GROUP 18

ventiX

FINAL REPORT

SCS 3214 | IS 3113 | GROUP PROJECT II

University of Colombo School of Computing

SCS 3214 / IS 3113: Group Project II - 2024

Title – Final SRS Report

Project Name & Concept : Eventix - A Centralized System For UCSC Events

Project Group Details

1. Group number: 18
2. Group members:

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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:

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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

- **Event Management:** We built a mobile-friendly web application with role-based dashboards, event scheduling tools, and approval workflows. These features help admins, club presidents, and the senior treasurer create and manage events easily while avoiding delays. We also updated the system regularly to keep it running smoothly.

- **Proposal Submissions:** We designed a simple form for club presidents to submit event proposals. The system sends automatic reminders, provides clear instructions, and lets users track approvals. Feedback from admins and the senior treasurer is included to ensure quick approvals of the event budget estimations.

- Enhance Student Engagement: We created an easy-to-use interface where students can explore events by clubs and register for the events they are interested in. Notifications and RSVP options help keep students informed and involved.

- **System Security and Maintenance:** We added strong security features like role-based access and encrypted voting process and elections while ensuring anonymous votings. Regular maintenance and checks ensure the system is safe, reliable, and up-to-date.

- **Improve Communication:** We made sure students get timely announcements about events and meetings through multiple channels, including the web application, email notifications.

- **Improve Transparency:** The mobile-responsive web app builds trust by allowing users to easily access real-time records of event proposals, approvals, and communications from any device. This makes the election process clear and accountable since we are ensuring anonymous and encrypted voting process for elections . Key objectives include providing easy access to information, tracking updates in real time, and ensuring transparency with a clear record of decisions. By making the process visible and traceable, the app fosters trust through openness and accountability.

- **Support Administrative Roles:** We gave admins tools to monitor club events activity, approve the events , and provide technical support whenever needed.

- **Facilitate Voting Processes:** We created a fair and easy voting system in the web application for club elections. This includes candidate applications and hosting and tracking the election process.

- **Promote Feedback and Inquiries:** We added a feedback feature in the web application where users can share their thoughts on events. This helps the clubs improve based on student needs.

- **Enhance Participation and Community Building:** We made it easy for students to stay updated on events and activities and share messages among them as an active community . This fosters engagement and helps build a stronger campus community 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

We have carefully selected open-source technologies that are well-suited to our project's needs, ensuring they can effectively support the development, deployment, and scalability of the system. We have access to collaboration tools like Google Meet, Zoom, and WhatsApp, which allow us to coordinate effectively, even when team members can't meet in person. Our team's experience with these tools and technologies ensures that we can overcome any technical challenges that arise during development. Additionally, we are using personal computers and mobile phones, which are sufficient for the project's hardware requirements. Our team is experienced with these tools and technologies, enabling us to anticipate and resolve technical challenges promptly. We have implemented version control using GitHub to manage code repositories and ensure smooth collaboration. Furthermore, we have assessed potential risks, such as compatibility issues or scalability bottlenecks, and have established mitigation strategies, including rigorous testing protocols and scalability plans. Based on these considerations, we confidently affirm that our system is technically feasible, with the resources, tools, and expertise at our disposal ensuring successful implementation and deployment.

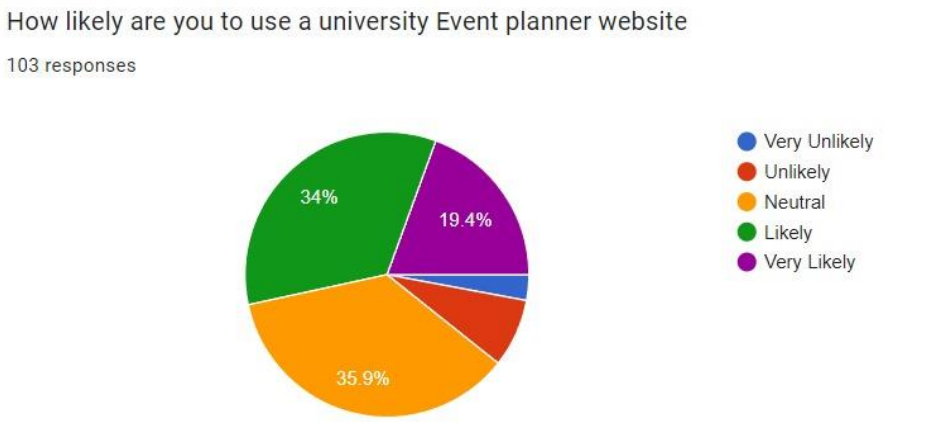
5.2.Operational Feasibility

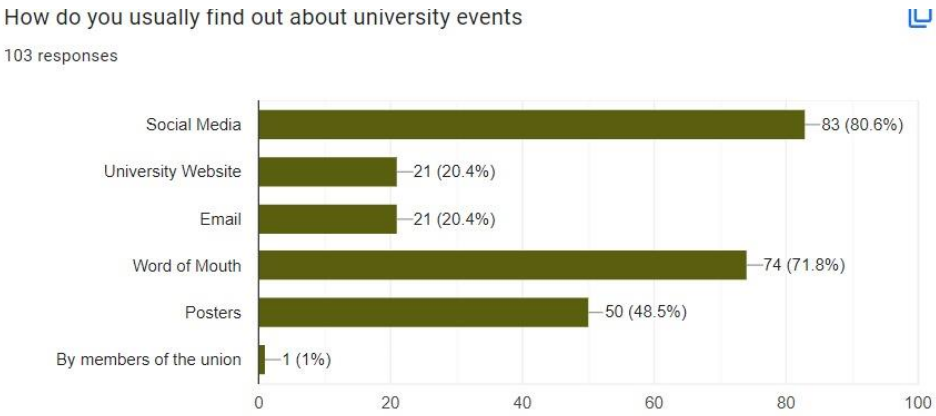
Operational feasibility measures how well our proposed solution satisfies the problem stated above and how well it addresses the requirements stated. When considering our system, it will feature user-friendly, modern user interfaces (UIs) including a unified event calendar, communication tools, ensuring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

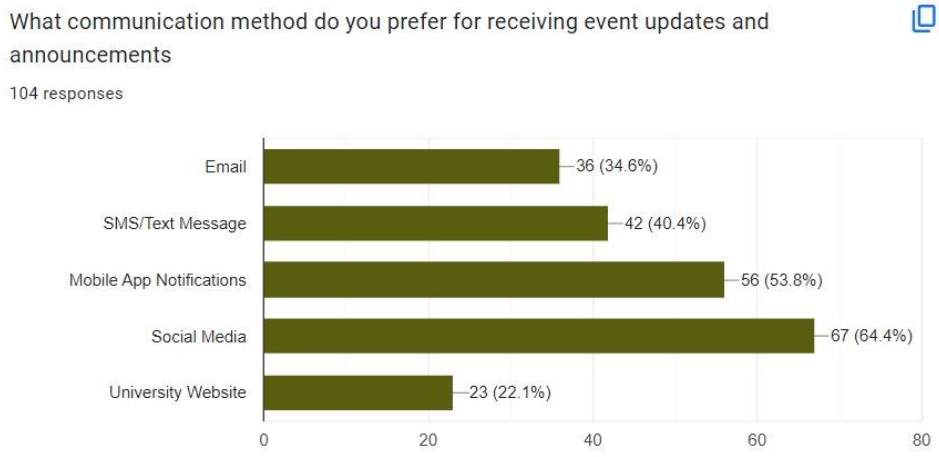
Moreover, a survey was conducted among students, and union members to gauge their interest and gather feedback on the proposed event management system. The survey results provide valuable insights into user needs, preferences, and potential challenges.

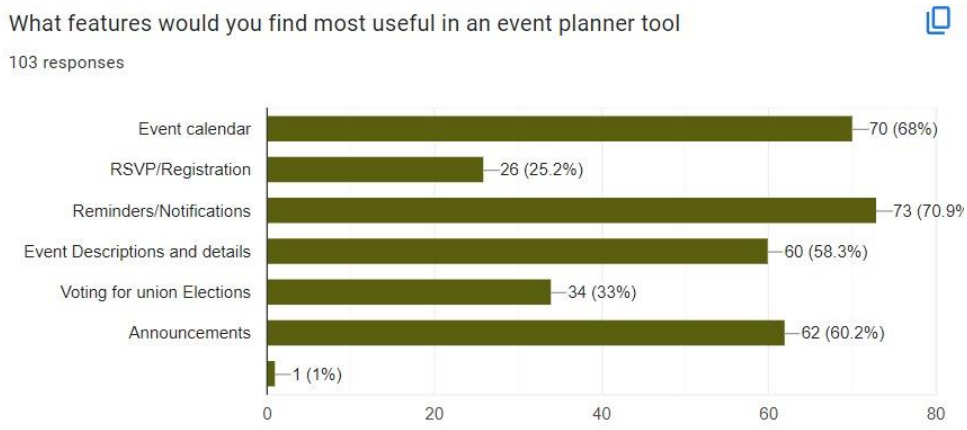
The results of the survey are listed below. The questionnaire for the survey can be found in Appendix A, furthermore, the survey can be viewed using

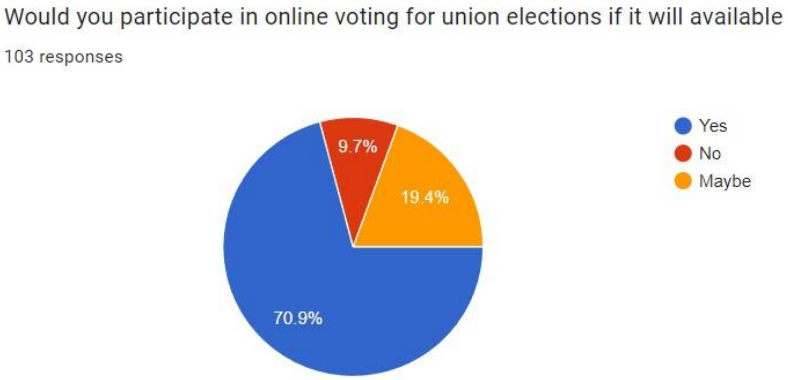
URL : https://forms.gle/pMg8vBhdBk2HmGJS7











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

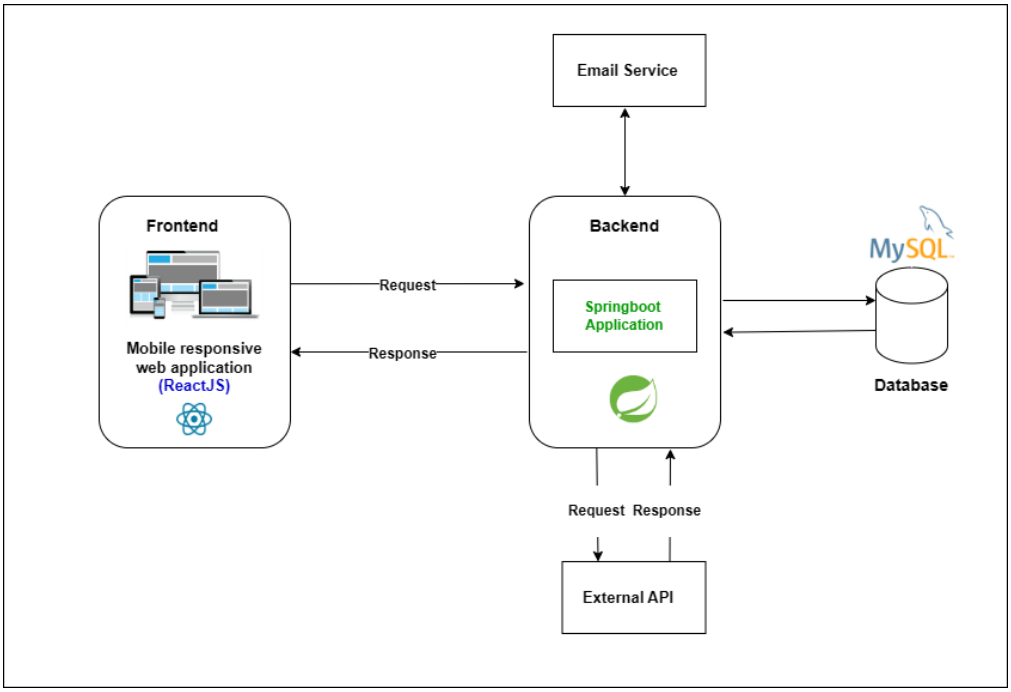
The development of the system should be completed by the end of the academic first semester. The development team consists of six members and the project will be spread over four months from June 2024 to the end of September 2024.

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

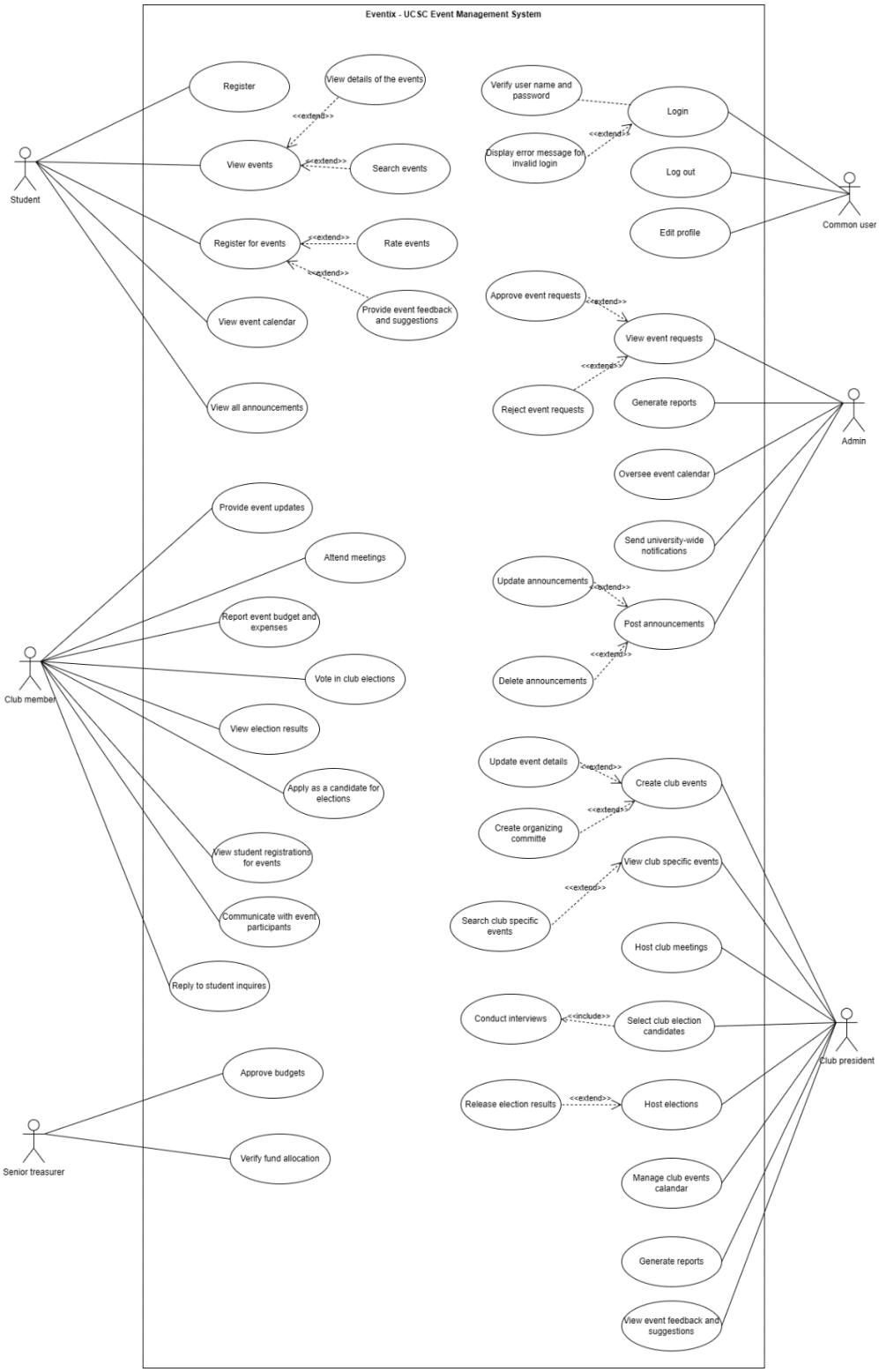
To efficiently allocate time to crucial tasks, the focus will be on requirement analysis, documentation, interface design, system design, implementation, and continuous testing. Also since it is allowed to use frameworks, the development process will be fast and efficient. So, according to our project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

6. Systems Architecture



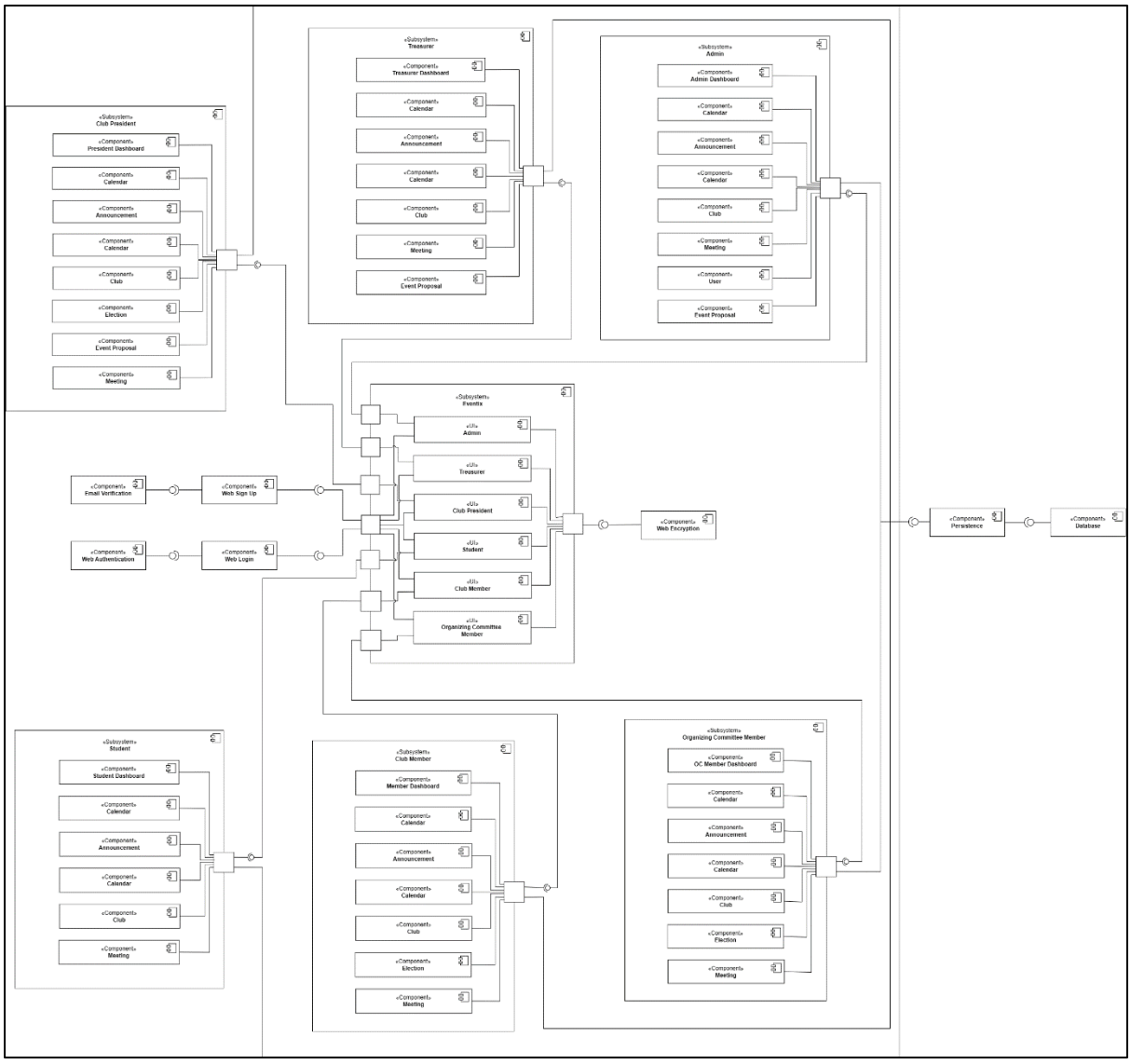
7. Requirements Specification

7.1.Use Case Diagram



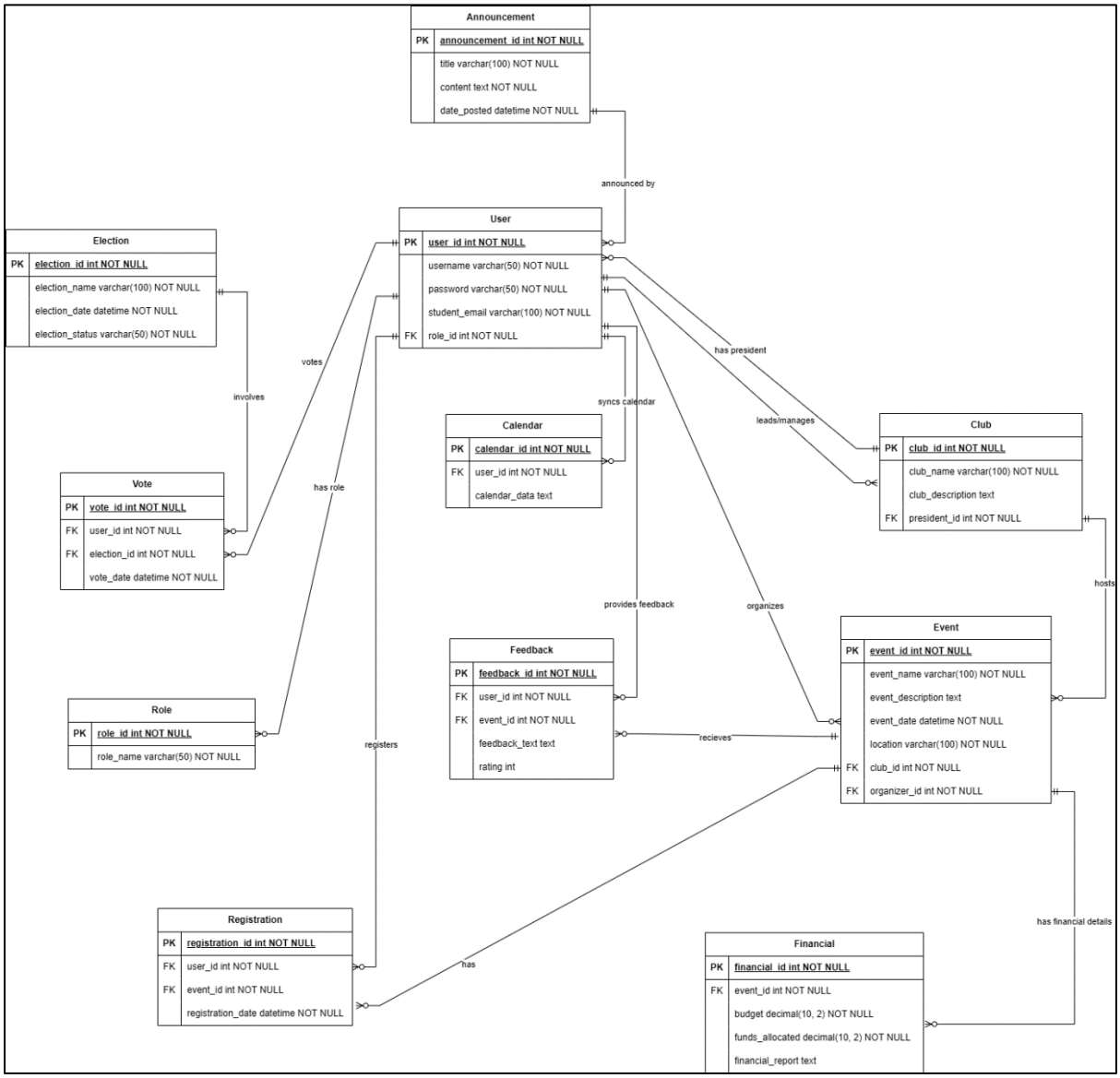
Link to the use case diagram: [Click Here]

7.2.Component Diagram



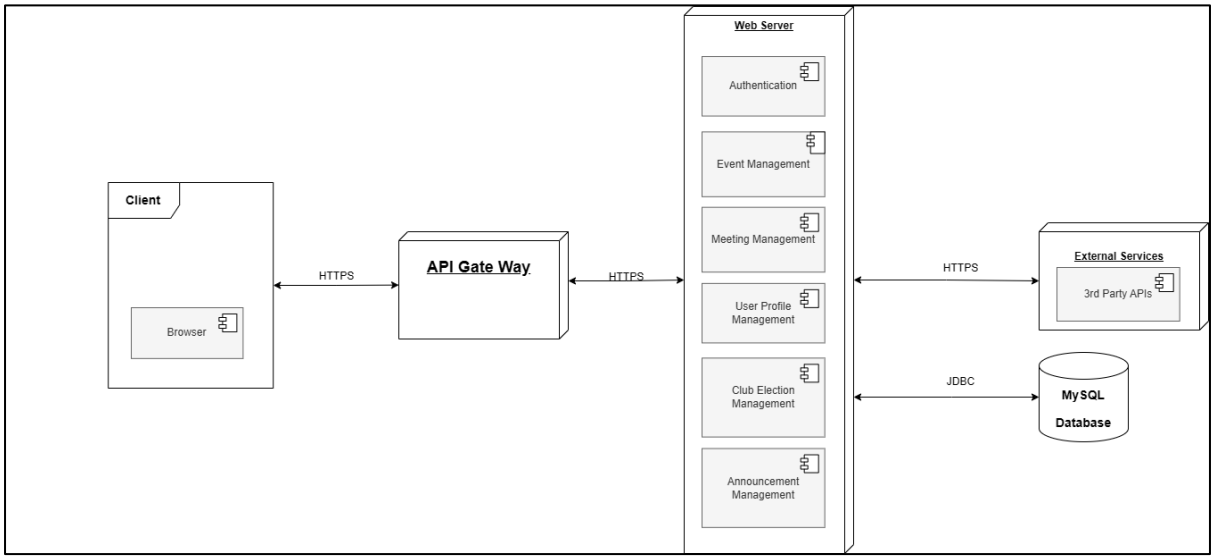
Link to the component diagram: [Click Here]

7.3.Entity Relationship Diagram



Link to the ER diagram: [Click Here]

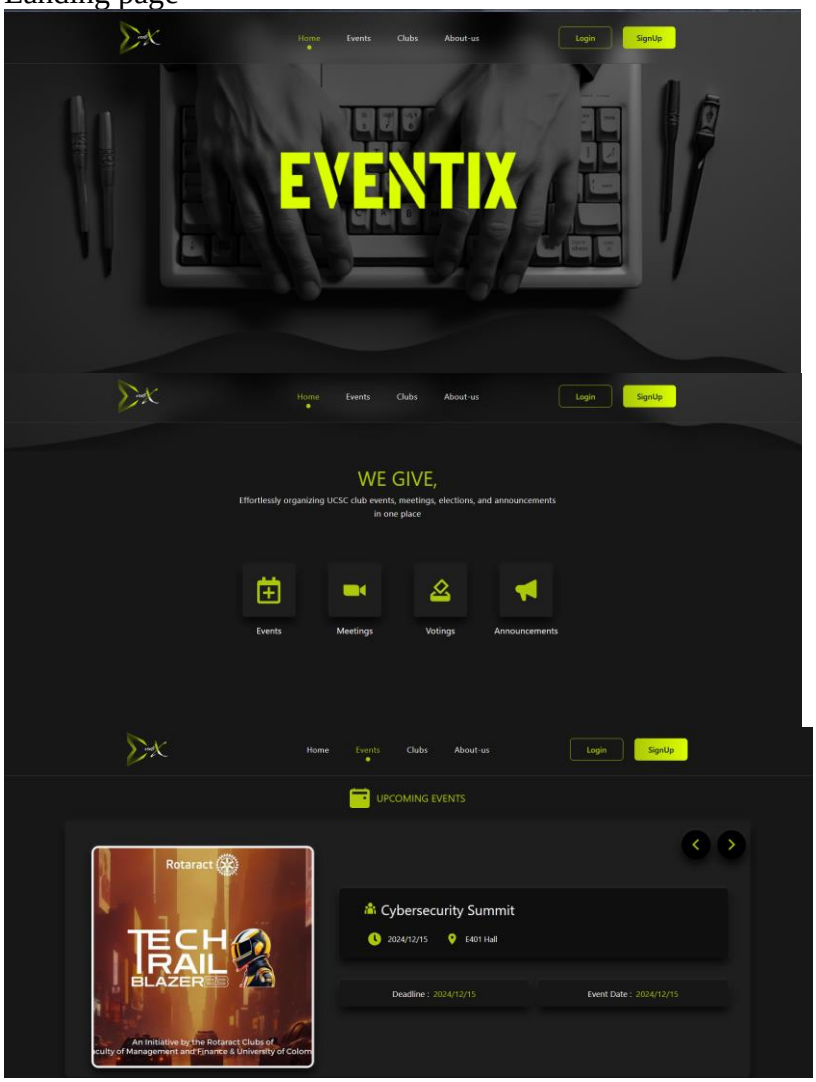
7.4.Deployment Diagram

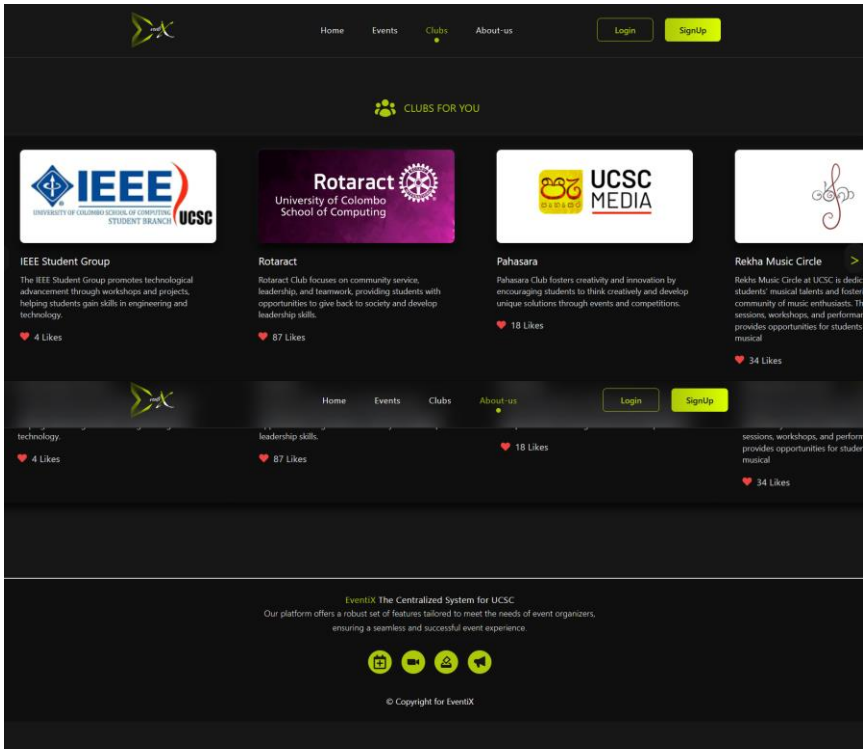


Link to the deployment diagram: [Click Here]

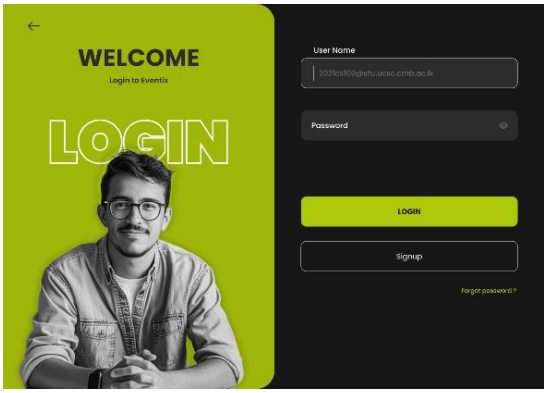
8. User Interfaces

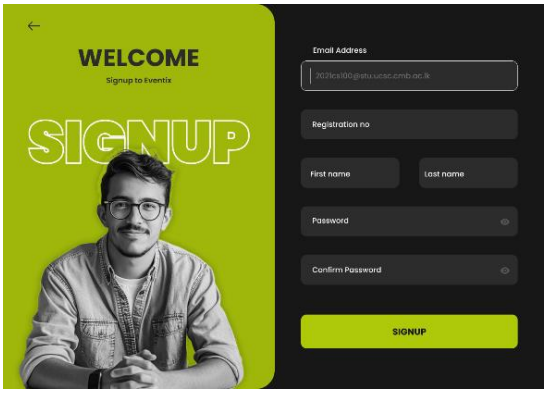
→ Landing page



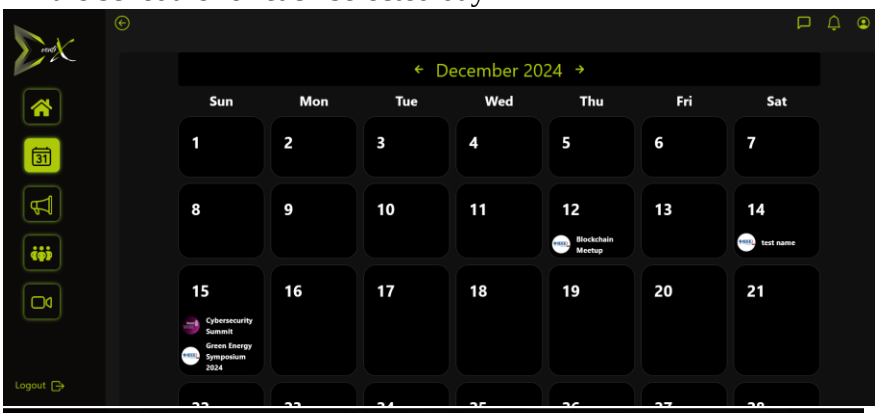


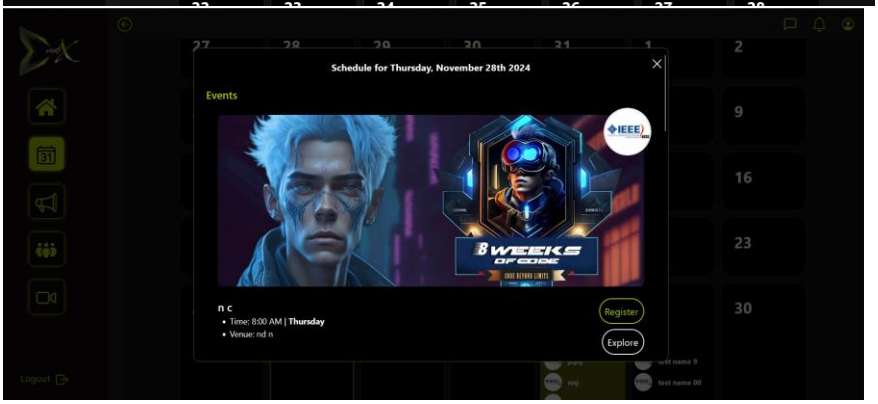
→ Login and SIgnup Pages



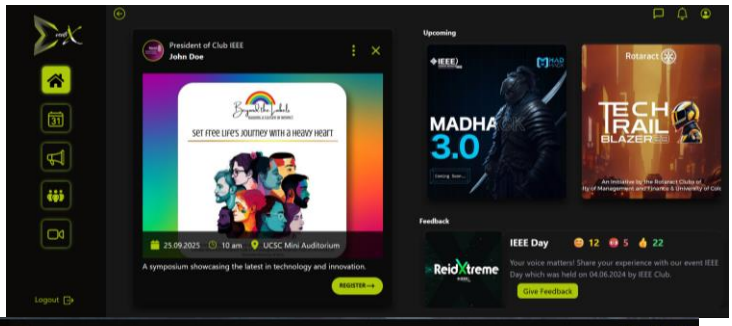


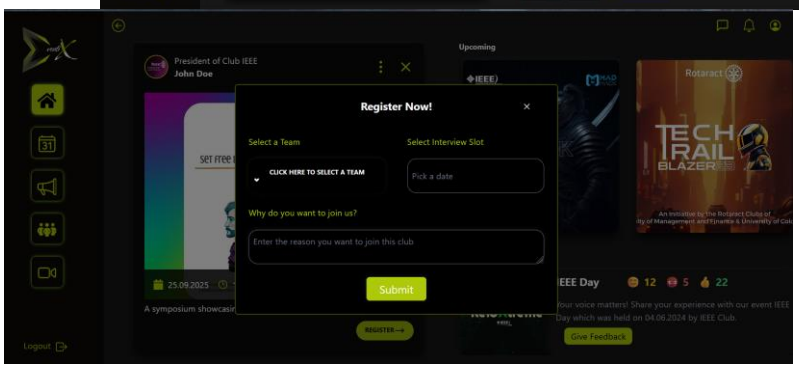
→ Any user can check the celdnar for upcoming meetings and events and vuew the schedule for each selected day

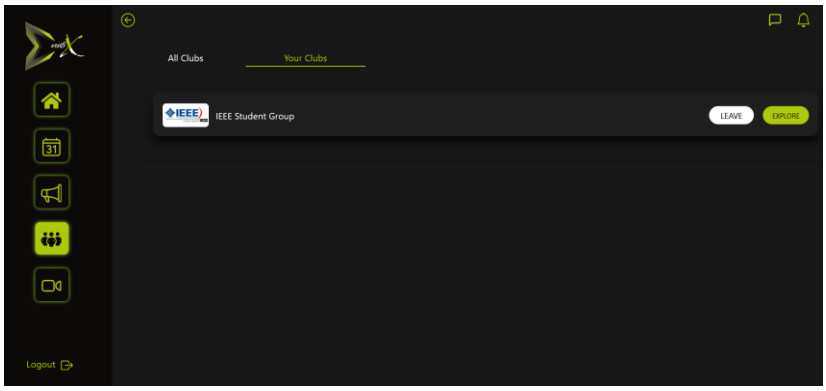


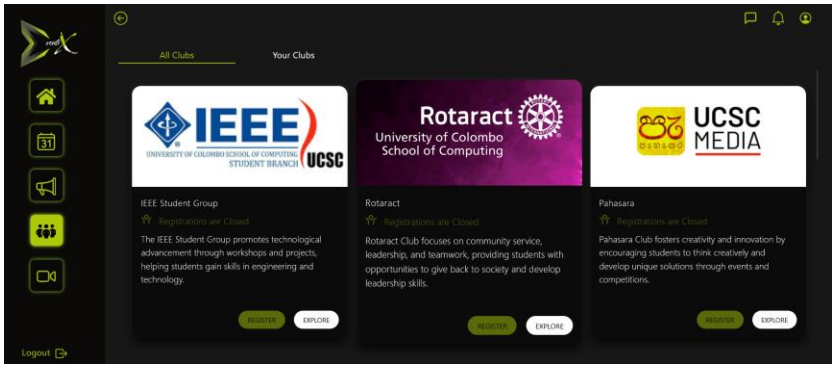


→ Students explore clubs and events User Interfaces

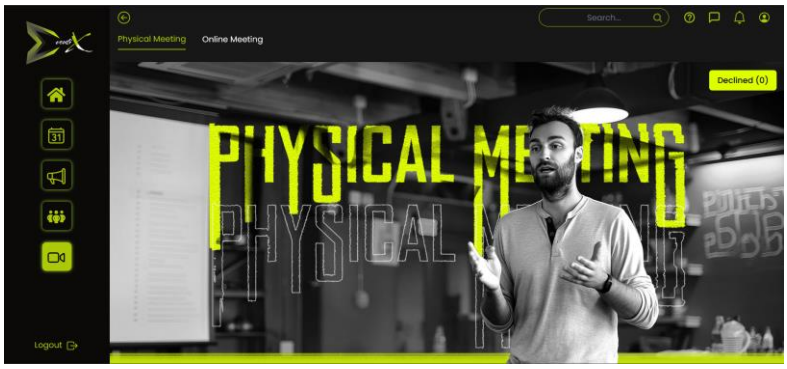


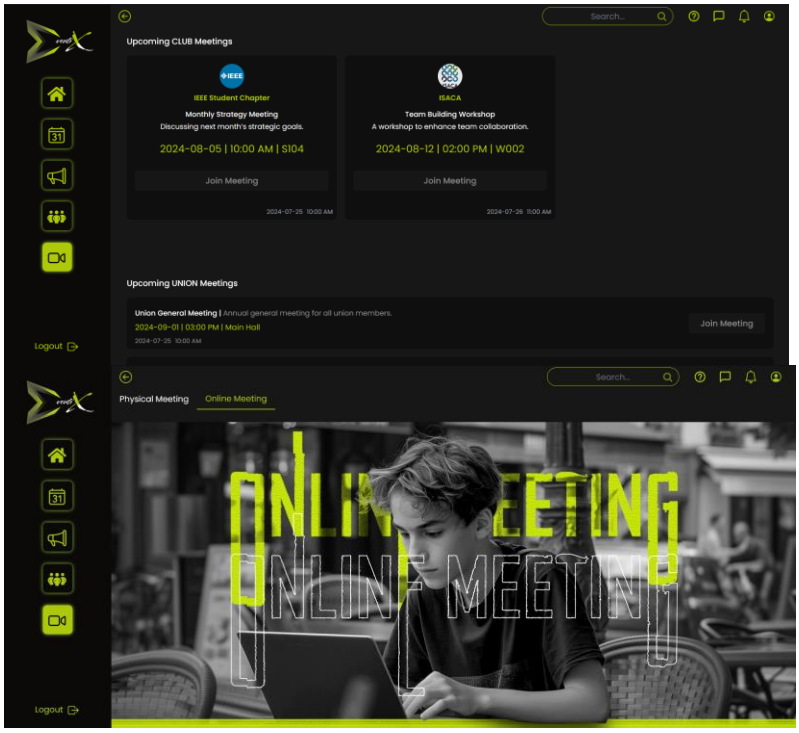




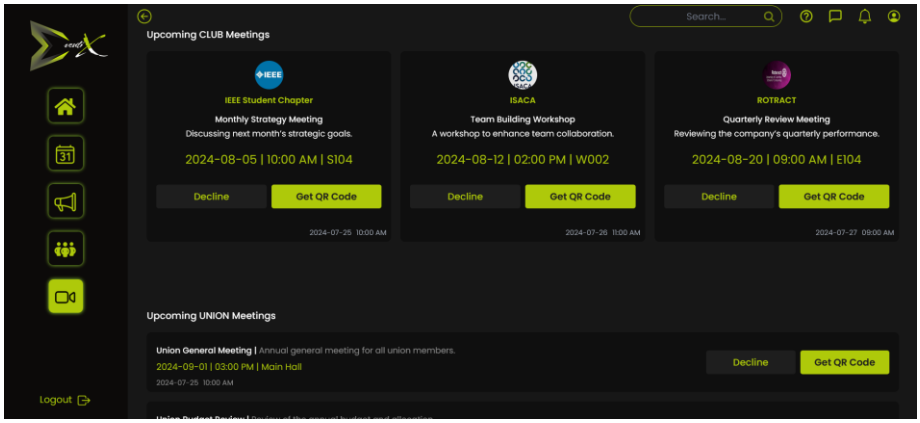


→ Students can view and join online / physical Meeting

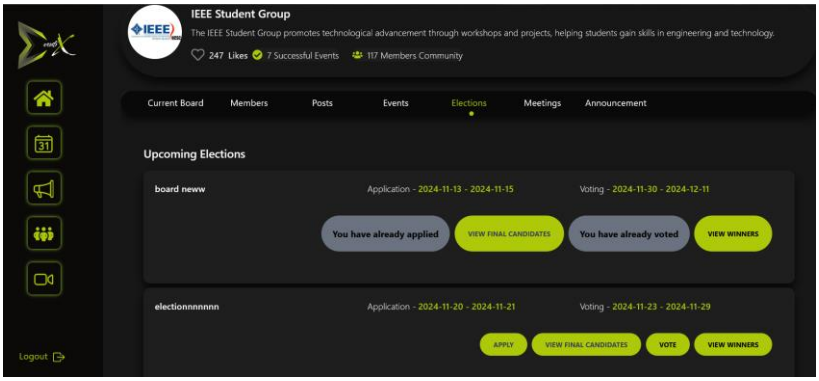


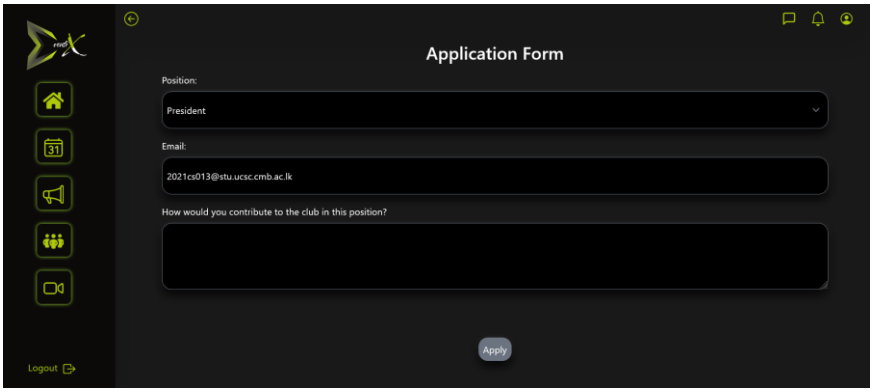


→ Students can get QR code for physical meetings

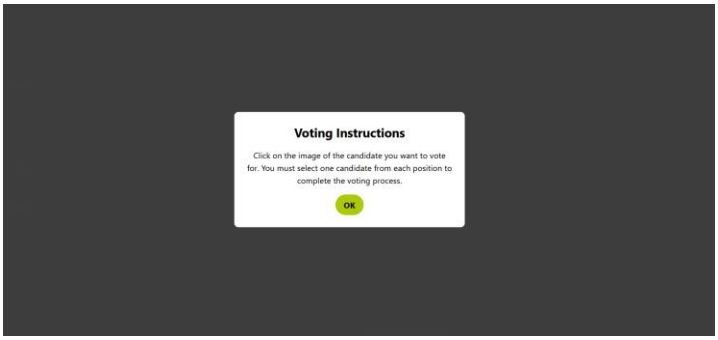


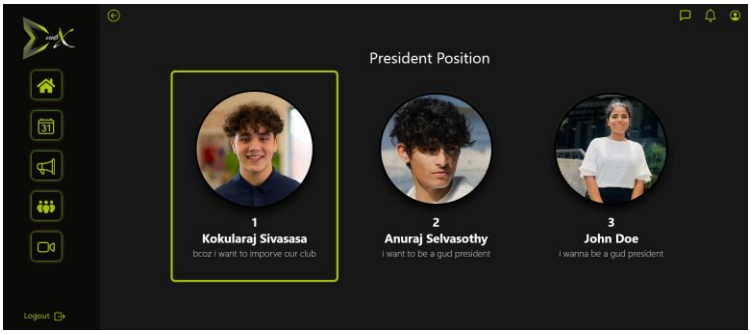
→ Club members can apply as a candidate for club election



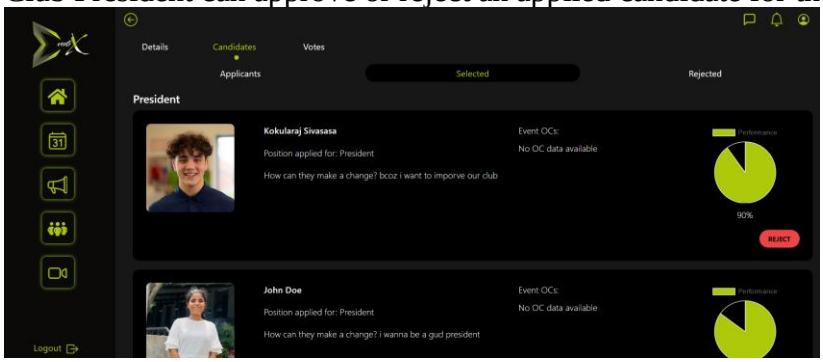


→ Voting Process

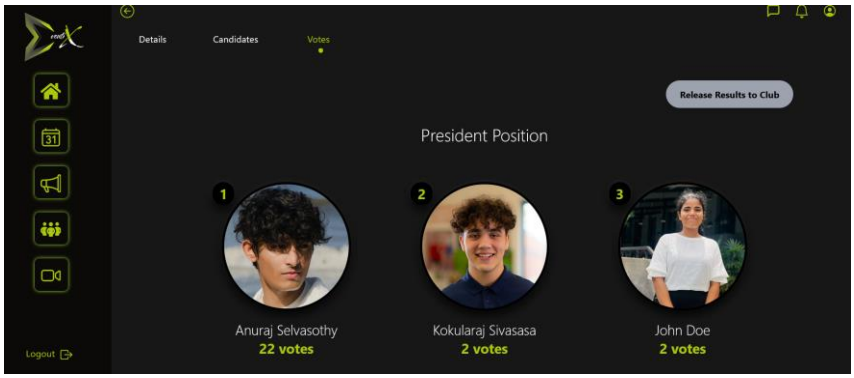




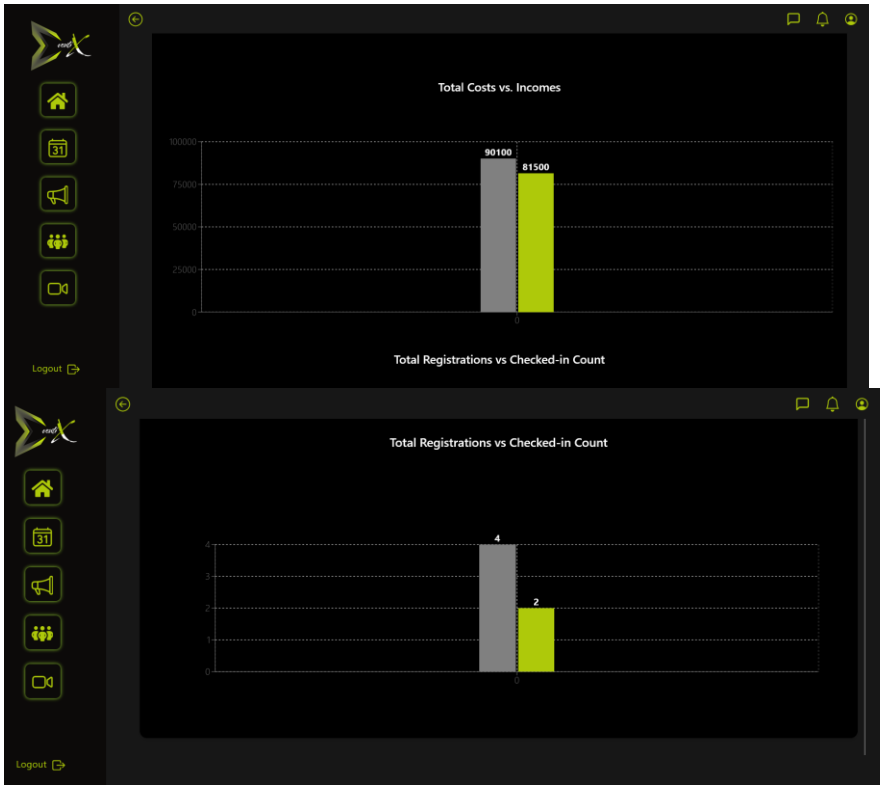
→ Club President can approve or reject an applied candidate for the club election



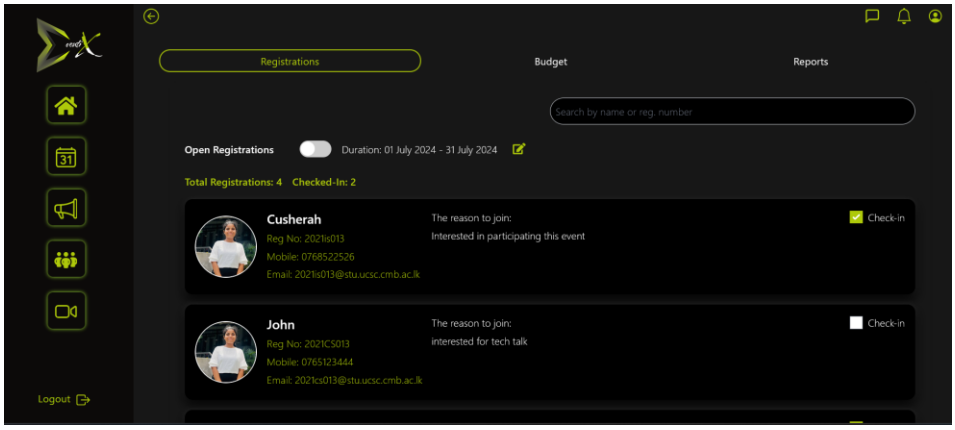
→ Club President can view realtime votes for each candidate for the club election and release results



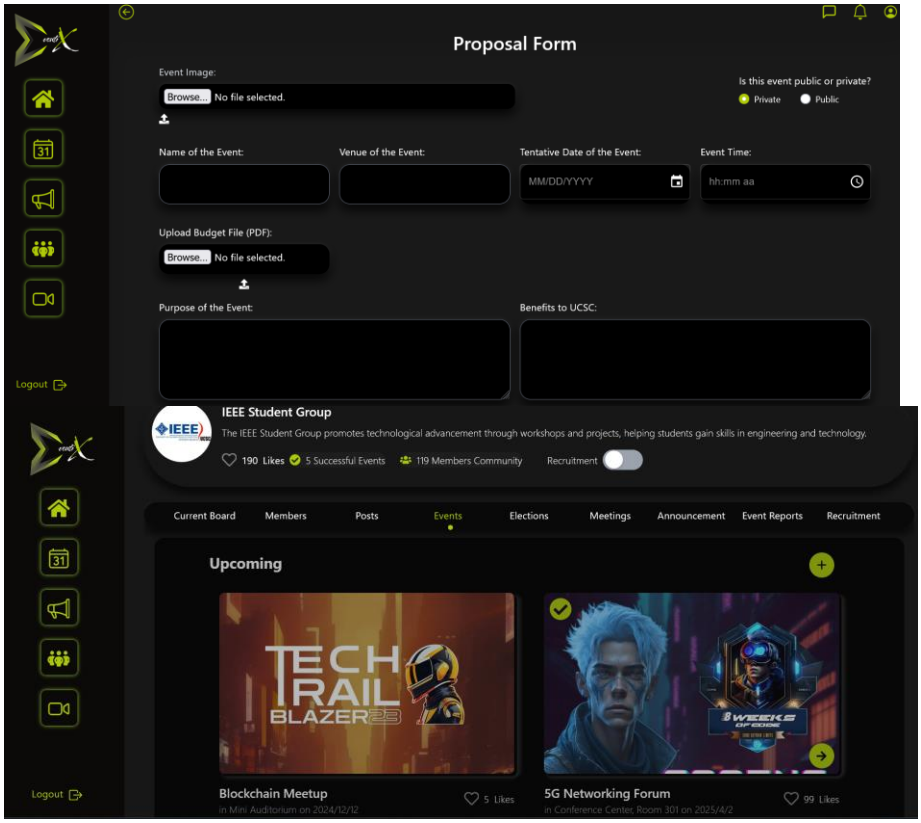
→ The event OC can track budget and view reports in real time for each event



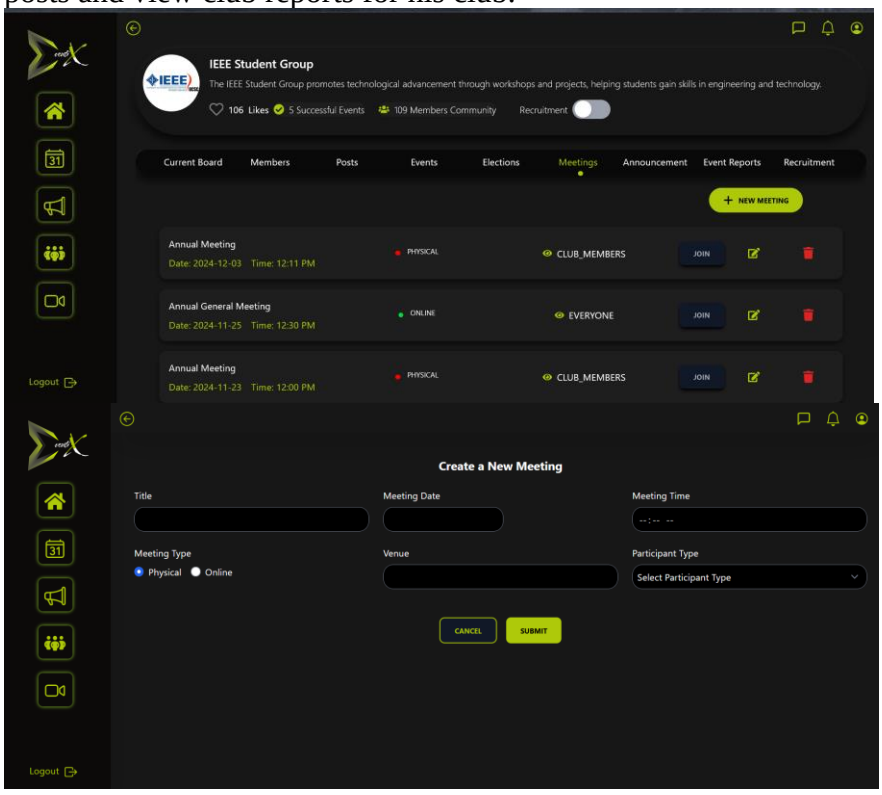
→ The event OC can create posts and view even registrations and mark checkins for participants for each event

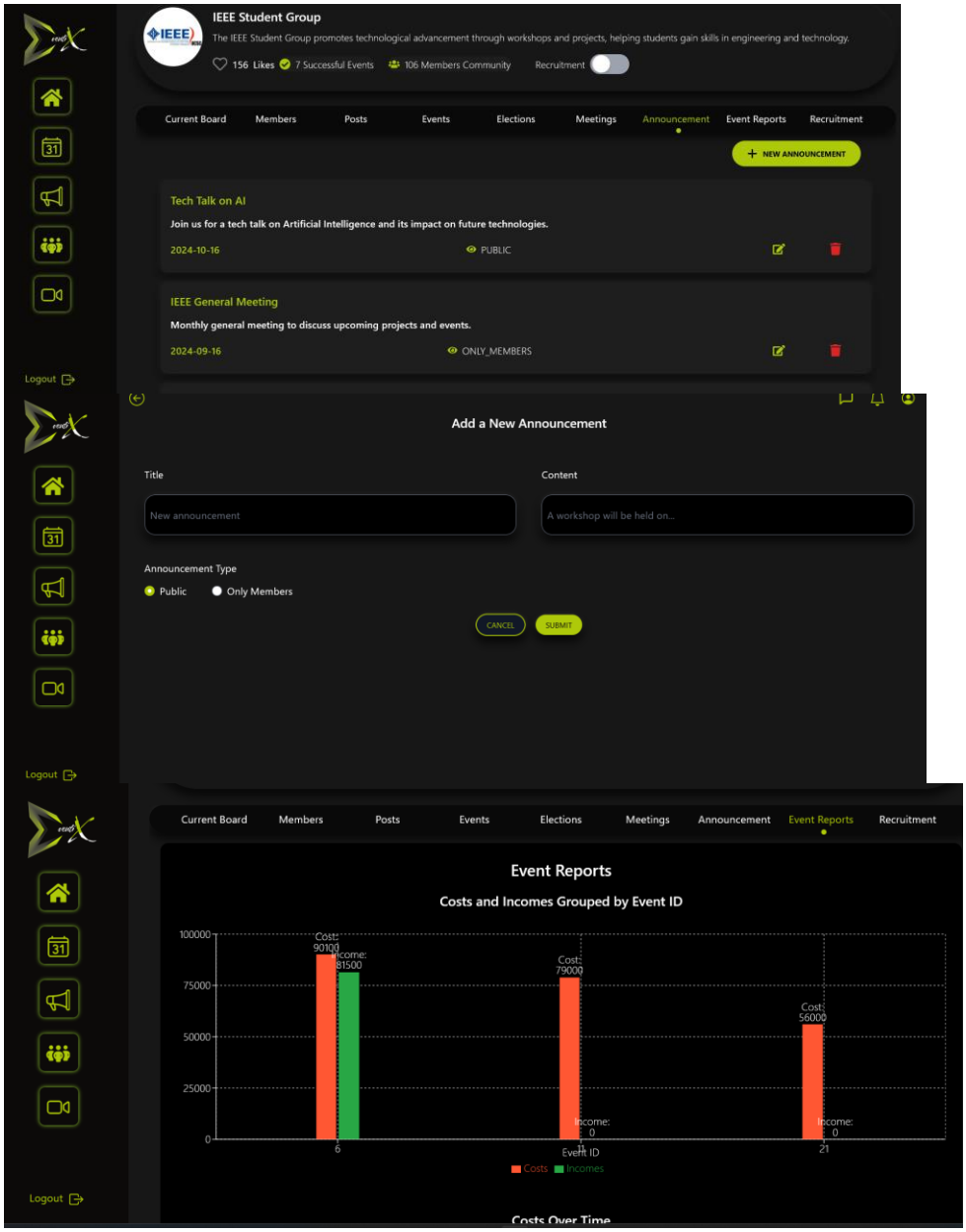


→ Club president can create new events for his clubs and get approval from admin according to the IUD board decisions

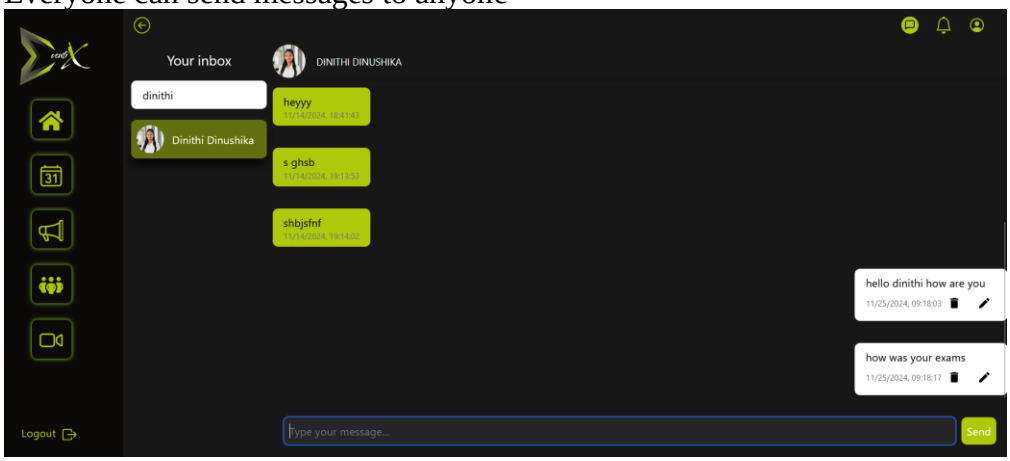


→ Club president can create new meetings and announcements , approve club posts and view club reports for his club.

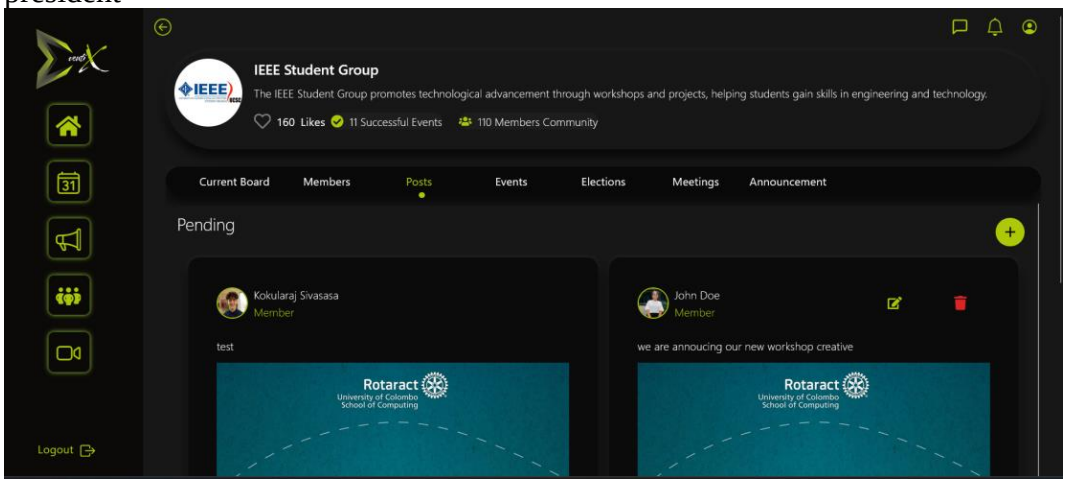




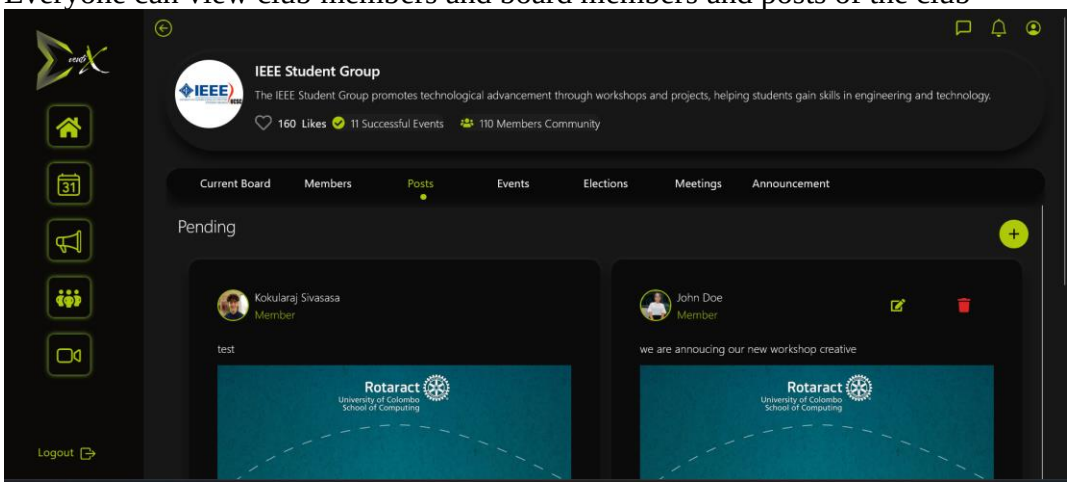
→ Everyone can send messages to anyone

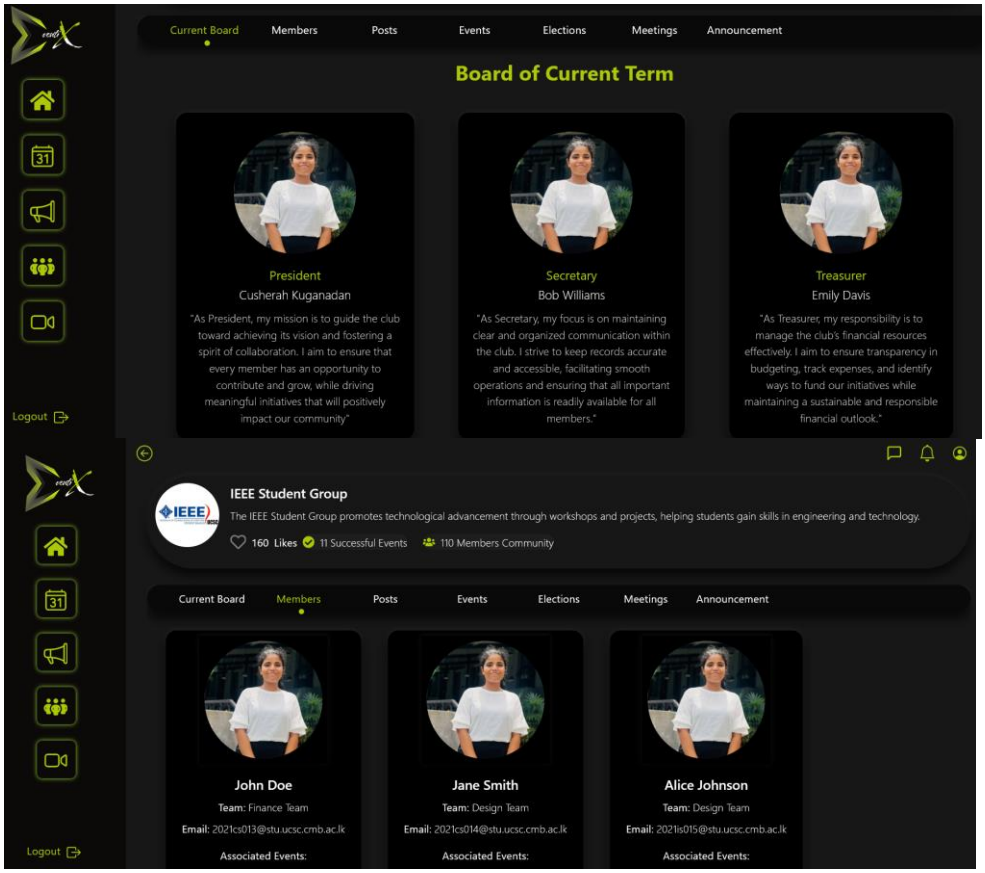


→ Club Members can create new posts which has to be approved by the club president

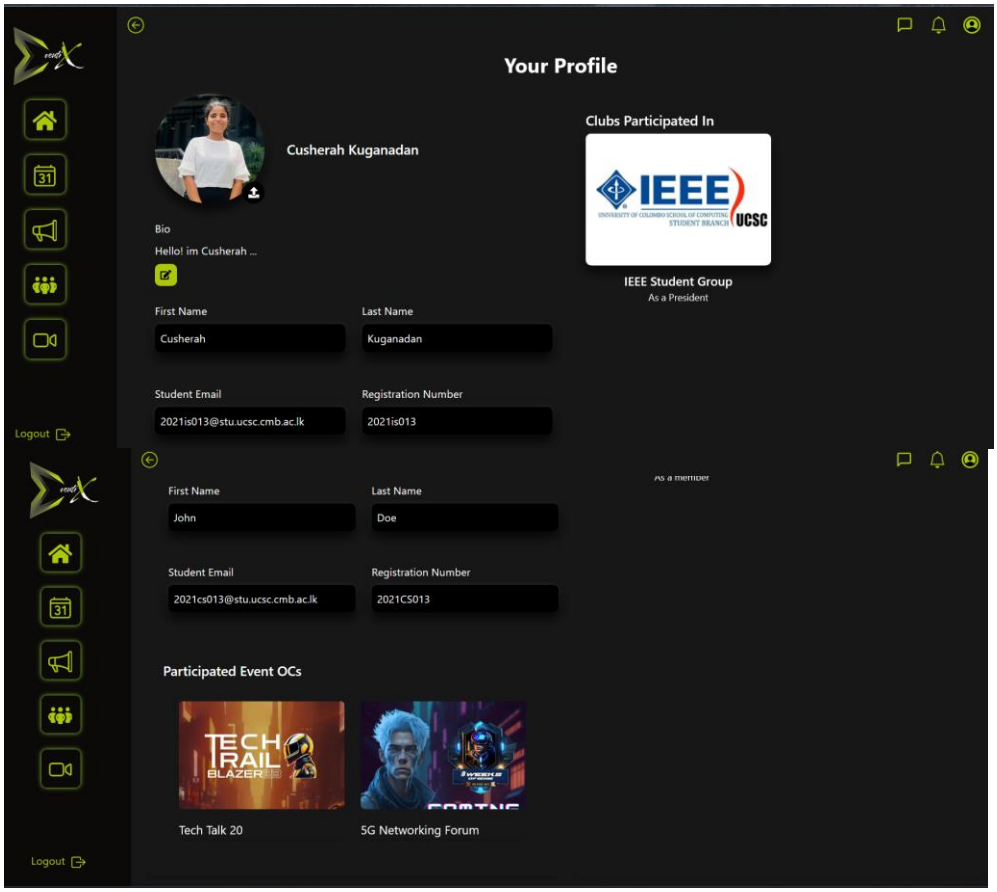


→ Everyone can view club members and board members and posts of the club

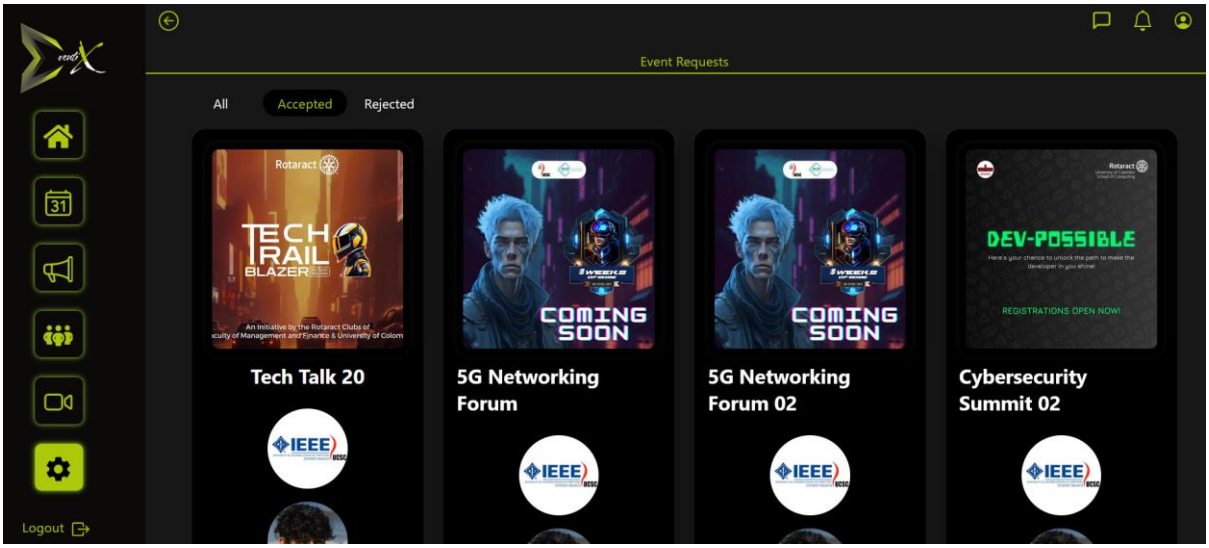




→ Everyone can view their profile and edit it



→ Admin/ Treasurer User Interfaces to accept or reject event proposals based on budget estimations and IUD Board decisions

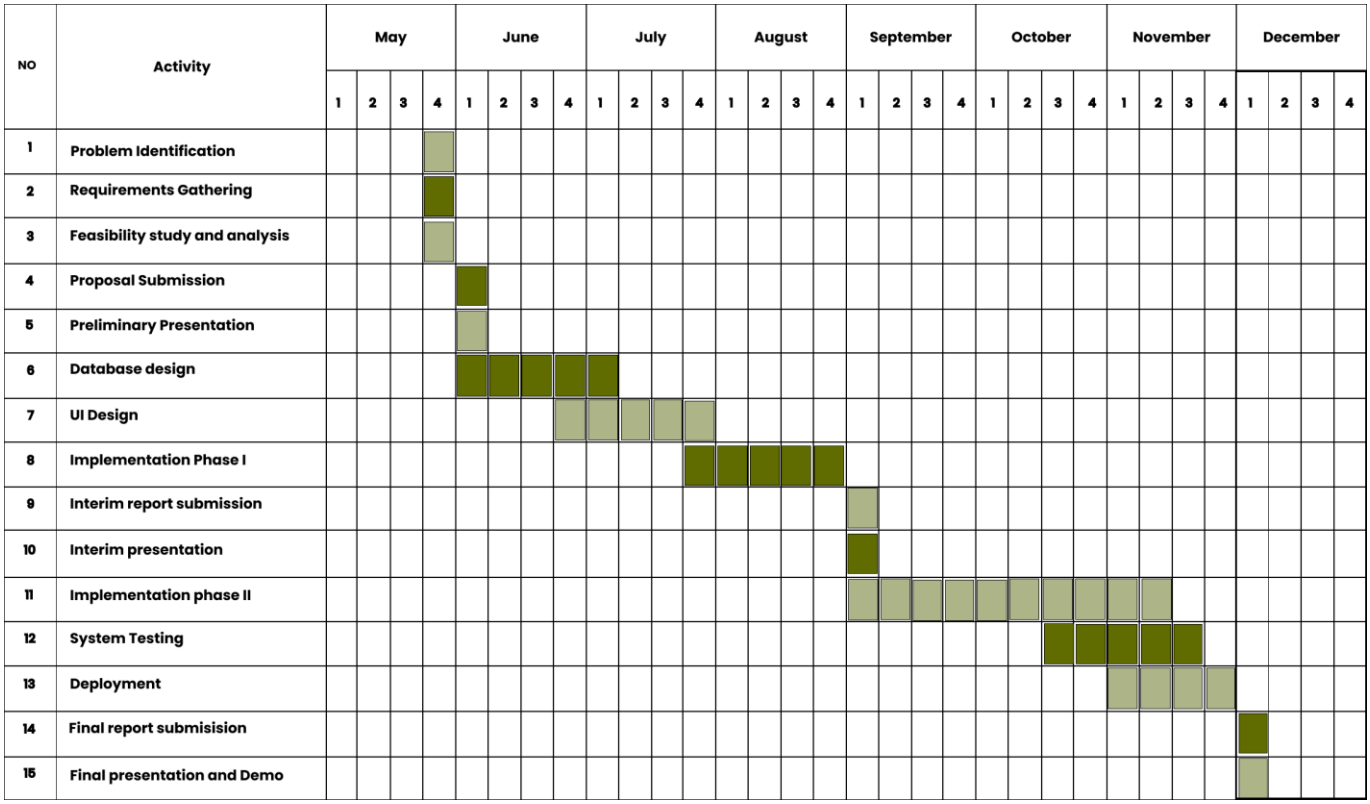


9. Main deliverables of the system

1. A Complete Mobile responsive web application for all users

2. Complete Software Requirement Specification

10. The Project Plan



11. References

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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