ONLINE AUCTION SYSTEM

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ABSTRACT

Distance and time are important factors while buying various things in the modern world. Many prefer using the e-commerce approach, particularly following Corona and for other reasons. There are two sorts of e-commerce. One involves set price selling and buying, while the other involves changeable price. In the fixed price model, the provider or seller sets the product price, and customers are only required to purchase at that price. The "auction method" is an additional strategy for purchasing and selling. When the seller sets a base price and the buyers provide price bids.

We are working to create a software programme for the "auction technique" because so many people today want to purchase goods at reasonable prices. This makes it easier for users to buy and sell cases. regarding price, distance, and time. A web-based "OAS" facilitates the purchase and sale of goods. Both buyers and sellers benefit from "OAS." Seller is not required to keep stores in all cities or locations. The buyers have the option to join in the "auction" at their own willing price and convenient time.

1 INTRODUCTION

The global scope of online auction sites enables buyers and sellers to get around regional restrictions and acquire goods anytime, anyplace online. Compared to the typical old offline markets, the online auction market offers consumers significant advantages in terms of reduced pricing, a wider selection of products, and increased efficiency. The usage of an online auction system utilises a tool to aid in decision-making, which increases the buyer's confidence in the seller and product choices they make. The three components of the decision-making aid are the seller's rating scores, the seller's shilling activities, and the product information signals.

The goal of the product information signals is to completely describe the product using both text and images. product certifications from independent third parties, an explanation of the features, instructions for use, and book value. This aims to guarantee the product certainty of the buyer. By utilising the feedback scores, the decision-making support tool also offers seller ratings. These evaluations of the online auction product sellers are provided by prior winning bidders. These bidders provide in-depth seller ratings of every aspect of the seller, scoring factors such as how accurate the item description was, how satisfied they were with the seller's communication, and how promptly the seller delivered the goods to them.

The technique of creating seller's shill ratings is the second crucial component of the decision-making tool. Shilling is the introduction of phoney currency. bids into an auction on the seller's behalf in order to artificially raise an item's price. The algorithm keeps track of the features of shill behaviour, such as bidders that repeatedly place unsuccessful bids on the same seller, to determine the shill grade. Shills typically have a greater ratio of rejected bids to total bids. The auction house keeps track of how many bids each bidder has made for each seller they have dealt with. A shill score is calculated using the data above. Consumer confidence in the choice of the sellers and the items they produce is ensured by a thorough study of the product and seller and the usage of the decision-making help tool. The issue that Due to the lack of a physical inspection, buyer concern about vendors and their products is a common issue in online auctions. Despite the many benefits of online

bidding, there are still some drawbacks. Unlike offline markets, where customers can physically inspect the products and speak with sellers, online markets only allow customers to judge the quality of the products through an internet interface, which falls short of accurately describing the goods. The product issue and the seller's lack of confidence have a negative impact on the key success of the results of the online auctions. The use of an online auction system that includes thorough seller and product descriptions has produced the desired outcomes. in the bidders' greater confidence in their decision-making regarding the products and sellers they choose.

2. LITERATURE SURVEY AND RELATED WORK

2.0 An Overview of Auction Systems

Electronic markets, particularly those built on the internet, have gained popularity by offering venues for commercial transactions. In fact, it could be argued that the electronic markets that operate on an auction basis best reflect the changes in business that come with e-commerce. A key element of the electronic market that enables consumers to sell and buy goods from any location are auction systems. The sellers hold auctions for a variety of their products, and the buyer with the highest bid is granted the opportunity to purchase the item.

Generally speaking, agents are utilised in auction systems. The most often used types of agents are purchaser agents, seller agents, and facilitator agents. When the Seller Agent performs the duty of registering items on behalf of an to the sellers at auction. The likelihood that the product will sell at auction is maximised by this design. The second agent is the purchaser agent, which requires bidding in order to purchase, and it recommends an appropriate bidding price by researching the previous bids of the competing bidder. The third agent is the Facilitator Agent, who assumes the function of the auctioneer and allows a bidder to view the history of the other bidder's auctions while placing bids and making purchases.

A group of host computers connected by a network power the auction system. One of these computers is used by customers to access the auction system. The system enables customers to buy and sell goods through auctions.

2.1 Shilling Activities in Auction Systems

Shilling is among the most typical fraud practises that take place in most auctions. Shill bidding is the practise of inserting fictitious bids into an auction on behalf of to boost an item's price unnaturally. The seller may use a fraudulent identity to register as a bidder or engage in cooperation with one or more of the bidders. Shills are these fictitious bidders who participate in shilling. This online auction system aims to offer a mechanism to identify and catch any potential shilling actions. This can be done by looking at the bidding data from various auctions and producing a score that indicates the possibility that the bidder is acting in a shill manner.

2.3 Analysis of Similar Existing Systems

This chapter's section goes farther in its investigation of the present auction systems and offers various descriptions of the technology employed. Before beginning the project, existing systems and their functionalities are taken into account. Following that, the type of system architecture and software technology to be used are chosen.

Investigating already-existing online auction platforms on the internet is the first step in the project. eBay, unbid, and Qui bid are three well-known auction platforms that were taken into consideration for this project.

3 PROPOSED WORK AND ALGORITHM

Every auction that is conducted online is referred to as an online auction. The use of internships has increased as a result of the growing acceptance of using online auctions. Individuals don't have time to waste by travelling to the store and making a purchase. Everyone wants to save time these days. So, the idea of conducting an online auction is growing rapidly, and online auction services are becoming more and more popular. Today, we're providing you with a thorough proposal for an online auction website that you may use for your senior project to create the best online auction site in the world. The ideal audience for this project is students studying programming and computer networking. What are the prerequisites for building an online auction website? How to construct the greatest online auction website. You can locate everything about this project is here. The project's goal is to expand the auctioning mechanism to a global scale. To do this, we are creating an online auction system that will allow bidders from across the world to place their bids whenever and wherever they choose.
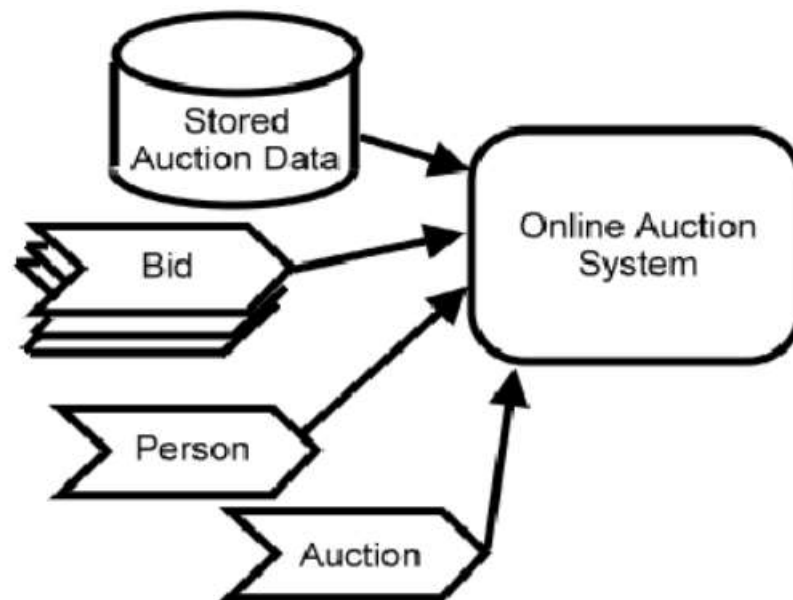
Fig: ARCHITECTURE DIAGRAM

The waterfall model, one of the earliest process models to be devised and also known as a linear sequential life cycle, is one of the prominent models analysed in the creation of the online auction system. The waterfall model wasn't chosen since it has a number of drawbacks that prevent the creation of a high-quality final product. Some of its drawbacks include the fact that it does not permit a lot of reflection or modification, which is crucial in this type of project, and that it is not appropriate for projects whose needs are subject to a moderate to high risk of change. So, this process model has a high level of risk and uncertainty. The Waterfall model has several steps, and each phase needs to be There is no overlap between the phases, which presents a variety of obstacles in designing this system. Each step must be finished before going on to the following one.

The waterfall model presents a linear sequential life cycle model of the software development process. As changes cannot be made as the cycle moves forward, the waterfall method requires that the client requirements be clearly understood at the outset.

4 METHODOLOGIES

This chapter outlines the various research and software development approaches that should be taken into account for this project and employed in the creation of the online auction system. The term methodology describes a methodical approach to carrying out all tasks while supplying a foundation for growth. The specifics of the many approaches that can be employed for this project are covered in this chapter. This chapter's objective is to examine various approaches in order to determine which one is best for creating an online auction system. Software development approaches aid the development team in efficiently and quickly organising their work.

The systematic approach of conducting research is referred to as research methodology. carrying out study. In many different sorts of research, methods are used, and the word is typically thought to comprise study design, data collection, and data analysis. The study design, which is a component of the research technique, is what determines how the research is carried out. Typically, research is conducted using questionnaires, interviews, observations, and experiments. The phrase "research methodology," which is sometimes known as "research methods," refers to the processes used to analyse and evaluate the information gathered. To find correlations or statistical significance in the results, they frequently employ a variety of complex statistical analysis of the data. The research methodology used in computer science can be divided into experimental, theoretical, simulation, formal, and build methods. This chapter offers analyses. A variety of research methodologies are used, and one that best fits the online auction system is chosen.

The formal approach was one of the research methods that was taken into consideration for this online auction project. The majority of the time when formal approaches are employed to research computer science, they are to verify facts about algorithms and systems. The time complexity of the various auction bids and the accuracy of the various algorithms used

to generate the seller's quality and shill score calculations would be involved in the online auction if the researchers were interested in the formal specification of a software component in order to allow the automatic verification of an implementation of that component. A theory- and math-based research approach is the formal methodology. applied primarily in theoretical computer science. As it does not primarily focus on establishing facts about algorithms and the system, this methodology is not the most appropriate for this project. The online auction system relies on feedback scores from successful bidders, shill scores generated for each vendor, and information signals to assess the quality of the goods and the sellers rather than proving any theories or algorithms.

experimental approach Due to time constraints, as this project will be completed in a short amount of time, and experimental methodology requires quite a huge amount of time, this approach does not best suit the online auction system. Additionally, if this approach is not implemented, the online auction system will not function as intended. Unless done correctly, it may produce unreliable findings. In computer science, experimental approaches are frequently used to assess novel solutions to issues. The explanatory phase and the evaluation phase are the two stages that experimental evaluation is frequently broken down into. The researcher collects data during an exploratory phase to assist determine the questions that should be raised about the system being assessed. In the online auction system, measuring the minimum or maximum amount of time that should be allotted for each auction, the number of goods that should be sold by each seller, the number of bids that each buyer can place, and the number of times the same item can be resold in the same auction are all part of the explanatory phase. Then comes an evaluation phase, which aims to provide answers to the explanation phase's queries as well as solutions, such as the longest period of time an auction may last. A list of the questions that the experiment is meant to answer is the first step in a well-designed experiment. Effective record keeping is necessary for experimental methods in order to later retrieve and verify the data. Since the majority of computer science researchers tend to be careless when keeping the records, extreme caution must be exercised. During the exploratory stage of an experimental piece, speed is a crucial component. As a result, this phase frequently moves along with less attention than it should. After this exploratory stage, a researcher should summarise the results. Describe the experimental setup in detail, as well as the features of the hardware and software that were employed for the evaluation phase. It is crucial to record and summarise the experimental evaluation in the experimental methodology. By changing the different parameter values and evaluating the impacts of doing so, simulation approach offers several ways to analyse the system. In the online auction system, simulation entails changing various parameters, such as the maximum amount of time allowed for each bid or the number of bidders permitted per bid. After changing these parameters, the effects of the change are then assessed and taken into account in the system's development. Moreover, simulation permits research into the systems or values that are outside of the experimental realm or the under development systems. Simulation makes it feasible to study more complicated systems since it generates observations by assessing potential changes that the system might undergo in the future rather than by trying to establish what happened and how by looking backwards in time as is the case with other research approaches.
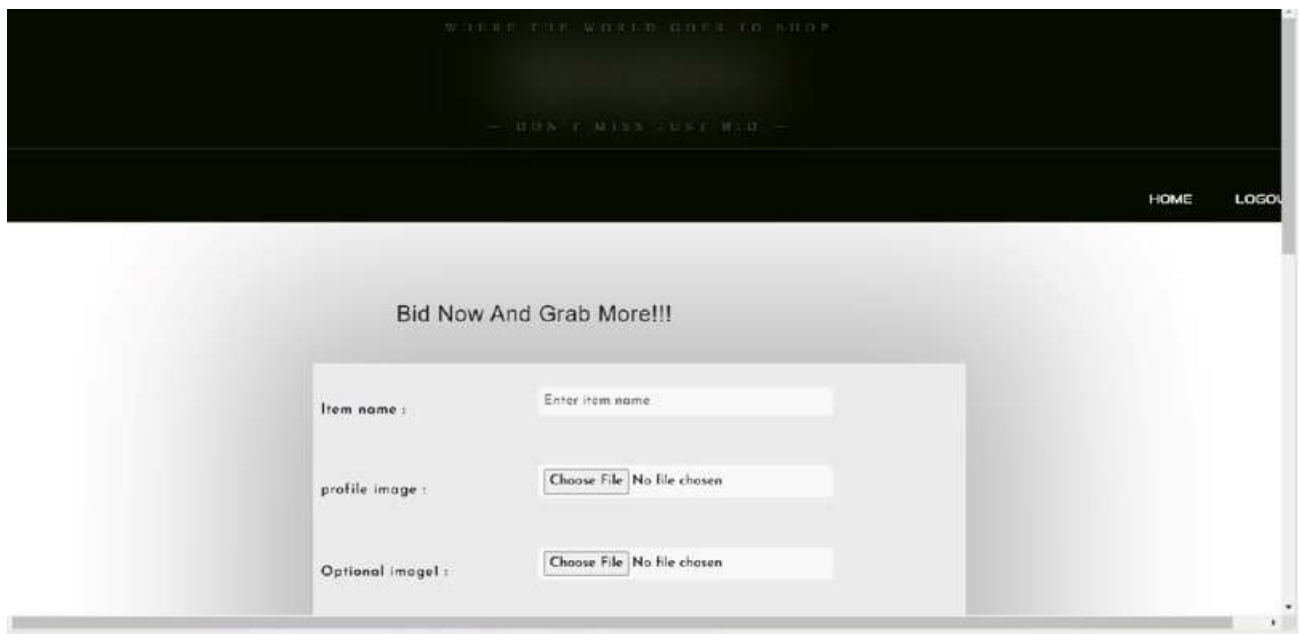
5.RESULTS AND DISCUSSION SCREENSHOTS
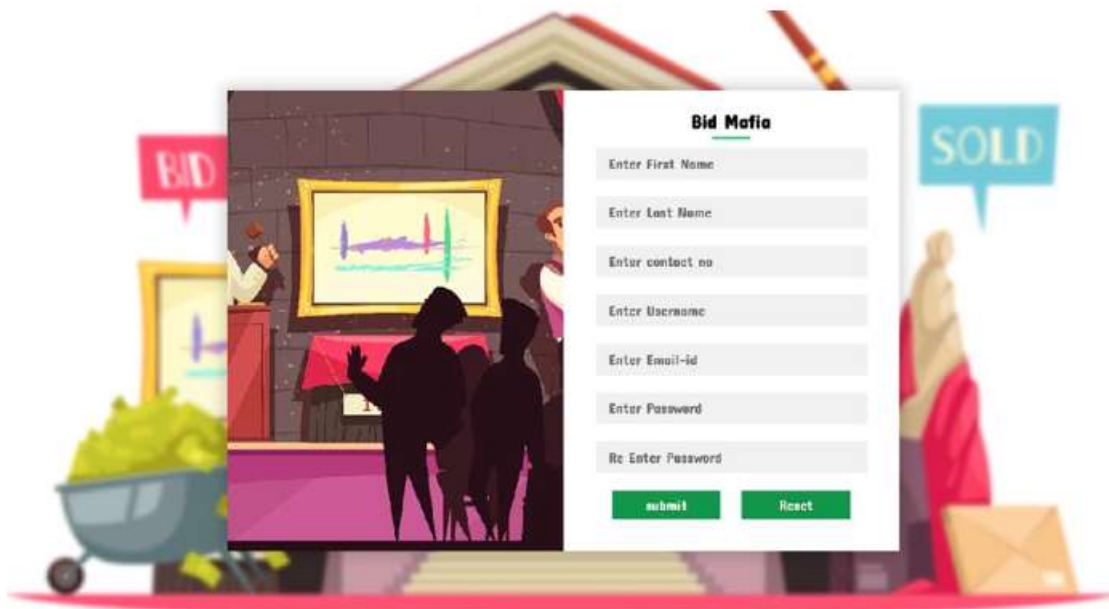
REGISTER PAGE
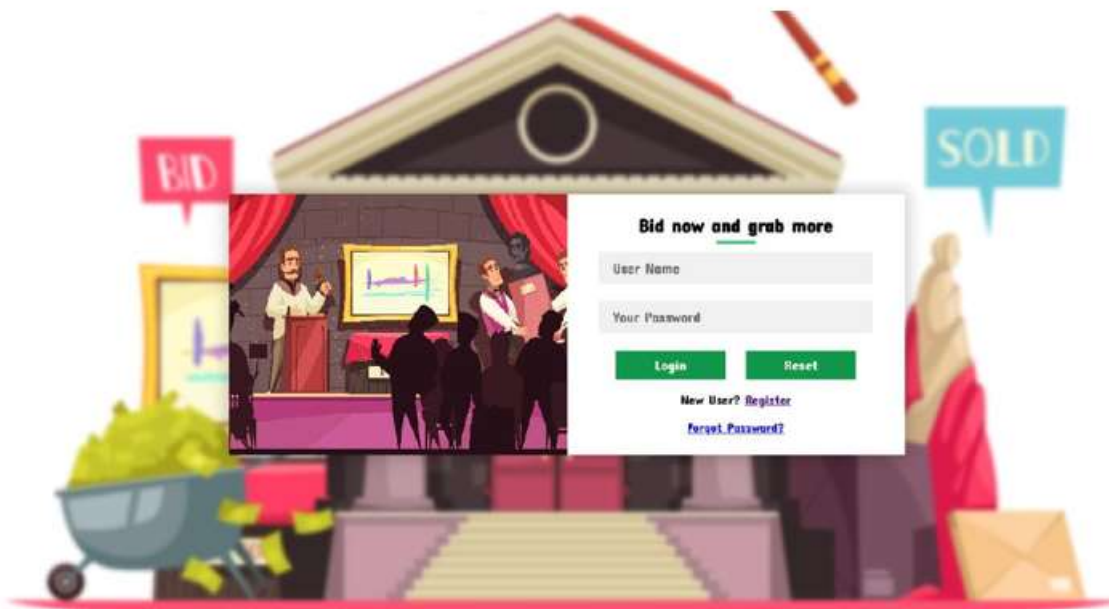
LOGIN PAGE

HOME PAGE

ADD ITEM 1

Optional image1 :   Choose File No file chosen

Optional image2 :   Choose File No file chosen

Optional image3 :   Choose File No file chosen

Optional image4 :   Choose File No file chosen

Tag :   Enter item tag

Short discription :   Enter Short Description

long discription :   Enter Long Description

ADD ITEM 2

Short discription :   Enter Short Description

long discription :   Enter Long Description

Set base price :   Enter price in numbers

Auction date :   dd-mm-yyyy

UPLOAD

ADD ITEM 3
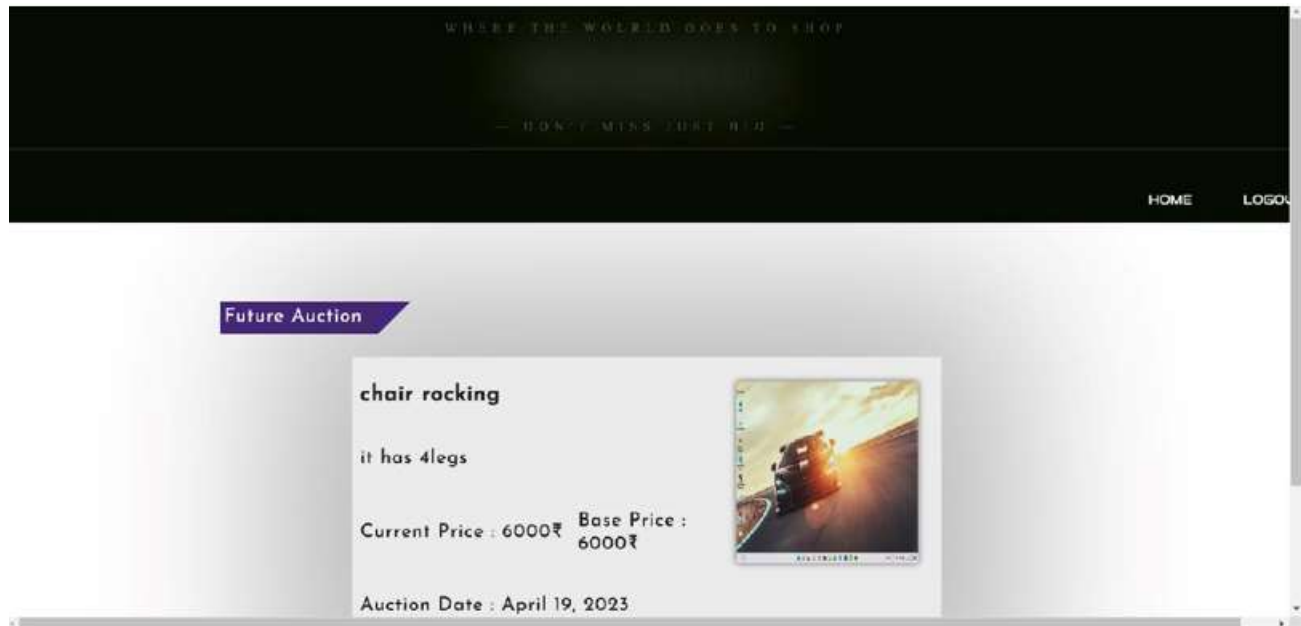
FUTURE AUCTION
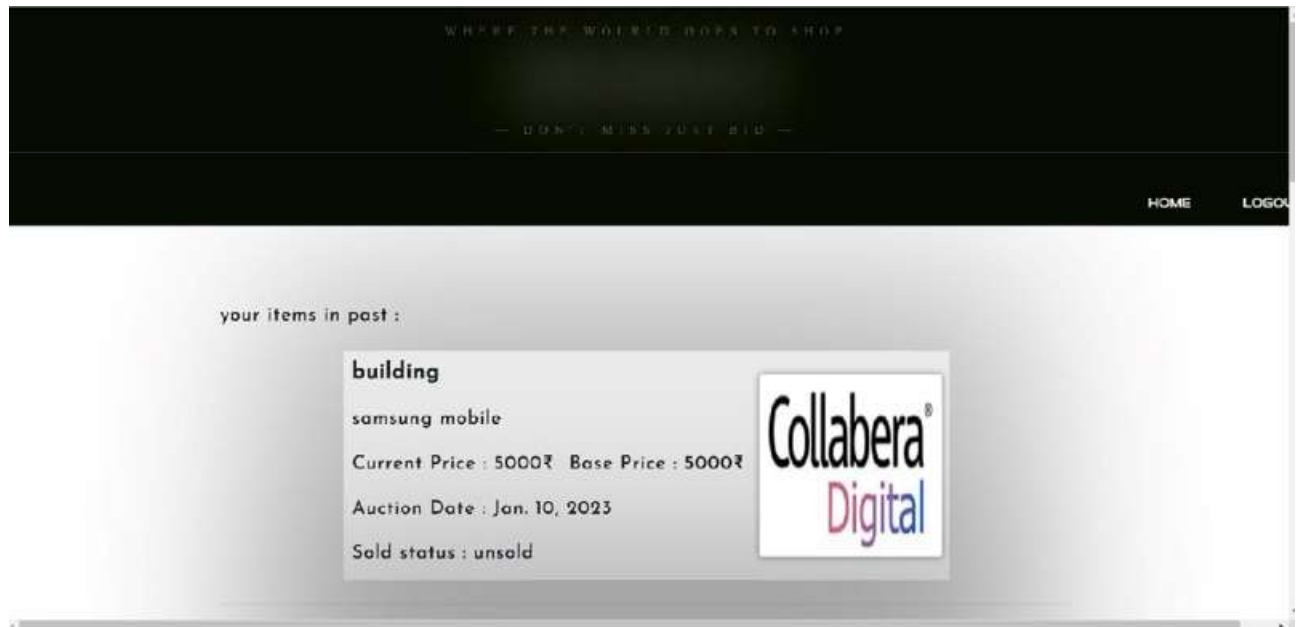
LOG 1

Your items in live :

duster

easy to rub

Current Price : 70₹   Base Price : 50₹

Auction Date : April 9, 2023

Sold status : sold

Your items in future :

chair rocking

it has 4legs

Current Price : 6000₹   Base Price : 6000₹

Auction Date : April 19, 2023

Sold status : unsold

LOG 2

it has 4legs

Current Price : 6000₹   Base Price : 6000₹

Auction Date : April 19, 2023
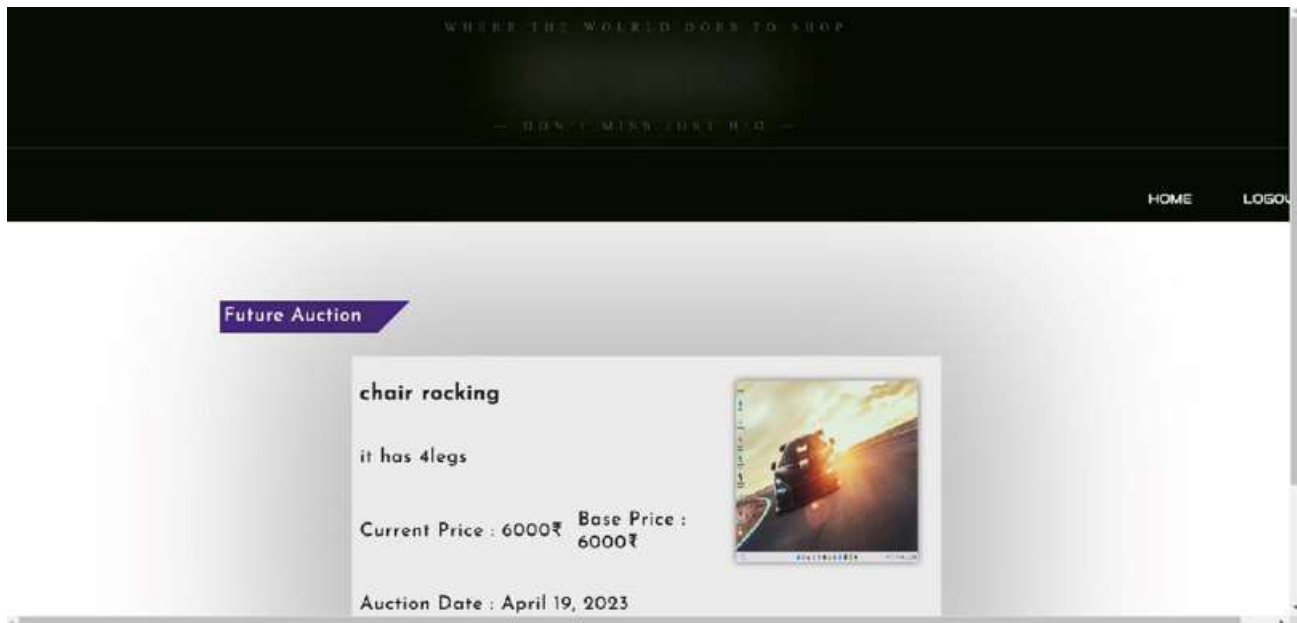
Sold status : unsold

Item that you are bidded :

phone

samsung a21s

Current Price : 7000₹   Base Price : 5000₹

Auction Date : April 8, 2023

Sold status : sold

Bid Now And Grab More!!!

LOG 3

Bid Now And Grab More!!!

First name : raj

Last name : raj

Contact no : 9347225321

User name : raj

Email-id : mudunurivarma369369@gmail.com

PROFILE

WHERE THE WORLD DOES TO SHOP

— DON'T MISS OUT BID —

HOME   LOGOU

Future Auction

chair rocking

it has 4legs

Current Price : 6000₹   Base Price : 6000₹

Auction Date : April 19, 2023

FUTURE AUCTION

BID ITEM

When you Bid on your own item
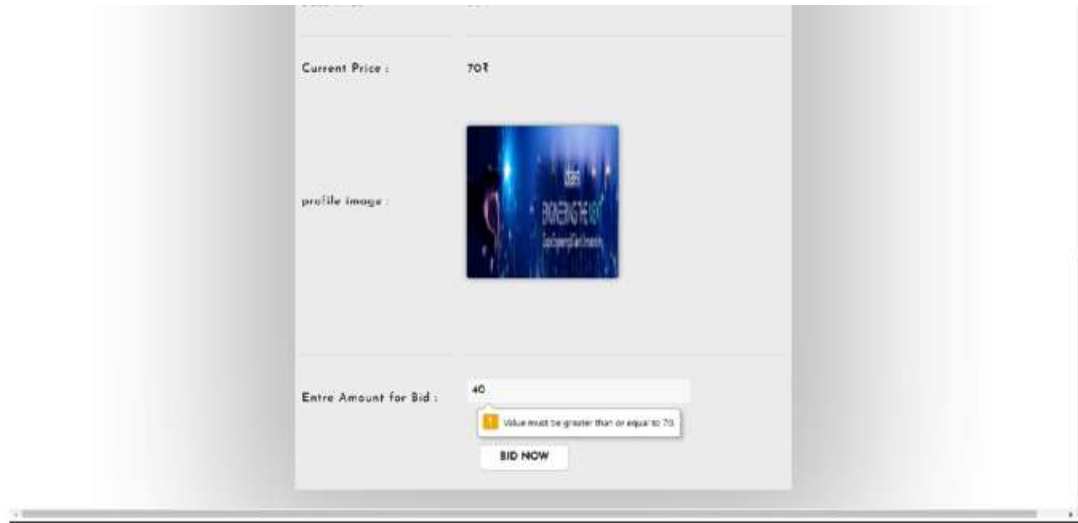
Enter amount for bid >= Current Price

NOTE: Sample images and data are used for testing purpose.

6.CONCLUSION

In this chapter, numerous research and software development approaches were analysed. The best research approach was determined to be the build methodology. This chapter also outlined the rationale for selecting RAD as our software development process and explained why other options were not considered. Also mentioned were the tools that would be used in the construction of the auction system.

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