Indian Online Art Athenaeum

Yazhini Gopalakrishnan
yazhini.krishnan@gmail.com
Vellore Institute of Technology, Vellore, Tamil Nadu

ABSTRACT

Creating an Online Art Athenaeum application that provides all end-users to view and purchase exotic Art items from the comfort of their home. The application provides high security for the end-users by enclosing all their personal details. The application has an additional Auction facility for Users to purchase rare art collections.

Keywords: *Athenaeum, Application, Auction facility, Security, End-Users.*

INTRODUCTION

Online Art Athenaeum is an application software which provides all Indian historical art admirers a platform to learn about the cultural artworks. This application helps the end-users to search their arts and paintings and place orders for the selected pieces. The end-user can also get the information about Art exhibitions by contacting respective artists.

Another unique feature about this application is that an Online Auction for exotic pieces of art would be available for the end user. The highest bidder would be awarded the artwork. With the advent of Corona-19 and worldwide lockdown, this project would provide an easy and comfortable platform for both Artists as well as Customers to showcase and purchase Artworks from just a few clicks away. The Online Art Athenaeum is updated every day, so the user can view and buy the latest collection of contemporary Indian art online from anywhere in the world.

This topic majorly deals with the management of databases and dynamic functions. It is a concept which deals with artists, artworks and customers. It is a platform which updates the information about the galleries and artworks that are being exhibited.

2. RELATED TECHNOLOGY

JavaScript, sometimes known as JS, is a computer language that follows the ECMAScript standard. JavaScript is a multi-paradigm, high-level programming language that is frequently compiled just-in-time. Curly-bracket syntax, dynamic typing, prototype-based object orientation, and first-class functions are all features of this language. HTML is a markup language for documents that are intended to be viewed in a web browser. Cascading Style Sheets (CSS) and other technologies can help in the user interface. Both JS and HTML provide a cross-platform operation for web development, and make the web application simpler and faster.

Related Work:

[1] The creation of a virtual gallery, in the case of painting, entails both the design of the spatial layout and the editing of high-quality textures derived from original photographs. Virtual painting galleries provide for new aesthetic experiences, such as the creation of three-dimensional installations, in addition to recreating the original gallery ambience.

[2] A web page with a user interface that provides a platform for both the buyer and the seller to conduct their business. Artists can also use this to host their works, and art curators can use it to organize art auctions.

[3] Participate in the debate around the use of virtual art galleries on the websites of museums and individual artists.

[4] Present the results of a human visual factor's assessment of the artworks. Improving the visual quality of an art gallery display allows visitors to engage in their activity in a comfortable, pleasant, safe, and simple manner.

[5] Digital curation in cultural expression applications such as museums and art galleries, with an emphasis on the user experience.

3. SYSTEM REQUIREMENTS

This paper is separated into system feasibility analysis and system functional demand analysis. The former focuses on the economic and operational aspects of the business. The former also elaborates on the major point of feasibility, whereas the latter elaborates on the major point of feasibility. In terms of operations, the system runs on Mac, using Azure MySQL database, which has good performance in operation and management.

In terms of functional requirements analysis, the system's design is complete after a large amount of research. To begin with, the system has a customizable user interface that is simple to use, and the systematic proscenium is equipped with a display function of commodities information, allowing customers to browse and compare products. Following that is the classification of items, which plays an essential part in the ease with which items can be selected. The design of the shopping cart is the next phase; customers can add things to it and adjust the number at their leisure. The system should have a good background management feature, which is important for administrators who undertake maintenance activities.

3.1 System Function

Modules of Users, Shopping Cart, Commodity(Products) and Auction are discussed. Users Registration and Users Login are the two key features of the Users Module. The purpose of a shopping cart, as the name implies, is to add and manage products that consumers select. Users can also change the amount of goods in their cart and can empty it. The Commodity module contains 'All products' as well as 'Featured products'. It also has related artworks depending on the User's interest.
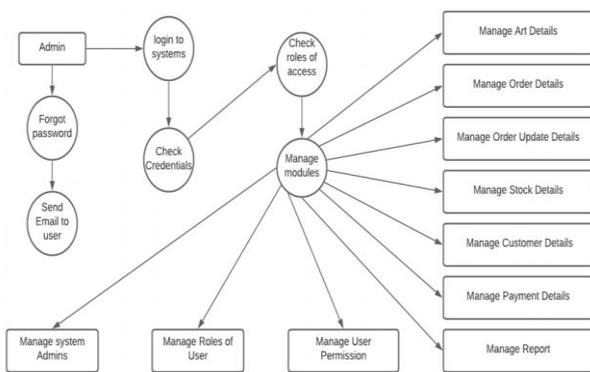

Fig 1 : System Diagram

3.2 Database Design

The argument for choosing MYSQL over other databases is because it is more lightweight than Oracle and is more advanced in query speed and schema support. To improve data management, this system employs the MYSQL database system, which is primarily used to store all types of commodity-related data. ER- Diagram establishes the relationship between the Functional Modules of the Art Athenaeum System (Fig 2).
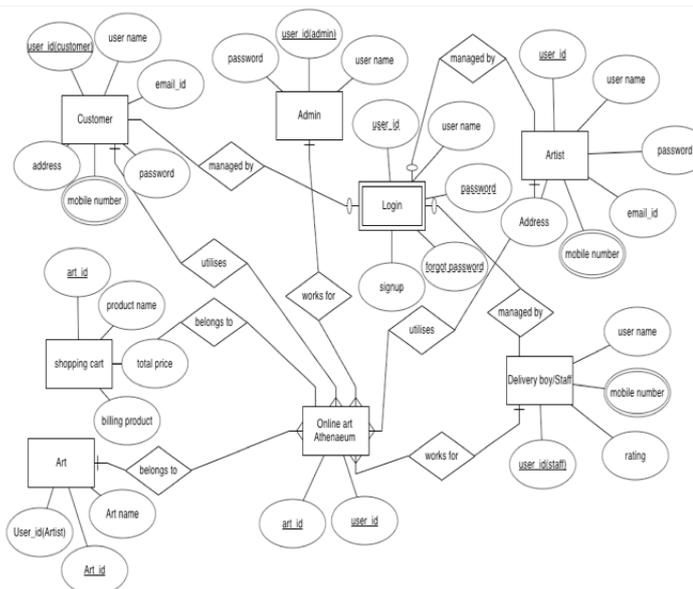

Fig 2 : Entity Relationship Diagram

3.3 Database Table Design Structure :

Table 1 : User

Attributes	Data Type	Character-length	Primary key
User_id	Varchar	20	Yes
User_name	Varchar	20	No
User_pass	Varchar	20	No
User_tel-no	Number	10	No
User_DOB	Date	10	No
User_pass	Varchar	20	No
User_email	Varchar	20	No

Table 2 : Orders

Attributes	Data Type	Character-length	Primary key
Order_id	Varchar	20	Yes
User_id	Varchar	20	Yes
Date	Date	10	No
Delivery Address	Varchar	30	No
Del-Boy_id	Varchar	20	Yes

3.4 Auction Implementation

In an Online Auction, the admin relays the bids to the Auctioneer. An algorithm similar to that of the 'First-party' algorithm is followed. The exotic piece of art to be auctioned is displayed on the main page of the application, for the customers to view.

Customers can login using, and would be assigned an Auctioneer number, based on first-cum first-serve basis. The Auctioneers will be considered as players. The art to be auctioned would be displayed on the screen, along with the initial bid amount. A timer would be set and players would be asked to enter their price for the artwork. The highest amount would be displayed on screen every 10 seconds. At the end of the allocated time, the highest bidder would be awarded the Artwork.

4. METHODOLOGY

Models used for this project would be Incremental Model and Use case Model. General Procedure:
1. Attach the database in Azure SQL database and manage the database using "SQL Server Management Studio Express", by entering the credentials as well as IP address.
2. Run the application on Microsoft Visual Studio as web site.
3. Locate the database using php server.

4.1 Function Test:

There are a number of modules in the system that must be tested, and some of them are highlighted on this paper.

Table 1: User Login

User_name	User_pass	Re-enter password	User_no	User_add	Test
Yazhini	yaz01	yaz01	1234	India	Pass
Prishita	prish1	prish2	1245	India	Fail
Oscar	Osc_1	Osc_1	None	India	Fail
Champ	chp17	chp17	3467	None	Fail
Copper	co_34	co_34	abc	India	Fail
None	you01	you01	7689	India	Fail

4.2 System Evaluation:
Evaluation is critical in every system. In this online shopping system, efficiency from this perspective is looked at: reaction time optimization, which includes page loading speed and connection time optimization.

4.3 Hardware environment:
Hardware configuration:
RAM: 312 MB or higher
Processor: Intel Core i5 processor (128 GB)
Operating system: MacBook Air
Development tools: Javascript, Html + CSS (Bootstrap Framework)
Database : Azure SQL server

4.4 Test Equipment:
Performance testing tool : Ranorex Studio

Functions	Descriptions	%TC's executed	%TC's Passed	TC's Pending	Priority
Login	Employee,Admin or Customer Login	100%	100%	0	High
Sign-up	Customer New Registration	100%	50%	50%	High
Add Items to Cart	Adding Products (in stock) to Cart	100%	100%	0	High
Checkout	Checking out from Cart	100%	100%	0	High
Shop By Category	Searching items by name	100%	100%	0	Medium
Transaction History	Viewing history of Transactions	100%	100%	0	Medium

Fig 3 : Test report from Ranorex Studio

5. CONCLUSION
The Online Art Athenaeum is a software application that is extremely valuable for art lovers and anyone who wants to know when and where particular sorts of art will be available. Users can use this app to look for their favorite paintings and artwork, as well as place orders for the pieces they desire. The end-user can also get information on art displays, including addresses, so that they can attend them.

Art Athenaeum offers one the opportunity to view online art exhibitions. We provide one with information on all recent and upcoming art exhibitions at Online Art Athenaeum. One may view and purchase the most recent Indian modern art collection at their shows and online galleries. It is a more practical and convenient method of purchasing art objects.

6. REFERENCES
[1] Adams, C., et al. (2001) Bringing the Curatorial Process to the Web. Museums and the Web 2001 http://www.archimuse.com/mw2001/papers/depaolo/depaola.html
[2] Alexander, K. and J. Temos (2004) From Virtually Impossible to the Virtual: Building a Dream Exhibition. Museums and the Web 2004 http://www.archimuse.com/mw2004/abstracts/prg_250000757.html
[3] 3 .Baines, A. (2004) A Virtual Learning Environment for BA Graphic Design at Central Saint Martin's College of Art & Design. 2nd International CLTAD Conference http://www.arts.ac.uk/itrdu/conferences_ext/baines_cltad_barcelona.pdf
[4] Beler, A., et al. (2004) The Building of Online Communities: An Approach for Learning Organizations, with a Particular Focus on the Museum Sector. EVA 2004 London Conference - Electronic Visualisation and the Arts http://arxiv.org/ftp/cs/papers/0409/0409055.pdf
[5] Bray, P. (2009) Open Licensing and the Future for Collections. Museums and the Web 2009 http://www.archimse.com/mw2009/papers/bray/bray.html
[6] Breakell, S. (2008) Perspectives: Negotiating the Archive. Tate Papers http://www.tate.org.uk/research/tateresearch/tatepapers/08spring/breakell.shtm
[7] Carreras Monfort, C. (2001) Initial Thoughts for Setting up a Virtual Exhibition International Cultural Heritage Informatics Meeting: Cultural Heritage and Technologies in the Third Millennium. http://www.archimuse.com/publishing/ichim01_vol2/monfort.pdf
[8] Cooper, J. (2006) Beyond the On-line Museum: Participatory Virtual Exhibitions. Museums and Web 2006 http://www.archimuse.com/mw2006/papers/cooper/cooper.html
[9] Durbin, G. (2008) Just do it! Web 2.0 as Task, not Technology. Museums and the Web 2008 http://ww.archimuse.com/mw2008/papers/durbin/durbin.html
[10] Design and Implementation of Online Shopping System Based on B/S Model Fan Wei 1,a,Qian Zhang1
[11] https://www.matec-conferences.org/articles/matecconf/pdf/2018/105/matecconf_iswso2018_03033.pdf