Software Requirements Specification

for

Clubs IITK

Version <1.0>

Prepared by

Group #: 13 **Group Name: Avengers**

V.Krishna Sai	190940	vksai@iitk.ac.in
Banavathu Meena	190224	meenab@iitk.ac.in
Siripuram Rahul	180766	rahulsm@iitk.ac.in
Ganji Bhavani	190330	bhavani@iitk.ac.in
K.Manojkumar	190416	manojkmk@iitk.ac.in
P.V.Sri Lekha	190657	srilekha@iitk.ac.in
Kindinti Uday kiran	190434	kindinti@iitk.ac.in
Bashaboyna vasavi	190228	vasavi@iitk.ac.in
Indrani Nekkili	180304	indrani@iitk.ac.in
Deesari Ganesh	190266	dsdgdora@iitk.ac.in

Course: CS253A

Mentor TA: Aishwarya

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Revisions

Version	Primary Author(s)	Description of Version	Date Completed
1.0	V.Krishna Sai Banavathu Meena Siripuram Rahul Ganji Bhavani K.Manoj Kumar P.V.Sri Lekha Kindinti Uday Kiran Bashaboyna Vasavi Indrani Nekkili Deesari Ganesh	First draft	02/02/22

1. Introduction

1.1. Product Scope

This product is intended as a platform for students and clubs to interact in a better way. The product will enable every student to have an account for his/her activities in each club recorded. Candidates are not required to fill a verification form to mention in their resume about the work done in clubs/fests. All the verified activity would be available in the student profile and students can directly share it to show their work. It will also enable the students to request/apply for participation in any Club event or project and clubs can either accept/reject a candidate using the platform. Coordinators and secretaries of a club have access to process the requests from students. It will help Coordinators and Secretaries identify candidates for posts in their clubs based on a student's participation and enthusiasm in past club events.

1.2. Intended Audience and Document Overview

The intended audience of the product is all the students and clubs of IITK. This software is restricted within the college only. This document contains the product overview, specific requirements and other non-functional requirements of the product.

- A Developer or a Tester can focus on overview (2.1), functionality (2.2), design and implementation (2.3), interfaces (3.1) and functional requirements (3.2).
- A user should focus on the product scope (1.1), document overview (2.1) and functionality (2.2), and then the specific requirements, going through the sections 3.1.1, 3.1.3 and 3.2.

1.3. Definitions, Acronyms and Abbreviations

Terms	**Definition**
API	Application Programming Interface
GUI	Graphical User Interface
OS	Operating System
HTML	Hypertext Markup Language
CPP	cplusplus
VS CODE	Visual Studio Code
MySQL	My Structured Query Language

1.4. Document Conventions

- Document is written using an Arial font with 2 inch margin.
- Bold letters are used for the side headings of different components.
- Bullet point ordering has been used for listing points.
- Referenced functional requirements for students as S<requirement_number>,for clubs as C<requirement_number> and for management as M<requirement_number>.

1.5. References and Acknowledgments

We'd also like to acknowledge the help of our TA, AISHWARYA for their valuable input in the creation of this document. We also would like to thank Prof. INDRANIL SAHA for providing the SRS template and teaching the concepts.

References

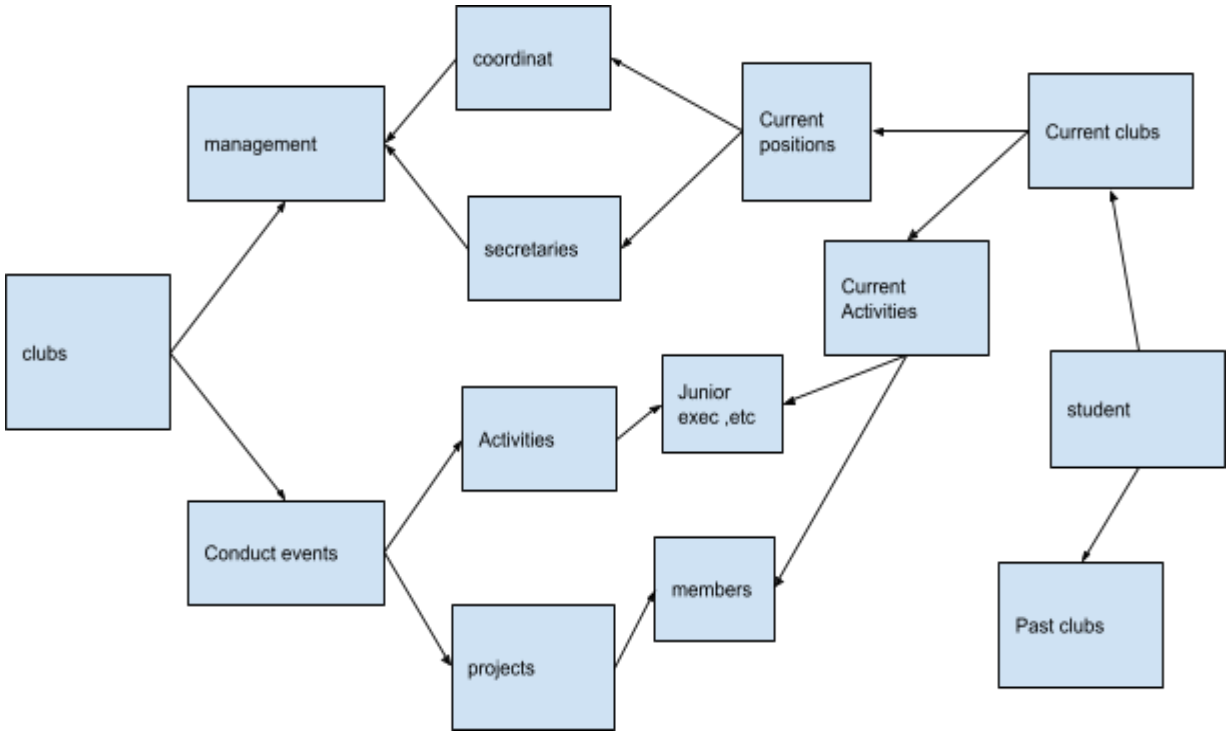
www.google.com – the world's information
www.wikipedia.com- Free online encyclopedia
www.cnet.com – Technology portal
www.slideshare.net- - The world's largest professional content sharing community

2. Overall Description

2.1. Product Overview

We don't have a track of student activities done in a club and accomplishments for their work and also different clubs in IITK did not have a platform where the works and events of the clubs in a way that cannot track their work and students work done in a club. So, it would be nice if we have a platform that connects clubs at IITK and students.

This product is a replacement for certain existing pages with some new features.This product provides a better interaction between the students of the college and different clubs .By this product students will know differents kinds of events conducted by the clubs and so that they can participate in the events.Students can see in which role they have participated in different in their profile after login.Clubs representative (secretaries,coordinator) can see the roles of the all the students.



2.2. Product Functionality

- Unauthorized access is prevented as one requires to have their login credentials i.e cc id's at IITK to access the product.
- There is a root user admin who has access to everything and can edit any page.
- The product must have a club page for each club and a student page for each student.

- Student page must contain his/her contribution to various clubs or events. This page can be edited by the admin.
- A club page must contain information about the upcoming events or projects and students will be able to apply for various posts, if any, based on their interest. It can be viewed by all the students and can be edited by coordinators of respective clubs.
- New clubs should also be able to register by providing the details of the club. It should be added to the list of clubs if it is approved.
- A student should be able to request to join a club. Approval should be visible on his/her page.

2.3. Design and Implementation Constraints

- The time taken to open a page should not exceed 2 seconds.
- No Hardware limitations are included in the project.
- Software specifications:
    - We use React for front end development(User side).
    - We use CPP for backend development(Admin side)
    - We use MongoDB/mySQL for database management(Admin side)

2.4. Assumptions and Dependencies:

Management:

- It provides details of the student and registered clubs.
- When a new club is registered it is added.
- Once in a year all the clubs provide the details of new co-ordinators and secys .

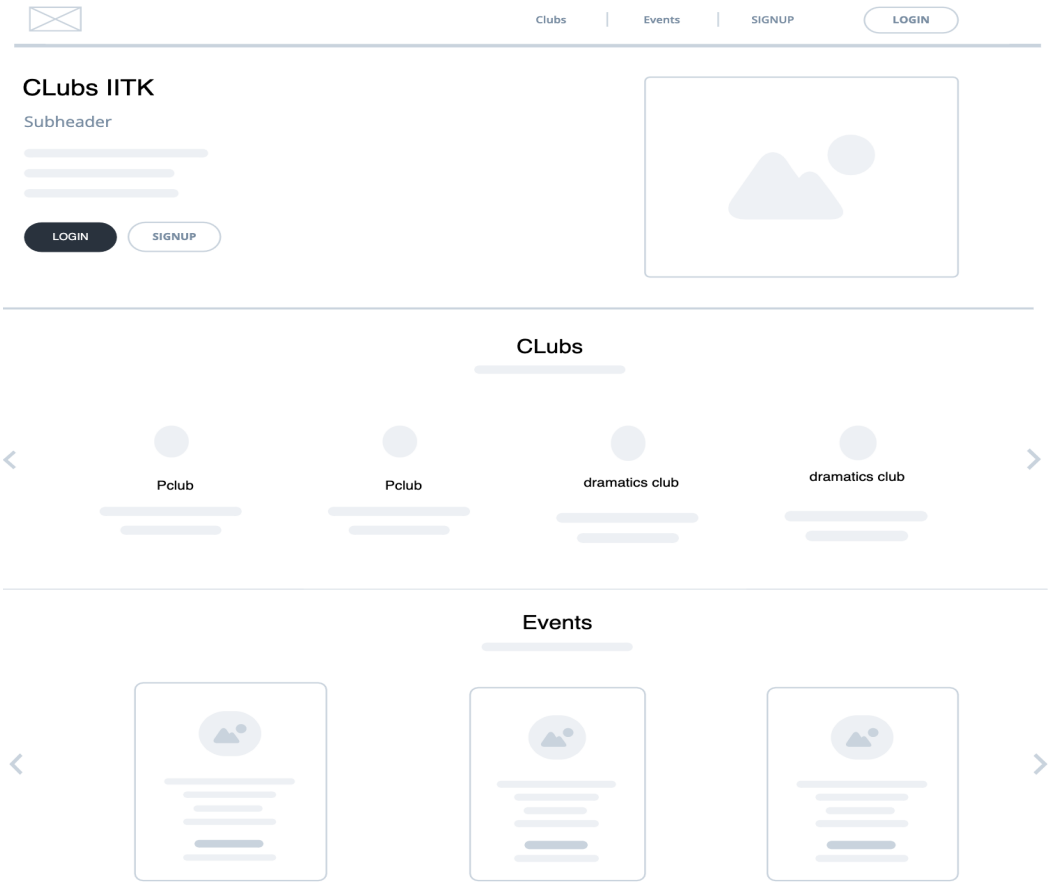
3. Specific Requirements

3.1. External Interface Requirements

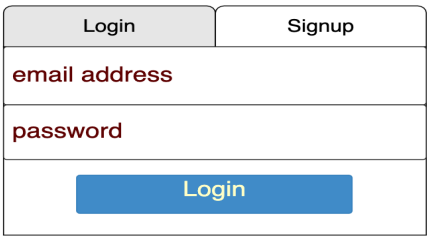
3.1.1. User Interfaces

- Students can register individually with their login credentials. Each student will have to sign up with their mail Ids and will have only one account through which he/she can apply to any number of clubs.
- Every club has a page and coordinators(admin role) will have edit access to it and students can view the club page.

- **Homepage**



- **Login page # clubs,management,student**



- **Club/Events display page:**
  - Announcements of upcoming events (display to all)
  - student registrations(private mode)
- **Student page**
  - students profile
  - Results (registration) ,
  - past work, current work in clubs in public and private modes.

3.1.2. Hardware Interfaces

- It is a web application which can be seen in a browser from any hardware interface such as laptops, tablets, and phones.
- 8GB of RAM

3.1.3. Software Interfaces

- Web browser : Google Chrome
- Operating system : Windows 10 (64-bit operating system)
- We use DBMS(Database Management system) to store the data necessary for the club management system to function. This is to take and archive the data provided to it by the users. This data includes all the data of the students who registered for various clubs and different events going on in a club.
- VS code
- XAMPP Platform for MYSQL,HTML and other web development languages

3.2. Functional Requirements

3.2.1. This section is to identify the functional requirements for the clubs management system.Where possible, subsequent requirements have been demarcated based on their relevance to the users of the system.

Students

Requirement	Description
S01	Students should be able to login or signup to enter the menu dashboard.
S02	Students should be able to see all the clubs that are available on the website.
S03	Students should be able to choose their favorite club or the clubs they are interested in exploring.
S04	Students should be able to select or remove the clubs from their list.
S05	Students should be able to read content displayed on the club pages and apply for the interested position/project on a click.
S06	Students should be able to receive notifications if they are accepted or

	rejected by a particular club.
S07	Students should be able to see their past activities in the club and the events they have participated in.
S08	Students should be able to logout from the site.

Clubs

Requirement	Description
C01	Clubs should be able to login and create accounts.
C02	Clubs should be able to create different events.
C03	Clubs should be able to receive joining requests from the students
C04	Clubs should be able to accept or reject the joining requests from students.
C05	Clubs should be able to see who has joined the club.
C06	Clubs should be able to see pending requests.
C07	Clubs should be able to post about upcoming events and take registration of students who want to participate.
C08	Clubs should be able to give out the results of the events or contests conducted.
C09	Clubs should be able to logout.

Management

Requirement	Description
M01	Login details
M02	Should be able to maintain lists of all the clubs.
M03	Should be able to maintain the lists of all the students belonging to each club.

M04	The system shall provide schedules or timetables without any clashes among different clubs, days and time which will be visible to all.
M05	It should generate a report about the registered persons to the club and responses of all the persons accepted into the clubs..
M06	Secure registration and profile management facilities for different users.
M07	It should generate email alerts for the registered events.

3.3. Use Case Model

3.3.1. Use Case #1:

Author	Bashaboyna Vasavi

Purpose	Club Registration
Requirements Traceability	Club name, year
Priority	High
Preconditions	There should not be any club with the same name and theme
Post conditions	club should have coordinators who manage
Actors	Admin
Exceptions	Club name is one of the existing one.
Includes	Use Case #2
Notes/Issues	

3.3.2. Use Case #2

Author	Krishna Sai
Purpose	Student Registration
Requirements Traceability	Student Username
Priority	High
Preconditions	Student should have a username
Post conditions	Students should acquire an account
Actors	Student
Exceptions	Students already have an account
Includes	None
Notes/Issues	

3.3.3. Use Case #3

Author	Krishna Sai
Purpose	Request for project
Requirements Traceability	Project chosen, Club name
Priority	Medium
Preconditions	Project should be available for applying, Student can only apply
Post conditions	The request is done and is under progress
Actors	Student
Exceptions	None
Includes	Use Case #2, Use Case #4
Notes/Issues	

3.3.4. Use Case #4

Author	Krishna Sai
Purpose	Add a new club activity/project or remove old activity
Requirements Traceability	Activity name, About the activity
Priority	Medium
Preconditions	One who is making the announcement should be a coordinator or admin
Post conditions	The announcement is visible to all the students
Actors	Coordinator of the club
Exceptions	Project to be removed is presently running or not in the list of the club
Includes	Use Case #6

Notes/Issues	

3.3.5. Use Case #5

Author	Bashaboyna vasavi
Purpose	Accept/Review student for a project /positions of club
Requirements Traceability	Student name, position/project information in announcements on Club Page.
Priority	Medium
Preconditions	The activity/project is currently being done by the student under the club if it is a review. The student should request an acceptance for an activity/project.
Post conditions	If it is a position it should be in visible mode in a student's profile and get the authority of positions automatically. If it is accepted for an activity, the students page should show acceptance. In both cases students should get recorded under the club's data.
Actors	student who request, co-ordinators , secretaries
Exceptions	Student is already in the club/project
Includes	Students should be registered
Notes/Issues	

3.3.6. Use Case #6

Author	Krishna Sai
Purpose	Making a person as coordinator of a club

Requirements Traceability	Club name, Student name
Priority	Medium
Preconditions	Coordinator is already registered as a student
Post conditions	Student becomes coordinator of a club and can edit that club page
Actors	Admin
Exceptions	Student is already the coordinator of different club
Includes	Use Case #2
Notes/Issues	None

4. Other Non-functional Requirements

4.1. Performance Requirements

Requirements	Description
PR1	The server shall be capable of supporting no less than 200 connections from any combination of computers, tablets and displays.
PR2	The server shall be capable of supporting an arbitrary number of active requests,i.e no request should be lost under any circumstances.
PR3	The server should be able to support an arbitrary number of active students. And students from the same clubs should be able to see who are available.

4.2. Safety and Security Requirements

Safety Requirements

Requirement	Description
Safety 1	System shall be capable of restoring its previous state in the event of failure like crash.
Safety 2	Privacy shall be maintained because one should not be able to access the coordinator's or admin's account.
Safety 3	Login: The student/Coordinator must create an account before applying for any post or editing a page.

Security Requirements

Requirement	Description

Security 1	The system shall be able to use the service in platforms like different operating systems and mobiles.
Security 2	The system shall be able to do the authentication process of login and can signup using college mail Id.
Security 3	The system should be able to do encryption and decryption of passwords which are set by the user while they sign up.
Security 4	Coordinators will not get access to candidates' personal information.
Security 5	Students should be able to change their password when they forget the old one.

4.3. Software Quality Attributes

Availability	It will be available all the time.
Maintainability	The system should maintain all the participation of the students and also all the past events and current activity schedules of the clubs.
Correctness	The system should generate an appropriate report about different activities of the club and should keep track of all records.
Efficient	System should be efficient so that it would not hang when there is a heavy traffic.
Usability	The system should satisfy the maximum number of users(students and clubs) needs.
Portability	Systems running on some platforms can be easily converted to run on another platform.
Robustness	If the connection between the user and the system is broken prior to an request being either made or withdrawn, the Club management system shall enable the user to recover an incomplete order.

5. Other Requirements

Internationalization requirements:

All strings and locale-specific references from the code should be maintained in a resources file which creates the possibility of using other languages in the future.

Appendix A – Data Dictionary

Term	Definition
Active Article	The Document that is tracked by the system ;it is a narrative that is planned to be to the public website.
System User	A person who is using or operating the system but with limited privilege.
Database(DB)	Collection of all the information monitored by this software.
Field	A cell within a form
Software Requirement Specification(SRS)	A document that completely describes all the functions of a proposed system and the constraints under which it must operate.
Stakeholder	Any person who is involved in the development process of software.
GUI	Graphical User Interface

Appendix B - Group Log

Our team has always been enthusiastic in doing the project.
We have held meetings to discuss the ideas and how to do the project.

Meet Timings	**Worked on**
13 Jan, 2022, 6pm to 8pm	Discussed various ideas for the project
26 Jan,2022, 6pm to 9pm	Worked on the SRS document
30 Jan 2022,7pm to 8pm	Had a meet with our TA and took the inputs from her
30 Jan 2022,8pm to 10pm	Made the necessary modifications as suggested by our TA