# SCS 3214 / IS 3113: Group Project II - 2024

## Interim Report

**Project Title:** A Centralized System For UCSC Events

### Project Group Details

1. Group number: 18
2. Group members:

| *Name* | *Reg. Number* | *Index Number* | *Email address* | *Mobile Phone* |
|---|---|---|---|---|
| (i) K. Cusherah | 2021/IS/013 | 21020132 | cusherahkugan@gmail.com | 0766741405 |
| (ii) S. Anuraj | 2021/IS/008 | 21020086 | anurajselvasothy@gmail.com | 0752887056 |
| (iii)K. D. N. Dharmasena | 2021/CS/048 | 21000484 | dhanushikadharmasena456@gmail.com | 0740672826 |
| (iv)A. H. G. U. Jayawardana | 2021/CS/092 | 21000921 | jayawardanauththara21@gmail.com | 0766445945 |
| (v) S. Kokularajh | 2021/CS/100 | 21001006 | kokularajh32@gmail.com | 0768545700 |
| (vi)K. D. Dinushika | 2021/CS/053 | 21000532 | dinithidinu689@gmail.com | 0765835025 |

# Details of Project Supervisor, Co-supervisor, Advisors and Clients

**Project Supervisor (Academic Staff of UCSC):**

Name of the supervisor: Dr. (Mrs). Dinuni K. Fernando

Signature of the supervisor:

Date:

**Project Co-Supervisor (Assigned by Course Coordinator):**

Name of the co-supervisor: Mr. Amod Pathirana

Signature of the co-supervisor:

Date:

**Project Advisors:** (External industry advisors, if any)

(Please provide, Name, Organization, email address and institute)

1. …….
2. …….
3. …….

**The client of the Project (If applicable, otherwise supervisor will be considered as the client)**

Name of the client: Dr. (Mrs). Dinuni K. Fernando

Address of the client:

Contact person at client:

Contact number of the contact person:

e-mail address of the contact person:

# Table of Contents

# Project Details:

## 1. Project Title - Eventix

## 2. The Goal and Objectives

### 2.1. Goal of the project

The centralized system for UCSC events project aims to develop a comprehensive mobile-responsive web application to streamline the management and coordination of all club events, student meetings, and related announcements at UCSC. Overseen by student union members and the senior treasurer, this platform is designed to simplify event planning processes, allowing union members to create, manage, and approve events efficiently. Club presidents can submit proposals for their events, which the senior treasurer can then approve, while students can easily view, respond to, and participate in these events. With robust administrative functions to ensure system maintenance, user management, and data security, the UCSC Event Planner will provide a centralized and user-friendly interface. This will enhance communication, engagement, and participation within the campus community, fostering a vibrant and active student life.

The need for such an application arises from the current challenges faced in event management at UCSC. Existing processes are often manual and fragmented, leading to inefficiencies and miscommunication. Club presidents and organizers need help with submitting and tracking event proposals, while students find it difficult to stay informed about upcoming events and activities. Additionally, the approval process can be slow and cumbersome, causing delays and confusion. By addressing these issues, the UCSC Event Planner aims to create a seamless and efficient platform that improves the overall experience for all users involved, ensuring that events are well-organized and widely attended.

### 2.2. Objectives of the Project

- Streamline Event Management: To provide a centralized mobile-responsive web application that allows admin, club presidents and the senior treasurer to efficiently create, manage, and approve all UCSC events, ensuring a smooth and organized event planning process.
- Facilitate Proposal Submissions: To enable club presidents to submit event proposals through the mobile-responsive web application easily, adhere to established guidelines and deadlines, and receive feedback from the admin and the senior treasurer for timely approvals.
- Enhance Student Engagement: To offer students an intuitive mobile-responsive web interface where they can browse, filter, and explore upcoming events, view detailed event information, and participate in activities that interest them.
- Improve Communication: To ensure students receive timely and important announcements related to events and meetings through various channels such as

the mobile-responsive web application itself, email notifications, and other integrated methods.

- Ensure System Security and Maintenance: To implement robust administrative functions within the mobile-responsive web application for user account management, including registration, authentication, and profile updates, while maintaining data security and system integrity through regular maintenance and updates.
- Improve Transparency: To ensure transparent operations and decision-making processes by providing clear and accessible records of event proposals, approvals, and communications within the mobile-responsive web application, fostering trust and accountability among all users.
- Support Administrative Roles: To empower admins to monitor user activity, address account access issues, ensure compliance with platform policies, and provide technical support to users as needed.
- Facilitate Voting Processes: To set up a fair and transparent voting system within the mobile-responsive web application for union member elections, enabling the creation of ballots, defining candidate profiles, and monitoring the election process.
- Coordinate Event Logistics: To assist club presidents in managing all aspects of event logistics through the mobile-responsive web application, including venue booking, equipment rental, catering, and volunteer coordination, ensuring successful event execution.
- Promote Feedback and Inquiries: To create a feedback mechanism within the mobile-responsive web application for users to provide input on platform functionality and event experiences, allowing continuous improvement based on user needs and suggestions.
- Enhance Participation and Community Building: To foster a vibrant campus community by making it easy for students to stay informed about and engage in various events and activities through the mobile-responsive web application, thereby enhancing the overall student experience at UCSC.

## 3. Problem Definition and Motivation

Our UCSC is currently facing challenges in managing and communicating events, elections, and announcements to students and union members. The lack of a centralized event management system creates inefficiencies and hinders student engagement. Students struggle to keep track of events organized by various clubs, societies, and the student union. With a unified platform, it is easier for students to find and attend events of interest.

Union elections and other club voting processes are often conducted manually or through Google Forms, resulting in low participation rates. Manual voting processes are time-consuming, prone to errors, and lack transparency. Students also do not have access to a comprehensive event calendar that includes all upcoming activities, deadlines, and important dates. This leads to missed opportunities and poor attendance at events. Club presidents and union members have limited channels to effectively communicate with students about upcoming events. Important announcements and updates are often missed or overlooked due to the lack of a centralized notification system.

To address these issues, we propose the development and implementation of a comprehensive event management system for UCSC. This system aims to improve efficiency, enhance communication, and boost student engagement.

## 4. The scope of the project

Our project aims to create a comprehensive system to streamline the management and communication of events, elections, and announcements at UCSC. Our system features a centralized event planner where all UCSC events are listed, allowing students to easily discover and attend events of interest through advanced search and filtering options.

- It will include a secure and transparent online voting platform for union elections and other voting processes. It's designed to ensure accessibility, security, and ease of use, thereby encouraging higher participation rates.
- A unified event calendar will be incorporated. We are providing an overview of all upcoming events, deadlines, and important dates.
- We enable communication between club presidents and event organizers directly; they can send updates and announcements to students via SMS and notifications.

By this scope, our event management system enhances student engagement and makes us more active in the university community.

# 5. Feasibility Study

## 5.1.Technical Feasibility

The system will be developed as a mobile-responsive web application, and the technologies to be used are shown below in Table 7.2.1, titled 'Technologies to be Used'.

| | | |
|---|---|---|
| Frontend Technologies | - | ReactJS |
| Backend Technologies | - | Spring Boot |
| Database | - | MySQL |
| Version Control | - | GitHub |
| Project Management | - | Trello |
| UML Diagramming | - | Draw.io |
| UI Design and Prototyping | - | Figma |
| Collaboration | - | Zoom, Google Meet |

Since the above technologies are open source and readily available, the development team has easy access to the required resources. Online collaboration tools such as Google Meet, Zoom, and WhatsApp are also used to collaborate with team members during times when they cannot physically meet. Our personal computers and mobile phones will be used to complete this project; therefore, the hardware resources are readily available. In conclusion, with the use of the above-mentioned technologies and resources, it is concluded that our system is theoretically and technically feasible.

## 5.2.Operational Feasibility

Operational feasibility measures how well our proposed solution satisfies the problem stated above and how well it addresses the requirements stated. When considering our system, it will feature user-friendly, modern user interfaces (UIs) including a unified event calendar, communication tools, ensuring that users can easily navigate and utilise the system even with basic knowledge.

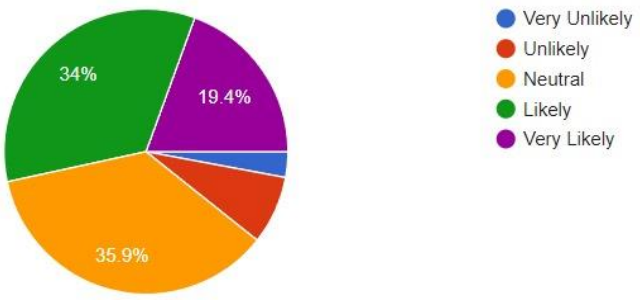
Moreover, a survey was conducted among students, and union members to gauge their interest and gather feedback on the proposed event management system. The survey results provide valuable insights into user needs, preferences, and potential challenges.

The results of the survey are listed below. The questionnaire for the survey can be found in Appendix A, furthermore, the survey can be viewed using

URL : https://forms.gle/pMg8vBhdBk2HmGJS7

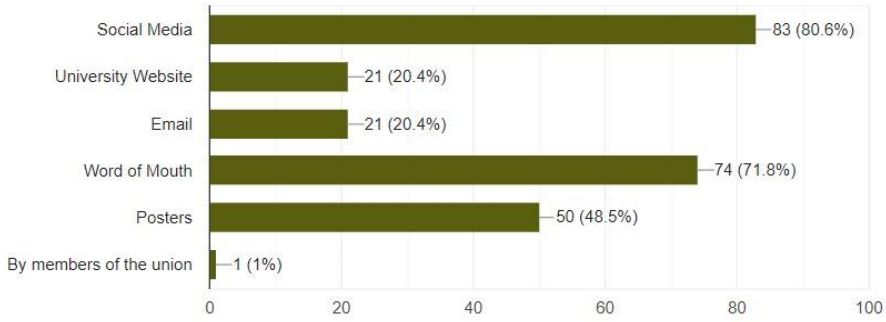
How likely are you to use a university Event planner website

103 responses



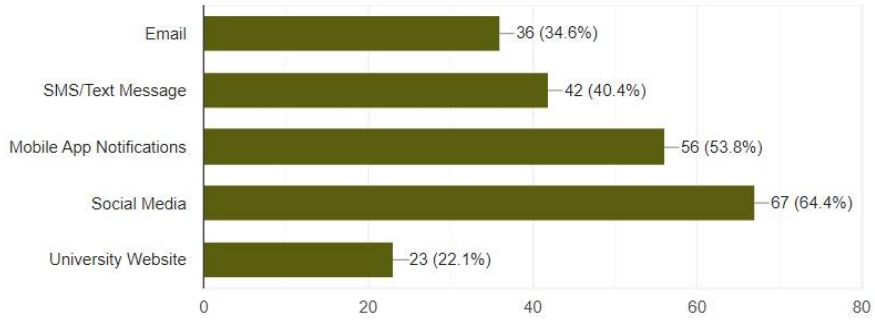

How do you usually find out about university events

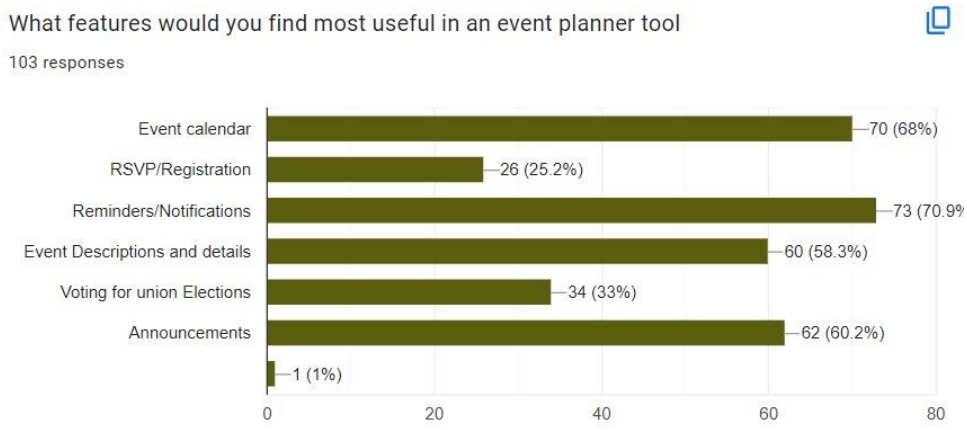
103 responses

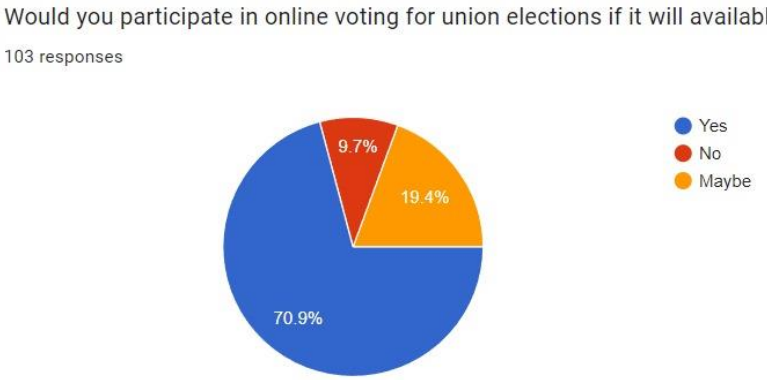



What communication method do you prefer for receiving event updates and announcements

104 responses






### 5.3.Economic Feasibility

Since the developers of this application are a group of undergraduate students, there is no extra development cost. Since all the developers of this system have enough hardware resources, like their own laptops, there is no extra hardware cost as well. No consultation payment will be provided despite the presence of a supervisor and co-supervisor. Also, open-source software tools will be used for the development of the system. They won't require any paid licenses, so the cost of software and tools is zero. Since all documentation is digital, the associated paper costs may also be kept to a minimum.

If the platform leads to better-managed events and higher student participation, it could lead to more financing and sponsorships for the university. If the system has a higher demand, it can be offered to other universities too. Therefore, by considering these facts, it is concluded that the development of this project is economically feasible.

### 5.4.Legal and Ethical Feasibility

Our system is designed only for Event management at the university. So this system does not violate any rules and regulations under the law of Sri Lanka. The system will be developed from the ground up, which means that there will be no copyright issues associated with the project. This is because all the code and content

will be created by the development team. The system prioritizes the accuracy and security of data, particularly in the management of sensitive information stored within the database. User authentication and authorization protocols are implemented to maintain the confidentiality of data.

In terms of our systems functionalities, we are implementing on an online voting system for student elections which is currently handled through Google Forms. By leveraging the advantages of online voting systems, such as enhanced security, privacy, authenticity, and transparency features, we can address and overcome ethical concerns such as limited accessibility, long waiting times, difficulty in auditing, resource-intensive issues and potential for fraud which are typically associated with traditional physical voting systems for student elections in our university. Implementing these solutions can help create a more reliable and trustworthy voting environment, promoting fair and ethical student elections. By taking these steps, it is ensured that the system is both legally and ethically feasible.

### 5.5.Schedule Feasibility

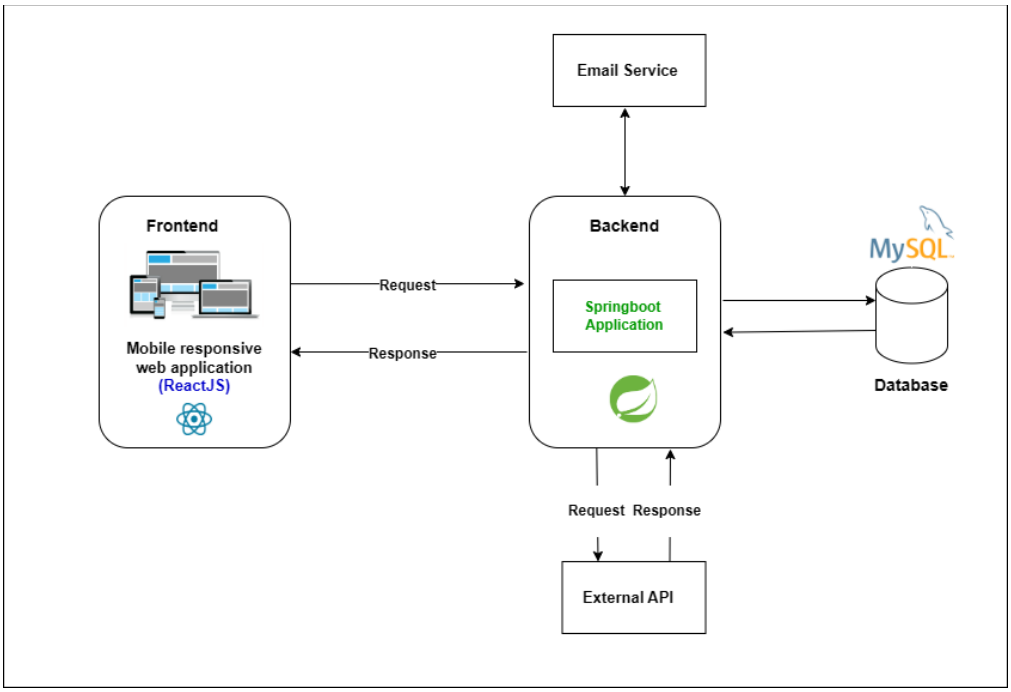
The development of the system should be completed by the end of the academic first semester. The development team consists of six members and the project will be spread over four months from June 2024 to the end of September 2024.

The estimated man-hours for the project completion as mentioned below.

| | |
|---|---|
| Number of weeks to complete project | = 15 weeks |
| Number of working hours on weekdays | = 4 hours |
| Number of working hours on weekends | = 6 hours |
| Total working hours for a member per week | = 10 hours |
| Number of members in the group | = 6 |
| Total working hours for a group per week | = 10 * 6 = 60 hours |
| Total project duration | = 10 * 6 * 15 = 900 hours |

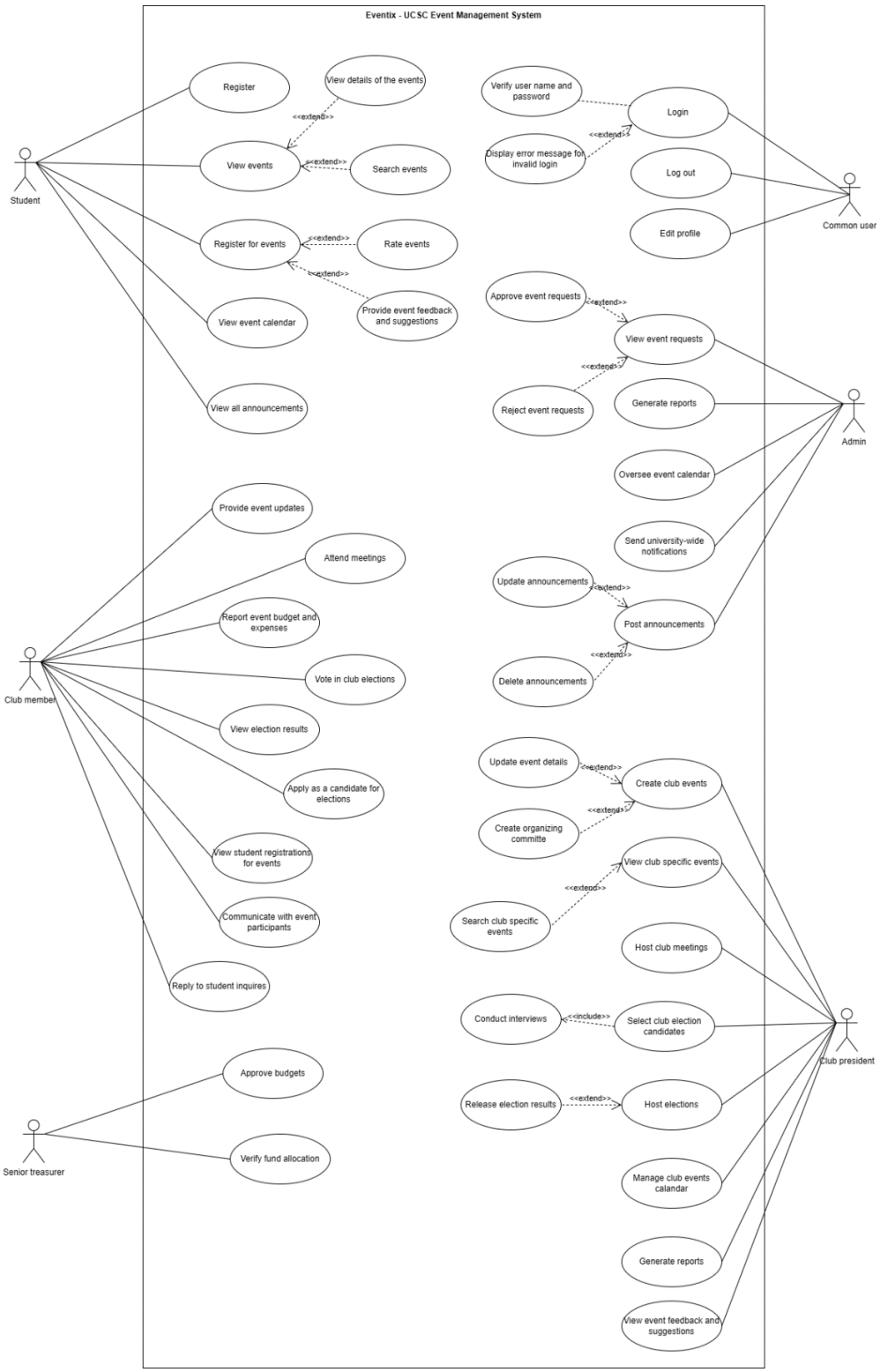
To efficiently allocate time to crucial tasks, the focus will be on requirement analysis, documentation, interface design, system design, implementation, and continuous testing. Also since it is allowed to use frameworks, the development process will be fast and efficient. So, according to our project plan, it is feasible to complete the project within the given period of 15 weeks.

# 6. Systems Architecture



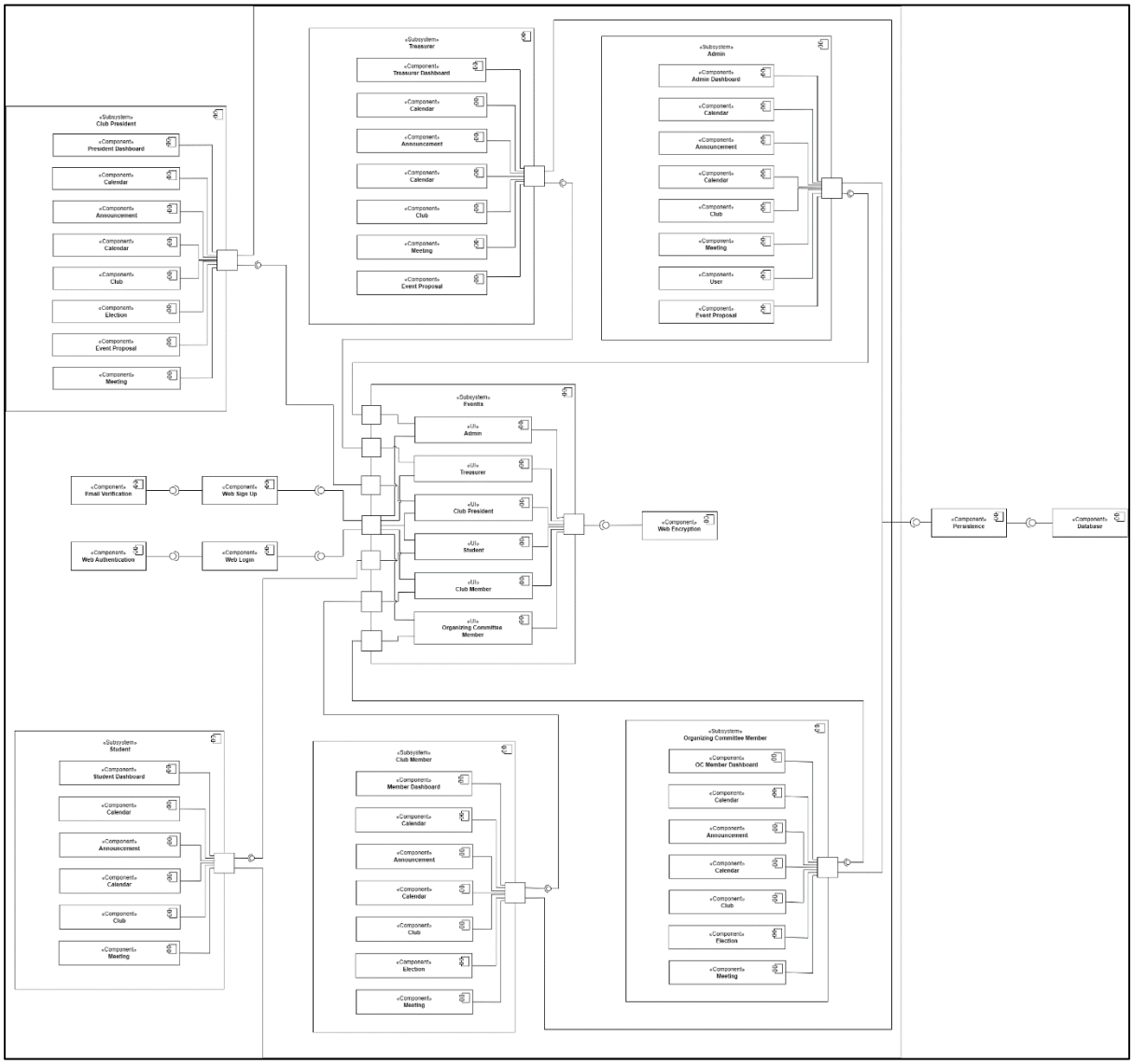
# 7. Requirements Specification

## 7.1.Use Case Diagra



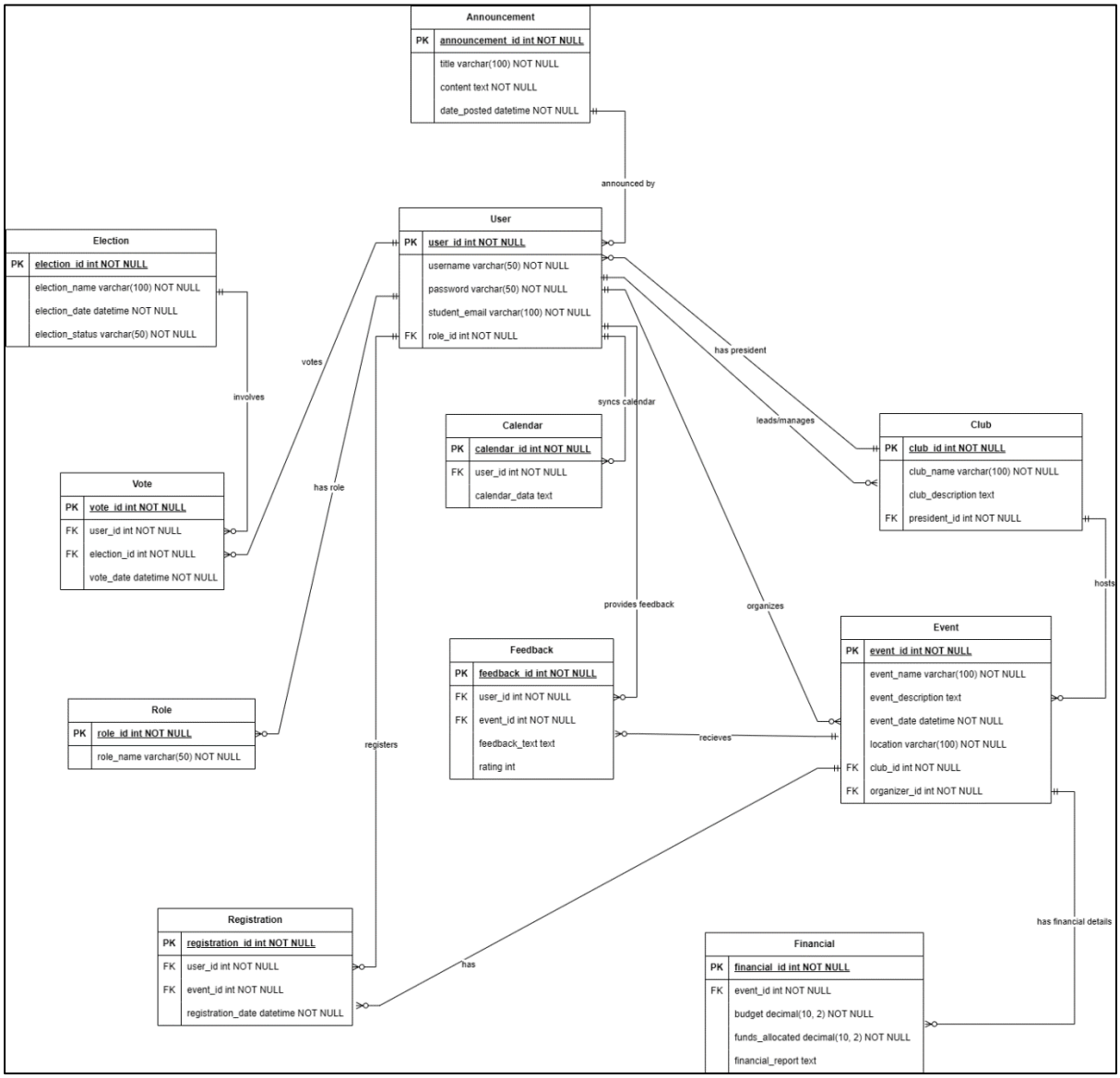

Link to the use case diagram: [Click Here]

## 7.2.Component Diagram



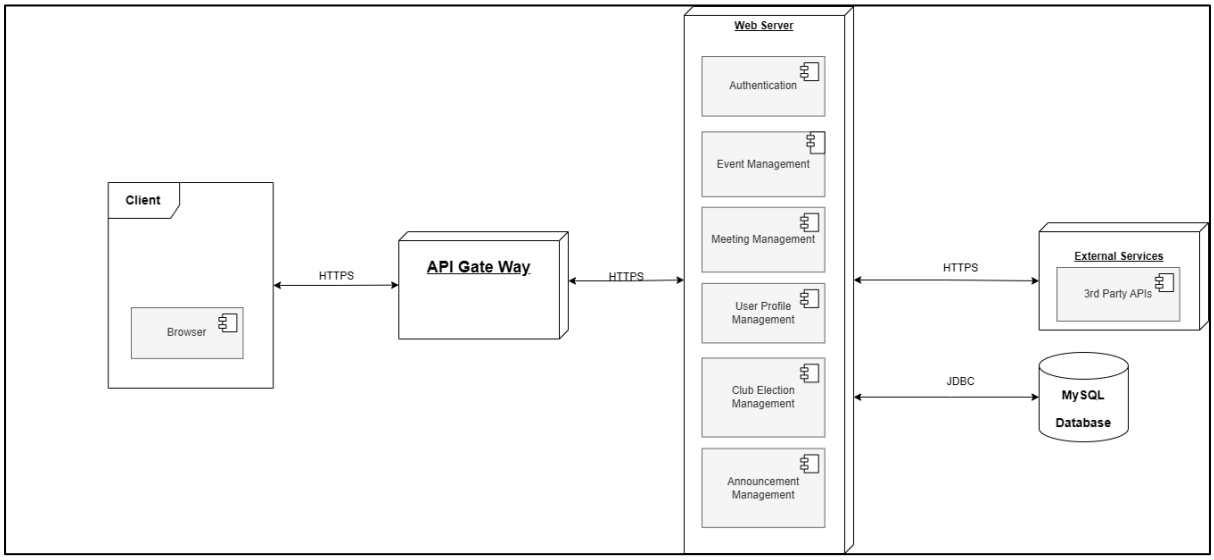

Link to the component diagram: [Click Here]

### 7.3.Entity Relationship Diagram




Link to the ER diagram: [Click Here]

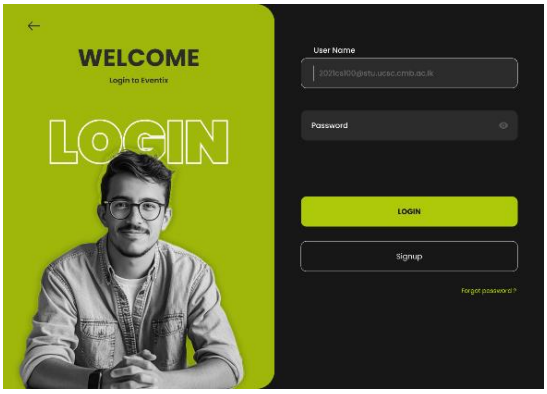
### 7.4.Deployment Diagram

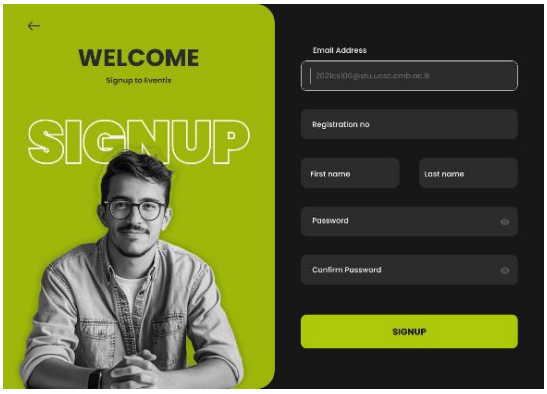



Link to the deployment diagram: [Click Here]

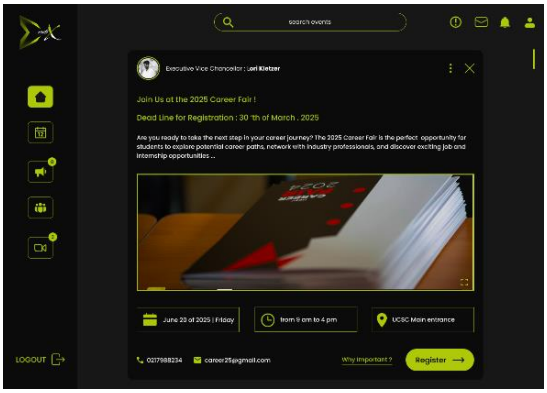
# 8. User Interfa

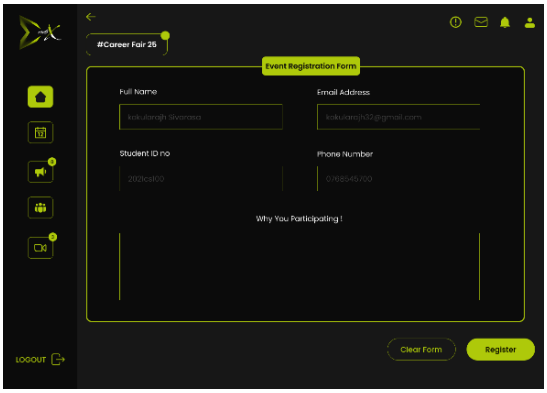
→ Login and Sign up

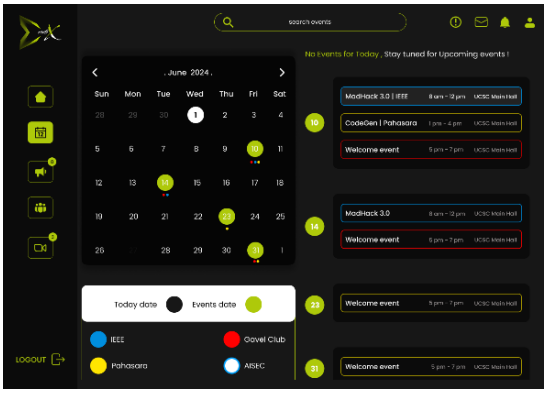


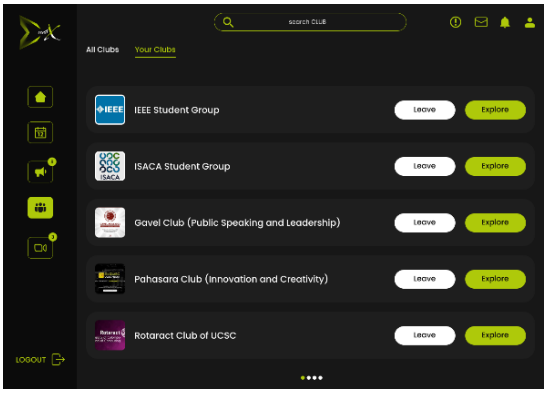



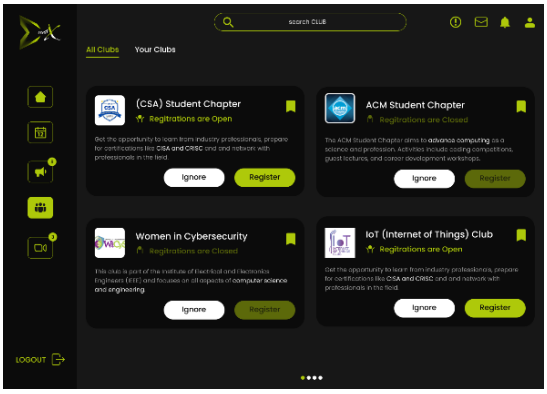

→ Student/ Club member explore clubs and events User Interfaces



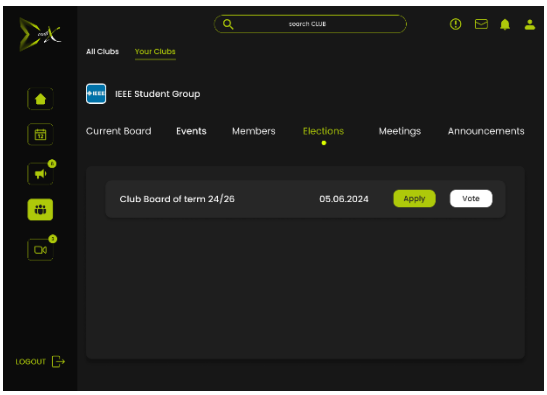



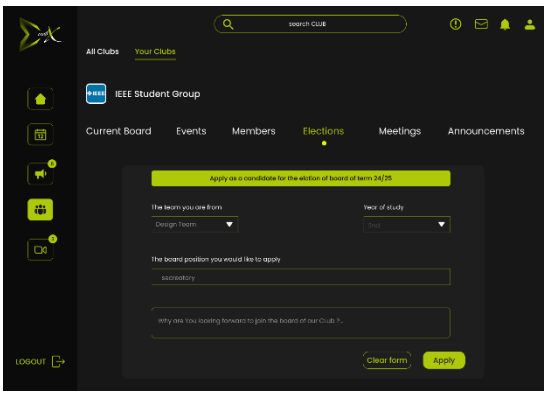



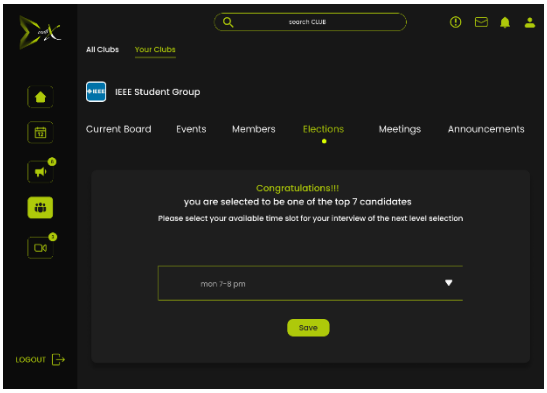





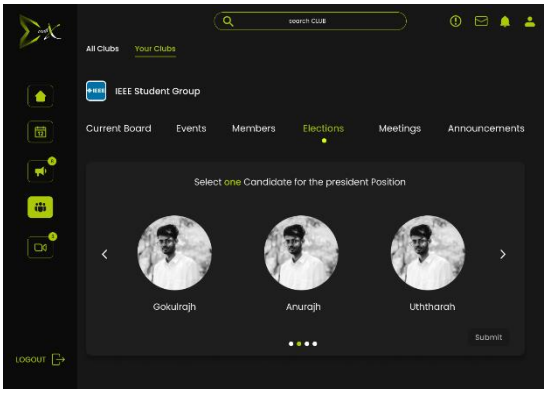

→ Club member apply as a candidate for club election

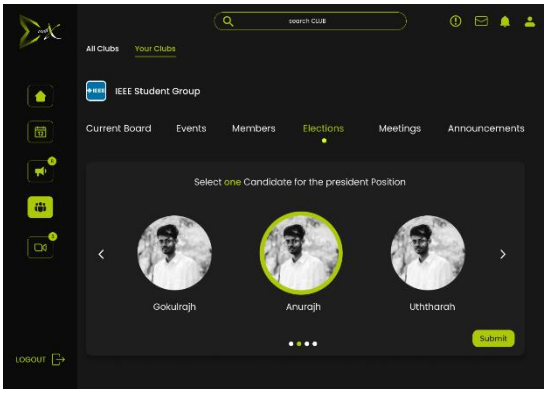


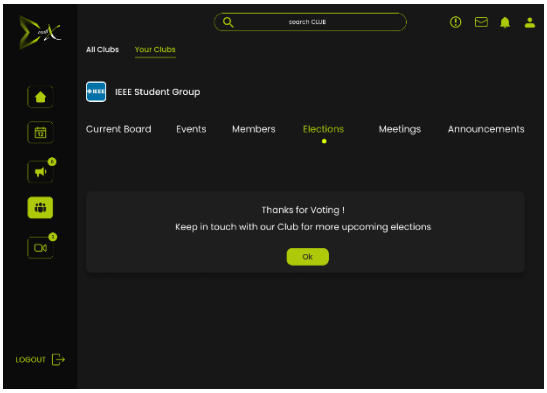



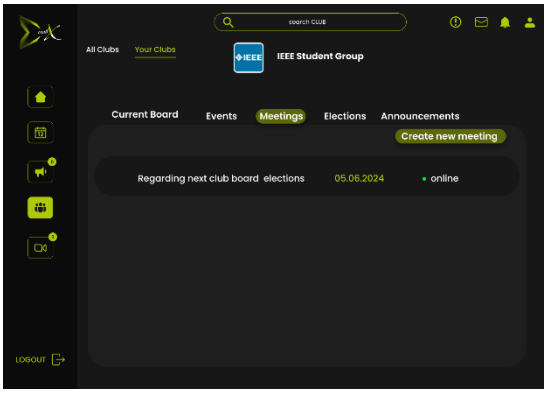
→ Voting Process

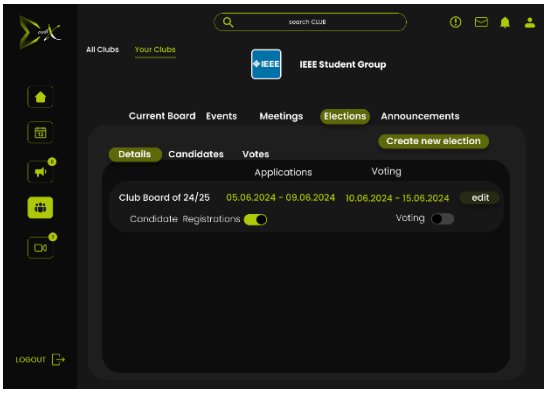


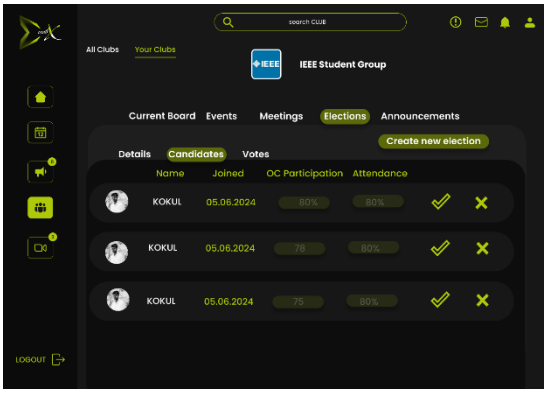



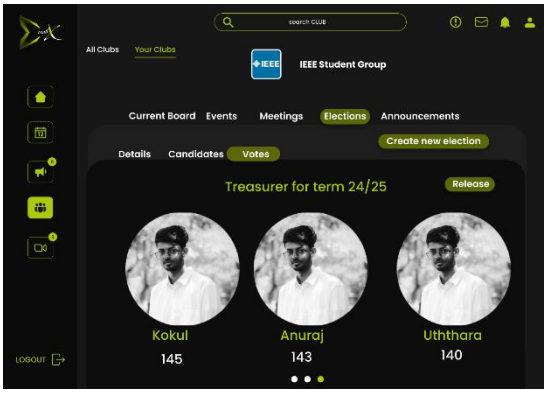



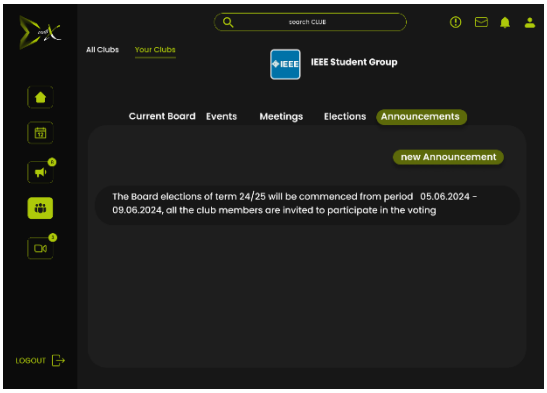

→ Club President User Interfaces

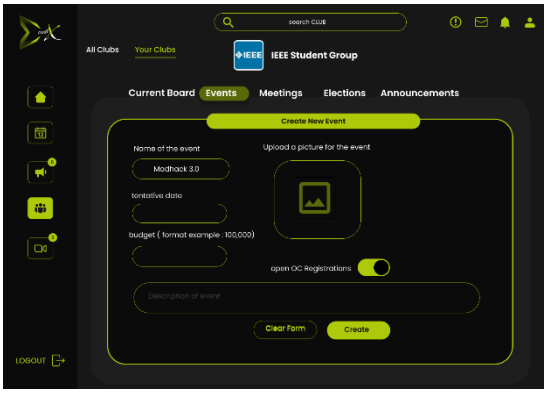


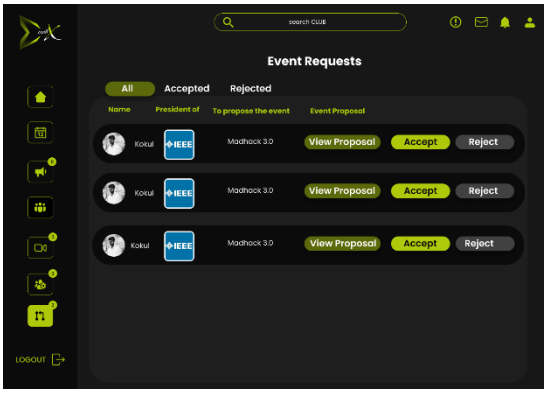


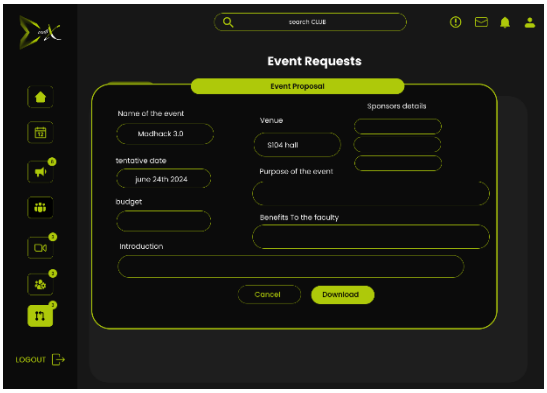



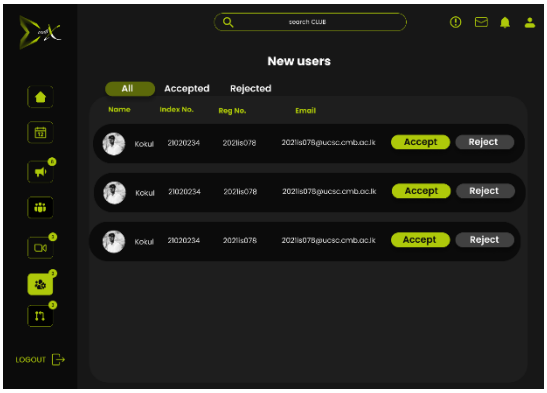




→ Admin/ Treasurer User Interfaces



## 9. Main deliverables of the system

1. A Complete Mobile responsive web application for all users
2. Complete Software Requirement Specification

## 10. The Project Plan

| No | Activity | May | | | | June | | | | July | | | | August | | | | September | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | Problem Identification | | | | | | | | | | | | | | | | | | | | |
| 2 | Requirements Gathering and Analysis | | | | | | | | | | | | | | | | | | | | |
| 3 | Feasibility study and analysis | | | | | | | | | | | | | | | | | | | | |
| 4 | Proposal Submission | | | | | | | | | | | | | | | | | | | | |
| 5 | Preliminary Presentation | | | | | | | | | | | | | | | | | | | | |
| 6 | Database Design | | | | | | | | | | | | | | | | | | | | |
| 7 | Interface Design | | | | | | | | | | | | | | | | | | | | |
| 8 | Implementation phase I | | | | | | | | | | | | | | | | | | | | |
| 9 | Interim report submission | | | | | | | | | | | | | | | | | | | | |
| 10 | Interim Presentation | | | | | | | | | | | | | | | | | | | | |
| 11 | Implementation phase II | | | | | | | | | | | | | | | | | | | | |
| 12 | System Testing | | | | | | | | | | | | | | | | | | | | |
| 13 | Implementation phase III | | | | | | | | | | | | | | | | | | | | |
| 14 | Final Report Submission | | | | | | | | | | | | | | | | | | | | |
| 15 | Final Presentation and Demo | | | | | | | | | | | | | | | | | | | | |

## 11. References


1. Eventbrite Inc. Eventbrite. [Online]. Available: https://www.eventbrite.com/
2. doo GmbH. doo. [Online]. Available: https://www.doo.net/en
3. Eventzilla Inc. Eventzilla. [Online]. Available: https://www.eventzilla.net/us/home
4. Evite Inc. Evite. [Online]. Available: https://www.evite.com/

## 12. Declaration

We as members of the project titled Eventix, certify that we will carry out this project according to guidelines provided by the coordinators and supervisors of the course as well as we will not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any university. To the best of our knowledge and belief, the project work will not contain any material previously published or written by another person or ourselves except where due reference is made in the text of appropriate places.

| ***Name*** | ***Signature*** |
|---|---|
| (i) K. Cusherah |  |
| (ii) S. Anuraj |  |
| (iii)K. D. N. Dharmasena |  |
| (iv)A. H. G. U. Jayawardana |  |
| (v) S. Kokularajh |  |
| (vi)K. D. Dinushika |  |