ijergs
Open Access
International Journal of Engineering Research and Generic Science (IJERGS)
Available Online at www.ijergs.in
ISSN: 2455 - 1597
Volume -2, Issue-5, September - October 2016, Page No. 09 - 18

Computer based auction System Implementation of E-Governance for Nagar Nigam Jaipur, Rajasthan

Devesh Kumar Bandil[1], Dr. Rajendra Prasad Mahapatra[2]
[1]Ph.D Scholar (CS), [2]Research Supervisor
Sunrise University, Alwar, Rajasthan, India

Abstract
E-Governance is refers to the use of ICT technology to provide the improvement in government services, transactions, interaction with citizens, business and other arm of government. In this paper we will make a proposed on line system for auction the property of Nagar Nigam Jaipur.

Keywords: ICT, Nagar Nigam Jaipur, E-Governance, PHP, MySQL, JavaScript, CSS, HTML, Ajax.

1. Introduction

Several services are provided by the government, but to accessing the government services in developing countries is very much difficult task. The citizens spent there long time and they need to go through long procedure for accessing government services such as on-line transfer services, on-line access information, bill payment, tax filling, banking, e-auction etc. The whole systems are manual so they are very slow and time consuming systems. So there is canonical need of bringing in efficiency, transparency and reliability in government system. The government system use the information technology to provide batter services to the citizen it is called e-Governance.

2. Literature Review

Jaipur Municipal Corporation or Nagar Nigam Jaipur is municipal corporation of Jaipur city in Rajasthan state in India. There are 91 wards in the Corporation divided into 8 zones

- Moti Dungri Zone comprises wards No. 35, 38, 39, and 44 to 51.
- Hawa Mahal East comprises wards No. 49, 52 to 59, and 72 to 73.
- Hawa Mahal West comprises wards No. 60 to 62, 64, 65, 70, and 71.
- Vidyadhar Nagar comprises wards No. 1 to 10, 15 to 17, and 67 to 69.
- Civil Line comprises wards No. 11 to 14, 18 to 22, 41 to 43, and 63.
- Sanganer comprises wards No. 30 to 34, 36, and 37.
- Amber comprises wards No. 74 to 77.
- Mansarovar comprises wards No. 23 to 29, and 40.

Citizen services

1. Application form-User can fill the application form for various services like Building plan permission, Building permission, subdivision and reconstitution ,land use change ,adoption garden, circle, chouraha, tiraha and divider with conditions and list, state grant act 1961 patta , Birth application form, death application form, marriage registration and self assessment form.
2. Birth and death-Customer can search the birth information and death information after fill the registration number.
3. Lease-Customer can search the lease amount after fill the some field like ward number, colony name, street name, multi name, house holder, account holder name, book number and page number.
4. Urban development tax-Customer can know status of urban development tax from some criteria like ward no colony name, street name apartment name, house holder, account holder, name, book number and page number.
5. Project-Customer knows about the project from some criteria like ward no., work order no. budget head, main work, contractor, issuing authority and year.

Survey: Nagar Nigam Jaipur

When I have to survey the Nagar Nigam Jaipur of Rajasthan.

I have to find in Nagar Nigam Jaipur there is no online facility for auction the property.

3. Manual system for auction in Nagar Nigam Jaipur

To start any bidding, Nagar Nigam Jaipur gives the advertisement using a particular media and then the interested bidders will pay a particular amount of participation fees and then they will be told that what will be the minimum bidding amount. After Paying Participation Fee, all the details will be given to them like, Type of Plot, Place of the Plot, Area of the Plot, Date of Auction and Minimum bidding amount.

Participation amount will be taken as the Demand Draft (DD); it will not be accepted in Cash.

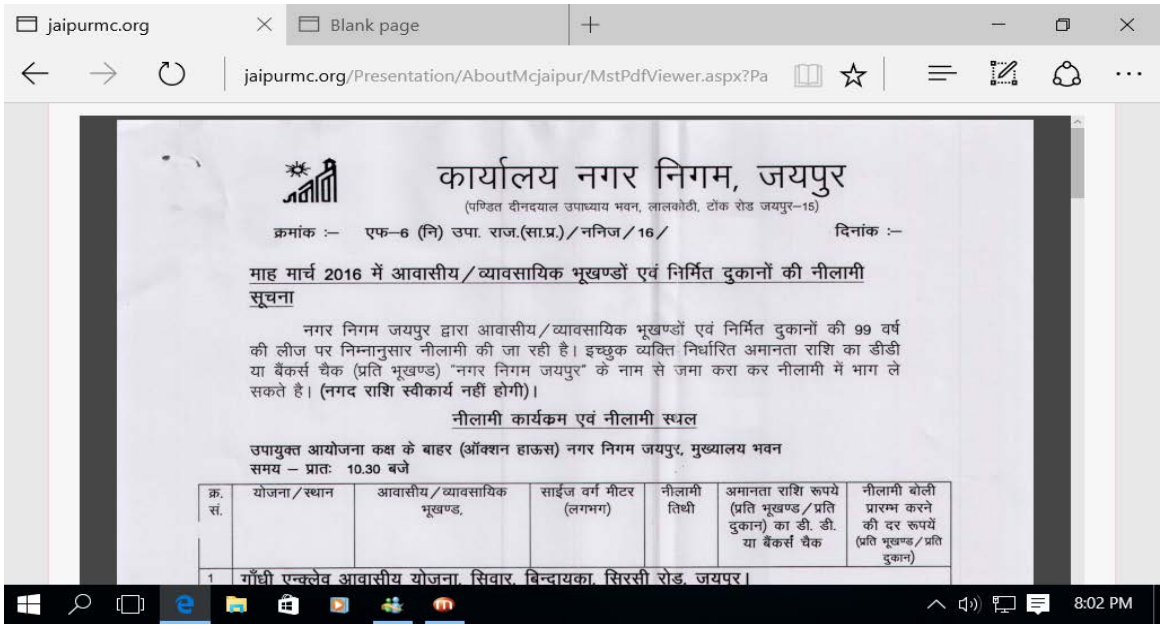

Figure 1: A. Manual system for auction in Nagar Nigam Jaipur

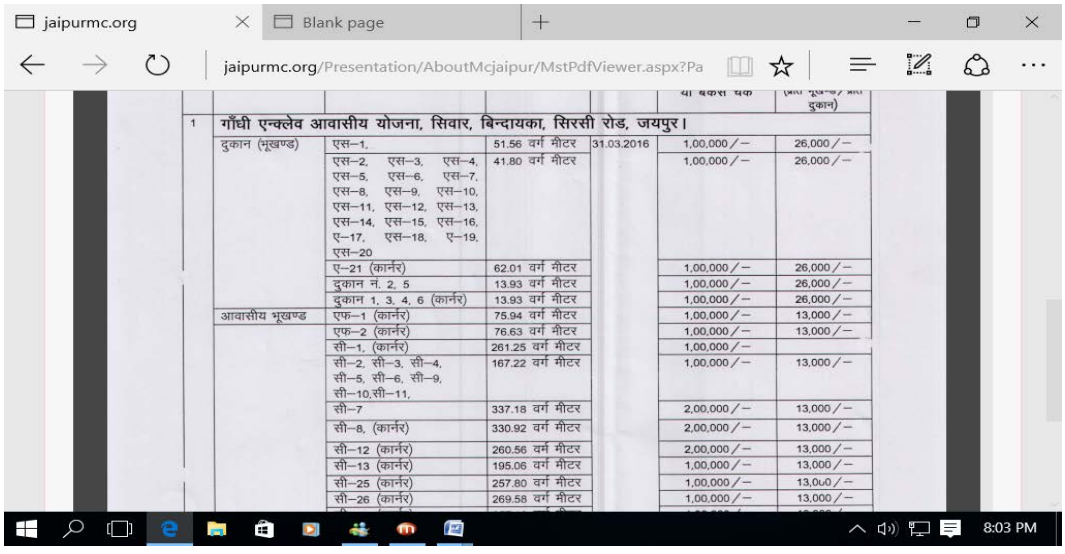

Figure 2: B. Manual system for auction in Nagar Nigam Jaipur

A. The layer partitioning is as follows

1) Presentation Layer: is the user interface for displaying data to the user and accepting input from the user. This is a part of the application which enables the user to see the functionality of each and every component. In case of web applications the web browser (Internet Explorer, Mozilla 2 Firefox) is known as presentation layer. Presentation layer has been built using technologies like HTML, JavaScript, AJAX and CSS in this proposed system.

2) Business Layer: is for data validation. The business logic is the code running on the server that contains processing instructions utilizing technologies such as PHP, ColdFusion Markup Language, and Perl etc. The proposed computer based auction system uses PHP in business layer to implement dynamic pages.

3) Data Access Layer: Comprises database communication, constructing SQL queries and executing them via the relevant API. The three tiers are containing all the user information, username, and passwords for web application.

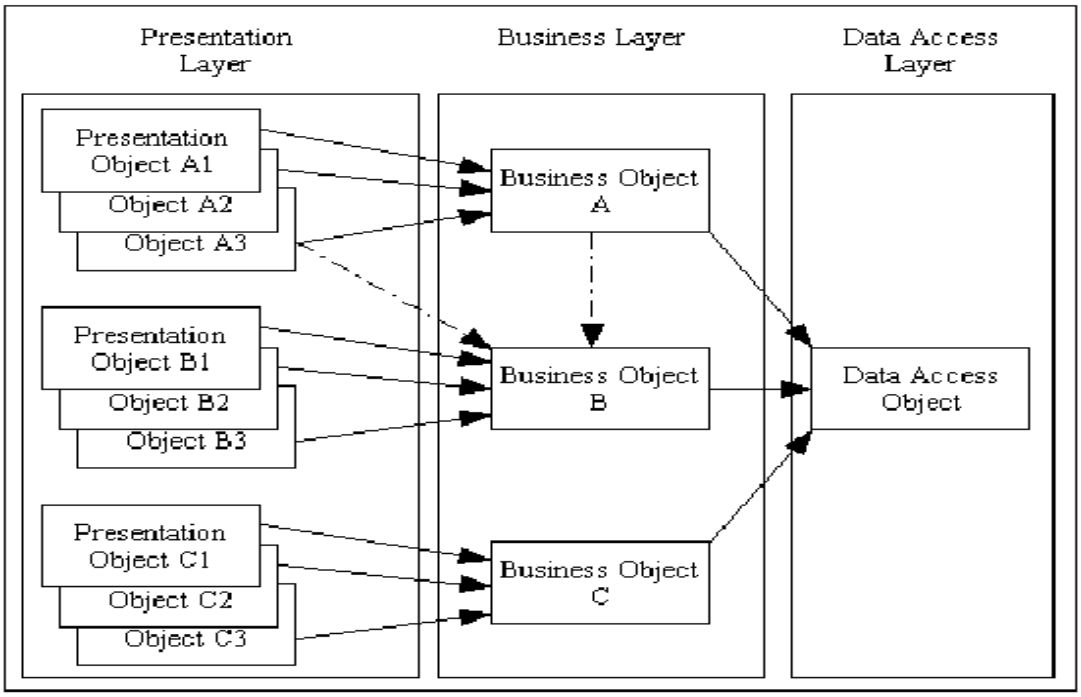

Figure.3: Tier Architecture

B. Software Development Life Cycle: Software Development Life Cycle (SDLC) is a framework that describes the activities performed at each stage of a software development project. It starts with the system analysis, design, and implementation, and continues through the maintenance and disposal of the system. The steps given below describe implementation of proposed system:

1) System Analysis: Analysis involves a detailed study of the current clipper based system, leading to specifications of a new computer based auction system. During analysis, data are collected on the available files, decision points and transactions handled by the present system. Interviews, on-site observations and questionnaire are the tools used for system analysis of present system. System Analysis also includes sub-dividing of complex process involving the entire system, identification of data store and manual processes.

2) Existing system: E-auction system is the system in which you can auction the property through online. Nagar Nigam Jaipur is a large vast office which has been committed to working for the benefit of the citizens of Jaipur with planned implementation of development schemes and is consistently striving to take Jaipur at higher levels of progress. Nagar Nigam Jaipur has really hub of plots, lands. In existing auction system of Nagar Nigam Jaipur operation done by manual based system, it is not a computer based system. The main disadvantage of this system is that majority of work is done by hand. The whole procedure is very tedious, time consuming. So as to avoid the risk of human error.

3) Proposed System: The proposed system is a web based system. The base of the proposed system is a database, which stores all the information about property of Nagar Nigam Jaipur etc. This system will stay up to date with property auction details. This includes user registration and all details about the auction property.

4) The major operations performed by the proposed system are shown in Table I.

Sr.No.	Operations performed by the proposed system
1	From this proposed system user can request for auction the property.
2	User can see the plot details.
3	User will pay the participation amount for bidding the property.
4	User can see the summary of payment of bidding amount.
5	User can see that payment is successful or not.
6	User can see the all bidding on particular plot.

5) Feasibility analysis*:* In the field of computer and technology, a feasibility study should be conducted in order to see the benefits of automation over manual system as well as other alternatives. In current system the feasibility study is based on research on both the current practices and the proposed project and its impact on the organization operations. The feasibility study also includes advantages and disadvantages of both the current system and the proposed plan. Schedule feasibility, a schedule is a list of events that must occur at a specific period of time. In this proposed system the objective of schedule feasibility is divide the task and time in proper way, then implement and terminate it effectively. The schedule feasibility has been decided at the time of synopsis submission by defining time period for each step and the schedule work-flow diagram shows the progress, the schedules of each process in a project and the total project time. Technical Feasibility means to investigate the technologies to be used in proposed project. Some Technology issues to be considered for this project are: Performance, Ease of learning, Ease of deployment, Ease of support, Interoperability with other technologies, Scalability. Economic feasibility, Economic analysis is the most frequently used method for evaluating the effectiveness of a new system. More commonly known as cost/benefit analysis, the procedure is to determine the benefits and savings that are expected from a proposed system and compare them with costs. If benefits out-weigh costs, then the decision is made to design and implement the system . In the current system, the initial monetary costs of development, the expected monetary costs of operating and supporting the application, and the expected future monetary benefits of using the application are identified to perform cost/benefit analysis. Operational feasibility means to maintain and support this proposed system once it is in production. Here it is a measure of how well a proposed system adds, updates the party record as per the requirements identified in the requirements analysis phase of system development.

6) Requirement analysis: Requirement analysis is process of understanding user needs and expectations from a proposed computer based auction system. Requirement analysis phase of this proposed project includes following points: How does the proposed system interact with user, the system's hardware, other hardware, and other systems? What is the speed, availability, response time, recovery time of various system functions and system modules? What are the portability, correctness, maintainability, security, and other considerations of the current system? What are the design constraints for implementing this system?

7) Steps in the Requirements Analysis Process: Fix system boundaries: at this stage, the connection of this prototype application has been checked with other state Nigam authority like auction system. The scope of this project is concise within the government organization is also decided here. Identify the customer; next step in requirement analysis is to identify the users of this computer based auction system. Users are those persons who tell about complete functioning of the system. Second party and administrator are users of this proposed application. Required questions are put to each of these groups about what their requirements from the proposed application and what they expect the application to accomplish. After considering the views of multiple users, the list of requirements has been prepared. Tools used in Requirements Elicitation process of proposed project are given here under, the requirements elicitation process of this current system has used the methods like flowcharting of organization processes, existing auction documentation, organizational charts, process models, systems or process specifications, on-site analysis, interviews with end-users for gathering valid requirements. Some other requirements elicitation tools used in this system are: Prototypes, Data flow diagrams.

8) Requirements Analysis Process: In this proposed system once all the user requirements have been gathered, a structured analysis and modeling of the requirements has done.

9) Requirements Specification: Requirements Specification serves as a starting point for software, hardware and database design. In proposed system after eliciting, modeling and analyzing, the requirements have been documented in

clear and unambiguous terms. A written requirement document has been prepared and circulated among different user-groups and concerned authorities. Requirements Specifications of proposed system are documented separately as User Requirements written in clear, precise language with plain text, System Requirements expressed as a programming or mathematical model.

10) Requirements Management: At requirements management stage of this computer based auction system, all the system requirements have been checked for ambiguity. The final requirement list has prepared after required omissions and error checking.

11) Data flow Diagram (DFD) is a diagrammatical representation of the "flow" of data through an information system. It is a documentation aid which is understood by both programmers and nonprogrammers. A physical DFD specifies from where data flows and who processes the data and to whom the processed data is sent. Pro-posed system's context Level DFD given below in Fig 1.

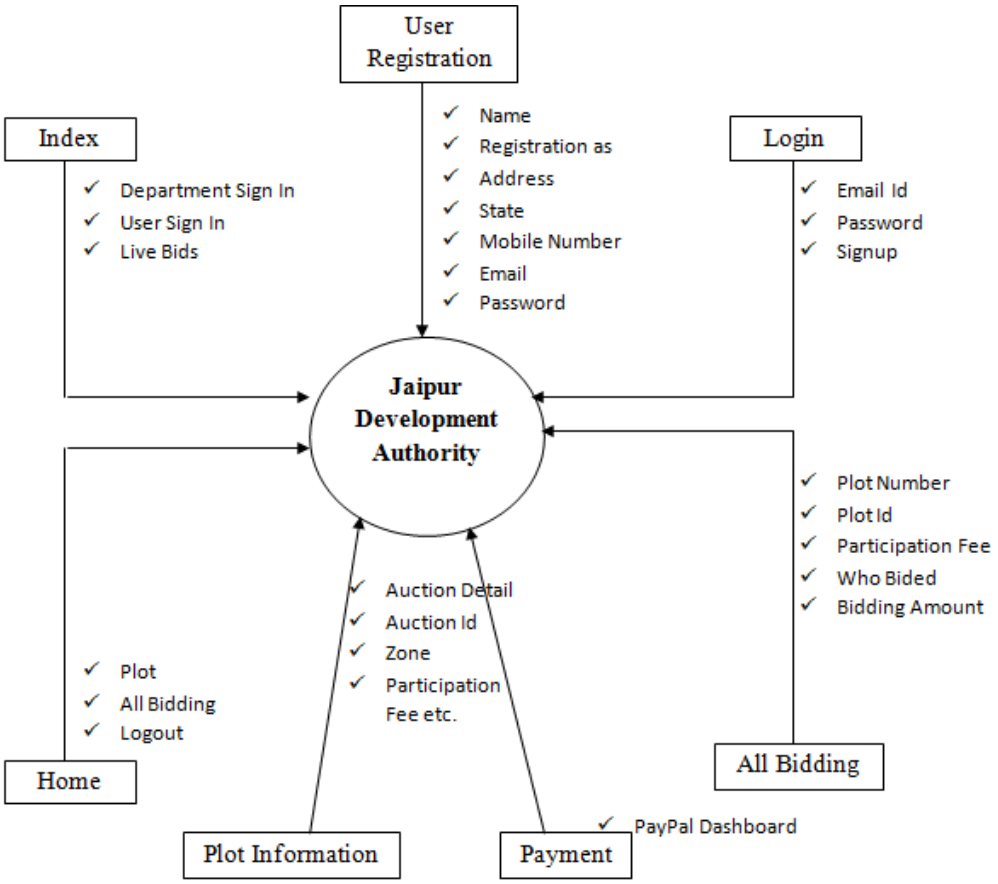

Figure 4: Flow Chart JDA

12) Design: The purpose of the design phase is to plan a solution of the problem specified by the requirement document. The logical system design of auction system arrived at as a result of systems analysis is converted into physical system design. The design of current system proceeds in following two stages: System design of this proposed system identified the modules, specification of these modules, and how they interact with each other to produced desired output. Detailed Design, at this stage, the design of the proposed system became more structured. Internal logic of each module of current system has been decided and their data structure and algorithmic are designed. Moreover which system components are needed and how to implement them is decided at this step. Finally the programming languages PHP, MySQL, HTML, and JavaScript have chosen for this system.

13) Coding: The system design needs to be implemented to make proposed system a workable project. This demands the coding of design into computer understandable language, i.e., programming language. The given proposed projects coding has done with the help of PHP, MySQL, JavaScript and Html. In this phase, the pro-gram specifications of detailed design have converted into PHP, MySQL, HTML, and JavaScript instructions. The programs generated from these languages coordinate the data movements and control the entire process in a computer based auction system.

14) Testing: Before actually implementing the proposed system into operation, a test run of the system is done for removing the bugs. The testing processes of current application identified all the defects encounter in it. Using the test data following test run are carried out for current system: Unit testing is the testing of different modules separately. In proposed auction system, each module interface has tested to ensure that information properly flows into and out of the program unit. *Integration Testing,* After each module of current system tested exclusively, its integration with other modules has been checked. In order to ensure no errors in parameter passing and when one module invokes another, each module of this system has tested. *System Test,* Finally system test has designed to test fully developed auction system to assure that it meets the user requirements. At this stage the test is done on actual data. The complete system is executed on the actual data. In addition, the results or output of the system is analyzed. In the proposed auction system the system testing has been done by clerks, and other senior persons of government organization.

15) Implementation: The implementation phase started after users acceptance of the proposed system developed. Implementation means conversion of basic application to a complete replacement of a computer system. The major steps involved in this phase are: Acquisition and Installation of Hardware and Software, Conversion, User Training. Firstly the local Wamp Server has installed on system. After that the data from the manual based system has been converted to operate in proposed system. During this phase, all the programs of the proposed system have loaded onto the user's computer. The Parallel run strategy has been used to shift from older clipper based system to new computerized auction system. After loading the system, users (Clarks and other senior officers) have been trained by giving proper instructions.

Screen shots time of implementation of project:

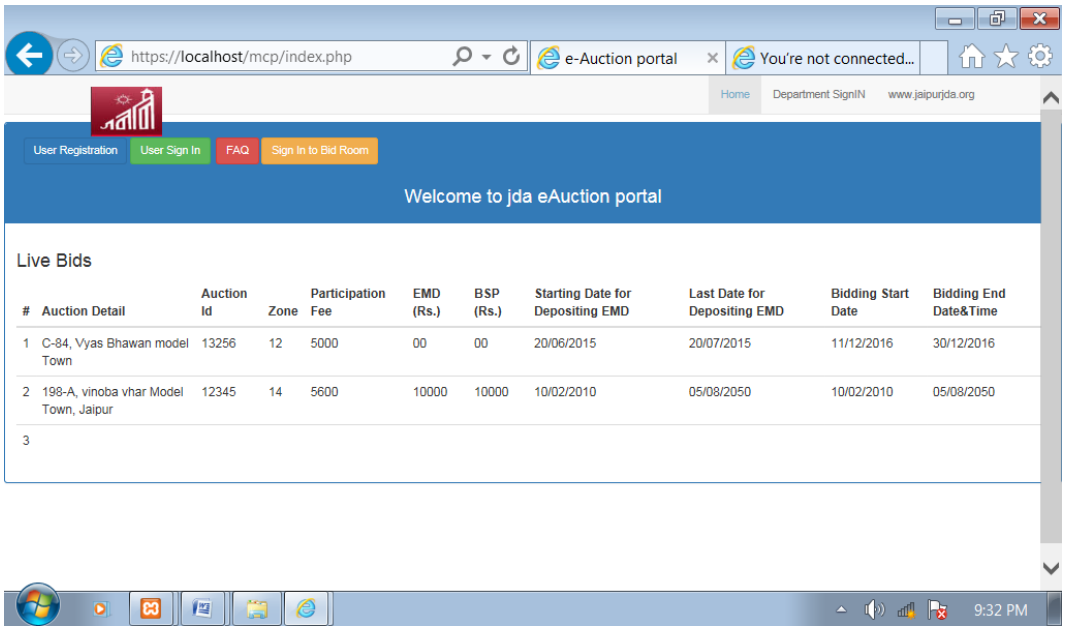

Figure 5: A. JDA E-Auction Portal

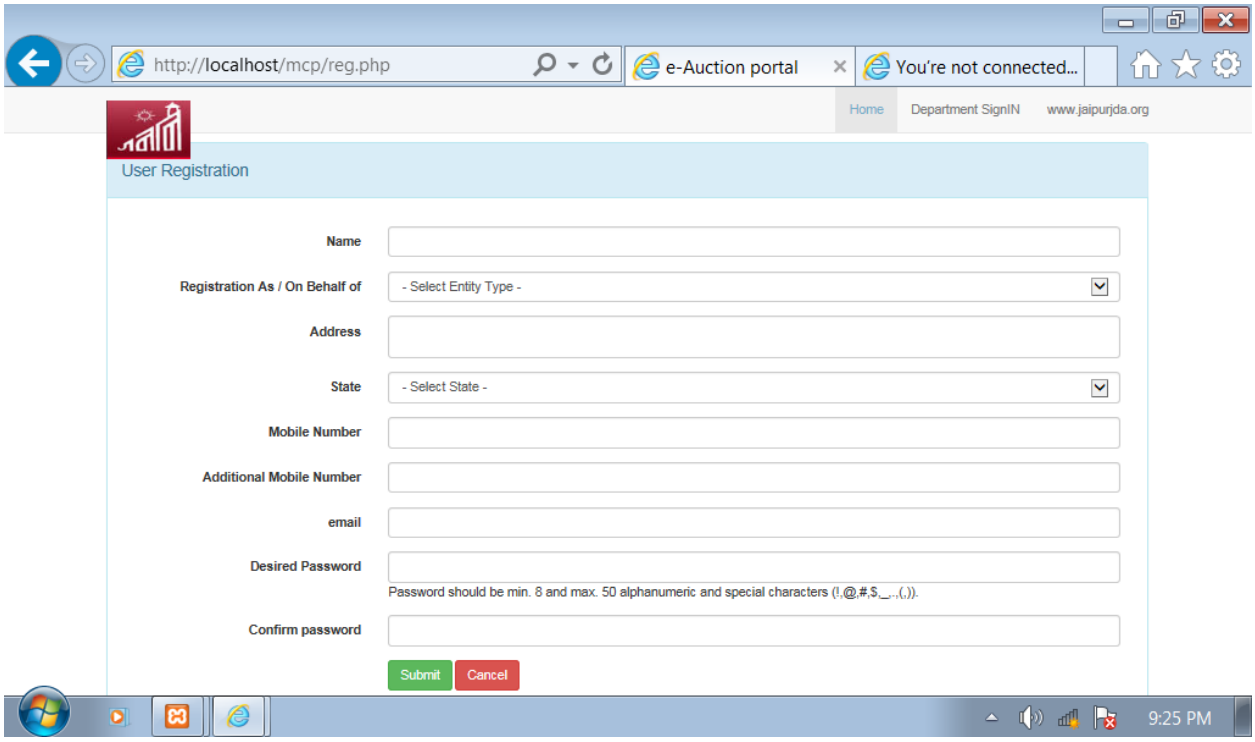

Figure 6: B. JDA E-Auction Portal

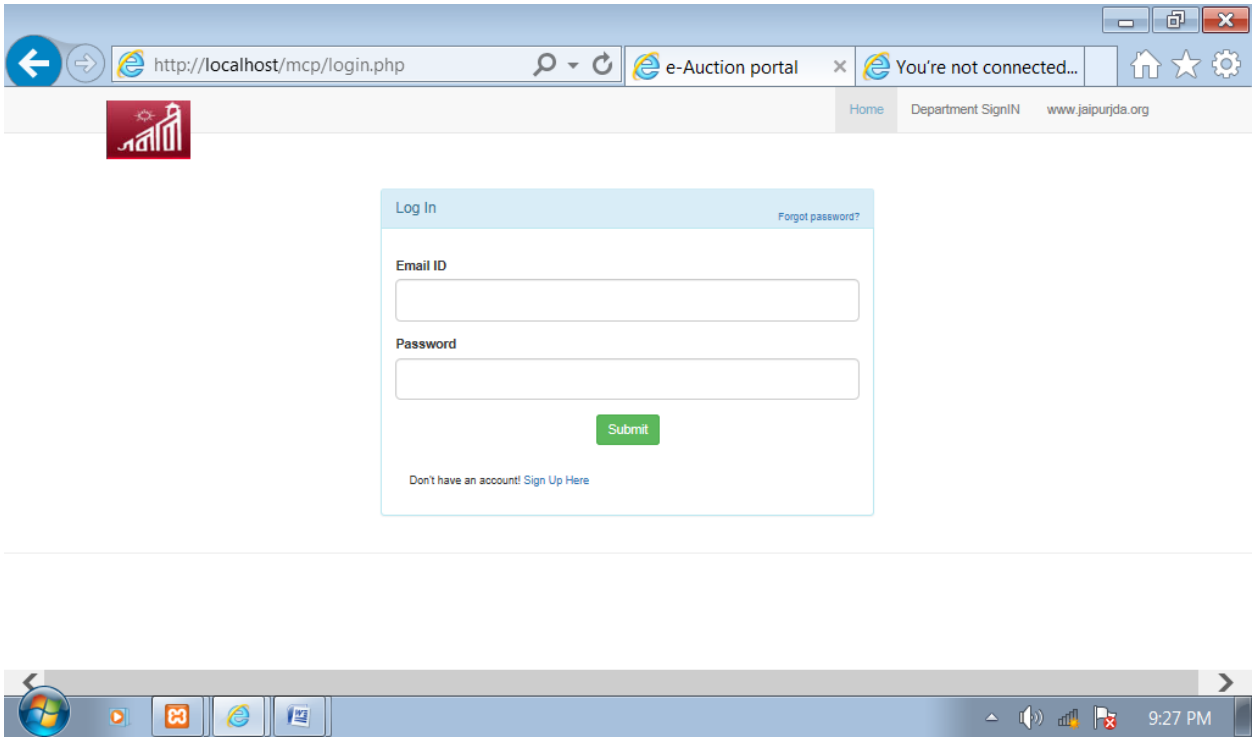

Figure 7: C. JDA E-Auction Portal

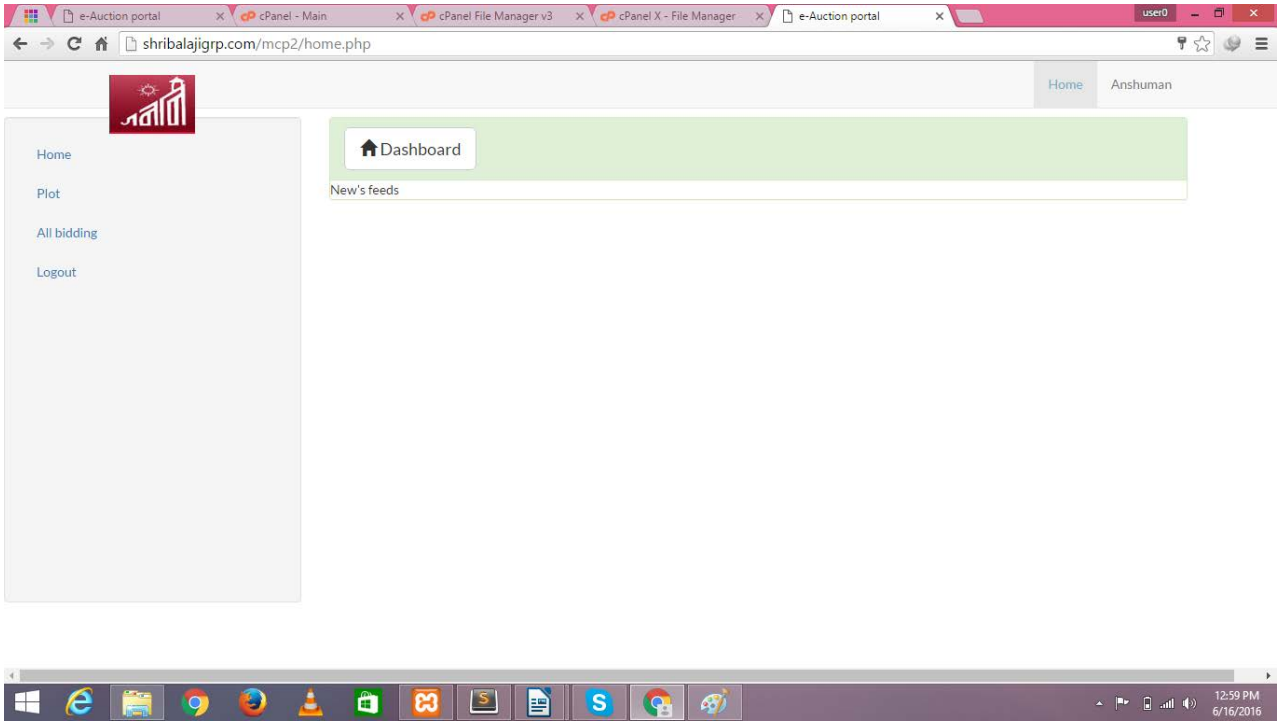

Figure 8: A. Dashboard of Nagar Nigam Jaipur

#	Auction Detail	Auction Id	Zone	Participation Fee	EMD (Rs.)	BSP (Rs.)	Starting Date for Depositing EMD	Last Date for Depositing EMD	Bidding Start Date	Bidding End Date&Time	Num Of bido on p
1	C-84, Vyas Bhawan model Town	13256	12	5000	00	00	20/06/2015	20/07/2015	11/12/2016	30/12/2016	6
2	198-A, vinoba vhar Model Town, Jaipur	12345	14	5600	10000	10000	10/02/2010	05/08/2050	10/02/2010	05/08/2050	4

Figure 9: B. Dashboard of Nagar Nigam Jaipur

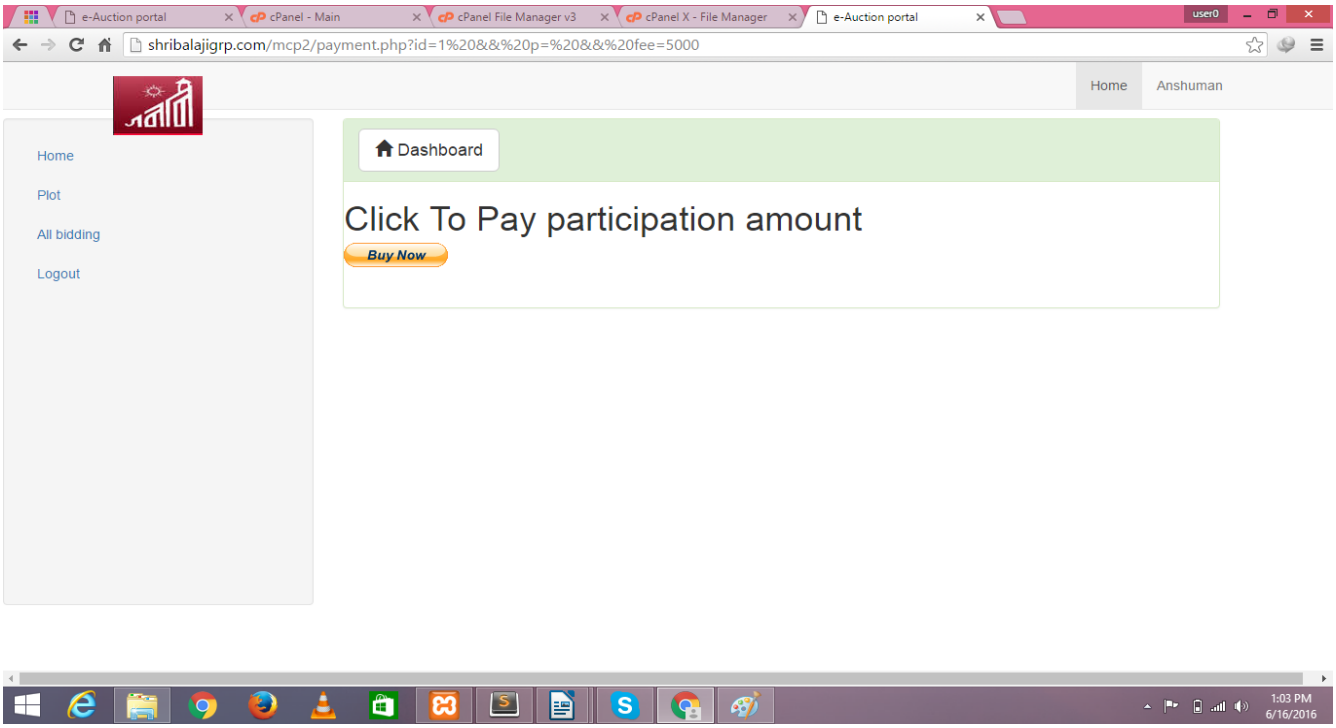

Figure 10: C. Payment Dashboard of Nagar Nigam Jaipur

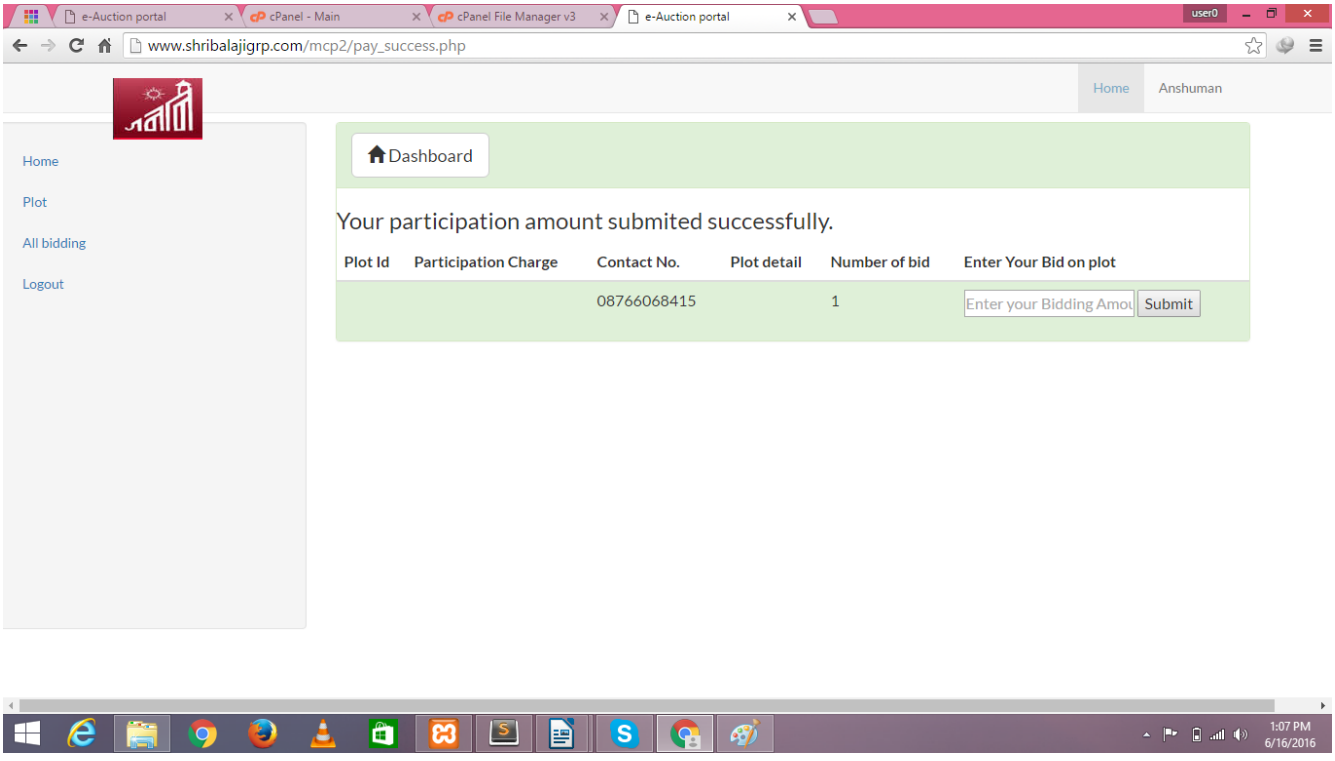

Figure 11: D. Payment submitted Dashboard of Nagar Nigam Jaipur

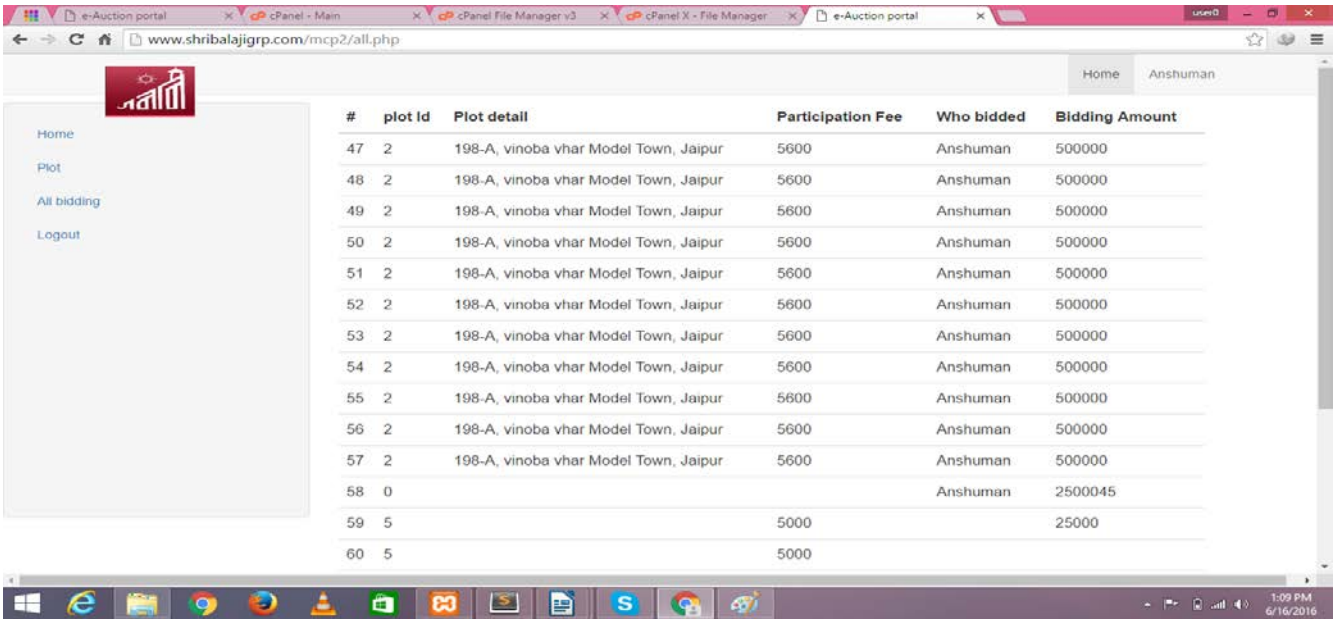

Figure 12: E. Plots Details of Nagar Nigam Jaipur

16) Maintenance: Maintenance of proposed system has been done to eliminate errors which are encountered during parallel run. Maintenance is a review of the proposed system from time to time. The review of the proposed system has done for checking its capabilities, knowing the additional changes and requirements and studying its performance.

4. Conclusion

The goal of this research "Computer based auction System Implementation for E-Governance at Nagar Nigam Jaipur, Rajasthan" was to a web based auction system using PHP, Html, CSS, MySql and JavaScript. This computer based auction system is accessible on the internet and calculates, maintains and records the plot information of owner. This Application will help to automate auction system of an organization. Administrator will be able to login and logout from a web browser. Administrator will have total web based control to completely customize the auction system. Administrator will be able to authenticate new bids, and view reports. The system is user friendly. Whenever there is an error in entering data, it immediately shows an error. The application is equipped with tools for updating plot records, party records, add new plot. Every individual element in system can be added, viewed and updated online as per Administrator's rights. The system has also provision for full records and changes that have been implemented. The prototype computer based auction system is complete in itself and ready to be implemented but changes and growth in requirements will be a reality on every software project so there is need to timely update them. The same applies to this auction system.

5. References

[1]. Dokas M (2005) Developing Web Sites For Web Based Expert Systems: A Web Engineering Ap-proach. Proceedings of the Information Technologies in Environmental Engineering (ITEE): 202-217.
[2]. www.jaipurjmc.com
[3] Chang Yoon-Seop, Park Hyeong-Dong (2003) Development of a web-based Geographic Information System for the management of borehole and geological data. Computers & Geosciences 30: 887–897.
[4]. Buczynski James A (2009) Online Web Development Platforms Enable All Reference Staff to Work on Subject Guides, Internet Reference Services Quarterly 14: 61-66.
[5]. Dumbrava Stefan, Panescu Doru and Costin Mihaela (2005) A Three-tier Software Architecture for Manufacturing Activity Control in ERP Concept, International Conference on Computer Systems and Technologies.
[6] Luke Welling, Laura Thomson "PHP and My SQL Web Development" Fourth Edition.
[7] Thomas Powell "HTML and CSS: The Complete Reference" Fifth Edition.