

Design and Development of Automated Event Integrated Platform

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Abstract: Event Integrated System is a platform where students can post events and workshops of their colleges as like they post news feed in other social media platforms. With the help of this system, students of different colleges will be aware of different college activities that are happening in their locality. The major advantage of this web portal is that we do not have to spend time on promotion of events. All the hectic work related to promotion of particular events is performed online. Many a times, we see that there are clash of events of different colleges on the same date. With the help of this system, this problem can be eliminated up to a higher extent and this will increase the overall participation in a particular event of a college. The technology that is used to build this system is Node.js and the database used is MongoDB.

Keyword: Events, workshops, K-means algorithm

I. Introduction

Many engineering colleges conduct various events and workshops in their Technical and Cultural Festivals. These events are generally open for all but, there are times that these events go unnoticed due to lack in promotion and connectivity between various engineering enthusiasts.

Students also spend a significant amount on posters and travelling for verbal face to face communication but still cannot cover the entire city and it is hard for them to broadcast the event globally. To eliminate this grunt work and establish an informative environment among engineering students we decided to cast a system that connects adjoining engineering colleges so that the students would be updated with all the events in place.

Event Integrated System is a web portal through which we can post events and workshops of different colleges. With the help of this system, students will be aware of different curricular activities that are happening on their locality. Many engineering colleges conduct various events and workshops in their Technical and Cultural Festivals. These events are generally open for all but, there are times that these events go unnoticed due to lack in promotion and connectivity between various engineering enthusiasts. Students also spend a significant amount on posters and travelling for verbal face to face communication but still cannot cover the entire city and it is hard for them to broadcast the event globally. To eliminate this grunt work and establish an informative environment among engineering students we decided to cast a system that connects adjoining engineering colleges so that the students would be updated with all the events in place.

II. Literature Survey

College Technical Festival Event Organization Application^[5]: The purpose of making this application is to provide an easiness of finding the event schedule at one place. The user will find the technical event schedule in one application rather to visit different web pages. The invention satisfies the foregoing needs and avoids the drawbacks and limitations and frustrations of the prior art, and provides a better, more timely and effective process of communication to schedule and coordinate events by utilizing Internet-based application.

MyCollegefest^[6]: MyCollegefest.co.in is first of a kind platform which allows colleges & brands to connect across 300+ cities Pan India at a click of the button. More than 3000 colleges, more than 1000 brands on one single platform.

TheCollegeFever^[7]: TheCollegeFever is a Cloud based College Event Technology Platform. All in one integrated software that helps the College event organisers from planning to execution. The platforms help the

organisers in Online ticketing and Registration, Marketing and promotion, entry management, analytics and to build students Community.

Event Management System Software ^[2]: is essentially business software and therefore, is collection of modules that work together to provide the desired functionality defined by the set of requirements. ‘Separation of Concerns’ [Dijkstra (1974), Hirsch et al. (1995)] and ‘Modularity’ [Parnas (1972)] are the fundamental principles that drive software evolution. Designing software according to these principles makes it more manageable, understandable and reusable. Using Object-Oriented Programming (OOP) [Sommerville (2009)] methodology, goals of modular programming and separation of concerns are seldom realized due to presence of crosscutting concerns [Kaur et al. (2009)]. This leads to problems of code scattering [Gradecki et al. (2003)] and tangling [(2003)] which increase the complexity of the software and degrade its quality.

Event Management System ^[4]: This system is computerized and has been developed using advance language therefore it gives more facilities than present system. It provides quick access to any data. In this system user have to enter the data only once and then it gets linked with all files. This reduces the workload of user and it is also a time saving process. The information about any event can be easily retrieved. The system maintains all records easy. The proposed system is a database-driven using Microsoft .NET. The system is divided into several phases; each phase describes a number of actions. The model used in building the system is the “Evolutionary Model”, because it is easy to use, it allows small systems to be developed rapidly and it allows user engagement with the application. Evolutionary development model uses small, incremental product releases, frequent delivery to users and dynamic plans and processes. This web based application system can be implemented in hotels, clubs for booking events. The system can also be used as software to promote the entire booking places. The user gets all the resources at a single place instead of wondering round for these. This system is effective and saves time and cost of the user.

III. Problem Statement

Many engineering colleges conduct various events and workshops in their Technical and Cultural Festivals. These events are generally open for all but, there are times that these events go unnoticed due to lack in promotion and connectivity between various engineering enthusiasts.

Students also spend a significant amount on posters and travelling for verbal face to face communication but still cannot cover the entire city and it is hard for them to broadcast the event globally. To eliminate this grunt work and establish an informative environment among engineering students we decided to cast a system that connects adjoining engineering colleges so that the students would be updated with all the events in place. Construct a portal that connects adjoining engineering colleges by broadcasting general events that occur in these colleges that are open for all. Eliminate the leisure and expense required for promoting these events and reduce the distance between tech enthusiasts.

IV. Flow Diagram

From the given figure 5.1, it is evident that both student and sub-admin first interacts with the browse events window. From there, students can login/signup and participate in different events. Every college has its own registered sub-admin who can approve or discard various events that are posted by the students of their college.

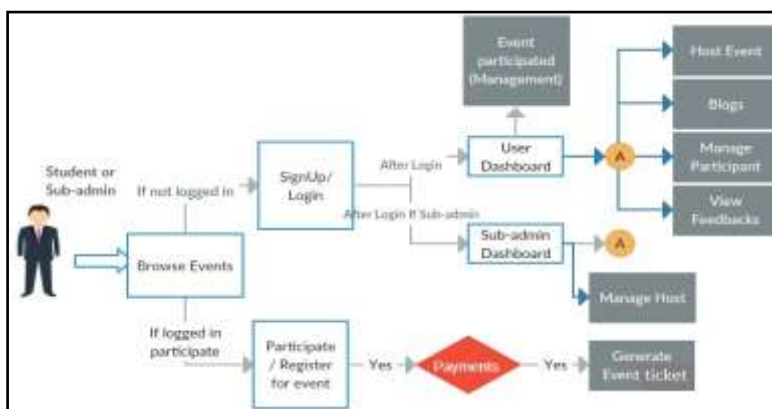


Figure 5.1: Control Flow Diagram

Each student and sub-admin has their own dashboard. Student dashboard consists of various sections such as host event, blogs, manage participants and view feedbacks. Sub-admin dashboard consists of sections such as manage host and the list of events that are approved by them. As we have a portal to manage the events from the sub-admin module. The host or the student posts an event which is forwarded to sub-admin. A sub-admin is responsible for the validation of the event. If the sub-admin approves the event, then only it is hosted globally.

Apart from this, there is a payments section which is responsible for generating event tickets and gives the count of number of interested students to the event organizer. It should include important findings discussed briefly. Wherever necessary, elaborate on the tables and figures without repeating their contents. Interpret the findings in view of the results obtained in this and in past studies on this topic. State the conclusions in a few sentences at the end of the paper. However, valid colored photographs can also be published.

V. Implementation

As we have discussed earlier, Event Integrated System will let users to stay connected about various events and workshops around them. To develop this system, the field of computer science that is used is data analytics. With the help of k-means algorithm, interest based search is provided to the users. This scenario is depicted in the following figure.

With the help of this interest based search, students will save a significant amount of time by searching only for selected content. The input given by users as their interests is taken in the form of tags from the front end and then those tags are used to fetch only the selected amount of data from the huge chunks that are stored in the database

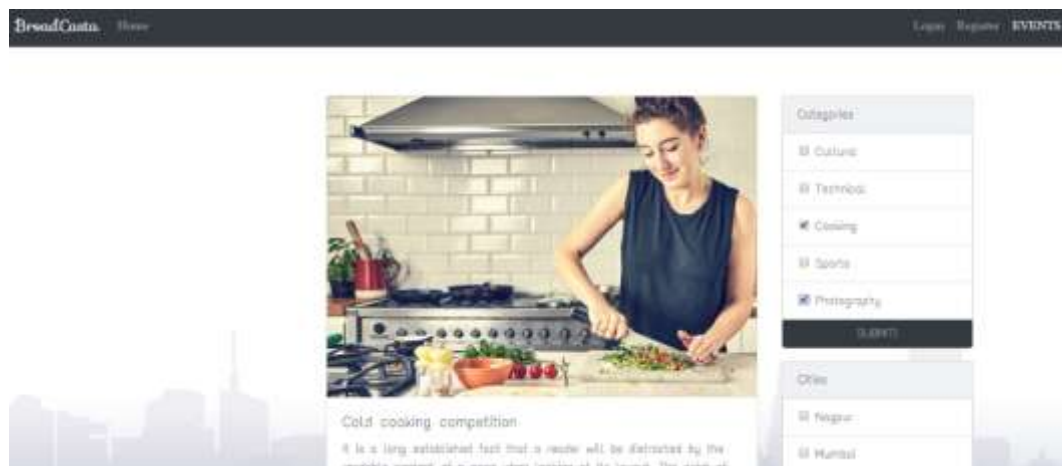


Figure 6.1: Interest Based Search

Event Integrated System is a MEAN stack application i.e. MongoDB, Express, Angular and Node. MongoDB is used as database for storing all the records of Event Integrated System. MongoDB is an object-oriented, simple, dynamic, and scalable NoSQL database. It is based on the NoSQL document store model. The data objects are stored as separate documents inside a collection — instead of storing the data into the columns and rows of a traditional relational database. The motivation of the MongoDB language is to implement a data store that provides high performance, high availability, and automatic scaling. MongoDB is extremely simple to install and implement. MongoDB uses JSON or BSON documents to store data. General distributions for MongoDB support Windows, Linux, Mac OS X, and Solaris.

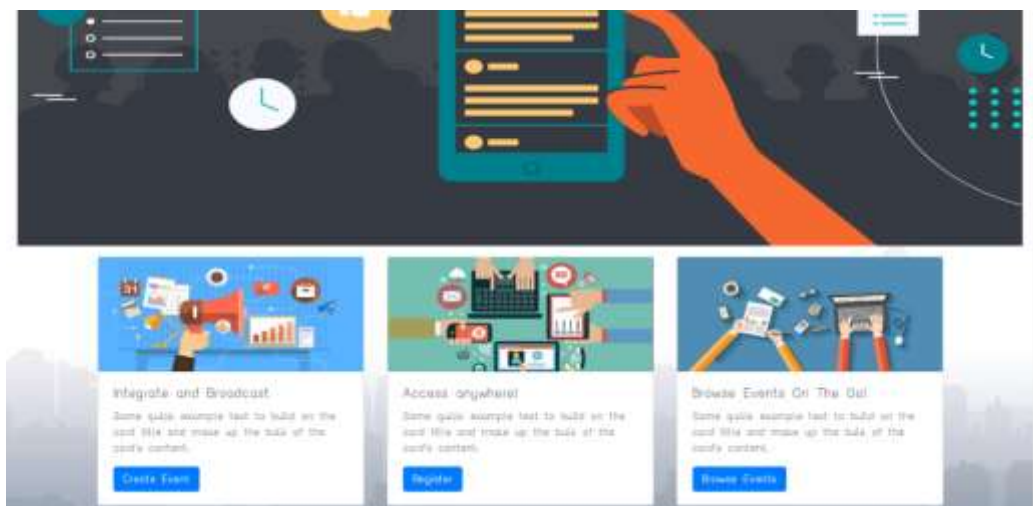


Figure 6.2: Home Page

Node.js is used in the back end of Event Integrated System. Node.js is a platform built on Chrome's JavaScript runtime for easily building fast and scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Angular.js is used as front end in Event Integrated System. Angular.js is a JavaScript-based open-source front-end web framework mainly maintained by Google and by a community of individuals and corporations to address many of the challenges encountered in developing single-page applications.

VI. Result analysis and discussion

The outcome of Event Integrated System is that it will let all the individual colleges to gain maximum participation from all parts of the region. As Event Integrated System broadcast all the event's date, so this will help event organizers to plan their events accordingly so there is minimum number of clashes between events and maximum participations. It is also beneficial for students who will have ample opportunities to explore themselves. With the help of this system, student will get to face new challenges and will increase the competitive spirit among themselves. Event Integrated System will help reduce the burden of event organizers in promoting the events as everything is done on a social platform.

VII. Conclusion and future scope

The event integrated system will help each student to stay updated about different events and workshops of different colleges in the city. This will increase the overall participations in the events remarkably. Extend the application's approach towards maximum colleges in the country. All the reviews and feedback given by the user about a particular event of a college will be represented in analytical form so that students can easily figure out the best college in the region. This will also encourage competitive spirit among different colleges.

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