

App for Organizing Alumni Event

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Abstract – The earlier versions were based on traditional methods, it was not secured for registration purposes, and managing the user profile was not properly done. This traditional manual system had very little security i.e. anyone can take or lose the records. Therefore, we used the modern internet method so that no above problems, which was faced by traditional manual system, were in our system. This Event Management System is a project based on managing the events in the respective college. It is a college-level application; it is an android-based application. In this project, we have used flutter with respective to dart language. However, the main purpose is the college-level events; it means the events, which occur in respective college by the council. The term Event management is all about keeping a record of events which are been growing rapidly or to analyses the crowd and to deciding which kind of events should be organized such as educational regarding, career regarding, intern regarding or, fun-based. Therefore, we are developing this small-scale college level application so that any kind of event can be managed by the admin and it will create a common platform for the users where they can be able to see all the events in his particular area.

Key words – Event Management System, Flutter, Dart, Firebase, Mongo DB, Admin, User.

I. Introduction

Online Event Management is an application, which is designed for managing the events in the respective colleges. It is a college level application. It is a flutter-based application. Mobile registration is the next generation of registration that leads attractive way of gathering event details anywhere. A powerful integrated platform connects the various participation and other specialized modules. It is a handy application that can be used by the administration, coordinators, and users to facilitate communication. The application provides probability as it is used on a mobile device and can be carried anywhere. Since the application is used on android device, it refines the connectivity between participants and the coordinator, thus the establishment will be provided with system that is more transparent utterly. Not only does connectivity improves, the app also decreases a substantial amount of paper work that is otherwise needed for daily task in the situation. This application is a useful tool

that can be used by any member of the institution, anywhere, anytime on android devices. Since mobile device makes all the tasks, there is no paper work involved and it provides direct access to the participants and coordinators. This provide direct access to the user that, means the participants can clarify the event details with the coordinator irrespective of where they are at a given time. This system allows both the registered users and the new users. The project provides basic requirement of an event, which is organized by the admin. The user have to choose an event from given list of event to participate. When the admin want to add an event, the application allows the admin to fill details such as date of event, place, name, head, image and additional information. All data is stored in the database and then it is shown on the users UI.

Flutter is created by Google, it is an open-source UI SDK^[1]. Flutter is used to develop applications for android mobiles, IOS, UNIX, MAC, Windows, etc. Flutter apps are developed in dart language and make use of many other languages also more advance features^[1]. Flutter support state-full hot reload, in this case any changes to source code can be reflected immediately in the running app without a restart^[1]. The flutter engine contains file and network I/O, accessibility support and plugin architecture. It also consist of a dart run time and compile toolchain. Dart is like C language. Dart is an object oriented programming language. So, if anyone uses or is used to C languages or Java, Dart is for those developers. When the developer uses Dart for any web application then it is Trans piled into JavaScript so it can run on any web browsers. Dart is a client established optimized language for any apps on any platform^[4].

MongoDB is a document-oriented NoSQL database used for large amount data storage. Rather using tables and rows as in the traditional relational databases, MongoDB utilizes collections and documents. Documents consist of key-value pairs as used in JSON that are the basic unit of data in MongoDB. Collections contain sets of documents and function that is the identical of relational database tables. MongoDB's document model is achievable for developers to acquire the skill, while still providing all the capabilities needed to meet the most complex requirements at any scale. MongoDB stores data in reliable manner, such as JSON-like documents, and it

also consist of meaningful fields, which can vary from document to document, and the structure of data can be changed over time being.

Therefore, we can develop this small-scale college level application to the advance level so that any kind of events can be managed by the admin and it will create a common platform for the users where they can be able to see all the events in his particular area. So this all aspects creates a good organizational ability and to handle the public's demand, growing field and to be flexible with the growth.

II. LITERATURE REVIEW

For the survey for our Online Event Management, we have gone through many papers. The paper we studied was "**Smart Event Management System**" it was written by prof. Khalil Pinjari and Khan Nur. In this, the application was a web application^[10]. They configured that the traditional method was not that much handy as in there were spreadsheets, traditional dB and many more things. Therefore, to overcome some of the drawbacks of the traditional system they introduced the modern method where they build up from .Net Framework.

In "**Event Management System**" paper which was issued by M.Mahalakshami, S.Krithika^[6]. In this, the idea was to maintain the college event and their information with organize the events on college level. Thus, they used Android Studio to arise an app with the given requirements. We studied it thoroughly and make out a plan or design of our app in flutter.

The "**Growth and development of event management sector in Rajasthan**" a thesis submitted for the Award of Ph.D. degree of UNIVERSITY OF KOTA^[8]. This thesis concludes that if the Event Management Companies wants to enlarge and achieve at a faster pace, the companies should form a strategy that for any kind of Events, promoter seek to enchant fans and create an awareness about the Event especially through Web Marketing or making use of Social Media.

The "**IIEMR Event Industry**". In this Event management system, it involves the application, which manages the science for the creation and development of any type of events^[7]. They said that, it was one of the strategic tools of broadcast and communication used by companies. They had a system, which can also call their viewers or the users to their events.

The "**Special event management and event marketing**"^[9]. The study desire to show the dimensions seek while managing and marketing a successful event and is going to come up for the event managers and marketing

managers about how to use event management dimensions effectively and shape plan of action based on this outlook. Case study was employed to perusal an event, based on event management and event marketing standpoint. Data in the study was gathered from primary as well as secondary data sets. The main data collection techniques employed was personal semi-structured conference and observations. The researchers carried out five-group conference.

III. PROPOSED SYSTEM

In this current situation all inter college events are handled manually by the students and the teachers; Also students who wants to get the information about the events will find it difficult to get the required information about its schedule like where exactly the particular events is going on, on what time, etc. Proposed system will provide all the information about the events at one place, also reduces the travelling between colleges for enquiring about the events.

3.1 Methodology

The aim of our Event Management System is that it should be user friendly, less entangled, nurture and retrieve of data in database should be secure and easy. All intricate information can be found at single site or platform.

The data we collected was from the surveys. We studied many research papers. Research papers gives a wide idea about how should be the application. Every paper has its own creativity and have many things to be understand. Some papers made website some made application. The language used in every case was different. They have their own way we also decide to get the reference from them and create an application through flutter and dart. Flutter can work on any platform; we have used Visual Studio Code Editor to code the program. However, it is mostly used for mobile app development. We have kept material design structure for our application.

Then we figure out about the database and its operations. The database we used is MongoDB. The reason we went for MongoDB is:

- Document-orientation – As MongoDB is a NoSQL type database, preferably of having data in a relational database format, it stores the data in documents in BSON format. This makes MongoDB very reliable and versatile to real business world and requirements.
- Replication - MongoDB can come up with high availability with replica sets. A replica set has two or more MongoDB instances. Each replica set member may act in the role of the primary or secondary replica at any time.

- Load balancing - MongoDB uses the theory of sharding to scale horizontally by dividing the data across multiple MongoDB instances. MongoDB can work over multiple servers, as it can keep the system up by balancing the load and/or duplicating data in the case of hardware failure.

The flow of the application goes like this, first the splash screen will appear with the name of the app then the login page appear if not registered then they can register through sign up page. After login into the application the home page will occurs which will contains all the events. User can visit to those published events and participate into the events. The admin console is only allowed for the admins the normal users cannot access the admin console. The admin can add the events by filling the details in admin console. The work of all the tasks were distributed among.

However by following the basic idea of the system we created an application which overcomes the drawbacks of the traditional system, contains the modern methods, easy to handle, quick in response, etc. the main concern in this system was about the security. As we have used the firebase as our database, it keeps the data in encrypted format so it reduces the risk in the system.

IV. SYSTEM DESIGN

A System Architecture is the conceptual model that describe the structural view and the behavioral view of an application system^[11]. An architecture description may be a formal detailed information of the appliance and therefore the representation of that system is based on the way it is organized which contains the reasons about the structures and behaviors of the application^[12]. A system architecture involves of system components and the sub-systems developed, that will collaborate to implement the overall system^[12].

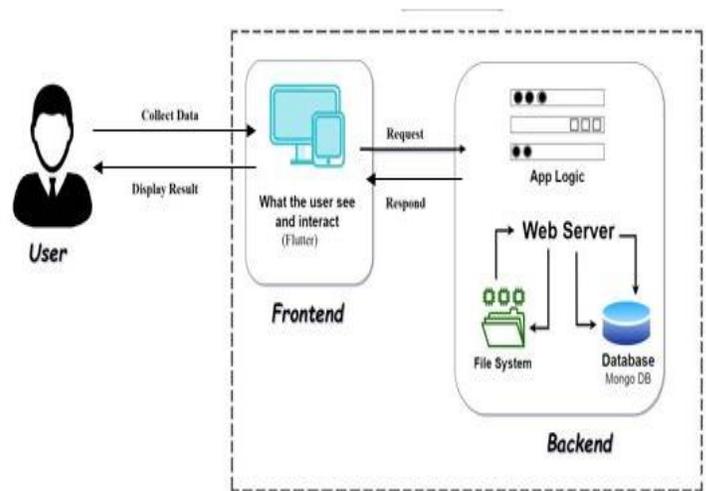


Fig 4.1: Architecture Diagram

4.1 Modules Description in System.

- 1) Frontend:
 - a) Admin:

The admin module does the action such as adding events, updating it through database, delete the events, and view the record in the database.

- b) User:

The user module does the action like viewing the events, register of the application and participate in the events.

- c) Events:

In the event module, the events, which are added by the admin, will be displayed in compact format. After visiting the compact format, the detailed view with detail information is shown.

- d) Settings:

In settings, the user made the changes will be stored, reflect the same after successfully logout, and then login in the application.

- 2) Database:

Database we used here is firebase and mongo db. Here all the application data is been stored in mongo db and the data regarding images is stored in firebase. It is secured system. All the data is stored in centralized database.

4.2 Module Diagrams

4.2.1 Information Architecture Diagram

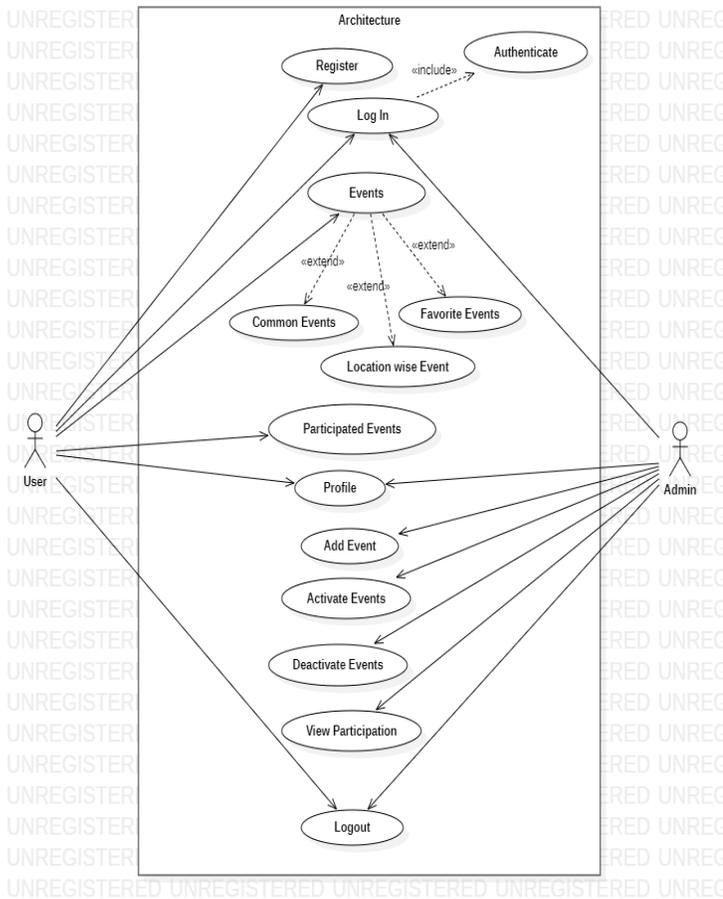


Fig: Information Architecture

Information Architecture Diagram shows interactions between a role and a system to achieve a goal. Here the role is admin and user and the system is regarding the action of the role, which is going to perform. The admin/user can login through the login page. The user can view the events and participate in the events. The admin can create the event in the admin console. After filling the details, the admin will publish the event, which will occur on the home page dashboard. Finally, they can logout through the app.

4.2.2 Data-Flow Diagram

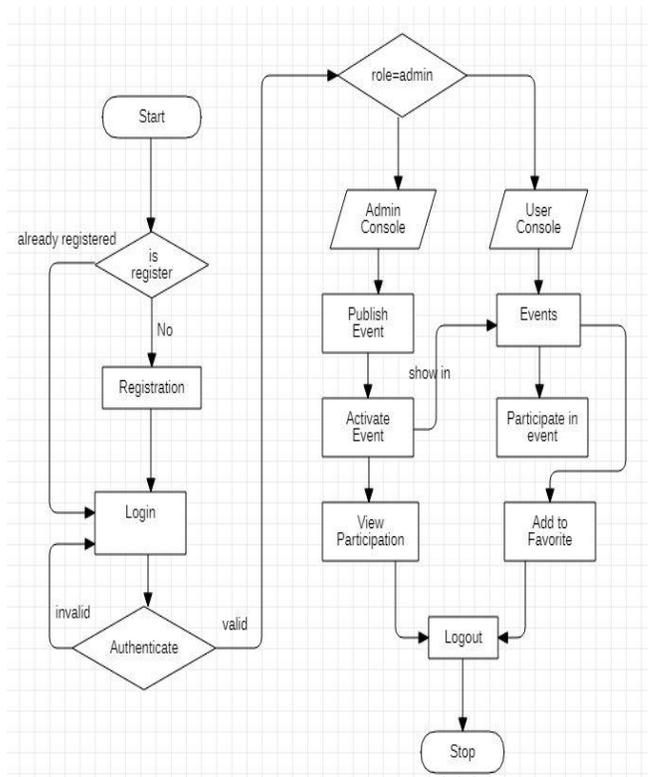


Fig: Data-Flow Diagram

Data-flow diagram shows create an overview of the Event Management System without entering into detail, which can later be expanded [3]. The basic idea is that they will be actors i.e. users and admin. The basic action, which they can perform in whole system, is shown in the dataflow diagram without entering into the details of each action in this system.

V. Result

This project will help the appropriate events to supervise and automate to the entire database in the network. The project will certainly diminish the human effort and make the chore of user, customer and administrator easier. It is coherent to use and easy to work on it. Thus by analyzing the advantages and applications, we are came up with an Event management application which has total management control of user respective service of different events.

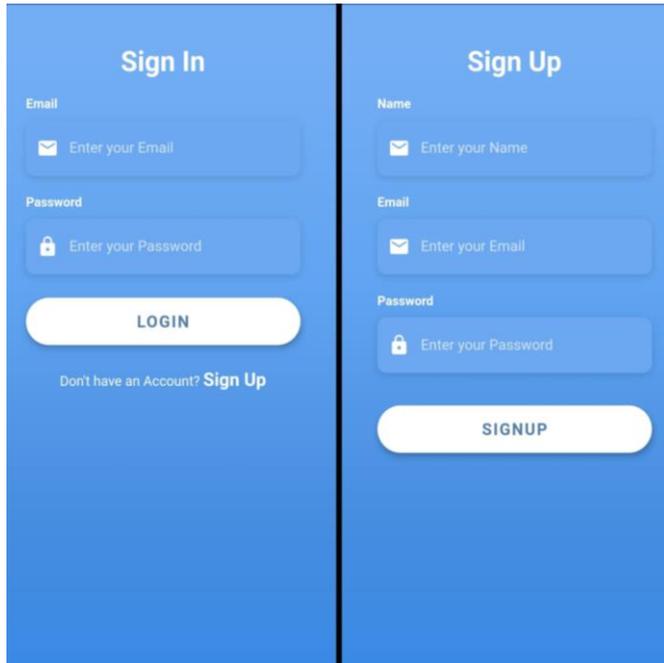


Fig 5.1: Sign In and Sign Up Pages

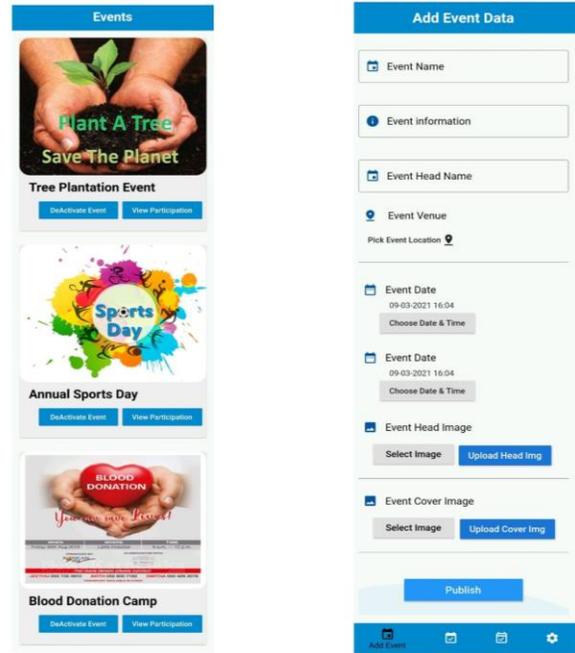


Fig 5.3: Activated Events and Add Event Page



Fig 5.2: Home Page and Details Page

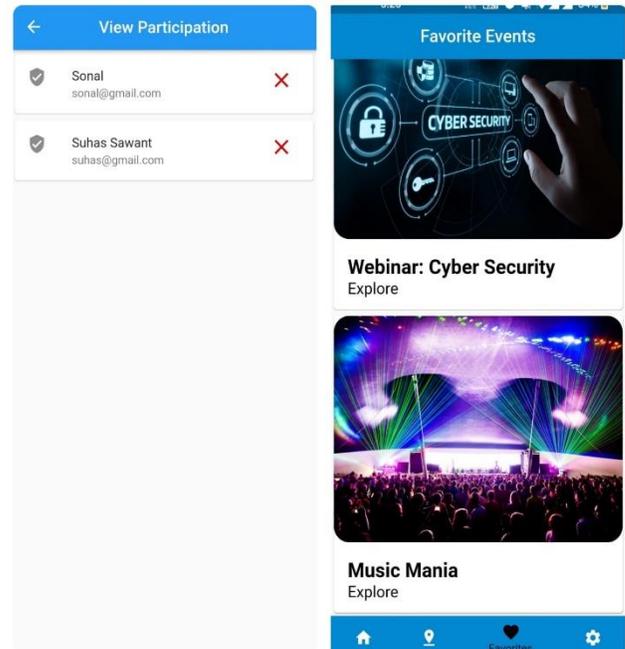


Fig 5.4: Participants List Page and Favorite Page

VI. Conclusion

At the end, we conclude that our project Event Management System is simple and secured system where

permission are given to the admin only. In this system multiple admin can also be formed.

As the database is online, no loss of data will occur. The important data is encrypted format even the

event id, password of security was our major concern, which we have overcome here.

In single database, we have formed multiple tables for storing of the data so that data of specific type can be found quickly. Hence, this is how our system works.

This system is efficient for user and admin both. People will get an attractive UI and data they provide during the registration will be encrypted and stored in Mongo DB database.

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