

CLUB MEMBERSHIP DATABASE SYSTEM



Minor project submitted in the partial fulfilment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY in CSE (DATA SCIENCE)

by

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CERTIFICATE

This is to certify that the project report entitled “**CLUB MEMBERSHIP DATABASE SYSTEM**”, being submitted by **Mr. Gundaju Sai Vishwak**, bearing **Roll. No: 21K91A6747**, **Mr. Banoth Sai Priya**, bearing **Roll. No: 21K91A6714**, and **Mr. Chintala Sathvik**, bearing **Roll. No: 21K91A6725** in partial fulfillment of requirements for the award of degree of **Bachelor of Technology in CSE (Data Science)**, to the TKR College of Engineering & Technology is a record of bonafide work carried out by them under my guidance and supervision.

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ABSTRACT

A club membership database system is a modern software technology that provides organizers and coordinators with a high level of control to better maintain and operate their clubs. It achieves this by offering a central repository system to store all information regarding various clubs. The club membership database system assists clubs in multiple ways, including improved member management, efficient event management, enhanced communication between coordinators and club members, and the generation of detailed reports and analytics. This system benefits students by allowing them to enroll and apply to clubs by verifying their identity using their college ID. It is also useful for club administrators, as they can monitor club operations and applicants. Additionally, the system automates many tasks involved in membership management, such as tracking membership applications and renewals, generating reports, and monitoring club operations, thereby increasing efficiency and reducing the potential for errors.

Key words: Club Management system, Convenience, Efficiency, User-friendly interface, better engagement, better access management, Effective event management.

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1. INTRODUCTION

1.1 MOTIVATION

The Club Management Database System is motivated to improve the various club activities within the college and improve overall club engagement and monitoring. It aims to provide better interaction for students and admins through a user-friendly interface and better access to club data. Simultaneously, it streamlines club management tasks for administrators, optimizing their work and better event management. This system is designed for improving the efficiency of operations ensure better experience for all club members. This system provides a better and much faster way to access all the club data by providing a central repository which stores all related club data and a Interface which shows the club data for particular member through a login. Ultimately, a college club membership database system would be a valuable tool for clubs of all sizes. This will help manage the student club more efficiently and effectively, and it would provide members a better experience. The system will be developed using a modern web development framework and a relational database system. The system will provide many benefits such as increased efficiency, improved member service and increased effectiveness of the club management.

The Club Management Database System will also incorporate advanced reporting and analytics features to provide valuable insights into club operations and member engagement. This will allow administrators to generate detailed reports on membership trends, event participation, and financial performance, helping them make informed decisions and identify areas for improvement. Additionally, the system will support integration with other college systems, such as student information systems and campus payment gateways, to streamline processes and enhance functionality. By offering scalable architecture, the system can grow with the club's needs, ensuring it remains a valuable tool as the club expands and evolves. This comprehensive approach will ultimately foster a more connected, efficient, and dynamic club environment.

1.2 PROBLEM DEFINITION

College clubs play an important role in student life by providing opportunities for students to get involved in extracurricular activities, socialize with other students, and develop new skills. However, managing a student club membership can be challenging, especially for large clubs with hundreds of members. Currently, most college clubs use manual methods to manage their membership, such as spreadsheets or paper forms. This can be time-consuming and error-prone, and it can be difficult to track important information such as membership status, dues payments, and event attendance. A college club membership database system would be a valuable tool for clubs of all sizes. It will provide a centralized and easy-to-use system for managing club membership. This will help manage the student club more efficiently and effectively, and it would provide members a better experience.

Moreover, the proposed system will streamline administrative tasks by automating processes such as member registration, fee collection, and event management, thereby reducing the burden on club officers and ensuring accuracy and consistency in records. It will also feature real-time data access and updates, enabling club leaders to make timely and informed decisions. Integration with campus-wide systems and mobile accessibility will further enhance convenience and connectivity, allowing members to engage with club activities seamlessly from any location.

Additionally, the system will offer enhanced security measures, ensuring that sensitive member data is protected and that the system complies with data protection regulations. By incorporating advanced search and filtering capabilities, the system will enable users to quickly access relevant information, saving time and improving operational efficiency. Overall, this database system will not only improve operational efficiency but also foster a more engaging and organized club environment, ultimately enriching the student experience.

1.3 EXISTING SYSTEM

The current college club membership database relies heavily on a spreadsheet-based system, where data is stored in files like Excel. In this system, club data must be manually entered into each record. This process is not only tedious and time-consuming but also highly prone to errors. This outdated and inefficient model requires significant time and effort to store and retrieve data, thereby reducing the efficiency of club operations.

While this spreadsheet-based system may be seen as an affordable and quick way to store club information, it lacks scalability and effectiveness. It is unable to support modern frameworks and cannot be easily integrated with other systems, limiting its usefulness in a dynamic and fast-paced environment. Additionally, this system does not provide advanced features such as automated notifications, real-time updates, and robust reporting tools, which are essential for efficient club management. The inability to integrate with other campus systems further complicates the process, as data often needs to be manually transferred between different platforms, increasing the risk of errors and data loss.

Moreover, the spreadsheet-based system lacks security measures necessary to protect sensitive member information, making it vulnerable to data breaches and unauthorized access. It also fails to offer mobile accessibility, restricting members and administrators to manage club activities only from specific locations, which is not feasible in today's mobile-centric world. The absence of a centralized repository for all club-related data means that important information is often scattered across multiple files, making it difficult to get a comprehensive view of club operations.

In summary, while the existing spreadsheet-based system offers a low-cost solution for managing club memberships, its limitations in scalability, integration, and security make it an inadequate choice for modern club operations. Upgrading to a cloud-based system would provide a more efficient, secure, and user-friendly solution, ultimately enhancing the overall management and experience of college clubs.

1.4 LIMITATIONS OF EXISTING SYSTEM

The existing system consists of old methods of data management where data is manually entered into a spreadsheet-like system, which can be time-consuming and error-prone. Another issue is the inability for users to alter their club's participation and access to the club data, which can cause inconvenience to the members. Additionally, data is often siloed in different systems, making it difficult to get a complete picture of student involvement. These existing systems lack robust reporting features, making it difficult for club advisors and administrators to track student participation and engagement. Furthermore, they are not designed to be used by students, club advisors, and administrators on a variety of devices, making it difficult to access data on the go. These limitations highlight the need for a more adaptable and secure Club Management Database System.

Moreover, the lack of integration with other campus systems complicates coordination and reduces overall efficiency, as information must be manually transferred between systems. Security concerns are also prevalent, as manual and disparate systems are more vulnerable to data breaches and unauthorized access. The absence of automated reminders and notifications can lead to missed deadlines for dues payments or event registrations, negatively impacting member participation and club finances. Additionally, the current system does not support advanced search and filtering capabilities, making it cumbersome to retrieve specific information quickly. Furthermore, it lacks mobile accessibility, restricting users to specific locations. Overall, these shortcomings underscore the necessity for a modernized, comprehensive database system that can provide seamless access, enhanced security, and improved functionality for all users.

In summary, while the existing spreadsheet-based system offers a low-cost solution for managing club memberships, its limitations in scalability, integration, and security make it an inadequate choice for modern club operations. Upgrading to a cloud-based system would provide a more efficient, secure, and user-friendly solution, ultimately enhancing the overall management and experience of college clubs.

1.5 PROPOSED SYSTEM

The proposed system is a web-based application developed using a modern web development framework and a relational database system to store club data in a central repository, accessible by both students and club administrators. This system will allow users to perform various tasks like enrolling in clubs, managing their memberships, organizing events, generating reports on club membership, and viewing insights and data analytics of club operations. Using this system will result in an overall improvement in club operations, reduced paperwork and manual data entry, increased accuracy and reliability of club membership records, improved communication between students and club administrators or faculty, and the ability to identify club membership trends and patterns. Overall, this system will benefit students and club administrators by enabling them to manage club memberships more efficiently and effectively.

Additionally, the proposed system will feature a user-friendly interface that ensures ease of use for all stakeholders, including mobile accessibility for on-the-go access. It will support automated notifications and reminders for events and dues, enhancing member engagement and participation. Enhanced security measures will be implemented to protect sensitive member information, ensuring compliance with data protection regulations. The system's scalability will allow it to accommodate the growth of clubs and the increasing number of members without compromising performance. Integration with other campus systems will streamline processes and provide a unified platform for all club-related activities.

The system will also incorporate role-based access control, ensuring that only authorized users can access specific data and perform certain actions, thereby enhancing data security and privacy. Advanced analytics tools will enable club administrators to gain deeper insights into member behaviors and preferences, helping to tailor activities and communications more effectively. For example, administrators will be able to track attendance trends over time, identify the most popular events, and understand the demographics of their active members.

In summary, this comprehensive and modernized club management system will significantly enhance the efficiency, security, and overall experience of managing and participating in college clubs. By leveraging the latest technology, the system will support the dynamic needs of both administrators and members, promoting a more vibrant and engaging campus life.

LITERATURE REVIEW

From our Literature Survey, we have observed that all systems are clearly focused on improving the previous system by overcoming the limitations and disadvantages while implementing the important features of those previous models. In today's scenario, To overcome all this limitations efficiently artificial intelligence, data science and analytics, machine learning technologies can be used. The future lies in developing adaptable platforms that cater to diverse needs, prioritize user experience, and ensure robust data security. Research also points towards the potential of AI and machine learning to personalize member experiences and predict future trends, further enhancing club management systems.

The existing system consists of old methods of data management where data is manually entered into a spreadsheet-like system, which can be time-consuming and error-prone. Another issue is the inability for users to alter their club's participation and access to the club data, which can cause inconvenience to the members. Additionally, data is often siloed in different systems, making it difficult to get a complete picture of student involvement. These existing systems lack robust reporting features, making it difficult for club advisors and administrators to track student participation and engagement. Furthermore, they are not designed to be used by students, club advisors, and administrators on a variety of devices, making it difficult to access data on the go. These limitations highlight the need for a more adaptable and secure Club Management Database System.

2. LITERATURE SURVEY

2.1 LITERATURE SURVEY-1

Title : Usability Testing in Kanban Agile Process for Club Membership System

Author : Published in 2021 6th International Conference on Interactive Digital Media (ICIDM) on 14-15 December 2021 by Azizah Rahmat, Nur Aishyah.

Description:

A Club management system is a centralized management and communications platform for clubs and societies. It is developed as a social innovation which aims to combat the limitations of current systems utilized by clubs, whereby there is no central repository for information, and each club utilizes their own methods for management, member communication, and event organization.

The primary focus of this paper centers is on providing a better club management database system which will fulfill all the needs of the clubs in a college which has been using a old, outdated system. By addressing the intricacies of club operations, the paper aims to contribute to the evolution of efficient and effective system that enhance the overall club member experience. Through an in-depth exploration of the complexities involved in club management and its operations, this paper seeks to propose innovative web-based solutions that optimize processes and improve club member satisfaction.

To address the challenges inherent in club management, the paper introduces the development of a Kanban as an agile software development method system. This Kanban approach is an implementation of Lean Methodology to manage software life cycle in developing college club management system. The software was developed using the Laravel PHP framework and User requirements are identified and documented in Software Requirement Specification along with use case diagram and Entity-Relational diagram for Database Definition. This system will provide a User-friendly interface for club members to interact and access their club information and better participate in the club events, which will further enhance the effectiveness of the college club.

Merits:

- 1. Enhanced Accessibility and Convenience:** The simplified software system will provide a improved interface for club members to interact
- 2. Streamlined Cinema Operations:** A better approach for handling the club operations are provided for the club admins
- 3. Improved efficiency and effectiveness:** With better handling of club operations, the overall efficiency and effectiveness of club system will improve simultaneously.
- 4. Enhanced Customer Experience:** This research better facilitates the users to gain valuable insights which are helpful for the customers.

Demerits:

- 1. Increased complexity:** This software utilizes a Kanban as an agile software development method, The adoption of this methodology is quite challenging to incorporate user experience and usability in an agile process.
- 2. Security Concerns:** Potential security vulnerabilities, such as data breaches or unauthorized access, pose risks to user information and system integrity.
- 3. Technological Dependence:** The system's effectiveness is contingent on technological infrastructure, making it susceptible to disruptions like server outages or software glitches.
- 4. Decreased accuracy and reliability:** Due to these limitations the overall efficiency and effectiveness of the system takes effect and decreases.

2.2 LITERATURE SURVEY-2

Title : CAs based Student-Alumni Management System

Author : Published in 2021 International Conference on Communication, Control and Information Sciences (ICCISc) on 16-18 June 2021 by Nishanth, Satish, Niteesh

Description:

Students and alumni management system of any university is a collaborative framework that integrates the knowledge between current students and alumni who have successfully established themselves after graduation. This paper provides a way of interaction for both students and alumni to share their experiences and knowledge, which is beneficial for both of them in their life.

The proposed system aims to facilitate collaboration between students and alumni, providing them with the option to choose their career paths based on shared experiences and insights. Cognitive Agents (CAs), which exhibit rational thinking, are applied in the system to foster this collaboration, with beliefs about students and alumni formulated using the Behavior-Observation-Belief model. The performance of the proposed CAs-based framework for alumni management in universities has shown positive results in terms of parameters such as employment rates, student-alumni associations, and networking opportunities.

Moreover, the system incorporates advanced data analytics to track and measure the impact of these interactions, providing valuable feedback to both the university and participants. Enhanced communication tools, such as real-time messaging and virtual networking events, further facilitate meaningful connections. The integration of career guidance resources and mentorship programs ensures that students receive comprehensive support tailored to their individual goals. Overall, the system not only strengthens the university community but also contributes to the professional growth and success of both students and alumni.

Merits:

- 1. Better Connectivity and Interaction:** The proposed system will benefit both the students and alumni to better connect with each other and create a network around them.
- 2. Effective knowledge sharing:** When students and alumni form a network around them, this will help them better identify any opportunities and improve their skills.
- 3. Better future planning:** Due to this collaborative effort, everyone within the network will benefit and better plan their future for potential opportunities.
- 4. Enhanced Customer Experience:** This research better facilitates the users to gain valuable insights which are helpful for the customers.

Demerits:

- 1. Unreliable factors dependency:** The framework relies on quantifiable factors like CGPA and project count to predict career success and overlooks aspects like soft skills, personality traits, and adaptability
- 2. Lack of accurate data:** Lack of accurate student, alumni data will result in improper connections and recommendations within the network.
- 3. Partial consideration of skills:** The system does not consider the full-spectrum of career choices available, potentially neglecting unconventional or emerging fields.
- 4. Decreased accuracy and reliability:** Due to these limitations the overall efficiency and effectiveness of the system takes effect and decreases.

2.3 LITERATURE SURVEY-3

Title : Design of Employee Management Application for Small-Medium Enterprise

Author : Published in 2021 International Conference on Information Management and Technology (ICIMTech) on 19-20 August 2021 by Ferdinando, Steven, Titan

Description:

As Information Technology has become the basis in various companies to support operations and management, companies in various fields have begun to develop information technology within their organizations to remain competitive. The objective of this project system is to provide a functional, effective software solution for small to medium business enterprises, covering basic business functions such as calculating employee attendance, managing leave, tracking overtime, and other business-related tasks. By developing and implementing information technology in a company, productivity can be significantly increased, helping SME owners to streamline and improve their business operations.

The methodology used for designing this system includes a thorough study of relevant literature, conducting interviews with employees and SME owners, and following the Software Development Lifecycle (SDLC). This structured approach ensures that the system is tailored to the specific needs and challenges of SMEs. The benefits of this research are manifold: it enables SME owners to have a comprehensive view of employee data, monitor staff performance effectively, and generate insightful reports. Additionally, the system's ability to automate routine tasks reduces administrative burdens, allowing managers to focus on strategic initiatives. Ultimately, this system aims to enhance operational efficiency, improve decision-making, and support the growth and sustainability of small and medium-sized enterprises.

Merits:

- 1. Enhanced employee monitoring:** The system provides SME owners with easy access to employee data and reports on employee
- 2. Better understanding workforce:** This system helps identify trends, track performance, and make informed decisions regarding their workforce which will reduce administrative costs
- 3. Increased efficiency along with affordability:** This research helps in development and providing a readily deployable solution for managing employee data and attendance which will help increase efficiency and productivity
- 4. Enhanced Customer Experience:** This research better facilitates the users to gain valuable insights which are helpful for the customers.

Demerits:

- 1. Lack of features:** The research focuses on specific functionalities related to employee attendance and payroll calculations. It doesn't address other aspects of HR management, such as recruitment, performance evaluation, or employee development.
- 2. Limitations in Addressing Real-Time needs:** The assessment methodologies, while valuable, may have limitations in capturing real-time needs of the small-medium enterprises.
- 3. Possible Overlook of Context-Specific Issues:** The focus on usability evaluation may inadvertently overlook context-specific issues that users face, necessitating a holistic understanding of the cinema service landscape in Singapore.
- 4. Decreased accuracy and reliability:** Due to these limitations the overall efficiency and effectiveness of the system takes effect and decreases.

2.4 LITERATURE SURVEY-4

Title : A data mining approach for Analyzing Dynamic User needs on UGC platform.

Author : Published in 2021 International Conference on Industrial Engineering and Engineering Management (ICIMTech) on 13-16 December 2021 by F.Zou, Y.Qian, Z.Zhang, X.Zhu, D.Chang

Description:

Nowadays, the official platform for consumer community has become a reliable database for enterprises to mine users' needs. The study aims to develop a dynamic demand mining method based on users' online reviews. To achieve this objective, this research proposes i) a data crawling process of online product reviews; ii) a multi-dimensional index system of data processing; and iii) a dynamic user demand mining and transformation method.

Particularly, the study analyzes various reviews to interpret their meanings and provide valuable insights for users. After the initial data cleaning, a primary study of 2100 selected pieces of data was conducted. Methods for Chinese natural language processing (e.g., text segmentation, sentiment analysis) were integrated to process the data. Techniques such as frequency analysis, trend analysis, cluster analysis, and user analysis were employed to mine the dynamic user data.

By examining these reviews, the research not only identifies common themes and sentiments expressed by consumers but also uncovers specific areas where products can be improved. This detailed analysis helps in understanding the nuances of user experiences and preferences. In conclusion, this research is expected to help enterprises mine dynamic user data more efficiently, discover consumer feedback on product performance, and facilitate further product improvement. Ultimately, the insights gained from this study can drive more informed decision-making in product development and marketing strategies, leading to higher customer satisfaction and loyalty.

Merits:

- 1. Enhanced Customer Experience:** This research better facilitates the users to gain valuable insights which are helpful for the customers.
- 2. Practical Insights of reviews:** Offering valuable practical insights, the paper proposes the various customer reviews to better understand their meaning and provide better insight.
- 3. Better understanding of customer feedback:** The Dynamic Demand mining method makes itself very useful by better understanding the customer feedback and facilitate further product improvement.
- 5. Enhanced Accessibility and Convenience:** The simplified software system will provide a improved interface for club members to interact

Demerits:

- 1. Unreliable mining system:** The research shows that the system mined insights depend heavily on quality of the online reviews which can cause problems like biased or irrelevant conclusions.
- 2. Scope Limitation:** Because of the system considering the biased or irrelevant reviews it will result in less meaningful understanding of the reviews.
- 3. Decreased accuracy and reliability:** Due to these limitations the overall efficiency and effectiveness of the system takes effect and decreases.
- 4. Security Concerns:** Potential security vulnerabilities, such as data breaches or unauthorized access, pose risks to user information and system integrity.

2.5 LITERATURE SURVEY-5

Title : College Club Activity Management System

Author : 2023 7th International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS) by Malavika Hari prasad, Neha N, Nimisha Dey, Pratibha D, Ramakanth Kumar P

Description:

A college club management system serves as a valuable tool for organizing and overseeing various aspects of student clubs, ranging from membership administration to event coordination and communication. By centralizing these functions, the system streamlines administrative tasks, enhancing efficiency and effectiveness across all clubs within the institution.

Furthermore, the system provides a unified platform that fosters collaboration among students involved in different clubs. This centralized approach eliminates the need for each club to maintain separate websites or communication channels, thereby promoting consistency and ease of access. Club core team members can utilize the system to efficiently plan and organize events, schedule meetings, and analyze feedback garnered through natural language processing techniques. These capabilities empower club leaders to make informed decisions and improve event management processes.

Moreover, the system enhances the engagement of club members by providing them with opportunities to actively participate and contribute to club activities. It facilitates the development of valuable extracurricular skills among students, such as leadership, teamwork, and event planning. By offering a user-friendly interface and robust features tailored to the needs of student clubs, the system encourages greater involvement and collaboration among club members, ultimately enriching the overall student experience within the institution.

Merits:

- 1. Enhanced Accessibility and Convenience:** The simplified software system will provide a improved interface for club members to interact
- 2. Streamlined Cinema Operations:** A better approach for handling the club operations are provided for the club admins
- 3. Improved efficiency and effectiveness:** With better handling of club operations, the overall efficiency and effectiveness of club system will improve simultaneously.
- 4. Enhanced Customer Experience:** This research better facilitates the users to gain valuable insights which are helpful for the customers.

Demerits:

- 1. Increased complexity:** This software utilizes a Kanban as an agile software development method, The adoption of this methodology is quite challenging to incorporate user experience and usability in an agile process.
- 2. Security Concerns:** Potential security vulnerabilities, such as data breaches or unauthorized access, pose risks to user information and system integrity.
- 3. Technological Dependence:** The system's effectiveness is contingent on technological infrastructure, making it susceptible to disruptions like server outages or software glitches.
- 4. Decreased accuracy and reliability:** Due to these limitations the overall efficiency and effectiveness of the system takes effect and decreases.

3. REQUIREMENT ANALYSIS

3.1 Functional Requirements

The system must provide the following functionality-

1. User Login and Password.
2. Admin Login and Password.
3. User registration or Signup.
4. Manage requirements.
5. Request information.

3.2 Non-Functional Requirements

Non-Functional Requirement is a quality attribute of a software system. They evaluate the software system's responsiveness, usability, security, portability, and other non-functional characteristics that are critical to its success. Non-functional requirements must be specified with the same attention as:

1. Usability requirement
2. Serviceability requirement
3. Security requirement
4. Data Integrity requirement
5. Capacity requirement
6. Availability requirement
7. Scalability requirement
8. Interoperability requirement
9. Reliability requirement
10. Maintainability requirement

4. DESIGN

4.1 Architecture Diagram:

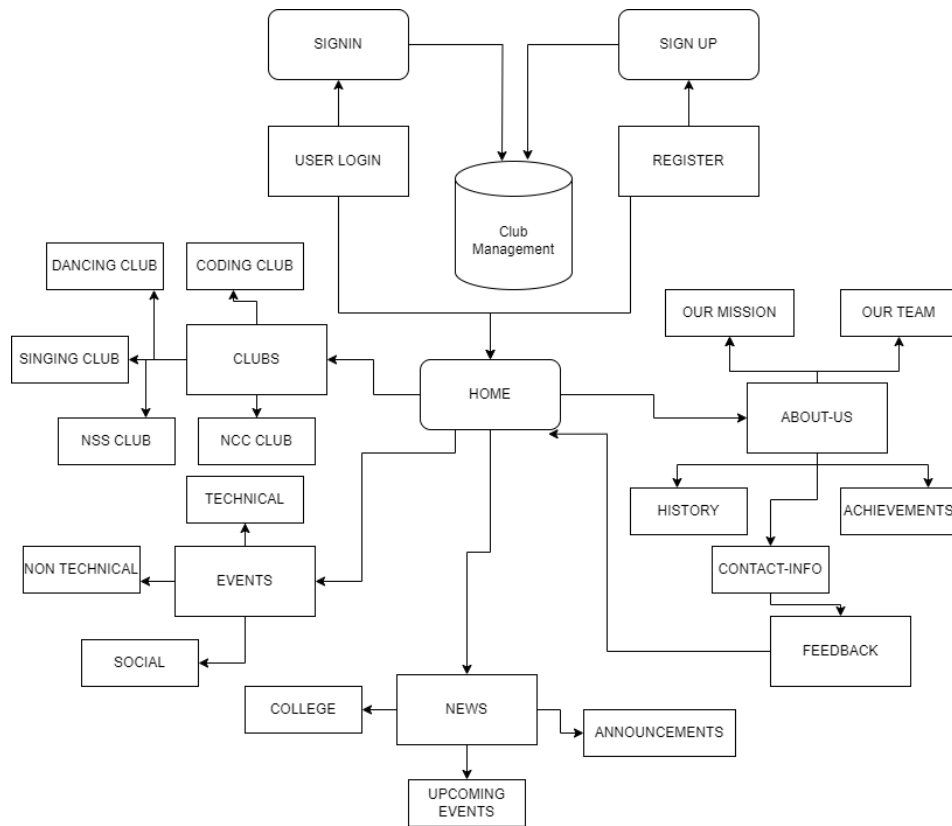


Fig 4.1 Architecture Diagram

An Architecture Diagram in a database system provides a visual representation of its overall structure and components, illustrating how different elements interact and communicate within the system. This diagram helps stakeholders, developers, and architects understand the system's design, including its dependencies, interfaces, and integration points with other systems or services. It serves as a blueprint for designing, implementing, and maintaining the database system, ensuring clarity and alignment across all involved parties.

4.2 DFDs and UML Diagrams:

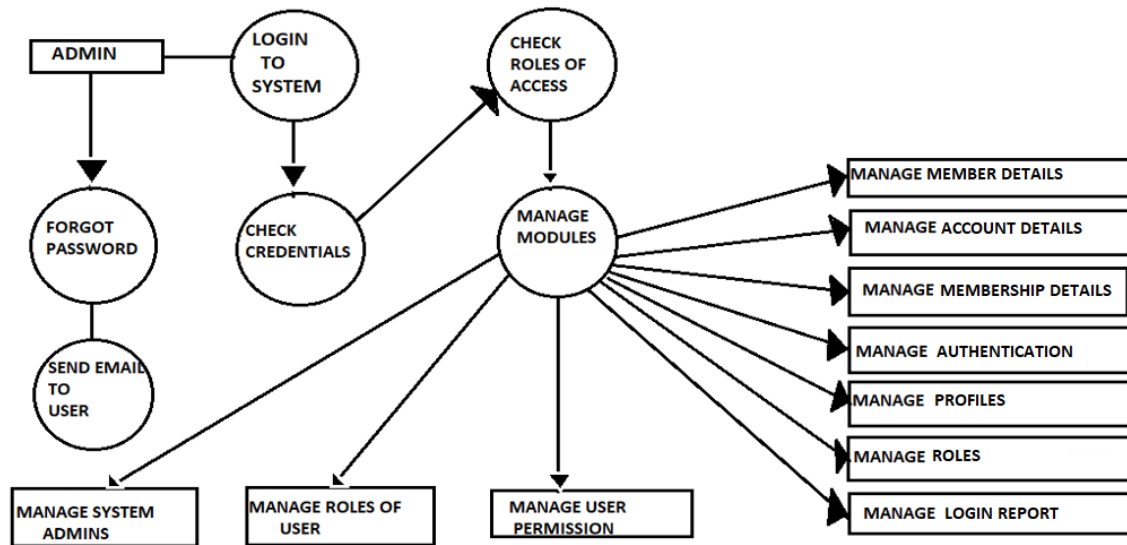


Fig 4.2 DFD Flow Diagram

A Data Flow Diagram (DFD) visually represents the entities that interact with a system and delineates the boundary between the system and its environment. It illustrates how data moves through the system, showing the inputs, processes, and outputs. The diagram typically includes entities such as users, external systems, or databases, and processes that transform incoming data into desired outputs.

The illustration usually presents the main process in a single node, providing a high-level overview of the project context. This context diagram offers a snapshot that explains how the project operates at a glance. It shows how users input data into the system, which is then processed through various steps, and ultimately produces output or results for the users. This clear and concise representation aids in understanding the flow of information and the interactions between the system and its external entities, making it easier to identify system boundaries and requirements.

4.3 USE CASE DIAGRAM:

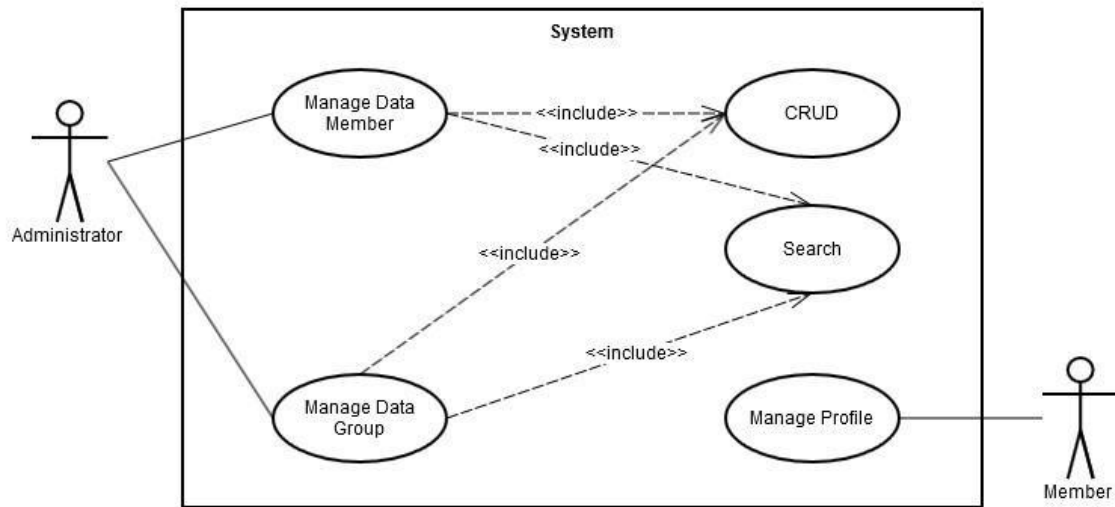


Fig 4.3 Use-Case Diagram

A UML Use Case Diagram serves as a visual representation of a system's actors and the interactions they have with the system through various use cases. Actors in the diagram represent external entities that interact with the system, such as users, other systems, or devices. Each actor typically corresponds to a role that initiates or interacts with specific functionalities within the system.

Use cases, depicted as ellipses on the diagram, represent distinct functions or processes that the system can perform. These use cases capture specific scenarios or tasks that provide value to one or more actors. Use cases are connected to actors using dashed lines, indicating which actor initiates or interacts with each use case.

Relational Table for Database Design Diagram:

Database design involves structuring stored data in a way that meets the specific requirements of the database. The primary goal is to ensure that information can be accessed easily, quickly, inexpensively, and flexibly by users. In addition to these general objectives, there are specific aims such as minimizing redundancy to prevent data inconsistency, ensuring privacy and security of data, and optimizing performance.

Tables form the fundamental building blocks of a database, each containing a collection of related records. These tables are designed to organize and store data according to the specific needs of the application or system.

Two critical components of database design include:

Primary Key: This is a unique identifier for each record in a table. It ensures that each row in the table can be uniquely identified. Primary keys enforce data integrity and serve as the basis for establishing relationships between tables.

Foreign Key: This is a field in one table that establishes a relationship with the primary key of another table. Foreign keys create links between related tables, enabling the database to maintain referential integrity and support efficient data retrieval through joins.

4.4 Relational Table:

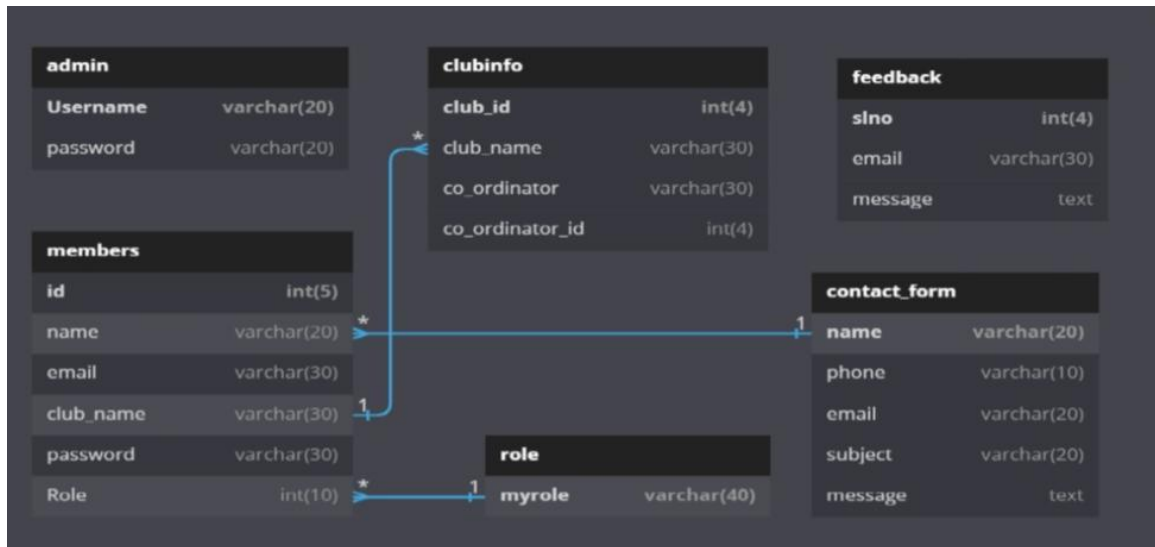


Fig 4.4 Relational Table Schema

4.5 ER Diagram:

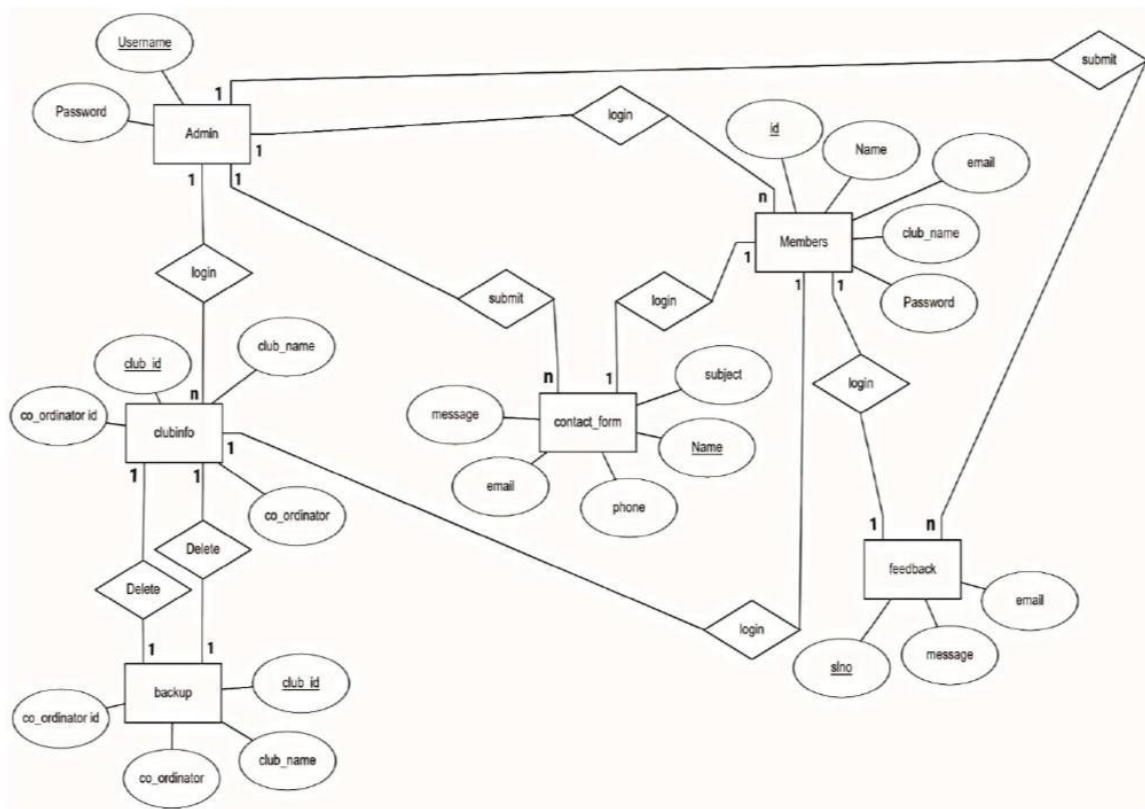


Fig 4.5 Entity-Relationship Design Diagram

An Entity-Relationship (ER) diagram is a visual representation of the data model that defines the relationships among entities in a database. Entities represent objects or concepts in the real world, such as a person, place, thing, or event. Relationships describe how entities interact with each other.

The main objectives of an ER diagram are to depict the structure of the database clearly and to facilitate communication between stakeholders involved in database design and development. It helps in visualizing the entities and their relationships, ensuring that the database design meets the requirements of the system.

4.6 MySQL Data Tables:

Login Table:

This stores user login details.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	member_id	int(6)			No	None			Change Drop More
<input type="checkbox"/> 2	member_name	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 3	member_mail	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 4	club_name	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 5	club_id	int(6)			No	None			Change Drop More
<input type="checkbox"/> 6	role	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More

Table 4.1 Login Table

Club_info Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	club_id	int(6)			No	None			Change Drop More
<input type="checkbox"/> 2	club_name	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 3	co-ordinator	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 4	co-ordinator_id	int(6)			No	None			Change Drop More

Table 4.2 Club_info Table

5. CODING

5.1: PSEUDO CODE

INDEX.HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Student Club Homepage</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <header>
    <h1>ClubNest - Student Club Membership System</h1>
    <div class="profile-section" id="profile-section">
      <!-- Profile content will be dynamically added here -->
    </div>
  </header>
  <nav>
    <ul>
      <li class="dropdown">
        <a href="club.html" class="dropbtn">Clubs</a>
        <div class="dropdown-content">
          <a href="coding-club.html">Coding club</a>
          <a href="dancing-club.html">Dancing club</a>
          <a href="singing-club.html">Singing club</a>
          <a href="nss-club.html">NSS club</a>
          <a href="ncc-club.html">NCC club</a>
        </div>
      </li>
      <li class="dropdown">
        <a href="events.html" class="dropbtn">Events</a>
        <div class="dropdown-content">
          <a href="events.html#technical-events">Technical events</a>
          <a href="events.html#non-technical-events">Non-Technical Events</a>
          <a href="events.html#social-events">Social Events</a>
        </div>
      </li>
      <li class="dropdown">
        <a href="news.html" class="dropbtn">News</a>
        <div class="dropdown-content">
          <a href="news.html#college-news">College News</a>
          <a href="news.html#upcoming-events-news">Upcoming Events News</a>
          <a href="news.html#announcements">Announcements</a>
        </div>
      </li>
      <li class="dropdown">
        <a href="about-us.html" class="dropbtn">About Us</a>
        <div class="dropdown-content">
          <a href="about-us.html#our-mission">Our Mission</a>
          <a href="about-us.html#our-team">Our Team</a>
          <a href="about-us.html#history">History</a>
        </div>
      </li>
    </ul>
  </nav>
</body>
</html>
```

```

        <a href="about-us.html#achievements">Achievements</a>
        <a href="about-us.html#contact-information">Contact Information</a>
    </div>
</li>
<li><a href="feedback.html">Contact us</a></li>
</ul>
</nav>
<main>
    <header class="hero-section">
        <div class="gradient-overlay"></div>
        <div class="hero-content">
            <h2>Welcome to ClubNest Where Every Passion Finds Its Place!</h2>
            <p>Join the Community of Dreamers, Doers, and Daring Souls.</p>
        </div>
    </header>
</main>
<footer>
    <p>&copy; 2024 Student Clubs. All rights reserved.</p>
</footer>
<script src="script.js"></script>
</body>
</html>

```

STYLE.CSS:

```

body {
    font-family: Arial, sans-serif;
    background-image: url(image/background.jpg);
    background-repeat: no-repeat;
    background-size: cover;
    margin: 0;
    padding: 0;
    box-sizing: border-box;
}
header {
    background-color: #8d3ce9;
    color: white;
    padding: 20px;
    text-align: center;
    position: relative;
}
.profile-section {
    position: absolute;
    top: 20px;
    right: 20px;
    display: flex;
    align-items: center;
    gap: 10px;
}
.profile-section img {
    width: 40px;
    height: 40px;
    border-radius: 50%;
}
.profile-section .username {
    color: white;
    font-weight: bold;
}

```

```

}
.profile-section .sign-in {
  color: white;
  text-decoration: none;
  font-weight: bold;
  padding: 10px 20px;
  background-color: #6d1da2;
  border-radius: 8px;
  transition: background-color 0.3s;
  position: fixed;
  top: 20px;
  right: 20px;
}
.profile-section .sign-in:hover {
  background-color: #555;
}
nav {
  background-color: #6d1da2;
  padding: 10px 0;
  display: flex;
  justify-content: center;
  align-items: center;
}
nav ul {
  list-style-type: none;
  padding: 0;
  text-align: center;
  margin: 0;
  overflow: hidden;
  align-items: center;
}
nav li {
  display: inline;
  margin-right: 30px;
}
nav li a, .dropbtn {
  display: inline-block;
  color: white;
  text-align: center;
  padding: 10px 12px;
  text-decoration: none;
}
nav li a:hover, .dropdown:hover .dropbtn {
  background-color: #555;
}
.dropdown-content {
  display: none;
  position: absolute;
  background-color: #8d3ce9;
  border-radius: 8px;
  overflow: hidden;
  min-width: 500px;
  box-shadow: 0px 8px 16px 0px rgba(0,0,0,0.2);
  z-index: 1;
}
.dropdown-content a {
  color: rgb(255, 255, 255);

```

```

padding: 12px 16px;
text-decoration: none;
display: block;
text-align: left;
}
.dropdown-content a:hover {
background-color: #6d1da2;
border-radius: 0;
}
.dropdown:hover .dropdown-content {
display: block;
}
nav ul li {
display: inline;
margin-right: 20px;
}

nav ul li a {
color: white;
text-decoration: none;
font-weight: bold;
}
main {
padding: 7px;
margin-top: 5px;
}
.hero-section {
background: url('images/hero-image.jpg') no-repeat center center/cover;
color: #8d3ce9;
display: flex;
text-align: left;
}
.hero-section .gradient-overlay {
position: absolute;
top: 0;
left: 0;
width: 100%;
height: 100%;
background: linear-gradient(to bottom right, rgba(0, 0, 0, 0.3), rgba(0, 0, 0, 0.02) 20%);
pointer-events: none; /* Allows clicking through the overlay */
z-index: 1; /* Ensures the overlay appears above other elements */
}
.hero-content h1 {
font-size: 2em;
margin-bottom: 20px;
color: #8d3ce9;
}
.hero-content p {
font-size: 1.2em;
margin-bottom: 30px;
color: #8d3ce9;
}
footer {
background-color: #333;
color: white;
text-align: center;
padding: 10px;

```

```

position: fixed;
bottom: 0;
width: 100%;
}

```

CLUBS.HTML:

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Student Club Homepage</title>
  <link rel="stylesheet" href="club.css">
</head>
<body>
  <header>
    <h1>Student Clubs</h1>
    <div class="profile-section" id="profile-section">
      <!-- Profile content will be dynamically added here -->
    </div>
  </header>
  <main>
    <section class="club-list">
      <article class="club" id="coding-club">
        <h2>Coding Club</h2>
        <p>Join our community of developers to learn and share your coding skills.</p>
        <button onclick="location.href='coding-club.html';">Join Now</button>
      </article>
      <article class="club" id="dancing-club">
        <h2>Dancing Club</h2>
        <p>Share your passion for dance and learn new styles with us.</p>
        <button onclick="location.href='dancing-club.html';">Join Now</button>
      </article>
      <article class="club" id="singing-club">
        <h2>Singing Club</h2>
        <p>Come and express yourself through music and song.</p>
        <button onclick="location.href='singing-club.html';">Join Now</button>
      </article>
      <article class="club" id="nss-club">
        <h2>NSS Club</h2>
        <p>Make a difference in the community with our social service initiatives.</p>
        <button onclick="location.href='nss-club.html';">Join Now</button>
      </article>
      <article class="club" id="ncc-club">
        <h2>NCC Club</h2>
        <p>Develop discipline, leadership, and camaraderie in our national cadet corps.</p>
        <button onclick="location.href='ncc-club.html';">Join Now</button>
      </article>
    </section>
  </main>
  <footer>
    <p>&copy; 2024 Student Clubs. All rights reserved.</p>
  </footer>
  <script src="script.js"></script>
</body>
</html>

```

EVENTS.HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Events</title>
  <link rel="stylesheet" href="events.css">
</head>
<body>
  <header>
    <h1>Events</h1>
  </header>
  <section id="technical-events">
    <h2>Technical Events</h2>
    <ul>
      <li>
        <h3>Coding Competition</h3>
        <p>Date: July 5, 2024</p>
        <p>Description: A thrilling competition where students can showcase their coding skills in various programming languages. Winners will receive exciting prizes and certificates.</p>
      </li>
      <li>
        <h3>Debugging Workshop</h3>
        <p>Date: July 10, 2024</p>
        <p>Description: A hands-on workshop focused on debugging techniques and tools. Learn how to identify and fix bugs effectively in your code.</p>
      </li>
      <li>
        <h3>Hackathon</h3>
        <p>Date: July 15, 2024</p>
        <p>Description: A 24-hour hackathon where students can collaborate in teams to develop innovative projects. Prizes will be awarded to the best projects.</p>
      </li>
      <li>
        <h3>Artificial Intelligence Seminar</h3>
        <p>Date: July 20, 2024</p>
        <p>Description: An informative seminar on the latest advancements in artificial intelligence, featuring guest speakers from the industry.</p>
      </li>
    </ul>
  </section>

  <section id="non-technical-events">
    <h2>Non-Technical Events</h2>
    <ul>
      <li>
        <h3>Writing Competition</h3>
        <p>Date: August 1, 2024</p>
        <p>Description: A competition for aspiring writers to showcase their creativity and writing skills. Participants can submit essays, stories, or poems.</p>
      </li>
      <li>
        <h3>Photography Contest</h3>
        <p>Date: August 5, 2024</p>
      </li>
    </ul>
  </section>
```



```

        <p>Description: Capture the beauty of the campus and surrounding areas in this photography
contest. Top entries will be displayed in an exhibition.</p>
    </li>
    <li>
        <h3>Article Writing Workshop</h3>
        <p>Date: August 10, 2024</p>
        <p>Description: Learn the art of article writing in this workshop, covering topics like research,
structure, and style. Perfect for budding journalists.</p>
    </li>
    <li>
        <h3>Drama Club Performance</h3>
        <p>Date: August 15, 2024</p>
        <p>Description: Enjoy a theatrical performance by the college's drama club, featuring a
classic play adapted for modern audiences.</p>
    </li>
</ul>
</section>

<section id="social-events">
    <h2>Social Events</h2>
    <ul>
        <li>
            <h3>Rally for Environmental Awareness</h3>
            <p>Date: September 1, 2024</p>
            <p>Description: Join the rally to promote environmental awareness and sustainability
practices. Participants will march through the city with banners and slogans.</p>
        </li>
        <li>
            <h3>Community Volunteering</h3>
            <p>Date: September 5, 2024</p>
            <p>Description: Volunteer for various community projects, including cleaning public spaces,
planting trees, and helping local charities.</p>
        </li>
        <li>
            <h3>College Tour</h3>
            <p>Date: September 10, 2024</p>
            <p>Description: New students and their families are invited to a guided tour of the college
campus, followed by a welcome session with faculty and staff.</p>
        </li>
        <li>
            <h3>Inter-College Cultural Fest</h3>
            <p>Date: September 15, 2024</p>
            <p>Description: A grand cultural fest where students from different colleges come together
to celebrate diversity with music, dance, and food festivals.</p>
        </li>
    </ul>
</section>
<footer>
    <p>&copy; 2024 Student Clubs. All rights reserved.</p>
</footer>
<script>
    // Smooth scrolling to event categories
    document.addEventListener('DOMContentLoaded', function () {
        const links = document.querySelectorAll('nav a.dropbtn');
        const sections = document.querySelectorAll('section');

        links.forEach(link => {

```

```

link.addEventListener('click', function (e) {
    e.preventDefault();
    const targetId = this.getAttribute('href').substring(1);
    const targetSection = document.getElementById(targetId);
    window.scrollTo({
        top: targetSection.offsetTop,
        behavior: 'smooth'
    });
});
});
});
</script>
</body>
</html>

```

NEWS.HTML:

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>News</title>
    <link rel="stylesheet" href="news.css">
</head>
<body>
    <header>
        <h1>News</h1>
    </header>
    <section id="college-news">
        <h2>College News</h2>
        <ul>
            <li>
                <h3>College Achieves Record Enrollment</h3>
                <p>Date: June 10, 2024</p>
                <p>Description: This year, the college has achieved a record number of enrollments with over
5,000 new students joining various programs. The administration credits the increase to new programs
and improved facilities.</p>
            </li>
            <li>
                <h3>New Campus Expansion Plans Unveiled</h3>
                <p>Date: July 1, 2024</p>
                <p>Description: The college has unveiled plans for a new campus expansion, including
additional academic buildings, a state-of-the-art library, and new sports facilities. Construction is set to
begin later this year.</p>
            </li>
            <li>
                <h3>Faculty Member Wins Prestigious Award</h3>
                <p>Date: August 5, 2024</p>
                <p>Description: Dr. Smith, a professor in the Department of Physics, has been awarded the
prestigious XYZ Award for his groundbreaking research in quantum mechanics.</p>
            </li>
            <li>
                <h3>Introduction of New Study Programs</h3>
                <p>Date: August 20, 2024</p>
                <p>Description: The college is introducing new study programs in Cybersecurity and Data
Science starting this fall, aimed at equipping students with skills for the future job market.</p>
            </li>
        </ul>
    </section>

```


</section>

<section id="upcoming-events-news">

<h2>Upcoming Events News</h2>

<h3>Annual Sports Meet Scheduled for Next Month</h3>

<p>Date: July 20, 2024</p>

<p>Description: The much-anticipated annual sports meet is scheduled for next month. Students can participate in various sports and athletic events, with exciting prizes for winners.</p>

<h3>Technology Symposium to Feature Guest Speakers</h3>

<p>Date: August 15, 2024</p>

<p>Description: This year's technology symposium will feature renowned guest speakers from the tech industry, including CEOs and leading innovators. Topics will cover AI, blockchain, and the future of technology.</p>

<h3>Arts and Culture Festival</h3>

<p>Date: September 10, 2024</p>

<p>Description: Join us for the annual Arts and Culture Festival, showcasing student talent in music, dance, and visual arts. The event will also include workshops and exhibitions.</p>

<h3>Freshers' Orientation Program</h3>

<p>Date: September 5, 2024</p>

<p>Description: The Freshers' Orientation Program will welcome new students with a series of events designed to introduce them to college life, including campus tours and social gatherings.</p>

</section>

<section id="announcements">

<h2>Announcements</h2>

<h3>ClubNest Elections Results Announced</h3>

<p>Date: June 5, 2024</p>

<p>Description: The results of the ClubNest elections are out. Congratulations to the newly elected members who will be leading various student clubs for the upcoming academic year.</p>

<h3>Volunteer Opportunities Available for Community Cleanup</h3>

<p>Date: June 25, 2024</p>

<p>Description: Volunteer opportunities are available for the upcoming community cleanup event. Students are encouraged to participate and help make a positive impact in the local area.</p>

<h3>Library to Extend Operating Hours</h3>

<p>Date: July 15, 2024</p>

<p>Description: Starting next month, the college library will extend its operating hours to provide students with more flexibility for studying and research. The library will now be open until midnight on weekdays.</p>


```

        <h3>Scholarship Application Deadlines</h3>
        <p>Date: July 30, 2024</p>
        <p>Description: Students are reminded that the deadline for scholarship applications is
approaching. Be sure to submit your applications by August 15 to be considered for financial aid.</p>
    </li>
</ul>
</section>
<footer>
    <p>&copy; 2024 Student Clubs. All rights reserved.</p>
</footer>
<!-- Add any additional scripts here if needed -->
</body>
</html>

```

ABOUT-US.HTML:

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>About Us</title>
    <link rel="stylesheet" href="about-us.css">
</head>
<body>
    <header>
        <h1>About Us</h1>
    </header>
    <nav>
        <ul>
            <li><a href="#our-mission">Our Mission</a></li>
            <li><a href="#our-team">Our Team</a></li>
            <li><a href="#history">History</a></li>
            <li><a href="#achievements">Achievements</a></li>
            <li><a href="#contact-information">Contact Information</a></li>
        </ul>
    </nav>
    <main>
        <section id="our-mission">
            <h2>Our Mission</h2>
            <h3>Our mission is to foster a community where students can explore their passions, develop
new skills, and make lifelong connections. We believe in the power of collaboration and strive to create
an environment where every student feels valued and inspired.</h3>
            <p>We aim to:</p>
            <ul>
                <li>Encourage personal and professional growth through various club activities and
events.</li>
                <li>Provide a platform for students to showcase their talents and skills.</li>
                <li>Promote inclusivity and diversity within the student community.</li>
                <li>Support students in their academic and extracurricular endeavors.</li>
            </ul>
        </section>
        <section id="our-team">
            <h2>Our Team</h2>
            <div class="team-container">
                <div class="team-card">
                    <h3>John Doe - President</h3>

```

```

        <p>John is a senior majoring in Computer Science. He is passionate about technology and leadership. John has been instrumental in organizing various tech events and hackathons.</p>
    </div>
    <div class="team-card">
        <h3>Jane Smith - Vice President</h3>
        <p>Jane is a junior studying Business Administration. With a knack for management and organization, she oversees the smooth running of all club activities.</p>
    </div>
    <div class="team-card">
        <h3>Jim Brown - Treasurer</h3>
        <p>Jim is a finance major who ensures that our club's finances are well-managed. He is responsible for budgeting and managing funds for events.</p>
    </div>
    <div class="team-card">
        <h3>Jill White - Secretary</h3>
        <p>Jill is a communications major who handles all club correspondence and documentation. She plays a key role in maintaining records and keeping members informed.</p>
    </div>
</div>
</section>
<section id="history">
    <h2>History</h2>
    <div class="history-container">
        <div class="history-card">
            <h3>2010</h3>
            <p>Club founded by a group of enthusiastic students with a passion for extracurricular activities.</p>
        </div>
        <div class="history-card">
            <h3>2012</h3>
            <p>Hosted our first annual cultural fest, attracting over 500 participants from various colleges.</p>
        </div>
        <div class="history-card">
            <h3>2015</h3>
            <p>Launched a mentorship program to support new students, pairing them with experienced mentors.</p>
        </div>
        <div class="history-card">
            <h3>2018</h3>
            <p>Partnered with local businesses to offer internships and job opportunities for members, enhancing their career prospects.</p>
        </div>
        <div class="history-card">
            <h3>2021</h3>
            <p>Won the Best Student Club Award for our outstanding contributions to the student community and our innovative events.</p>
        </div>
        <div class="history-card">
            <h3>2023</h3>
            <p>Expanded our club with new chapters in other colleges, increasing our reach and impact. Organized international student exchange programs to promote cultural diversity and global exposure among our members.</p>
        </div>
        <div class="history-card">
            <h3>2024</h3>

```

<p>Implemented a sustainable campus initiative, focusing on eco-friendly practices and reducing the carbon footprint of our events.</p>

</div>
</div>
</section>
<section id="achievements">
<h2>Achievements</h2>
<div class="achievements-container">
<div class="achievements-card">
<h3>Best Student Club Award (2021)</h3>
<p>Recognized for our exceptional contributions to the student community, innovative events, and promoting inclusivity and diversity.</p>
</div>
<div class="achievements-card">
<h3>Over 100 Successful Events</h3>
<p>Organized various technical workshops, cultural fests, and community service projects, engaging and inspiring students across disciplines.</p>
</div>
<div class="achievements-card">
<h3>Charitable Fundraisers</h3>
<p>Raised significant funds for local charities through donation drives, marathons, and charity auctions, making a positive impact on our community.</p>
</div>
<div class="achievements-card">
<h3>Mentorship Program</h3>
<p>Launched a successful mentorship program that paired new students with experienced mentors, helping them navigate college life and achieve their goals.</p>
</div>
<div class="achievements-card">
<h3>Industry Partnerships</h3>
<p>Collaborated with leading companies to provide internships, job opportunities, and career development workshops for our members.</p>
</div>
<div class="achievements-card">
<h3>Innovation in Sustainability</h3>
<p>Implemented eco-friendly practices in all our events, reducing waste and promoting a sustainable future.</p>
</div>
<div class="achievements-card">
<h3>Global Exposure Programs</h3>
<p>Organized international exchange programs, enabling our members to gain global exposure and experience diverse cultures.</p>
</div>
<div class="achievements-card">
<h3>Community Impact Awards</h3>
<p>Received several community impact awards for our volunteer work, charity events, and initiatives that benefit the local community.</p>
</div>
</div>
</section>
<section id="contact-information">
<h2>Contact Information</h2>
<h3>If you have any questions or need further information, please feel free to reach out to us:</h3>

Email: contact@clubnest.com
Phone: +123-456-7890

```

        <li>Address: 123 College Ave, Campus City, 45678</li>
    </ul>
    <center>
        <a href="feedback.html" class="contact-btn">Contact Us</a>
    </center>
</section>
</main>
<footer>
    <p>&copy; 2024 Student Clubs. All rights reserved.</p>
</footer>
</body>
</html>

```

LOGIN.HTML:

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Login - Student Club Membership System</title>
    <link rel="stylesheet" href="login-register.css">
</head>
<body>
    <div class="container">
        <h1>Welcome to Student Club Membership</h1>
        <form class="form" id="login-form">
            <h2>Login</h2>
            <div class="form-group">
                <label for="login-username-email">Username or Email:</label>
                <input type="text" id="login-username-email" name="username-email" required>
            </div>
            <div class="form-group">
                <label for="login-password">Password:</label>
                <input type="password" id="login-password" name="password" required>
            </div>
            <div class="form-group">
                <label for="login-role">Login as:</label>
                <select id="login-role" name="role">
                    <option value="member">Member</option>
                    <option value="admin">Admin</option>
                </select>
            </div>
            <button type="submit"><a href="index.html" style="color:aliceblue">Login</a></button>
        </form>
        <p>Don't have an account? <button
onclick="location.href='register.html'">Register</button></p>
    </div>
</body>
</html>

```

REGISTER.HTML:

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">

```

```

<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Register - Student Club Membership System</title>
<link rel="stylesheet" href="login-register.css">
</head>
<body>
<div class="container">
<h1>Welcome to Student Club Membership</h1>
<form class="form" id="register-form">
<h2>Register</h2>
<div class="form-group">
<label for="first-name">First Name:</label>
<input type="text" id="first-name" name="first-name" required>
</div>
<div class="form-group">
<label for="last-name">Last Name:</label>
<input type="text" id="last-name" name="last-name" required>
</div>
<div class="form-group">
<label for="register-username">Username:</label>
<input type="text" id="register-username" name="username" required>
</div>
<div class="form-group">
<label for="phone-number">Phone Number:</label>
<input type="text" id="phone-number" name="phone-number" required>
</div>
<div class="form-group">
<label for="register-email">Email Address:</label>
<input type="email" id="register-email" name="email" required>
</div>
<div class="form-group">
<label for="register-password">Password:</label>
<input type="password" id="register-password" name="password" required>
</div>
<div class="form-group">
<label for="retype-password">Retype Password:</label>
<input type="password" id="retype-password" name="retype-password" required>
</div>
<div class="form-group">
<label for="club">Choose Club:</label>
<select id="club" name="club">
<option value="coding">Coding Club</option>
<option value="dancing">Dancing Club</option>
<option value="singing">Singing Club</option>
<option value="nss">NSS Club</option>
<option value="ncc">NCC Club</option>
</select>
</div>
<button type="submit" onclick="location.href='index.html'"><a href="index.html"
style="color:aliceblue">Register</a></button>
</form>
<p>Already have an account? <button onclick="location.href='login.html'">Login</button></p>
</div>
</body>
</html>

```


LOGIN-REGISTER.CSS:

```
body {
  font-family: 'Arial', sans-serif;
  background: linear-gradient(to right, #6a11cb, #2575fc);
  display: flex;
  justify-content: center;
  align-items: flex-center;
  height: 125vh;
  margin: 0;
  color: white;
  padding-top: 50px;
}
.container {
  background: rgba(255, 255, 255, 0.2); /* Semi-transparent white background */
  padding: 50px;
  border-radius: 10px;
  box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
  width: 100%;
  max-width: 500px;
  text-align: center;
}
.form {
  display: flex;
  flex-direction: column;
}
.form-group {
  margin-bottom: 15px;
  text-align: left;
}
.form-group label {
  display: block;
  margin-bottom: 5px;
  font-size: 16px;
}
.form-group input,
.form-group select {
  width: 100%;
  padding: 10px;
  border: none;
  border-radius: 5px;
  outline: none;
  font-size: 16px;
}
.form-group input:focus,
.form-group select:focus {
  background: white;
  color: #333;
}
button[type="submit"],
button {
  background-color: #8d3ce9;
  color: white;
  border: none;
  padding: 10px;
  font-size: 18px;
  border-radius: 5px;
}
```

```

        cursor: pointer;
        transition: background-color 0.3s ease;
    }
    button[type="submit"]:hover,
    button:hover {
        background-color: #6d1da2;
    }
    @media (max-width: 600px) {
        .container {
            padding: 20px;
        }
    }
}

```

FEEDBACK.HTML:

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Contact Us - Student Club Management System</title>
    <link rel="stylesheet" href="feedback.css">
</head>
<body>
    <header>
        <h1>Student Club Management System</h1>
    </header>
    <main>
        <section class="contact-section">
            <h1>Contact Us</h1>
            <h2>Reach us for any enquiry:</h2>
            <form class="contact-form">
                <div class="form-group">
                    <label for="username">Username:</label>
                    <input type="text" id="username" name="username" required>
                </div>
                <div class="form-group">
                    <label for="email">Email Address:</label>
                    <input type="email" id="email" name="email" required>
                </div>
                <div class="form-group">
                    <label for="message">Message:</label>
                    <textarea id="message" name="message" rows="5" required></textarea>
                </div>
                <button type="submit">Send</button>
            </form>
        </section>
    </main>
    <footer>
        <p>&copy; 2024 Student Clubs. All rights reserved.</p>
    </footer>
</body>
</html>

```

SCRIPT.JS:

```

document.addEventListener('DOMContentLoaded', function() {

```

```

const profileSection = document.getElementById('profile-section');
const user = {
  isLoggedIn: false, // Change this to true if the user is logged in
  username: 'Sai Vishwak',
  profilePicture: "C:\Users\vishw\Downloads\Sai Vishwak profile.jpg";
if (user.isLoggedIn) {
  profileSection.innerHTML = `
    
    <span class="username">${user.username}</span>;
  } else {
    profileSection.innerHTML = `
    <a href="login.html" class="sign-in">Login/SignUp</a>`;
  }
});

```

6. IMPLEMENTATION AND RESULTS

6.1 Explanation of Key Functions

- **User Module:**
 - a) Login.html
 - b) Login.css
 - c) Register.html
 - d) Register.css
- **Dashboard module:**
 - a) Clubs.html
 - b) Events.html
 - c) News.html
 - d) About-us.html
 - e) Feedback.html
- **Clubs module:**
 - a) Coding-club.html
 - b) Dancing-club.html
 - c) Signing-club.html
 - d) NCC-club.html
 - e) NSS-club.html
- **Events module:**
 - a) Technical events.html
 - b) Non-Technical-events.html
 - c) Social-events.html
- **News module:**
 - a) College-news.html
 - b) Upcoming-events-news.html
 - c) Announcements.html
- **About-us module:**
 - a) Our-mission.html
 - b) Our-team.html
 - c) History.html
 - d) Achievements.html
 - e) Contact-info.html
- **Feedback module:**
 - a) Feedback.html
 - b) Complain-status.html

6.2 Method of Implementation:

System Implementation:

Implementation is the realization of an application, or execution of a plan, idea, model, design, specification, standard, algorithm, or policy. I worked so hard to implement this project. I use system implementation and website implementation.

For implementation of a website:

1. The website can be installed on a server.
2. The owners of the website are to be properly trained to use all the features of the website.
3. To show the accuracy of the website and conformance of the owners or users.

Technologies Used:

Server: Apache (XAMPP)

Database: clubs

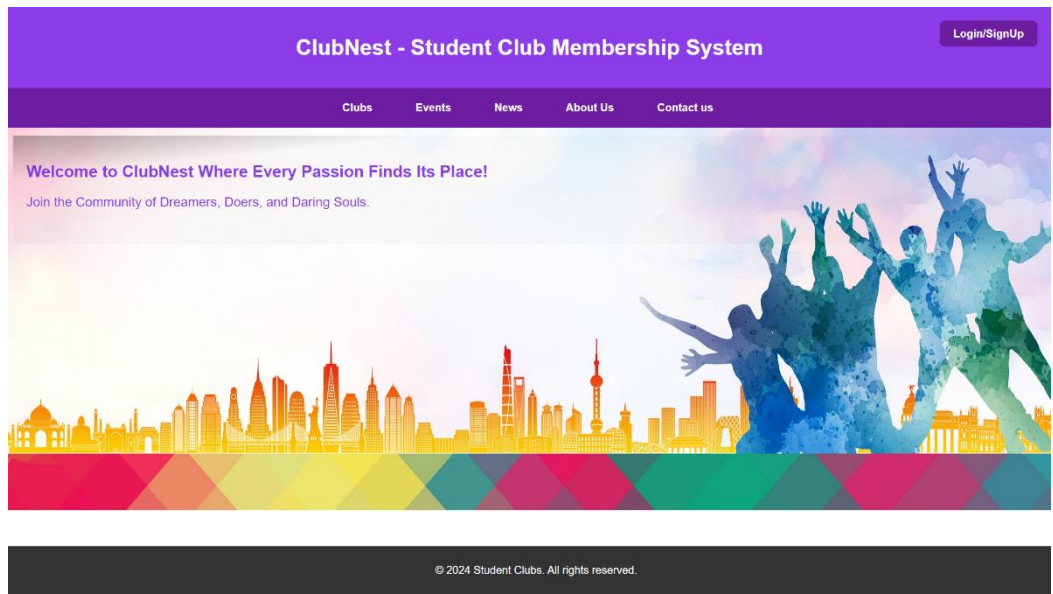
System tools:

A project development and an implementation technology can be mapped out using a project timeline. It is a process for defining designing, testing, and implementation of a software application or program. Acquisition of their party tools like dependency manager, database system all can be included for customizing the total system.

- HTML
- CSS
- PHP
- JavaScript
- MySQL

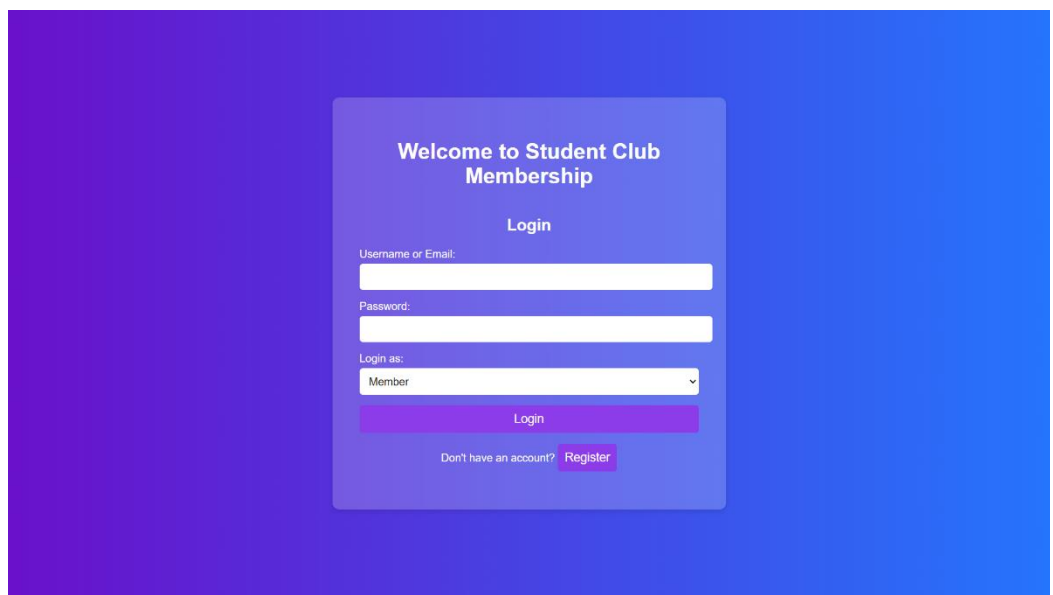
6.2.1 OUTPUT SCREENS:

- HOME PAGE



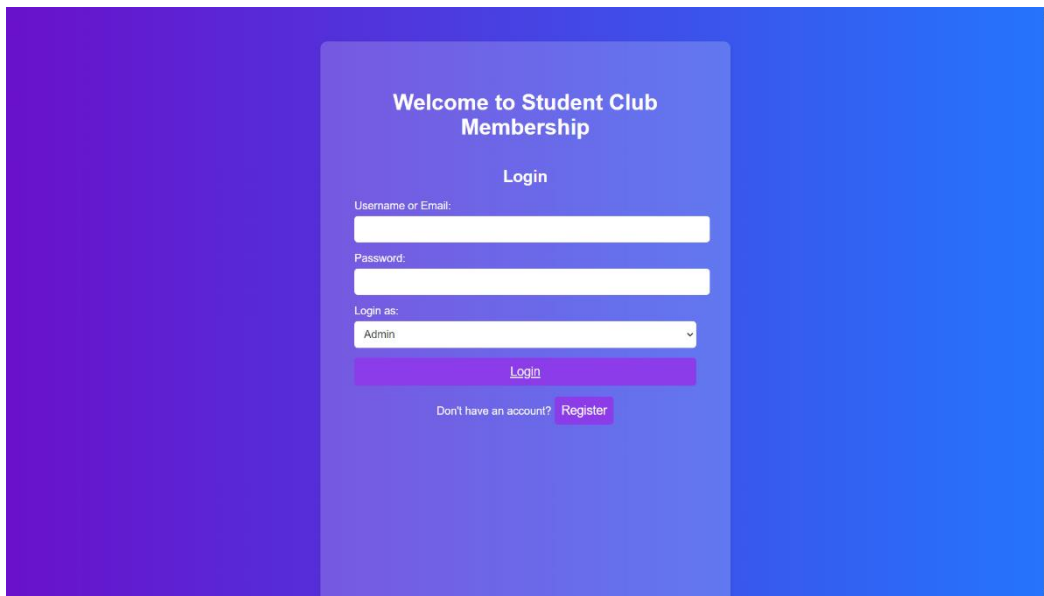
6.2.1.1 Home Page

- USER LOGIN



6.2.1.2 User Login Page

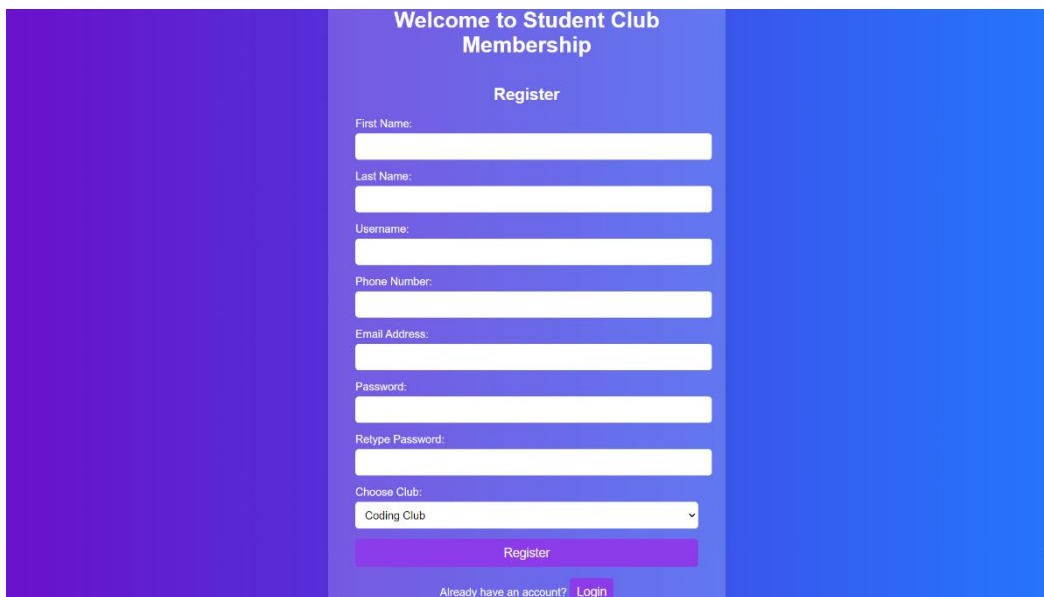
- **ADMIN LOGIN**



The Admin Login page features a central white card on a blue gradient background. The card is titled "Welcome to Student Club Membership" and "Login". It contains input fields for "Username or Email:" and "Password:", a "Login as:" dropdown menu set to "Admin", a blue "Login" button, and a link "Don't have an account? Register" in red text.

6.2.1.3 Admin Login Page

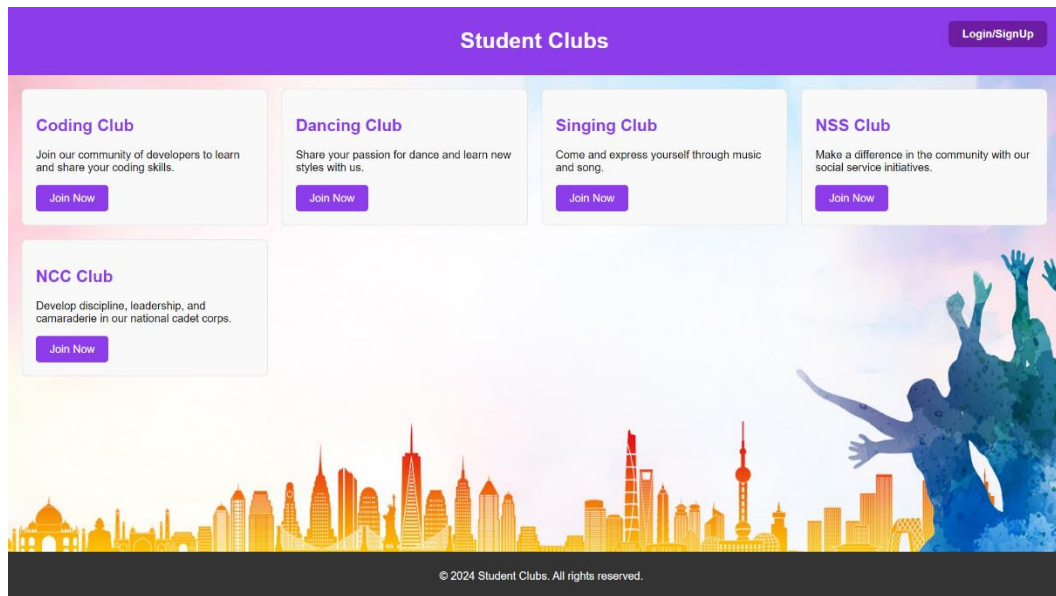
- **REGISTER**



The Register page features a central white card on a blue gradient background. The card is titled "Welcome to Student Club Membership" and "Register". It contains input fields for "First Name:", "Last Name:", "Username:", "Phone Number:", "Email Address:", "Password:", and "Retype Password:". It also has a "Choose Club:" dropdown menu set to "Coding Club", a blue "Register" button, and a link "Already have an account? Login" in red text.

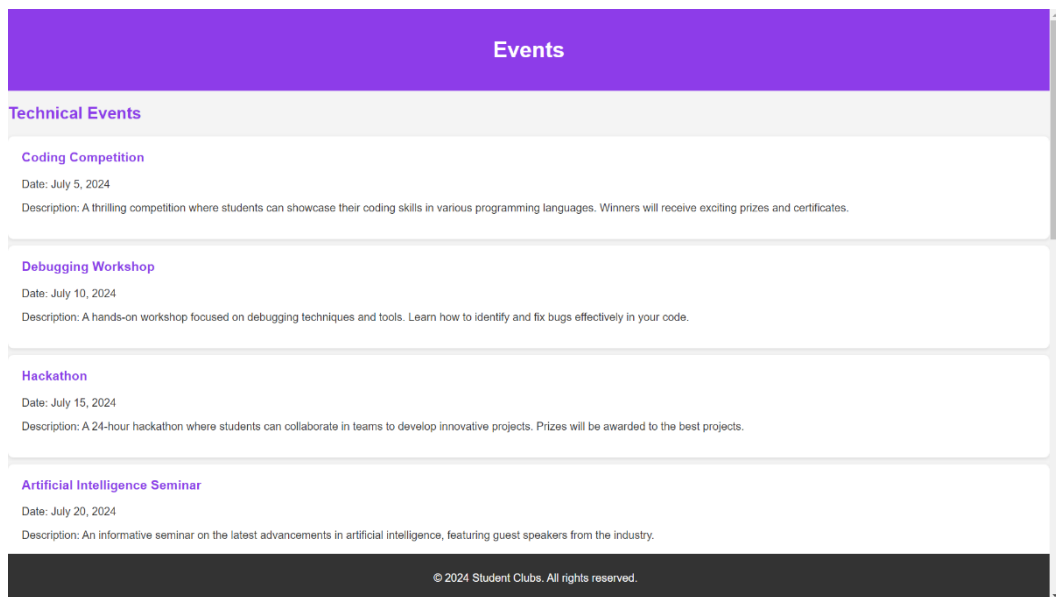
6.2.1.4 Register Page

- CLUBS



6.2.1.5 Clubs Page

- EVENTS



6.2.1.6 Events Page

• NEWS

News

College News

College Achieves Record Enrollment

Date: June 10, 2024

Description: This year, the college has achieved a record number of enrollments with over 5,000 new students joining various programs. The administration credits the increase to new programs and improved facilities.

New Campus Expansion Plans Unveiled

Date: July 1, 2024

Description: The college has unveiled plans for a new campus expansion, including additional academic buildings, a state-of-the-art library, and new sports facilities. Construction is set to begin later this year.

Faculty Member Wins Prestigious Award

Date: August 5, 2024

Description: Dr. Smith, a professor in the Department of Physics, has been awarded the prestigious XYZ Award for his groundbreaking research in quantum mechanics.

Introduction of New Study Programs

Date: August 20, 2024

Description: The college is introducing new study programs in Cybersecurity and Data Science starting this fall, aimed at equipping students with skills for the future job market.

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6.2.1.7 News Page

• ABOUT-US

About Us

Our Mission

Our Team

History

Achievements

Contact Information

Our Mission

Our mission is to foster a community where students can explore their passions, develop new skills, and make lifelong connections. We believe in the power of collaboration and strive to create an environment where every student feels valued and inspired.

We aim to:

- Encourage personal and professional growth through various club activities and events.
- Provide a platform for students to showcase their talents and skills.
- Promote inclusivity and diversity within the student community.
- Support students in their academic and extracurricular endeavors.

Our Team

John Doe - President

John is a senior majoring in Computer Science. He is passionate about technology and leadership. John has been instrumental in organizing various tech events and hackathons.

Jane Smith - Vice President

Jane is a junior studying Business Administration. With a knack for management and organization, she oversees the smooth running of all club activities.

Jim Brown - Treasurer

Jim is a finance major who ensures that our club's finances are well-managed. He is responsible for budgeting and managing funds for events.

Jill White - Secretary

Jill is a communications major who handles all club correspondence and documentation. She plays a key role in maintaining records and keeping members informed.

6.2.1.8 About-Us Page

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- **FEEDBACK**

Student Club Management System

Contact Us

Reach us for any enquiry:

Username:

Email Address:

Message:

Send

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6.2.1.9 Feedback Page

7. TESTING AND VALIDATION

The goal of testing is to find mistakes. Testing is the practise of attempting to find all possible flaws or weaknesses in a work product. It allows you to test the functionality of individual components, subassemblies, assemblies, and/or a whole product. It is the process of testing software that ensure that it meets its requirements and meets user expectations, and that it does not fail in an unacceptable way. There are many different types of tests. Each test type is designed to fulfil distinct testing need.

7.1 Design of Test Cases and Scenarios

Sl.no	INPUT	If available	If not available
1.	User Sign in	Users get registration.	There is no process
2.	User Login	Users get login into the application.	There is no process
3.	Services request	User requests services.	There is no process
4.	Apply Jobs	Users applies for job roles.	There is no process
5.	Submit a complaint	Users submits a complaint.	There is no process
6.	View complaint status	User checks if the complaint is submitted.	There is no process

Table 7.1 Test Cases

7.2 VALIDATION

TESTING STRATEGIES:

UNIT TESTING

Unit testing is a testing technique in which individual modules are tested by the developer to see if there are any flaws. It is concerned with the standalone modules' functional soundness. The fundamental goal is to isolate each component of the system in order to detect, analyses, and correct any flaws.

DATA FLOW TESTING

Data flow testing is a set of testing techniques that involves choosing paths through a program's control flow to investigate the sequence of events relating to the status of variables or data objects. Data flow testing examines the points at which variables are assigned values and 30points at which these values are applied.

INTEGRATION TESTING

Integration Testing is done upon completion of unit testing, the units or modules are to be integrated which gives raise too integration testing. The purpose of integration testing is to verify the functional, performance, and reliability between the modules that are integrated.

BIG BANG INTEGRATION TESTING

Big Bang Integration Testing is an approach to integration testing in which all units are linked at the same time, resulting in a complete system. Because there is no attention is devoted to checking the interfaces between separate units when this type of testing technique is used, it is difficult to pinpoint any flaws that are discovered.

USER INTERFACE TESTING

User interface testing is a testing technique used to identify the presence of defects is a product/software under test by Graphical User interface [GUI].

7.3 VALIDATION CONCLUSION

During validation, the Traffic Management System was rigorously tested against multiple scenarios and data sets to ensure robustness and accuracy. The system's ability to handle real-time data, predict traffic patterns, and provide adaptive routing suggestions was critically assessed. Additionally, the security measures implemented to protect sensitive traffic data were validated to ensure compliance with data privacy standards. The validation process confirmed that the system could effectively manage and optimize traffic flow in urban environments. It demonstrated high accuracy in predicting traffic congestion and providing real-time solutions to mitigate it. The intelligent traffic signal control feature was particularly effective, reducing wait times and improving traffic fluidity. Adaptive routing suggestions were validated by comparing actual travel times with predicted times, showing a significant reduction in travel duration and congestion levels.

Overall, the validation phase highlighted the system's strengths and identified areas for future improvement, such as enhancing data integration from more diverse sources and improving the user interface for better accessibility. The successful validation of the Traffic Management System in Smart Cities underscores its potential to revolutionize urban transportation management, making cities smarter, safer, and more efficient.

8. CONCLUSION

This system will benefit the club membership in terms of better understanding it's members and their needs, develop more targeted marketing and outreach campaigns, identify and engage with high-value members, make better decisions about club operations and it's working. The system can also help the club to comply with relevant regulations and standards, such as protection laws. The club organization can be able to increase their capacity, features and performance as per the demand using this system scalability feature. This system can be used to collaborate or integrate with other clubs when needed such as, accounting system and event management systems. Overall the system will provide a seamless and efficient way to access the club details and information.

A valuable future enhancement for the Club Management Database System would be the implementation of a comprehensive mobile application. This app would provide members with real-time access to club information, event schedules, and personalized notifications. It would allow members to easily register for events, renew memberships, and communicate with club management. Additionally, the app could include features such as digital membership cards, a member directory, and a feedback system to gather insights and suggestions from members. This enhancement would improve member engagement, streamline operations, and offer a convenient platform for accessing all club-related services and information.

REFERENCES

- [1] Azizah Rahmat, Nur Aishyah, Usability Testing in Kanban Agile Process for Club Management System, Published in 2021 6th International Conference on Interactive Digital Media (ICIDM) on 14-15 December 2021. (URL: <https://ieeexplore.ieee.org/document/9339668>)
- [2] Nishanth, Satish, Niteesh, CAs based Student-Alumni Management System, Published in 2021 International Conference on Communication, Control and Information Sciences (ICCISc) on 16-18 June 2021 (URL: <https://ieeexplore.ieee.org/document/9485017>)
- [3] Ferdianto, Steven, Titan, Design of Employee Management Application for Small-Medium Enterprise, Published in 2021 International Conference on Information Management and Technology (ICIMTech) on 19-20 August 2021 (URL: <https://ieeexplore.ieee.org/document/9534990>)
- [4] F.Zou, Y.Qian, Z.Zhang, X.Zhu, D.Chang, A data mining approach for Analyzing Dynamic User needs on UGC platform., Published in 2021 International Conference on Industrial Engineering and Engineering Management (ICIMTech) on 13-16 December 2021 (URL: <https://ieeexplore.ieee.org/document/9673035>)
- [5] Malavika Hariprasad, Neha N, Nimisha Dey, Pratibha D, Ramanath Kumar, College Club Activity Management System, Published in 2023 7th International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS) on 02-04 November 2023 (URL: <https://ieeexplore.ieee.org/document/10334208>)
- [6] Arvind Sharma; Mohan Kolhe; Stein Oluf Kristiansen; Stig Simonsen; Henrik Landsverk; Signe Marie Oland, Techno-Economic Case Study of Micro-Grid System at Soccer Club of Skagerak Arena Norway, 2020 5th International Conference on Smart and Sustainable Technologies (SpliTech) (URL: <https://ieeexplore.ieee.org/document/9243789>)
- [7] Svetlana Kornilova; Natalia Sizykh, Algorithm for Assessing and Managing key Financial Performance Indicators of a Sports Club, Published in: 2019 Twelfth

International Conference "Management of large-scale system development" (MLSD) (URL: <https://ieeexplore.ieee.org/document/8911030>)

- [8] Hong Zhou, Research on Intelligent Sports Information System under Computer Big Data, Published in: 2022 International Conference on Computers, Information Processing and Advanced Education (CIPAE) (URL: <https://ieeexplore.ieee.org/document/10036937>)
- [9] Ken C.K. Law; Daniel W.H. Shek, Estate Club House e-Services and Management System, Published in: 2010 International Conference on E-Business and E-Government. (URL: <https://ieeexplore.ieee.org/document/5590876>)
- [10] Ken Jung; R.T.K. Eng; R.C.D. Chyuan; N.N.T. Tian, Singapore turf club's cost-saving solution for its floodlights system, Published in: 2005 International Power Engineering Conference. (URL: <https://ieeexplore.ieee.org/document/1627284>)
- [11] College Club Membership Management System, Published in github.com by Jaya Surya (URL: <https://github.com/jayasuryard31/College-club-membership-management-system>)
- [12] Club Management System, Published in github.com by Aditi Patni (URL: <https://github.com/aditipatni3/Club-Management-System>)