

# Online Bidding System with AI

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**Abstract:-** Internet has driven the globalization which addresses the interaction and integration among the people, different business institutes, government bodies, and many more. As people are exposed to unlimited number of quantitative and qualitative products through use of internet, they seek for the expected one at reasonable or favorable cost and time. Online bidding has become prominent solution to the expectations of online buyers since it excludes the need of physical presence at the bidding place and the product can be obtained at the affordable price. When bidding is conducted on a bidding floor this system will enable users to access the bidding using an online portal. Photos can also be viewed. Online bidders can place bids at any moment and their bids will be displayed on a screen at their own window. Authentication will be key for the online system and access credentials will be presented only to verified users. Users can set criteria for auto bidding such as limit amount, next bid increase amount etc. statistics can be collected by the system to judge which items evoked the most interest in bidders. We aim to build a tool that recommends the best suited product for user based on session.

*Keywords:-Online, Authentication, Credentials, Recommends.*

## I. INTRODUCTION

An online bidding project is a system that holds online biddings for various products on a website and serves sellers and bidders accordingly. An Admin allows users to set up their products for biddings on their behalf and also user can register and bid for various products available for bidding. The system also consists of products sorted by categories and by price.

Online Bidding or the E-bidding system project consists of the following features:

- User Login: User can register online and then access the system on authentication.
- Sort Products: User can sort products by category and price range.

- Bidding products: Admin can set up products for bidding by providing details and minimum bid.
- Delete Products: Admin can delete products.
- Admin Login: Admin can set up products for bidding by providing details and minimum bid. Admin can login to system and view products as well as feedback and even delete other user's products.
- Bidding time: Admin can set bidding time on posting product for selling, the winner is declared after time elapse.
- This Application uses Bootstrap as a front-end and Python, SQL as the back-end.

### ➤ Advantages:

- Excludes noisy crowds like conventional system where users have to sit and bid.
- Allows smooth process without facing any difficulties of conventional system.
- No perfect schedule for bidding so, bidder can bid for products at their own will from anywhere and anytime.
- The bidding can be made on a global level.

### ➤ Disadvantages:

- The user cannot view the item in person.
- No human interaction.
- If there are poor quality photographs then it's of no use.

### ➤ Applications:

- The system can be applied to warehouses where the items are put up for biddings.
- Unlike existing system this recommends items based on previous sessions.

## II. LITERATURE SURVEY

### A. Different Existing System Analysis

#### 1. EBay Bidding System

Online biddings, in particular, exemplify a huge growth rate that was made possible by Internet technology. EBay, the premier online bidding retailer with over 80% of the online bidding market, boasts that, on any given day, there are more than 12 million items listed on eBay across over 18,000 categories. In the second quarter of 2003, EBay reported record net revenues of \$509.3 million, up 91% from the same period in 2002. The major fact of eBay is anyone can sign up and start selling without any experience. Sellers without stores even get 100 free listings a month under its fee structure.

#### ➤ Advantages:

- High Brand value that is famous and trusted website.
- More number users which increases review/feedback information for products.

#### ➤ Disadvantages:

##### • Profit Loss

EBay adds additional fees for the users who want to sell their items some addition amount to increases the transparency in listing such as new pictures, sub descriptions and borders. Further, eBay uses its own payment method (PayPal) and no other payment option is available. Now this adds additional fees or charges to the users. Additional charges reduce the interest of the users.

##### • Scam rate

On eBay if a buyer finds any problem in the seller's product than the whole replacement procedure is quite long as it uses its own payment method (Paypal). Fraud emails are sent to the users stating false information and status about their profile and redirecting them to fraud login pages. Once the user logs in, it's very simple for the hackers to hack their identity.

##### • Customer Service

If the consumer has any issues with the eBay's policies or with services, they don't have any medium to complain and get it resolved. Due to this there is a communication gap with the consumers as they receive automated mails which are mostly unattended.

#### 2. QuiBids.com

This website operates as bidding site, which is also known by the name penny bidding. Here the bidding prices are different where the product price increase by one QuiBids penny which is equal to \$.60 but the interesting part is bidding starts when there is only 5 minutes left. All the bidders have to pay for bidding, but final prices are surprisingly much lower than other biddings, those who lose in bidding can pay the

retail price of the product, minus the cost of their bids. As it is bit tricky to understand the properly for Customers, so they mostly require tutorial for correctly participating and winning.

#### ➤ Advantages:

- Number of Biddings: There are many users bidding at a same time and traffic goes on. It allows buying the item at the end with its full retail price.
- Customer Service: Quibids provides huge remarkable customer services. It has representative answering questions posed at the users.

#### ➤ Disadvantages:

- As the sites moves upwards in Google ranking, traffic goes on increasing. The items in the pool are limited but due to increased traffic the competition gets tough.
- Hidden fees: Bidders need to pay delivery fees, which makes it very expensive.
- Too many Limits: Site does not allow users to win more than three bidding a day, more than 8 biddings a month. Also doesn't allow winning same item more than once. It also allows only one high costing item.

## III. COMPARISON BETWEEN EXISTING SYSTEM & PROPOSED SYSTEM

### A. Proposed System

The proposed system will make the bidding process much easier for both online and offline users. Users will be able to bid on products despite geographical difficulties. The Proposed system will be globally hosted so, everyone can take part in bidding. Each bid will be recorded with a time which eventually helps in recommendation and also maintain electronic record.

#### • Modules

**Admin:** The admin conducting the bidding will access this module and will be able to view the bids as they come in. This module can also be used to enter bid amounts for the bidding as it progresses. Users can contact admin of the website for uploading his/her items.

**Bidder:** Bidder module grants access to registered users to the homepage of website. In the bidder module one will be able to view products and also place bids. Bidders can use auto bid function in case they are not online.

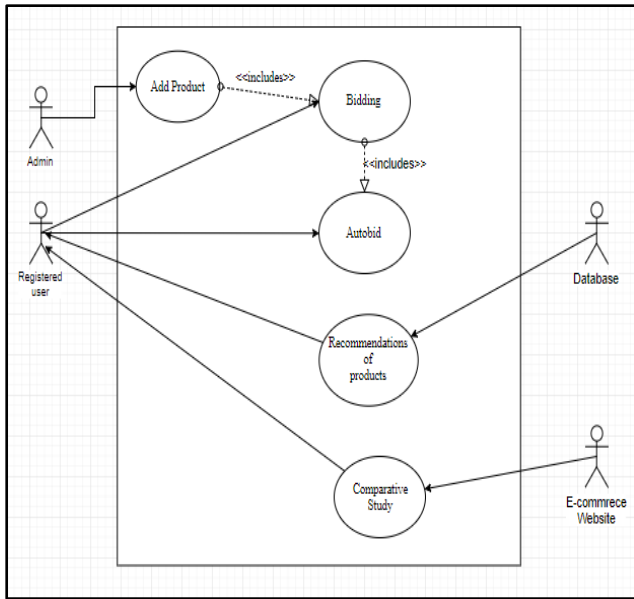


Fig. 1:- Proposed System

Proposed System	Existing System
1. In proposed system, there are no requirements of credits for bidding.	1. In existing system, credits are required.
2.Recommendation Engine[5] provides recommendations of the related products to the users.	2. No recommendations are provided in other existing system.
3. Auto Bid function[4] will let user bid on the desired product to certain user set value even if the user is offline and have no internet access.	3. Auto bid function in other sites is not present, so users have to be online to bid on the desired product.
4. Proposed system uses Django[3](Python framework).	4. Existing system uses PHP.
5. Comparative Study [6] is carried out in order to give estimated original price of the product by comparing on various e-commerce sites.	5. No comparative study is carried out for estimating the actual market price by comparing price on various e-commerce sites.

TABLE 1: PROPOSED SYSTEM V/S EXISTING SYSTEM

#### IV. METHODOLOGY

In an e-commerce system, user session are modeled as a sequence of web pages this pages indicate how the user and system interacts while making purchase as per their requirement which is also helpful for users for purchasing products Online. Nowadays online shopping has become very vibrant and widely used system. As in today’s times People have many benefits from online Shops as large variety of options at fingertips, ease of access, and access to product, no need of stepping out to shop and time saving. Also due to increasing competition in the world of e-commerce, consumer benefits and their Reviews of products, comparison of similar products etc are taken into consideration. People have got the tendency to buy products as per their rating and reviews, so both selling rate and good ratings are directly proportional. So the aim is to design a tool (system) which recommends the user best suited product for customer based on their requirement.

- Collaborative Filtering:

Collaborative filtering (CF)[5] and its modifications is one of the most commonly used recommendation algorithms. Collaborative filtering systems suggest product based on the similar factors of the user activities and the items. For the purpose of recommendation the most important thing is keep in mind the similar interests, behavior, activities of other people for recommending same kind of items. Or we can see the previous items the user bought, and recommend products which are similar.

These are two basic approaches in CF[5]: user-based[5] collaborative filtering and item-based [5] collaborative filtering, respectively.

In both cases this recommendation engine has two steps:

1. Find out similar users/items in the database to the current user/item.
2. Assess other users/items to predict what grade you would give the user of this product, given the total weight of the users/items that are more similar to this one.

- Content-based Recommendations:

Content-based filtering also referred to as cognitive filtering, recommends items based on the user activities and the content description of an item. The content of each item is represented as a set of descriptors or terms, the word or phrase that occur the most. The user profile is represented with the same phrase and projected by analyzing the description of item which has been previously seen by the user. Content based system takes input from the user activities and profile and content parameter along with item's description and features to make the recommendation.

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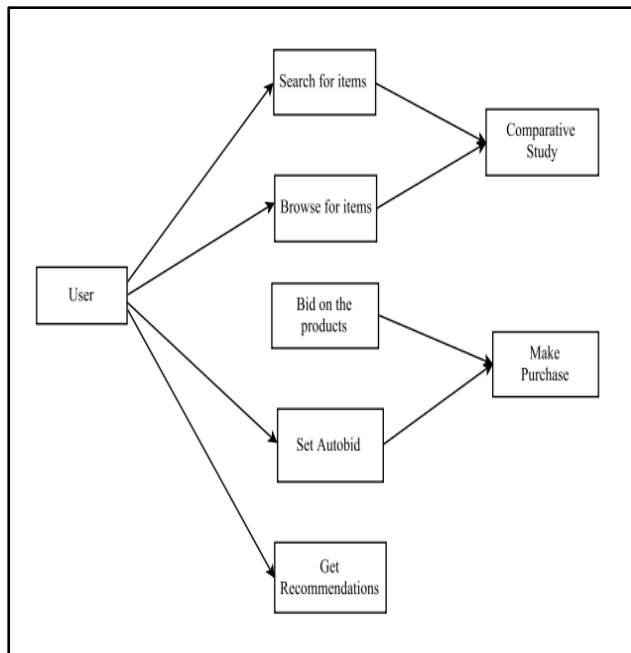


Fig. 2:- Block Diagram

**V. CONCLUSION**

Online Bidding system is the web application which lets user bid on desired goods without going anywhere. It is globally available and does not have any time constraints which give user some time to think and bid. After its globally available functionality and no time constraints feature, it provides comparative study of the market value of the original product which enlightens user more about the product. Also this web application provides recommendation of related products. Our only aim is to ease users in auction process without causing any cost and going to crowded places and wasting their time.