E-AUCTION SYSTEM

Sawase A.A.[1], Shaikh S.I.[2], Pathan M.A.[3],Shinde S.R.[4]
Kamble A.K..[5], Shaikh K.F.[6], Jadhav P.M.[7],Jadhav S.S.[8]

[1] Head of Department, Information Technology, Aditya Polytechnic, Maharashtra ,India
[2] Head of Department, Computer Science &Engineering,,Aditya Polytechnic, Maharashtra ,India
[3] Lecturer, Computer Science & Engineering, Aditya Polytechnic, Maharashtra ,India
[4] Head of Department, Computer Science & Engineering,, Mitthulalji Sarda Polytechnic, Maharashtra ,India
[5] Head of Department, Information Technology, Mitthulalji Sarda Polytechnic, Maharashtra ,India
[6] Lecturer, Computer Science & Engineering,, Mitthulalji Sarda Polytechnic, Maharashtra ,India
[7] Lecturer, Computer Science & Engineering,, Mitthulalji Sarda Polytechnic, Maharashtra ,India
[8] Lecturer, Information Technology,, Mitthulalji Sarda Polytechnic, Maharashtra ,India

ABSTRACT

An online auction is an auction which is held over the internet. It is a popular method for buying and selling products and services. Online Auction System helps to customer to sell and buy product in best price. It is developed with the objective of making the system reliable, easier and fast. This application is used to sell the anything on the website from house. This application is used to sell the anything on the website from house. It developed with the objective of making the system reliable, easier and fast. The application is made as simple as surfing a website. There by non-technical persons can also interact with the processing on the application easily.

Keyword *Auction, sell and buy product.*

1. INTRODUCTION

In Latin, auction means many things in a huge manner. An auction is a bidding process of selling and buying where services are offered. Depending upon the type different types of rules exist for different auctions. Minimum price limit, maximum price limit, time limitation, etc the variation in rules in an auction. On the basis of the auction method, the bidder can participate personally or remotely. Telephone, mail, and the internet are ways to participate remotely. The online system has shown wide response as it's increasing rapidly. Looking at its growing popularity online systems must improve their quality and security. In the online auction system, we participate in a bid for products and services using online software which regulates the involved process. English auction system is most the popular method among the various types of the auction method. English auction system is designed perfectly as it supports a large number of bidders in an active auction. The electronic auction, e-auctions, etc. are some of the names of online auctioning systems. The clients can more accurately specify the requirement for online bidding the will be a good practice when made more transparent and healthy. All most all types of industrial usage are covered by online bidding along with the items to be sold it also provides various services this expansion made the system grow faster because of its low cost. For the procurement process, online bidding is considered a standard method. Where bidders can be monitored and maintained according to their preference where user's data is maintained in a confidential type for the safety of contractual documentation. Clear reporting decreases postage, paperwork, photocopying, etc. and it's a time saver. This system easily allows communication with multiple bidders

1.1 SCOPE This online auction system only allows for the auctioning of household furniture, computer accessories, and mobile phones. This system only accommodates the buyers and sellers that are located within Zimbabwe. Only registered potential buyers and sellers participate in any of the auctioning process.

1.2 OBJECTIVE To design and develop an online auction system that ensures the buyers on the sellers and the products that are being auctioned. To computes the seller's ratings using the feedback scores from the bid winners.To generate reports for each completed bid in the auction system. To notify the bidders of new bids made in the bids that they participate in. To computes the seller's shill scores for each seller that sells products on the online auction system.

2. METHODOLOGY

Algorithm shows the flow of program that how it is being execution. It shows the successful working of the system. They are used for problem solving in the programming due to their simplicity to understand. Steps followed in the Algorithm –

Step 1: Start

Step 2: Input details for sellers and buyers (Email and Pass).

Step 3: Login with credential and if right user gets the access to application.

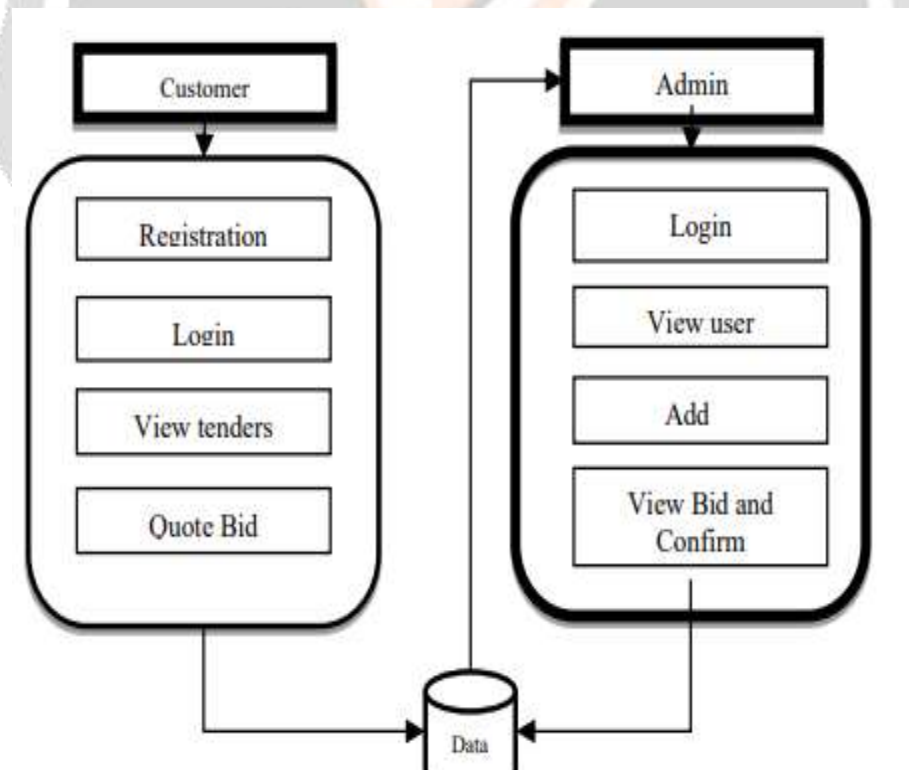Step 4: After getting access seller can add products for bidding.

Step 5: After creating account bidder can bid for products according to their choice.

Step 6: when bidder win the bid they can contact seller for delivery of product.

Step 7: Logout.

Step 8: Stop.

3. SYSTEM ARCHITECTURE

Fig.1 Architecture Of Auction System

3.1 CUSTOMER

At first, The customer has to create their account in the register page by giving some basic details like Name, Email id, DOB, Create Password, Address etc. After the registration the details will be verified by the Admin. Next to the verification process the user now can login to the application by providing their Email id and password that has been created while registering to the Application. Now he/she can view the categories and select the product they need to buy and want to quote the higher amount than the person who had already quoted. He/she can also sold the product by giving the details. Customer can also place a complaint against frauds.

3.2 ADMIN

Admin will plays a important role in the application who acts as an intermediator between seller and the customer. When an user completes their registration the admin will get a notification to verify the details of the customer. If the admin finds any frauds he will block the account. Then the blocked user will be restricted to access the app.The admin will able to add ,edit ,delete the products. Admins can view various types of complaints and take the final decision about it. The admin page will looks like the login page. Except the admin no one can see the personal details provided by the user.

3.3 Data

The data provided by the user will be securely saved in the database. Here we are using Mysql database. This database will be accessed only by the admin.

4.SYSTEM IMPLEMENTATION STAGES

As it is known that the project creation process includes several stages which can be summarized in figure 2:
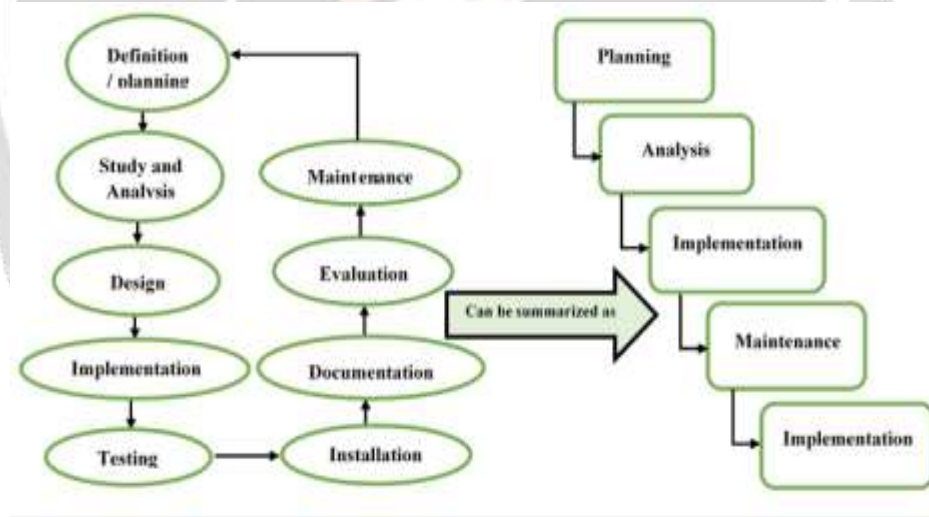
Fig 2 System Development Life Cycle

For the electronic auction system, in the following paragraphs, we will explain these steps (stages) in order, as shown in Figure 3:
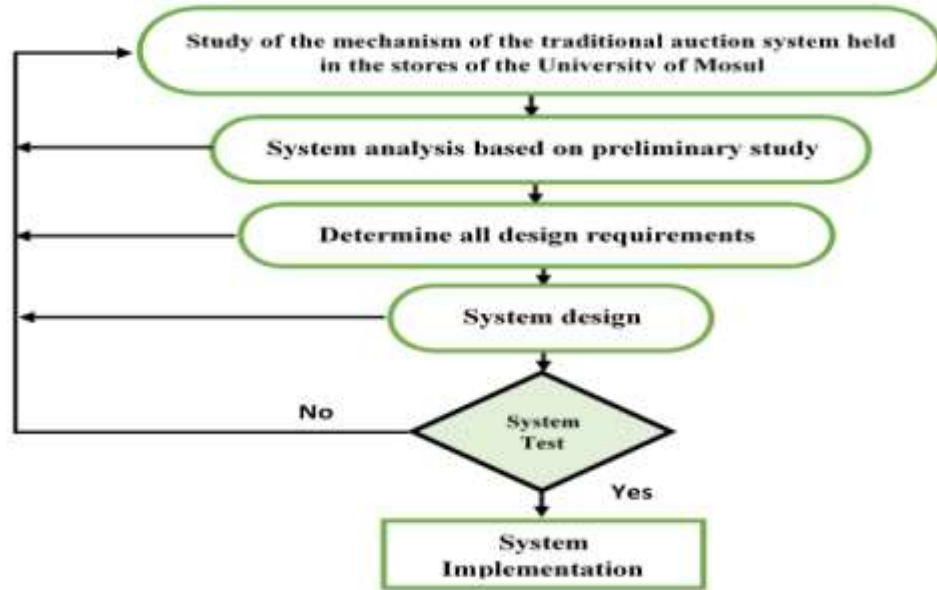
Fig-3 stages of implementing the system

4.1 SYSTEM ANALYSIS

This section analyses the requirements for an online auction system held in the stores of the University of Mosul, which consists of the following: -

Software Subsystems : Software subsystems offer an intuitive way to understand, visualize and analyze basic functional requirements. Table No. (2) Shows the sub-systems of electronic auctions

Use Cases : A use case consists of many possible sequences of interactions between users and systems in a given environment to achieve a goal. The following are the electronic auctions use cases for the subsystems shown in Table 2

subsystem	Users/ Actors	Description
User account management	User account management	An admin, employees and customers can register themselves and they can also update or view the details. The admin can view/edit employees' and customers' details and delete
Auction management	Admin and employee	The admin or employees list the categories of products included in the auction and add and modify the products that will be sold. The process of deleting an item is the responsibility of the admin only.
Auction searching	Costumers	A Costumers searches products on auction
Bids	Costumers	Customers start bidding when the auction starts and the admin notifies the last bidder who wins the auction

Table (1) Online Auction subsystems

User account management: Figure 4 represents a diagram of the use case related to user authentication (admin/employees or customers), where a profile is created for each user it can also be the admin/employees or customers as well update or view its details. Auction admin can view the file details of any user and delete any user account.

Auction management: The admin or employee prepares the list of products for the auction. In this step, details such as product preparation, price, details, auction start, and end date, auction time...etc. are described. Only the admin approves the auction list and after obtaining approval, the admin will be able to process the auction and make amendments to it... Figure 4 represents a diagram of Auction management use case.
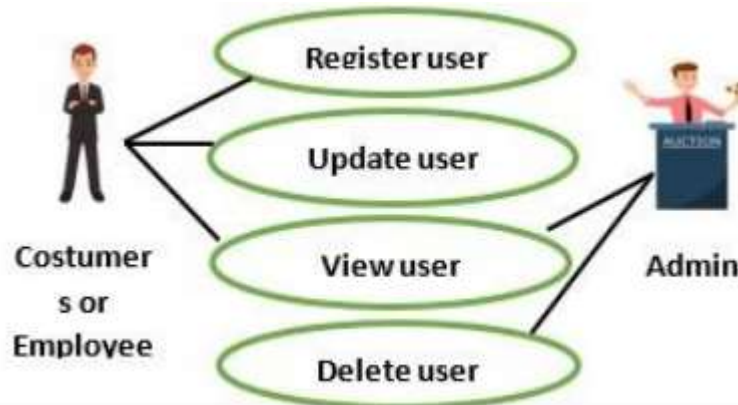

**Figure 4: User account management use case**

Figure 5: Auction management use case

Auction Searching: All registered customers can start searching for products to be auctioned Figure 6 represents a diagram of Auction searching use case.

Figure 6: Auction searching use case

Bid: Figure 7 presents a use case diagram of the bid procedure subsystem describing the auction list and collection of bids submitted by different customers (e.g., bid increment, minimum bid, Insurance deposit, etc.…). The auctioneer finishes the auction and then selects the winning customer (last bidder) as per the auction rules.
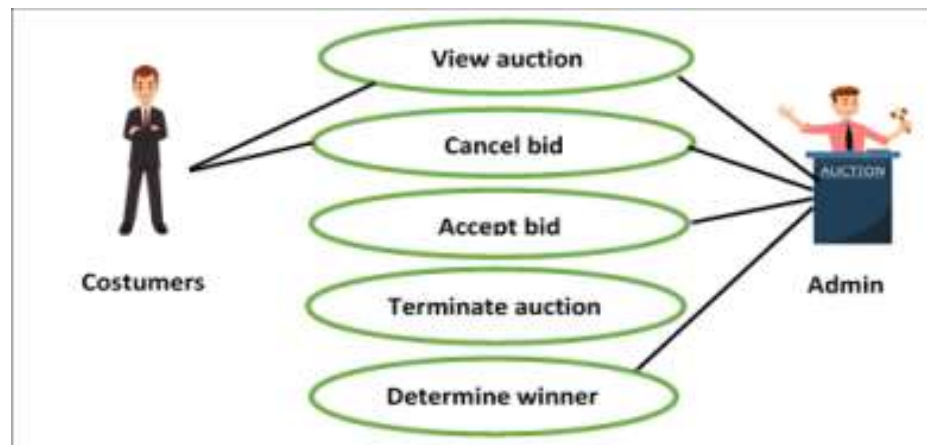
Figure 7: Bidding use case

After defining the sub-systems and use cases described above, the electronic auction system in Mosul University stores can consist of the following:

Step 1 STORES: (Stor_Id, Stor_Name (Composite), Stor_Address, University_Name, and Notes). The Stor_Id is the primary key

Step 2 AUCTION: (Auct_Id, Auct_Name (Composite), Auct_Value, Insurance, Advertising, Begin_Date, End_Date, and Notes). The Auct_Id is the primary key.

Step 3 ADMIN: (Adm_Id, Adm_Name (Composite), E_Mail, Password, Authorize, Phone, and Notes). The Adm_Id is the primary key.

Step4 EMPLOYEES: (Emp_Id, Emp_Name (Composite), E_Mail, Password, Phone, and Notes). The Emp_Id is the primary key.

Step5 CUSTOMERS: (Id_Number, Cust_Name (Composite), Address (Composite), E_Mail, Password, Phone, Insurance, and Notes). The Id_Number is the primary key.

Step6 ITEMS: (Item_Id, Item_Name (Composite), Image, Number, Details, Starting_Price, and Notes). The Item_Id is the primary key.

Step7 CATEGORIES: (Cate_Id, Cate_Name and Notes). The Cate_Id is the primary key.

Step8 BIDS: (Bid_Id, Time, Bid_Value, and Notes). The Bid_Id is the primary key.

Step9 LAST BIDDER: (Lb_Id, Bid_Date, Bid_Price, and Notes). The Lb_Id is the primary key.

4.2 BENEFITS OF USING ONLINE AUCTION SYSTEM

It was found that the application of this system results in benefits for both parties, the stores of the University of Mosul as a governmental institution, and those who deal with the stores as individuals, the most important of which are :

1. The use of web technologies helped build an integrated system through which products and auctions can be added easily and in a simplified manner.

2. The system helped facilitate the process of buying, selling, and auctioning electronically.

3. The system contributed to saving data in special data warehouses so that the data is preserved and the process of referring to it is easy when needed.

4. Using websites to make the buying and selling process, through the web, saves a lot of effort, money, and time .

5. Simplifying government work and making it more efficient, thus reducing the costs of government procedures .

6. Improving the performance of citizens in dealing with modern technologies.

7. Encouraging modern technology as the future of countries.

The above points are considered general for any online shopping system, and the proposed system has achieved many of them.

5. CONCLUSIONS

Auctions have witnessed great transitions and wide developments. After the transition from traditional auctions to electronic auctions. This work included the design and implementation of an electronic auction system. The system has been designed with all its functions successfully, the system was tested on real data for models of products (elements) in the Department of Stores Presidency of the University of Mosul. The process of selling these products has been transformed from the traditional form to the electronic form where the materials are organized and presented to the users visually and online. The system also provides an integrated tool for managing the auction and following up the workflow of the auction manager, as well as managing the accounts of users and employees and granting them access and participation in the auction, as well as providing flexibility in auction procedures such as adding or deleting products (items). It was also discovered that the use of this mechanism benefits all parties, including the University of Mosul as a public institution and the Auction customers. Through the implementation and examination of this system, it was found that it can be used and applied to any government institution in the city of Mosul or in Iraq that has auctions for the sale of various materials. The system can also be developed to include all tenders, bids and other transactions.

6. REFERENCES

[1] Podder, S., & Sumi, S. R. (2017). "ONLINE AUCTION SYSTEM". Doctoral dissertation, Daffodil International University, Bangladesh.

[2] Noufidali, V. M., Thomas, J. S., & Jose, F. A. (2013)."E-auction frauds-a survey". International Journal of Computer Applications, 61(14). Doi:10.5120/10000-4863.

[3] Raghda T. Elias Auday H.AL-Wattar " Design And Implementation of online Auction System " Department of Computer Science - College of Computer Science and Mathematics – University of Mosul, Mosul, Iraq NTU JOURNAL OF PURE SCIENCES RESEARCH ARTICLE EISSN: 2789-1097 Open Access.

[4] Sheharyar Khana , Zeeshan "Advanced and Secure Online Web-Based Auction System", aNorthwestren Polytechnical University, Shaanxi, Xian, China bUniversity of Haripur, KPK, Haripur, Pakistan, International Journal of Computer (IJC) ISSN 2307-4523

[5] AvrimBlum ,Vijay Kumar, Atri Rudra and Felix Wu . "Online Learning in Online Auctions", Theoretical Computer Science Special issue: Online algorithms in memoriam, Steve Seiden, Volume 324 Issue 2-3, 20 September 2004, pages 137-146.

[6] Sandeep Kumar, "Pricing Algorithms in Online Auctions by" International Journal of Advanced Research in Computer Science and Software Engineering, Volume 3, Issue 6, June 2013 ISSN: 2277 128X, June - 2019, pp. 148-153 .

[7] P. Hemantha Kumar, Gautam Barua, "Design of a Real-Time Auction System", 4th International Conference on Electronic Commerce Research, November 8-11, 2020, Dallas, Tsexas, USA.

[8] Ms.P.Vimala , Ms.E.Janani Priya ,Ms.A.Gowsalya ,Ms.K.Manjupriya" SECURE ONLINE AUCTION SYSTEM" Assistant Professor,Department of Computer Science & Engineering, Dhirajlal Gandhi College of Technology, Salem, Tamilnadu, India UG Scholar, Department of Computer Science & Engineering, Dhirajlal Gandhi College of Technology, Salem, Tamilnadu, India, International Journal of Scientific Research in Engineering and Management (IJSREM) Volume: 07 Issue: 05 | May - 2023 Impact Factor: 8.176 ISSN: 2582-3930.

[9] Aaditya Patil , Kiran Tayade , Mayur Birari , Nimesh Agrawal." ONLINE AUCTION SYSTEM" U.G. Student, Department of Computer Engineering, SSBT's College of Engineering and Technology, Bambhori, Jalgaon, India, International Journal of Research Publication and Reviews, Vol 3, no 4, pp 2103-2105, April 2022