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Software Requirements Specification of

"END TO END EVENT MANAGEMENT SOLUTION"

Submitted in partial fulfillment of the requirements for the award of the degree

BACHELOR OF ENGINEERING
in
COMPUTER SCIENCE AND ENGINEERING
By

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1. Introduction

1.1. Problem Statement

Any event to be successful has to be has to be properly managed and coordinated between the various organizers. Lack of communication and non-availability of updated records of participants is a huge problem in manual written records. Multiple events at a single time will only increase this complexity our project aims on simplifying this.

Our project demonstrates on managing an event using a web-based interface. The main objective in developing an event management interface is providing the institution a single application which will help them to organize and manage all the events.

1.2. Scope

1. To provide an easy and a single interface for conducting events.
2. To manage and monitor the progress of the events on the go.
3. To conduct the complete event seamlessly
4. To keep all the events digitized and have a record of them available at all times throughout the entire duration.

2. Overall Description

The main aim is to make the event management easy for the organizers. The students can easily to register and view all the events. Updating of all the events is easy and quick and the same will reflect to the students easily. To scope of the project is to handle event management at the institution level.

2.1 Product Perspective

End to End Event management is the management of events which consists of the creation, development and updating of small and/or large-scale personal or corporate events. Events are organized by almost all universities, but all work from registration to certification is done by hand and is not digitalized.

Most events have web pages that are specific to the event they are hosting, but our interface works to provide information about all of the events that will take place at the organizing university. This helps students as all events are consolidated to a single place.

There is no application or event management set up automatic certificates of participation and winner certificates in one single app. The interface in turn helps in generating and mailing of certificates too. Thus, end to end event management app.

2.2 Product Functions

1. A single point of registration for the event as well as the students.
2. The organizer can keep track of the detailed information of the events, the number of participants, judges etc.
3. A smooth communication link establishes between the organizer, different co-organizers and students
4. To generate unique ids to students participating in the event as well as certificate generation
5. To consolidate the scores and publish the winners
6. To send event reminders to students and judges.

2.3. User characteristics

User Types: Student, Organizer, Co-Organizer, Judge (Demister)

Student will basically be able to register for an event and also unique ID will be generated using QR code. Apart from this every individual will be provided with the participation certificate once the event ends.

Organizer is someone who is managing all the events, he/she will be able to keep the count of students in a particular event and also get to know about the registration amount collected towards an event. Essentially, organizer will have an information of all the events.

Co-Organizer is someone who is managing the particular event and will be having the access to only that event. He will be responsible for the event he is conducting and will be able to publish results of the same.

Judge or Deemster is someone who will judge the particular event or game and allot the scores.

2.4. General Constraints

- The primary responsibility of the organizer is to contact the co-organizers and coordinate with them about the event.
- The basic requirements of the event such as title of the event, maximum number of participants, registration fee and awards shall be collected from the co-organizers after the discussions and will be added into the system by the organizer.
- Student can participate in a maximum of three events only.

3. Specific Requirements

3.1 User Interfaces

The interface of our website will provide options for a relatively easy data input text-boxes that will be properly labeled. It will also have a user-friendly view of the whole system with simple and easy undertaking of action-driven processes as command buttons are functionally labeled. With all these, target users of this website will relatively find it not difficult to use it

In this website we are planning to have 4 dashboards for each of the user types.
The student's dashboard will include
1. A list of all the events the student can participate in.
2. A registration form of each event.
3. An option to download the certificate after the event is completed.

The organizer's dashboard will include
1. A form to register co-organizer's events.

2. A list of students participating, amount collected, judges involved and all the other details of a particular event will be visible.

The co-organizer's dashboard will include

1. List of participants of his particular event.
2. Form to add/invite judges.
3. Option to accept and finalize the results.

The judges' dashboard will include

1. A form to enter marks for each participant.
2. An option to submit the form once the judging is done.

3.2. Hardware Interfaces

1. 500GB hard disk and 8GB RAM
2. Ubuntu 21.04 LTS SERVER for hosting

3.3 Software Interfaces

1. CockroachDB: Database designed to survive software and hardware failures, from server restarts to datacenter outages. Moreover it's highly flexible, scalable and for high performance.
2. Express.JS: A backend framework for Node JS which helps in building single-page, multi-page, and hybrid web applications as well as routing.
3. React.JS: A frontend framework used for building user interfaces specifically for single-page applications.
4. Node.JS: A back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code outside a web browser.
5. NPM: A package manager for the JavaScript runtime environment Node.js
6. Latest JavaScript libraries

3.4. Functional Requirements

1. Integrated Judgement within web app.
2. Dashboard: Better visualization data of participants and events.
3. Secure registration and profile management facilities for different users.
4. Generates the alert via e-mail.
5. Provide schedule/timetable without any of clashes among judges, day, time and room that must be visible to all.

3.5. Performance Requirements

1. **Availability:** The application must be available throughout the duration of the event.
2. **Correctness:** The system should display the details of each event correctly and also display the corresponding results.
3. **Maintainability:** The system should maintain correct schedules of events and the description of all the events.
4. **Usability:** The system should satisfy the maximum number of user's needs.

3.6. Design Constraints

1. **Reliable:** The application must not fail in any conditions.
2. **Sustainability:** The system should be able to sustain all the entries made in it simultaneously.
3. **Compatibility**: The system must be compatible with all kinds of operating system.
4. **Performance**: The system should be optimized to perform all tasks quickly.