Proceedings of the International Conference on Inventive Research in Computing Applications (ICIRCA 2022)
IEEE Xplore Part Number: CFP22N67-ART; ISBN: 978-1-6654-9707-7

A Web based-College Event Management System and Notification Sender

[1]Dr.J.R.V. Jeny, [2]P.Sadhana, [3]B.Jeevan Kumar, [4]S.Leela Abhishek and [5]T.Sai Chander

[1]Professor , [2,3,4,5]UG Students
[1,2,3,4,5]Department of Computer Science and Engineering
[1]jeny.navagar18@gmail.com
Vignan Institute of Technology and Science, Deshmukhi (v), Hyderabad

2022 4th International Conference on Inventive Research in Computing Applications (ICIRCA) | 978-1-6654-9707-7/22/$31.00 ©2022 IEEE | DOI: 10.1109/ICIRCA54612.2022.9985774

Abstract. The Event Management System (EMS) is used to manage all facets of an event. The proposed research work has developed a web application to make it easier to attend and run events. The proposed event management module enables remote access with a preferred login. The novelty of the proposed model is that it has established social media connections through which the event may be familiarized on a local level. The event manager will also have access to all registration information at all stages. Additionally, organizers will be alerted when someone views or registers for the event. The proposed system also allows users to select the date, time, location, and event equipment.

Index Terms: Event Management, User, Admin, Events, Database, Server.

1. Introduction

A college event management system is a web-based application that is used to manage events. This application assists students in attending various types of events. Only after the client/user logs into the page, the event organizer sends them a confirmation email with the pricing and date of the event [1].

The web-based system will automatically generate a mail to users whoever registers. This system can efficiently store, maintain and retrieve the data records from its database. Instead of using the telephonic contact details for generating a remainder, sending an automatic confirmation mail saves a lot of time. The data will be made available to all the event managers in a centralized way to control the historical statistics from databases. Participants can register for any upcoming activities remotely and event manager maintains the report of individuals simultaneously [2].

The hardware necessities include processor I3, RAM (4GB) and hard disk of about 500GB. The software requirements for an event calendar management include a database Server (MYSQL), database client (SQLyog), server (Apache Tomcat), platform (Java), technology (Servlets, JSP, JDBC), client-side technologies (HTML, CSS, Js), IDE(Eclipse), UML design or E-R modeling tools (Rational Rose, SQL Developer) and testing (J unit) [3].

1.1. Technical Architecture

The Model View Controller (MVC) framework has three main components such as Model, View and Controller. This is also known as three–tier architecture. The controller acts like a servlet, where the entire business logic is implemented. The view is determined by Java Server Pages (JSP), which is used for developing a layout design. It is widely used in cellular and net function platforms [4].

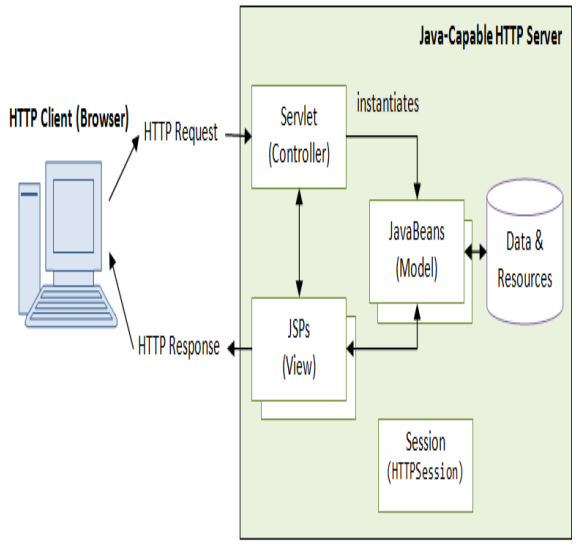

Figure 1.1. Technical Architecture

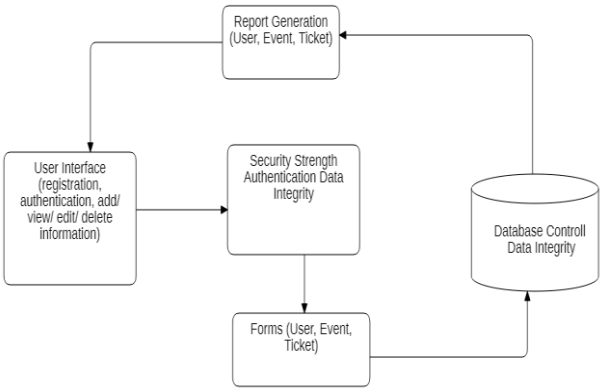

Figure 1.2. System Architecture

1.2. Functional Requirements

Functional requirements include the feature carried out through a display profile. This describes the utilization of system features. It also includes solution and user necessities [5].

admin

==========

- login
- add event
- view events
- delete events

user

==========

- registration
- login
- search occasions
- view events
- book event
- view booked events
- cancel booked event
- forgot password
- logout

1.3. Non-Functional Requirements

These requirements demonstrate the general properties of the design by including the transition and performance requirements [6].

2. Related Work

Aswin Chandrasekharan, Nikhail Venkat, Aniruddha P B and Siva Rama Krishnan Somayaji have suggested a method with barcode by using the logistics and validation technique [7].

M Mahalakshmi proposed an event management system with a verification code in background for the end user .

Sandeep Misal, Segar Jadhav, Tushar Jore and Archana Ugale proposed a event management system to reduce the overhead of the organizing committee .

3. Proposed Work: Three Layer Architecture

3.1. Model View Controller

The proposed device is developed from the traditional three-tier architecture. The three-tier architecture used for web development permits the programmers to separate different design solutions into modules and work on them separately. That is, a developer who is satisfied at one part of development say that the UI development need not worry about the implementation levels. It also allows for performing handy preservation and future enhancements. The three-tiers of the solution include: The layout tier is at the uppermost layer and is intently bound to the user, i.e., the system users interact through this tier .

The business-tiers are responsible for enforcing all the business guidelines of different organizations. It operates on the facts provided by the users through the web-tier and the information stored in underlying data-tier. This tier works on the different records obtained from the web-tier and data-tier in order to operate a task for the users in settlement with the business rules of an organization .

The data-tier contains the persistable data that is required with the aid of business tier to operate on. Data plays a very essential role in the functioning of any organization. Thus, persisting of such data is very important. The statistics tier performs the job of persisting the data .

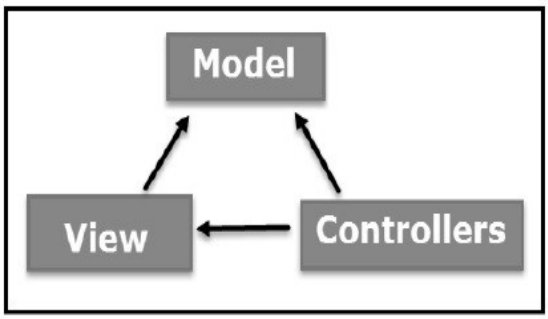

Figure 3.1. MVC Components

3.2. Software Development Life Cycle (SDLC)

SDLC is generally used for any of the software projects. These pursuits in high end monitorization and quality configuration in each phase. It can reduce the burden for development and maintenance. This enhances the overall system performance [8].

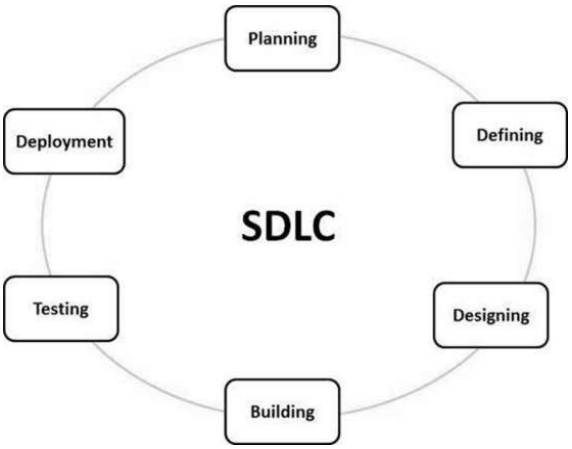

Figure 3.2. Typical SDLC Phases

Planning includes all the stakeholders' requirements and risks associated are strictly determined in this stage. The next stage is taken place through Software Requirements Specification (SRS) document where all products' related measures are predicted. The further step is to design and develop the project using latest tools. Finally, the testing is done and accepted.

3.3. Technologies and Tools

The Java technologies used for creating any of these Java applications can be Java SE, Java EE. The Java Persistence API is used in generating query and to map data. The client-side technologies can be HTML, CSS which form the pillars of Web development. To view the content and validate the text JavaScript is used .

3.4. Key Eclipse IDE Features

Integrated Development Environments (IDE) make developers and analysts to design a framework easily. Spring Tool Suite is used as it is compatible with almost all the versions. The functionality can also be enhanced .

3.5. SQLyog

This is a powerful Database GUI client used for MYSQL database. This is efficient and comes in two versions. One is enterprise version and the other is community version. The community version is an open source and free to use. The client does not need to write SQL commands as most of them are inbuilt [9].

3.6. JUnit

Testing can be done through this starting from a small piece of code. If all the test cases are passed the project will be considered as successful [9].

4. Results

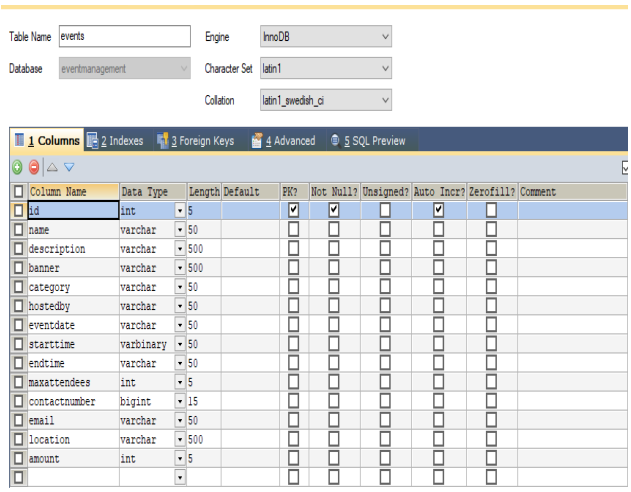

Figure 4.1. Inserting Column into Database

In the above Figure 4.1, different columns like id, name, description, banner, category, event date, end time, email and location are inserted with a definite length. ID field is made as the primary key in the table.

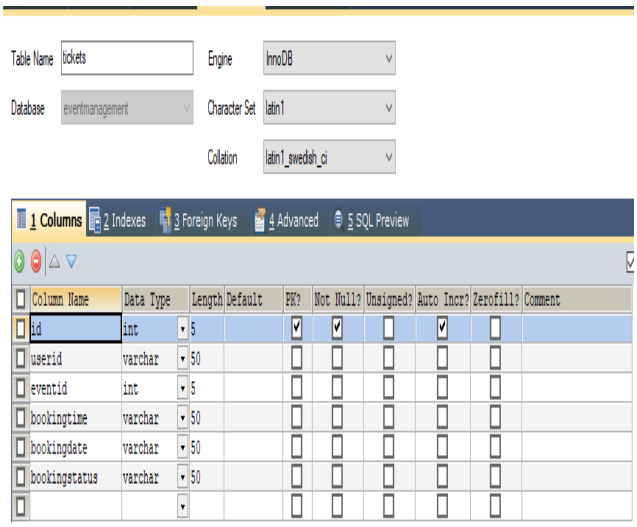

Figure 4.2. Checking key constraints

A "tickets" table is created in the event management database as shown in the above figure 4.2. All the key constraints are being checked.

.

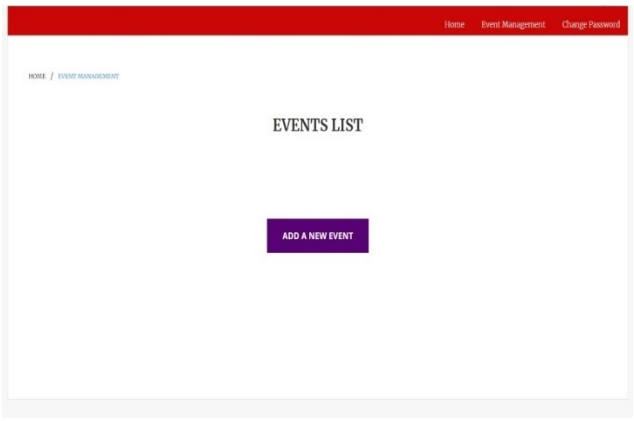

Figure 4.3. Adding Events

Adding event plays a vital role in these applications. The administrator can add many upcoming events to the calendar by including the details such as date, venue and time. The admin can use "add a new event" tab to upload a new event which is shown in the Figure 4.3.

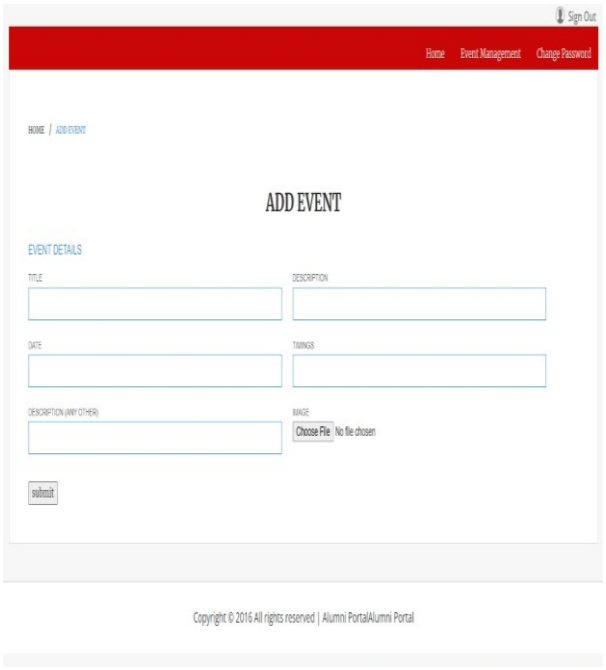

Figure 4.4. Adding New Event details

As shown in the Figure 4.4, the Add Event page contains event details like title, date, description, timing, and images related to event etc.

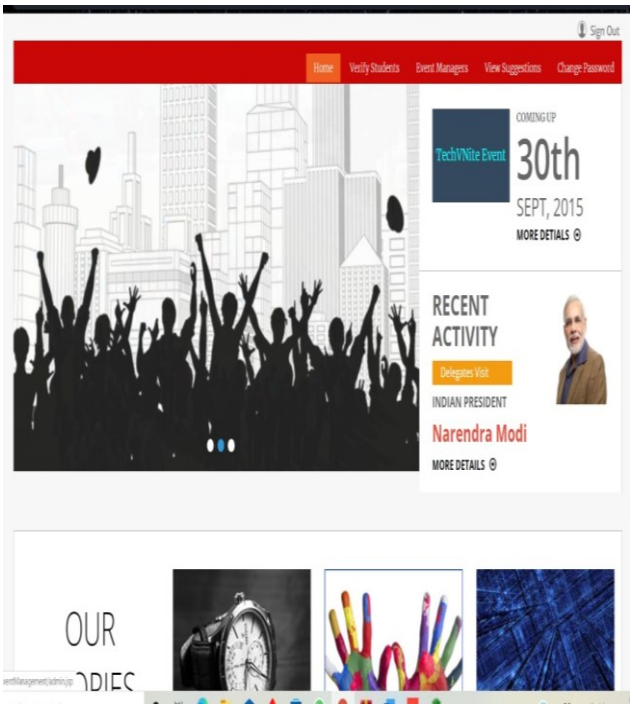

Figure 4.5. Home Page

The home page contains many options like verify students, view suggestions, recent activities etc. Also, students have the option to change password and sign-out. The another interesting feature out of these upcoming events is also shown in Figure 4.5.

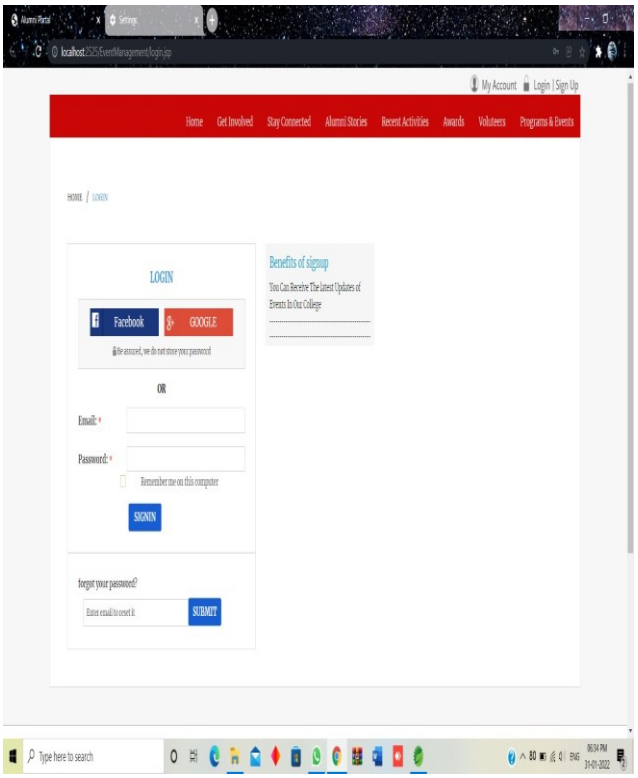

Figure 4.6. Login Page

The user can use Email ID and password to directly login to the portal. There is an option to login through face book or Google account. If a user is new to the website, the sign up button can be used. In case he/she has forgot the password, the forgot password option can be used to gain access as shown in Figure 4.6.

5. Conclusion and Future Scope

The primary objective of the proposed research study is to assist students to register quickly for all events remotely. The context and requirements of the user can also be fulfilled satisfactorily. The productivity and capability have also been improved. The proposed system is tested with all possible test cases and found to be more accurate than other existing models.

In future, the software debugging techniques can be boosted and the software will be made available online across the globe. Further enhancement can be done by incorporating advanced security mechanisms. This can be achieved by implementing the appropriate authentication and authorization techniques. In order to reduce the high overload of queries, the master and slave database structures can be used in the future.

References

[1] J M Raja Shanmugam, P Thirunavukarasu and T Ragunathan 2018 *Event Management System on Web Platform (IJCRT)*

[2] Amir Saleem, Davood Ahmed Bhat and Omar Farooq Khan 2017 *Review Paper on an Event Management System (IJCSMC)*

[3] L McCathie and K Michael 2005 *Is it the End of Barcodes in Supply Chain Management?*, (Proceedings of the Collaborative Electronic Commerce Technology and Research Conference LatAm)

[4] M Mahalakshmi, S Gomathi and S Krithika 2016 *Event Management System*

[5] Sandeep Misal, Segar Jadhav, Tushar Jore and Archana Ugale *Event Management System*

[6] Roozbeh Derakhshan, Maria E. Orlowska and Xue Li 2007 *RFID Data Management: Challenges and Opportunities* (IEEE International Conference on RFID)

[7] McDonnell I, Allen J, John Wiley And Sons, Milton M Young and O'Toole W 1999 *Festival and Special Event Management* (The Technical Writer's Handbook. Mill Valley, CA: University Science)

[8] S Amutha, SS Vinsley, "Phase-based frame interpolation method for videos with high accuracy using odd frames", Int. J. Biomedical Engineering and Technology, Vol. 33, No. 3, 2020 .

[9] Yogita Gunjal, J.Rethna Virgil Jeny, "Data Security And Integrity Of Cloud Storage In Cloud Computing" , International Journal of Innovative Research in Science, Engineering and Technology, Vol. 2, Issue 4, April 2013, ISSN: 2319-8753, pp:1166-1170