

Auction Business

Mrs.Gowthamy¹, Aditya Singh², Anish Bhattacharyya³, Chandan Acharya⁴, Shubham⁵

^{1, 2, 3, 4, 5} Dept of Computer Science Engineering
^{1, 2, 3, 4, 5} SRM Institute of Science and Technology Chennai, India

Abstract- Online-Auction is known by several names, including ‘electronic reverse bid Auctions’, ‘reverse auctions’ or simply ‘e-Auctions’. Online auction is a group which is based for auction.. The purpose of this project is to build an “on-line auction management system”, where flyers can bid for the seats that are available in the aircraft thirty minutes prior to the departure. This provides the operating airline with some extra revenue and the traveller with the comfort of upgrading his or her ticket to a higher class. The travellers travelling on that particular aircraft get an opportunity to compete against the other fellow travellers for the bidding of the seat put out for the auction by the company and the traveller whose bid is the highest gets the seat as his reward. Auction of seats creates interests among the fellow travellers as while the wait they can bid for their desired seats put on auction at a very nominal cost. Airline is also rewarded from this as the same passenger already on the flight wishes to invest more in order to upgrade itself to a higher class of seats.

Keywords- Auction, Bidding ,online auction

I. INTRODUCTION

Once received the boarding pass in air travel it has been a one stop destination, i.e your allotted seat. Once on the boarding pass the seat number there is nothing much that could have been done but now there is a glimpse of a opportunity as auction business lets all the fellow passenger go into an live auction to bid for their favourite seats that they wish to travel on. It gives the passengers extra convenience and also lets the airline make their profit at the same time. The airline make a small or a big profit but they always make a profit at auction business as the base price for the auction of the particular seat is kept by the airline itself , which carefully takes its costs inputs into consideration before letting it out for the online auction.

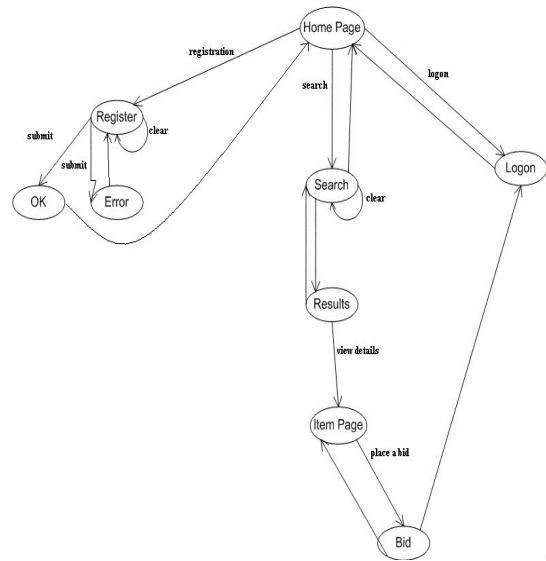
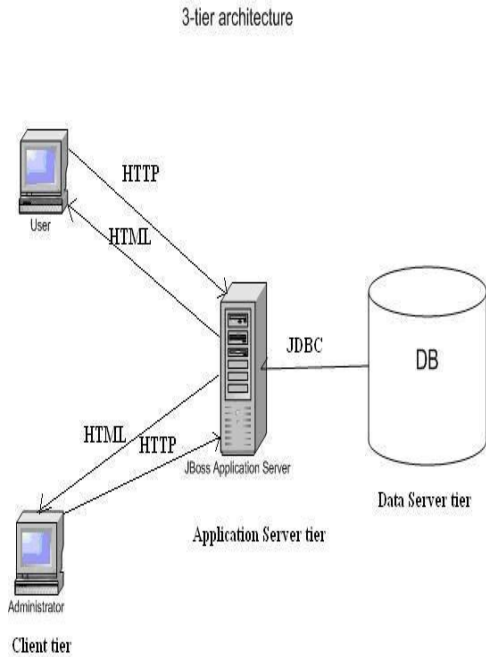
AUCTION BUSINESS has a methodology that could not only be used for air travel but also for different modes of travel other than it. Hence making it a successful product for the travel industry.

II. LITERATURE SURVEY

In 2009 “Online Auctions: There can be only one” was made by Charu C. Aggarwal, Philip S. Yu with the methodology that used a Markov Model to analyze the network effect in the case of web auctions. We show that the network effect is very powerful for the case of web auctions and can result in a situation in which one auction can quickly overwhelm its competing sites. The drawbacks are the presence of the network effect is a natural consequence of the fact that auctions need a critical mass to operate, and the stable equilibrium results in one auction reducing others to below critical mass. In 2013 “Case Study: Implementing a Web Based Auction System using UML and Component-Based Programming” was made by Young-Jik Kwon, Young-Wook Baik, Sheldon, Kshamta Jerath with the methodology that used case study highlighting the best practices for designing and building a web-based auction system using UML and component-based programming, The drawbacks are the reusability of the system was not facilitated and expect that the system will be easily able to suitably evolve in the fast-changing Internet environment. In 2016 “Survey on Online Auction System” was made by Geetanjali Sawant, Ganesh Bane, Akshay Gurav, Swaraj Pawar which used the methodology of current going auction forms and the other related issues like designing of effective, efficient and optimal system of offering single item, predicting the end bid price and the major issue faced by online auction system i.e. shill bidding. The drawbacks are current going auction forms and the other related issues like designing of effective, efficient and optimal system of offering single item, predicting the end bid price and the major issue faced by online auction system i.e. shill bidding. Referring all the merits and demerits of the above papers we have developed “Auction Business”.

III. ARCHITECTURE OF THE PROPOSED MODEL

Auction systems are based on a three-tier architecture.

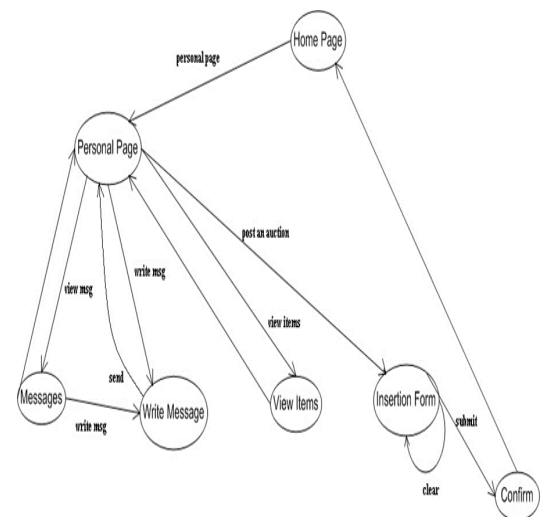


The above is the page flow that represents the path, for a normal user, to register to the system, search for an item and place a bid and make a logon.

There are 3 main elements:

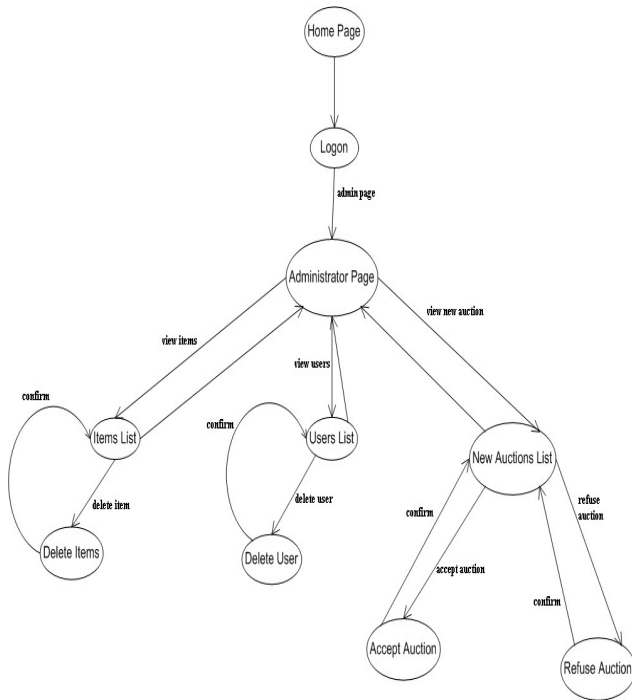
- The **client tier**, that is responsible for the presentation of data, receiving user elements and controlling the user interface.
- The **application server tier**, that is responsible for the business logic of the system. In fact, business-objects that implement the business rules "live" here, and are available to the client-tier. This tier protects the data from direct access by the clients. For the project, we used JBoss as application server.
- The **data server tier**, that is responsible for data storage. As data server, we used PostgreSQL, an open-source relational database.

Flow charts of the architecture is as follows:



The above is the page flow for writing messages to other users, view the items on auction and post a new auction.

From the home page it is possible, for logged users, to reach their personal page. From the personal page it is possible to write message to other users, read the received messages, view their own items on auction and post a new auction with an insertion form.



The above is a flow diagram for administrative activities.

User Side:

Home Page:

The home page is the entry point to access the main services:

- Register
- My personal page
- Search
- Help

The home page shows also a list of categories to simplify items searching and the latest auctions.

Registration:

The registration page allows user to provide his/her personal data (name, address, date of birth, fiscal code, email address, phone number, user ID, password) and receive a user ID and a password. User ID and password allow the user to access to his/her personal page, to take part to the auction and to post a new auction.

It performs basic checks on entered data and provides user registration or an error message if the user ID and/or user fiscal code are already present in the system.

Login

Every time the user tries to access to non-public areas (personal page, bid, post an auction...), he/she is asked to provide his/her personal ID and password. These are entered through a form. If user ID and password are correct, the user is logged in and is no more asked to login throughout the session. Otherwise an error message is raised.

Personal page:

To access the personal page the user is asked to login, or to register. The personal page keeps track of all the items the user is presently trying to buy and has bought in the recent past and of all items he/she is trying to sell. From this page it is also possible to post a new auction.

Browse:

The user can browse the auctions selecting among several categories of items (e.g. cars, books etc.). The results will be shown in a table and the user can sort them by price, by auction interval (by lasting period of the auction).

Search:

The user can search for items on auction providing a key word by different criterions:

- Excluding a word
- In a given category
- In a given city
- Auctions having price from a given value in Euro to another value

Both registered and unregistered users can access to this service.

Item page:

Item characteristics are shown in the item page. From this page the user can place a bid pushing the button “PLACE A BID” and view the chronology of the bids.

Bid:

The user that makes a bid is asked to login if not already logged. If the bid is accepted by the system, the item is listed in the user personal page. Bids can only be placed during the auction interval and they must be at least one minimum increment bid above the current price.

Post an auction:

From his/her personal page, the user can post an auction from a specific form, providing the characteristics of the item he/she is willing to sell. If the auction is accepted by the system, the item is listed in the user personal page and other users can place a bid for it.

Help:

The system must provide help pages in order to explain how to perform all possible actions, such as registering, searching items, posting an auction etc.

Change language:

The user can change from every page the language in which he/she wants to read the pages with a combo box (Italian/English).

Chat:

The user can enter in a chat room using as nickname his/her user ID and as password his/her personal password. In the chat room can send message to all users or send private messages to only one user.

Messages:

The user can send message to other users with a text and a topic and the message will be sent via email to the receiver. It is also possible to view the received messages on the website and answer to them.

Administrator Side :

Administrator Page: From the login page, providing his/her administratorID and password, he/she can access the administrator page, that shows the administrator menu to access all the administration activities (manage items, manage users, manage categories).

Manage Items: The administrator can access all data about items stored in the database and also delete them, but not modify the characteristics of the items (initial price, description etc.).

Manage Users: The administrator can access and modify all data about users stored in the database and also delete them.

Manage Categories: The administrator can access and modify all data about categories stored in the database, add a new category and also delete them. The administrator can delete a

category if and only if no items are associated to that category; otherwise an error message is raised.

Accept / refuse auction: The administrator can control the new auctions posted by the user and decide whether to accept or to refuse them.

IV. REQUIRED RESOURCES

Bidders

Bidders are an essential component of a functioning market, by indicating the amount they are willing to pay for something, in this case more luxurious seats.

Devices

Cell phones/Tablets

Cell phones or tablets can be used to access the app or website where the auction takes place, and bids can be made easily through them.

Laptops

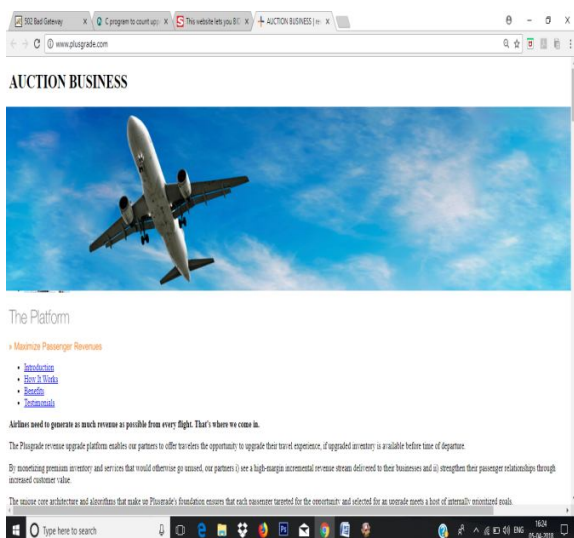
Laptops can also be used to access the website for the purpose of bidding and buying more luxurious seats.

App

Apps can be used for the purpose of Auction Business, which can either be developed from scratch or made with the use of other applications. The app consists the flight name/number, seats which can be bought by bidding. All the passenger has to do is enter their boarding pass number and start bidding.

Website

They have the same function as apps but they can be accessed more easily if the person trying to bid is using a laptop.



Company employees

The employees of the aircraft company monitor the bidding, traffic, etc on the servers and then complete the process of changing the seats for the highest bidder.

Servers

The apps and the websites are put on the servers so its easier for both the bidder and the company to communicate and manage the process of selecting and changing the seats

V. FEATURES

It ensures that all passengers get a notification so that they could join the auction which would be available to them once they have checked in and received their boarding passes. After entering the pnr number the passengers are eligible to bid for their favourite seats until ten minutes before the flight takes off . The seat which was up for bidding has to awarded to the passenger. Passenger are given to access to the auction either through the website of auction business or its own app for their convenience.

The biggest feature of “AUCTION BUSINESS” is that it can hold auctions for multiple airlines that choose to get affiliate with it. So it becomes a one stop destination for all the passengers willing to bid for there favourite seats among the other fellow travellers with them. Nothing comes for free hence making the airline a profit that wouldn't have occurred if there as no auction, but sometimes the profit might get a bit less hence would profit the passenger as they might get the upgrade for a lesser price.

VI. FUTURE SCOPE

“AUCTION BUSINESS” is coming up with totally unique idea for auction. It ensures that “No body goes away empty handed”. It's a win-win situation for all. Be it winner who gets up to 89% discount or runner-ups who also gets heavy discounts.

There is not a single credit that you lose. The airline makes a profit so does the passenger. It would help all the different airlines to use their seat layouts in a more effective way. This auction ways would prove to be beneficial to both the airline and the passengers. There is no extra investment needed to be done once the servers are up and running, which would provide the airline with some extra revenue. This auction can later be implemented for other modes of transportation also, where the same methods can provide a revenue boost for the organization.

VII. CONCLUSION

AUCTION BUSSINESS is an insight to a business opportunity that had always been there but was never before exercised. It lets the airline make some profit by letting its fellow passengers bid for their favourite seats. The passengers get an opportunity to try their luck and win the seat at their bid in a live auction before their flight takes off. AUCTION BUSINESS aim to be a one stop auction to bid for their favourite seats .

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