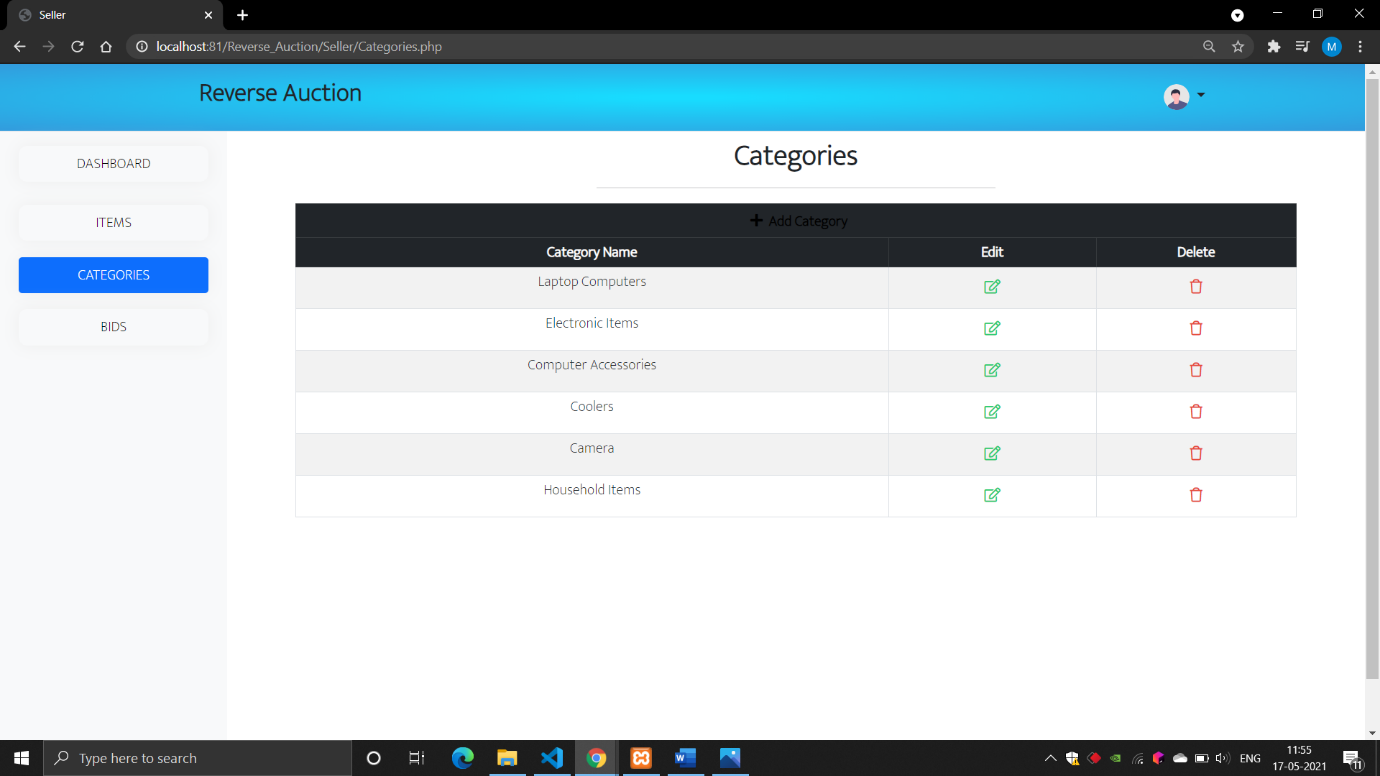


Fig 8.3 Seller Dashboard Image-4

**5.System testing**

System testing is a significant phase of Software Quality Assurance. It represents the last inspection of design and coding. Testing is a process of performing a program with the purpose of finding an error. The goal of testing is to point out and fix bugs in the developed system. The system is not complete without testing. Testing is the essential step to the success of the system. There are many approaches to system testing. The system testing was done based on black and white box testing to verify, whether the developed system meets the requirements or not.

The testing of the system is shown on the table below.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Test no** | **Test Case Description** | **Pre-Requisite** | **Action** | **Inputs** | **Expected Output** | **Actual Output** | **Test Result** |
| 1 | Login –Positive test case | A valid user account | Enter correct Username & Password and hit login button | Username:  true @xyz.com  Password: \*\*\*\*\*\* | Login success | Login success | Pass |
| 2 | Login – Negative test case |  | Enter invalid Username or invalid Password and hit login button | Username: invalid@xyz.com  Password: \*\*\*\*\*\* | Invalid Username or Password |  |  |
|  |  |  |  |  |  |  |  |

**6. Conclusion:**

After the implementation of the Reverse Auction website, we conclude that this website will allow the buyers and sellers to overcome geographical constraints and purchase anytime product from anywhere over the internet.

The online auction market provides the consumers with great advantages of low prices, greater product selection, and greater efficiency compared to the usual traditional offline markets.

It is not possible to develop a system that makes all the requirements of the user. User requirements keep changing as the system is being used. Some of the future enhancements that can be done to this system are:

As the technology emerges, it is possible to upgrade the system and can be adaptable to desired environment. Because it is based on object-oriented design, any further changes can be easily adaptable. Based on the future security issues, security can be improved using emerging technologies. Sub admin module can be added. An in-built web browser can be added.

The future plan of this project is to improve design, implementation and documentation in such a way that anyone can use this project for better perform. We will develop the site more dynamically and the database work as well. In future we will add the following module for better improvement of the project: More security in the system, more user-friendly system, Payment Gateway panel can be added where buyer can directly pay the seller after the completion of the bid.

1. **References:**

1.www.google.com

**2.** Anderson, J. & Frohlich, M. (2001). “Free Markets and Online Auctions”. Business Strategy Review, 12 (2), 59-68.

3.Avison, D. & Fitzgerald, G. (2003). Information Systems Development: Methodologies, Techniques and Tools. London: McGraw Hill