Department of Computer Science & Engineering
B.P.Poddar Institute of Management & Technology
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CERTIFICATE

This is to certify that the project work, entitled "Sports Management System" submitted by group of students is a bona-fide record of project done by

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has been prepared according to the regulation of the degree B. Tech in Computer Science & Engineering of the Maulana Abul Kalam Azad University of Technology, West Bengal. The candidates have partially fulfilled the requirements for the submission of the project work (PROJ-CS781).

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(Signature of HOD)   (Signature of the Supervisor)
Dept. of Computer Science & Engg.   Dept. of Computer Science & Engg.

(Signature of External Examiner)

ACKNOWLEDGEMENT

I would like to express my heartfelt gratitude to our Project Guide, Ayesha Ali ma'am, for her invaluable guidance and unwavering support throughout the duration of this project. Her expertise, encouragement, and mentorship have been instrumental in shaping this endeavor. She provided insightful feedback, invaluable suggestions, and direction that significantly contributed to the success of this project. I am sincerely grateful for her continuous encouragement, advice, and commitment to ensuring the project's excellence. Her guidance has been a beacon of inspiration, guiding me through challenges and illuminating the path toward achieving the project's goals.

I extend my deepest appreciation to Ayesha Ali ma'am for her immeasurable support and for being an exceptional mentor, shaping not only the project but also my development in this field.

- -

(Full Signature of the Student(s))

Date:

Dept. of Computer Science & Engg.

B.P. Poddar Institute of Management & Technology

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DEPARTMENTAL MISSION

Enrich students with sound knowledge in fundamentals and cutting-edge technologies of Computer Science and Engineering to excel globally in challenging roles in industries and academics.

Emphasize quality teaching, learning and research to encourage creative thoughts through application of professional knowledge and skill.

Inspire leadership and entrepreneurship skills in evolving areas of Computer Science and Engineering with social and environmental awareness.

Instill moral and ethical values to attain the highest level of accomplishment and personal growth.

DEPARTMENTAL VISION

Developing competent professionals in Computer Science and Engineering, who can adapt to constantly evolving technologies for addressing industrial and social needs through continuous learning.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Graduates of Computer Science and Engineering program will have good knowledge in the core concepts of systems, software and tools for analysing problems and designing solutions addressing the dynamic requirements of the industry and society, while employed in industries or work as entrepreneurs.

Graduates of Computer Science and Engineering program will opt for higher education and research in emerging fields of Computer Science & Engineering towards building a sustainable world.

Graduates of Computer Science and Engineering will have leadership skills, communication skills, ethical and moral values, team spirit and professionalism.

PROGRAM OUTCOMES (POs)

PO1: Engineering Knowledge: Apply the knowledge of Mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct Investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSO)

Students will have proficiency in emerging domains like artificial intelligence, data science and distributed computing to develop solutions through innovative projects and research.

Students will have capabilities to work in synergized teams to cater to the dynamic needs of the industry and society.

SPORTS MANAGEMENT SYSTEM

PO & PSO MAPPING

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	P012	PSO1	PSO2
3	3	2	2	3	2	3	2	3	2	2	2	3	2

ABSTRACT

The *Sports Management System* (SMS) objective is to provide which manages the activity of many sports at a time. It also manages the selection activity of students to college and to state level. The users will consume less amount of time when compared to manual paperwork through the automated system. The system will take care of all the servicing activity in a quick manner.

Data storing is easier. It will be able to check any report at any time. Paper work and manual work is reduced. The system is user friendly and easy to use.

      Goal oriented
      Deliberately Structured
      Deliberately Coordinated
      Exist as a system of individuals and groups
      Made up of people with special skills

Sports Management System is a product to manage games/sports played at schools. This is an application that was developed to keep track of different sporting events with multiple games played between multiple schools and students.

Sports Management System is to develop to overcome the difficulties in traditional methods which takes time and effort. The developed "Sport management System" overcomes the difficulties that was put on by the traditional system events .The system will take care of all the servicing activity in a quick manner. Data storing is easier. It will be able to check any report at any time. The users will consume less amount of time when compared to manual paper work through the automated system. The admin can manage the game, manage team and manage player, team members. Admin can even schedule the events and news for the tournament. Students can view the tournament details and upcoming match. The Sports Management System (SMS) is a robust software solution designed to streamline and optimize the management of sporting activities within a sports organization. This system aims to centralize administrative tasks, enhance communication, and facilitate efficient resource allocation. The SMS offers comprehensive functionalities, including athlete management, event scheduling, team coordination, and performance tracking, all within a secure and user-friendly platform.

ACTIVITY CHART

Creating an activity chart for a sports management system involves visualizing the various activities or tasks that occur within the system and illustrating their flow or sequence. Below is a simplified example of an activity chart for a sports management system. This example focuses on key activities, and you may need to customize it based on the specific features and functionalities of your system.

Start

|-- 1. User logs in
| |-- 1.1 Validate user credentials
| |-- 1.2 Display user dashboard

|-- 2. Browse Events
| |-- 2.1 Display list of upcoming events
| |-- 2.2 Allow user to filter events
| |-- 2.3 View detailed information on selected event

|-- 3. Register for Event
| |-- 3.1 Select desired event
| |-- 3.2 Provide necessary registration details
| |-- 3.3 Confirm registration
| |-- 3.4 Update user profile with registration information

|-- 4. View Team Information
| |-- 4.1 Display list of teams
| |-- 4.2 View detailed information on selected team
| |-- 4.3 Display team roster and statistics

|-- 5. Admin Functions
| |-- 5.1 Admin logs in
| |-- 5.2 Admin dashboard with management options
| |-- 5.3 Manage user accounts
| |-- 5.4 Create, edit, or delete events
| |-- 5.5 Generate reports and analytics

|-- 6. Chatbot Interaction
| |-- 6.1 User initiates chat with the chatbot
| |-- 6.2 Chatbot processes user queries
| |-- 6.3 Chatbot provides event information
| |-- 6.4 Chatbot assists with registration

|-- 7. Notifications
| |-- 7.1 System sends event reminders
| |-- 7.2 Updates on team performance

| |-- 7.3 General announcements

|-- 8. Data Management
| |-- 8.1 Update player statistics
| |-- 8.2 Maintain event results and scores
| |-- 8.3 Regularly backup and secure data

End

This activity chart provides a high-level overview of the main activities within the sports management system. Each activity is broken down into sub-activities or tasks, representing the detailed steps involved in accomplishing the main activity. Additionally, consider adding decision points or loops if there are conditional paths or repeated processes in your system.

INTRODUCTION

In the evolving landscape of sports administration, the Sports Management System (SMS) emerges as a pioneering and intricate digital infrastructure aimed at reshaping the operational fabric of athletic organizations worldwide. Within this intricate domain, traditional management methodologies have often grappled with the intricate web of challenges spanning athlete data management, event coordination, resource allocation inefficiencies, and communication gaps among stakeholders. The SMS stands as an innovative and comprehensive response to these multifaceted challenges, embodying a sophisticated amalgamation of cutting-edge technology, streamlined processes, and strategic integration. Its raison d'être lies in surmounting the prevailing limitations of conventional systems, seeking to revolutionize the very core of sports management dynamics. By centralizing and harmonizing disparate facets of athletic administration – from comprehensive athlete profiles and nuanced event scheduling mechanisms to intricate team logistics and data-driven performance analytics – the SMS serves as a dynamic nucleus, fostering an ecosystem of efficiency, collaboration, and informed decision-making. With its meticulously designed architecture, bolstered by intuitive interfaces and robust security measures, the system aspires to be the linchpin in catalyzing a transformative shift in sports management paradigms. Ultimately, the SMS endeavors to empower administrators, coaches, athletes, and support staff, augmenting their capabilities, and contributing substantially to the elevation of sports experiences, operational efficacy, and the strategic growth of sports organizations across diverse domains. The Sports Event Management System focuses primarily on student selection and participation in sports. Students' information will be saved in the database according to specific information. The software also has the feature of adding photos of specific sports events. The software also stores the date and venue of the tournament. The admin can modify or delete this information. The admins can also see the number of participants registered for a particular sport. All information will be saved securely in the database. The required information can be easily retrieved without any errors. The system is user friendly and error free. Sports play an important role in every college. A variety of sports events are organized in the college. Managing all these sports manually is tedious, as there are so many different events taking place and a large number of students will participate. The Sport Event Management Platform makes it easy to monitor all sports events, as well as provide information to keep students informed. The Sports Event Management Platform for colleges provides a web interface that makes it easy to manage all sports events that take place in colleges or institutions. It is also used to manage the information of students participating in various sports events. Web-based applications have evolved over the past few years from easy websites to integration of entire enterprise business systems and business portals with hosts, including databases, mail systems and third-party software. The Sports Event Management Platform for Colleges is a web-based application that provides completely different functionality for managing different sports events in colleges. The main objective of the Sports Event Management Platform for the College is to focus on the selection of students who are primarily participating in sports competitions and to keep their information in the database. Student information will be stored in a database based on specific events taking place in colleges. This will automate some basic operations for managing sports events. This project collaborates in the development of web-based applications with a combination of database management tools and scripting languages, providing a user interface and a simple data

management system. It also provides administrative access to administration and user-specific access to teachers. In this project, a simple one level security login is applied to the administrator login to the administrator website to manage teachers and all sports activities using the website to prevent interlopers. This level of security is also applied to students and teachers to prevent malicious users from signing into the system.

LITERATURE REVIEW

Yu-cheng Zhou, Zhan-ping Li, Long Wang, "The Application of Software Engineering in the Sports Management System Based on Teaching Materials", Computer software is being used extensively in various fields of engineering. In this document software engineering design methods have been used, sports management systems have been pre-developed based on the use of software engineering principles and methods, under this principle, actual management of games and system software has been developed. The design of the data flow diagram was clear and reasonable, which has played an important role in software development. It has been proven that the sports management system is built with performance design, using software engineering methods with fast process related issues. Dong Feng Nie, Yun Du, "Study on Development of the Web-Based College Sports Management System Software", There is a huge social demand for college sports management system software to process growing sports information more conveniently and in line with the trend of scientific management. This study is based on an analytical hierarchy process for dividing sports resources into multiple modules. Web-based college sports management system software as such was developed by computer technologies such as NET and SQL Server and is equipped with features such as easy functioning and easy installation, operation and use with security on dynamic information interactions that can accelerate information and networking of college sports management. Dr. Daniel Kane, "An Investigation to determine if Sport Video Games Helps Community College Students Become Interested in Real-life Sports", According to the study, community college students developed an interest in playing sports video games or tried to determine whether they played the game in real life. The study was approved by the Institutional Review Board (IRB) at City University of New York Kingsborough Community College. A new questionnaire called Sports Video Games Questionnaire was developed. The researcher worked with a panel of experts and conducted two pilot studies to develop a sports video games questionnaire. A total of 101 students who participated in the study or are currently playing or currently playing sports video games participated. The results were positive and surprising as community college students felt that playing sports video games increased their connection to real-life sports. Most subjects felt that playing sports video games taught them about the rules, real life players or teams (in the league) and increased their knowledge of real life sports. Also, most subjects felt that sports video games enabled them to become fans of real-life sports teams, real-life sports, real-life athletes, and increased their interest in playing real-life games. Sport video games can be a tool that helps people connect with real life games. The literature review is a method of reviewing or surveying a particular project or subject for examining it and to analyze it to study it thoroughly. This survey is based on Sports Event Management System. While the file registration process is most commonly used all over. Most of the schools and colleges use this process which is very time-consuming. Since it has been seen that it is a tedious process and there is always a chance of data loss. In these systems sometimes the no. of files is increased as there is an increase in students enrolling for the events. So, it becomes very difficult for teachers and events to go smoothly. Displaying the results of all the events is an important part that teachers should need to do. As it takes 2-3 days to display the results of all the events. So all these operations can be performed on a single website or a portal and results of all the events can be displayed faster after all the events are conducted.

Overview of Sports Management Systems

Sports management systems have evolved significantly with advancements in technology. Traditional systems focused on administrative tasks such as scheduling and registration, but recent developments incorporate innovative features to enhance user experience and streamline operations. One emerging technology in this domain is the integration of chatbots, providing a conversational interface for users.

Historical Perspective

Historically, sports management systems have been reliant on manual processes and basic software tools. The need for more efficient and dynamic systems led to the incorporation of databases and web-based platforms. The emergence of artificial intelligence (AI) and natural language processing (NLP) in recent years has paved the way for the integration of chatbots into sports management systems.

Existing Systems and Their Features

Several sports management systems leverage chatbot technology to improve user engagement and automate routine tasks. Examples include automated event scheduling, membership inquiries, and real-time updates on game scores. These systems aim to enhance communication between administrators, players, and fans while reducing the administrative burden on sports organizations.

Challenges and Gaps in Current Systems

While chatbots offer promising features, challenges exist in terms of user acceptance, data security, and the complexity of implementing natural language understanding. Previous studies highlight the importance of addressing these challenges to ensure the successful adoption of chatbot technology in sports management systems.

Relevance to the Current Project

The incorporation of chatbots into sports management systems aligns with the broader trend of integrating AI into various domains for improved efficiency and user experience. This literature review sets the stage for the current project, emphasizing the need for a comprehensive understanding of existing systems and challenges in implementing chatbots in the context of sports management.

In summary, the literature review reveals a shift from traditional sports management systems to more sophisticated solutions, with chatbots emerging as a key technology. Understanding the historical context, features of existing systems, and addressing challenges will be crucial for the successful implementation of a sports management system using chatbot technology. The subsequent chapters will delve into the specific methodologies and design considerations for such a system.

THEORY/BACKGROUND

As every era is passing, technology is upgrading day by day. During this technological world, the necessity of security further as the integrity of information is additionally increasing. This objective can't be achieved by the filing system and conjointly during this busy world each minute matters, thus to avoid wasting time further to maintain the accuracy of the information, this technique is of nice use. So, the Sports Event Management system is the best option here accordingly, once the system is set up no special care ought to be taken and therefore the system is user friendly. Today, sport is one of the activities that most of the students like to participate in, whether it is at the school, state or district level. Students having interest in various sports. In some cases, the students are unable to participate in Sports Competition because their names are not available in the participation list due to pen and paper work. To solve these problems, the Sports Management System can play a very good role. Nowadays, most of the Sport Management System having problems like offline registration, managing single tournaments, managing statistics, lack of security to the transactions and no transparency in evaluation. Our main aim is to overcome all problems that are seen in the offline method so we are proposing a Sports Management System. Sports Event Management System is developed for managing the events, since offline registration has drawbacks like data loss, since many people use a manual system for taking the registrations for the events there is a high chance of data loss and it is very time-consuming. Taking the registration online will help to take accurate data, time will be saved, there is no chance of data loss and the data will be directly stored in the database. Since the system is user friendly, taking registrations or registering into the events becomes very easy.

Sports management systems operate within the broader framework of systems theory, which views organizations as interconnected components working together to achieve common goals. Applying this theory to sports management, the system involves various elements such as players, coaches, administrators, and fans. Understanding the interdependencies and interactions among these components is vital for the effective design and implementation of a sports management system.

Information Systems Theory

The development of a sports management system involves the application of information systems theory. This theory focuses on how information is collected, processed, stored, and disseminated within an organization. In the context of sports management, the system must efficiently manage data related to player statistics, game schedules, and fan engagement. Leveraging information systems theory ensures the systematic handling of information to support decision-making processes.

Human-Computer Interaction (HCI) Theory

A critical aspect of a sports management system is the interaction between users and the system interface. HCI theory guides the design of user interfaces to optimize user experience and usability. Integrating principles of HCI ensures that the sports management system, including any chatbot functionality, is intuitive and user-friendly. This theory emphasizes the importance of user feedback and iterative design to enhance the overall user experience.

Artificial Intelligence and Natural Language Processing

The theoretical underpinnings of artificial intelligence (AI) and natural language processing (NLP) play a significant role in the integration of chatbots into sports management systems. AI theory explores the development of systems that can perform tasks requiring human intelligence, while NLP theory focuses on enabling machines to understand and generate human language. Incorporating these theories ensures the chatbot component of the sports management system can effectively communicate with users and perform tasks autonomously.

Organizational Theory in Sports Management

Considering the organizational context of sports management, organizational theory provides insights into the structure, culture, and processes within sports organizations. This theory is crucial for understanding how the sports management system aligns with the goals and values of the organization, as well as how it influences organizational behavior and decision-making.

Game Theory

In sports, game theory can be applied to analyze strategic interactions among different stakeholders, such as teams, players, and fans. Understanding the competitive dynamics and strategic decision-making in sports contributes to the design of features within the sports management system that enhance the overall gaming experience.

In summary, the theoretical framework for the sports management system project incorporates systems theory, information systems theory, HCI theory, AI and NLP theories, organizational theory, and game theory. These theories collectively provide a foundation for understanding the complex interactions, information flow, user experience, and strategic considerations inherent in sports management systems. Subsequent chapters will delve into the practical application of these theories in the development and implementation of the proposed sports management system.

SYSTEM REQUIREMENTS

❖ <u>Hardware Requirements:</u>

- Processor: Intel dual core

- Processor Speed: 1.0 GHz or above

- RAM: 1GB or above

- Hard Disk: 20GB or above

❖ <u>Software Requirements:</u>

- Operating System: Windows 8 or above

- User Interface: HTML, CSS, Javascript

- Backend: PHP

- Database: MYSQL

PROPOSED SYSTEM

The proposed sports management system aims to revolutionize the way sports organizations manage their activities, engage with stakeholders, and streamline administrative processes. The system incorporates cutting-edge technologies, including a user-friendly interface, artificial intelligence-driven chatbot, and robust data management capabilities.

Overview

The proposed sports management system aims to revolutionize the way sports organizations manage their activities, engage with stakeholders, and streamline administrative processes. The system incorporates cutting-edge technologies, including a user-friendly interface, artificial intelligence-driven chatbot, and robust data management capabilities.

Objectives of the Proposed System

1. Enhanced User Experience: Provide a seamless and intuitive user experience for players, coaches, administrators, and fans.
2. Efficient Event Management: Streamline the planning, scheduling, and execution of sports events.
3. Real-time Communication: Facilitate instant communication and updates between stakeholders through a chatbot interface.
4. Data-driven Decision Making: Implement robust data management to support informed decision-making and analytics.
5. Security and Accessibility: Prioritize data security while ensuring accessibility for authorized users from various devices.

Key Features

User Authentication and Authorization
- Secure login for different user roles (players, coaches, administrators).
- Role-based access control to ensure appropriate permissions.

Event Management
- Dynamic event scheduling with real-time updates.
- Registration and enrollment for players and teams.
- Automated event reminders and notifications.

Chatbot Integration
- AI-driven chatbot for natural language interaction.
- Event information, registration assistance, and general queries.
- Continuous learning and improvement through user interactions.

User Dashboard
- Personalized dashboards for users with relevant information.
- Display of upcoming events, team performance, and personalized recommendations.

Team and Player Information
- Comprehensive profiles for teams and players.

- Real-time statistics and performance analytics.
- Historical data for analysis and strategic planning.

Administrative Tools

- Admin dashboard for centralized management.
- User account management and authorization.
- Event creation, modification, and reporting tools.

Notifications and Alerts

- Automated notifications for event updates, scores, and announcements.
- Customizable notification preferences for users.

System Architecture

Frontend

- Intuitive web-based interface for users.
- Responsive design for seamless accessibility on various devices.

Backend

- Robust database for efficient data storage and retrieval.
- Integration with third-party APIs for additional functionalities.
- Cloud-based infrastructure for scalability and reliability.

Chatbot Module

- Integration of natural language processing (NLP) for effective communication.
- Continuous learning and improvement through user interactions.
- Integration with backend systems for real-time data retrieval.
- Chatbot: Python, TensorFlow for NLP

Implementation Strategy

- Iterative development using the Agile methodology.
- Continuous testing and user feedback for improvements.
- Deployment in phases to ensure stability and user adoption.

Expected Outcomes

1. Improved user engagement and satisfaction.
2. Streamlined event management processes.
3. Enhanced data-driven decision-making for sports organizations.
4. Increased accessibility and security for stakeholders.

This proposed system outlines a comprehensive solution that addresses the current challenges in sports management. The subsequent chapters will detail the methodology, system analysis, design considerations, and implementation plan for the successful development and deployment of the sports management system.

In the proposed Sports Management system students can get all the information of various games and the venue. The student can get registered from anywhere and at any time. By using this system students can save a lot of time and effort. The student can easily get the information from anywhere.

ADVANTAGES

- Reduce complexity in managing the data related to the agriculture products, soils, fertilizers, mandi/market details.

- The system also does the selection procedure to the college level and the state level competition.

- To the college level all the players are allowed to play.

- Current system provides different access levels for security.

- Rich user interface is provided in order to interact with applications.

- Reports are generated dynamically on a periodic basis.

Implementation

Implementation is one of the most important stages of system development life cycle. The stage of implementation includes converting the design phase into a real system using various programming languages and scripting languages. The idea of implementation and the idea of the system will be designed in the designed phase. We will be implementing the flow of each module into a real system. The real systems are to be implemented in this phase and will be tested for validation in the next phase after successful implementation. The systems are been implemented such a way that they are flexible for future developments and adding different functionalities for future enhancement. There are two types of computer languages are used one is programming language in our case will be java, and the other is scripting language in our case we use XML/HTML along with JSP pages, where JSP allows the java code to be inserted into HTML/XML. The pseudo code for admin is as follows:

1. START ADMIN LOGIN

2. Enter admin Id and password

3. Admin Id and password are verified with the database.

4. IF (id, password valid)

i. Admin login into the HOME page

1. Adding sports event by event Id

2. IF (event id exists)

3. viewing the events.

ii. ELSE

iii. Events are Added Successfully

iv. END IF

5. Add a teacher by giving Teacher Id

i. IF (teacher id exists)

ii. View the teacher's details

iii. ELSE

iv. ADD teacher and display teacher added successfully

v. END IF

6. Add a Student by giving student Id

i. IF (exists)

ii. View the student details

iii. ELSE

iv. Add student successfully, and give a message

v. END IF

7. ELSE

8. Display invalid admin Id or password

9. END IF 10. END The pseudo code for teacher module is given as follows:

1. START TEACHER LOGIN

2. Enter teacher Id and password.

3. Teacher Id and password are verified with the database

4. IF (valid)

5. Teacher login to the HOME page

i. Add a student

1. IF (student id exists)

Modules

This Project has following Modules:

User Registration

This module takes care of registering a new user for club membership. A user can request for club membership by filling up a form and submitting it to admin for approval. Once the admin approves, he/she is a member of the club.

Ground Booking

This module is where the user books the ground for specific days. A detailed cost estimation is done by the software and informed to the user before submitting his/her booking request. This ensures that there is no negotiation in cost afterwards by the user.

Training module

In this module the user requests to join any upcoming/ongoing training batches. The user can see a list of all the upcoming and ongoing batches and he has to select his desired batch followed by some personal information. Once the user submits the form, it is sent to the admin for approval. Once the admin approves the joining request, the user is enrolled in his desired batch.

Admin Module

This is the decision making module of the software. In the admin module list of all the requests are displayed. The admin can accept or reject any requests. Every request has to be approved by the admin.

Admin Login

username- admin

password-admin

- Admin
- User

## 1) Admin Module
- Master
    - Login Register
    - Student Register
    - Tournament
- Games

    - Football
        - Players
        - Tournament
        - Photos

    - Cricket
        - Players
        - Tournament
        - Photos

- Logout

- Login & Registration: Multiple users can login to this system. There are two types of users, i.e; Admin and Employee. Admin has full authority of the software and Employee has limited authority. Only administrators can add new employee details.
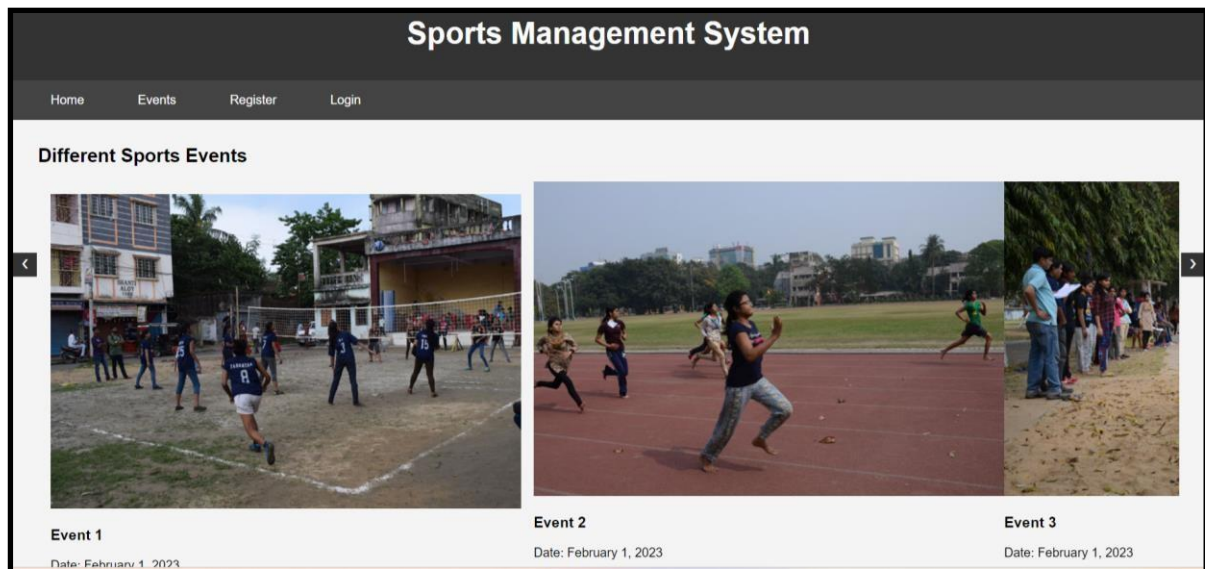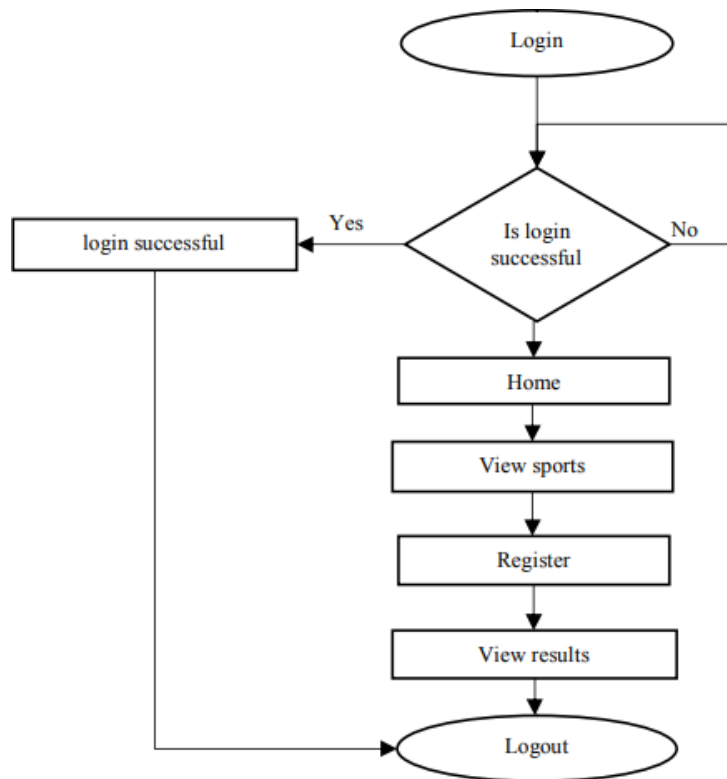

Home Page
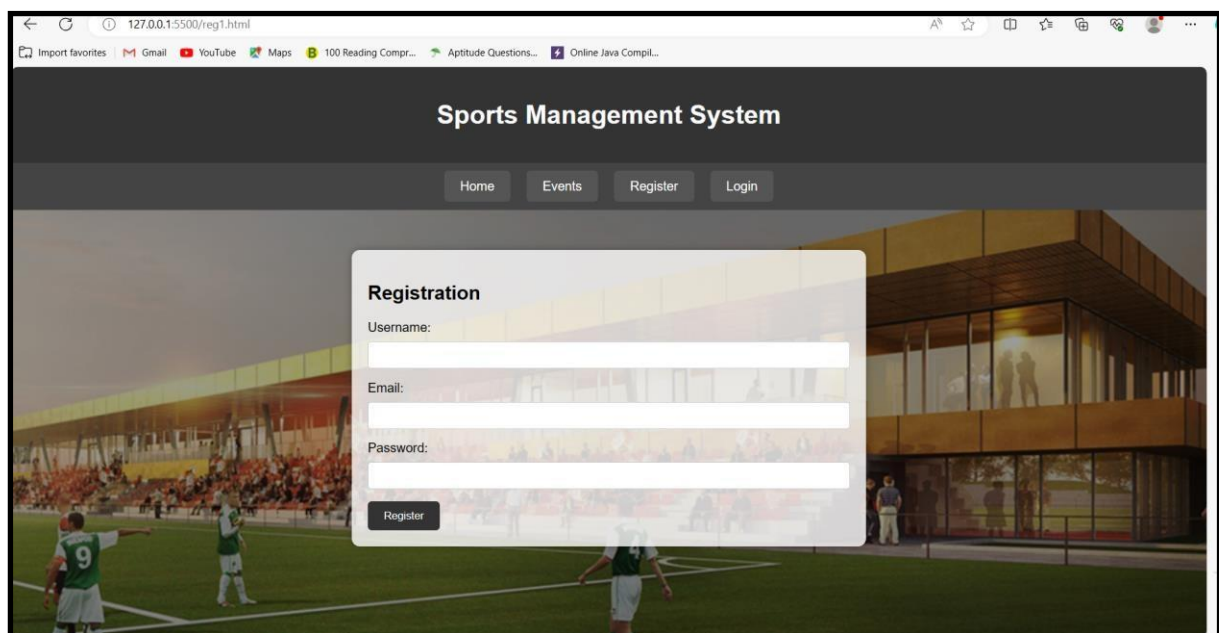
Registration Page

Login Page

- Student Registration: Students are competitors in the Sports Management System. This module allows user to add student details by entering College name, Student name, Date of birth, Age, Gender and Competing sports and games.

Student Module

Flowchart diagram of user

- Tournament module: This module stores tournament schedule details with Tournament sports, scheduled date and Tournament Venue.
- Games: This will show Football, Cricket and Tournament details.
- Selection procedure: Users can select students for the tournament.
- Logout: This module allows users to exit from the software.

Code:

Home Page

```html
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Sports Management System</title>
 <style>
  body {
   font-family: Arial, sans-serif;
   margin: 0;
   padding: 0;
   background-color: #f4f4f4;
  }

  header {
   background-color: #333;
   color: #fff;
   text-align: center;
   padding: 1em;
  }

  nav {
   background-color: #444;
   padding: 1em;
  }

  nav a {
   color: #fff;
   text-decoration: none;
   padding: 1em;
   margin: 0 1em;
   cursor: pointer;
  }

  section {
   margin: 2em;
  }
```

```css
    .event-container {
      display: flex;
      overflow-x: auto;
    }

    .event-card {
      flex: 0 0 300px;
      margin-right: 1em;
      background-color: #fff;
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
      border-radius: 5px;
      overflow: hidden;
    }

    .event-card img {
      width: 100%;
      height: 200px;
      object-fit: cover;
    }

    .event-details {
      padding: 1em;
    }

    .slide-btn {
      position: absolute;
      top: 50%;
      transform: translateY(-50%);
      width: 30px;
      height: 30px;
      background-color: #333;
      color: #fff;
      text-align: center;
      line-height: 30px;
      cursor: pointer;
    }

    .prev {
      left: 0;
    }

    .next {
      right: 0;
    }
  </style>
</head>
<body>

  <header>
    <h1><big>Sports Management System</big></h1>
```

```html
    </header>

    <nav>
     <a class="nav-link" href="home.html">Home</a>
     <a class="nav-link" href="#">Events</a>
     <a class="nav-link" href="reg1.html">Register</a>
     <a class="nav-link" href="login.html">Login</a>
    </nav>

    <section>
     <h2>Different Sports Events</h2>

     <div class="event-container">
      <!-- <div class="event-card">
       <img src="Events6.jpg" alt="Event 1">
       <div class="event-details">
         <h3>Event 1</h3>
         <p>Date: January 1, 2023</p>
       </div>
      </div>  -->

      <!-- Add more event cards as needed -->

      <div class="event-details">
       <img src="Events1.jpg" alt="Event 3">
       <div class="event-de">
         <h3>Event 1</h3>
         <p>Date: December 1, 2024</p>
       </div>
      </div>
      <div class="event-de">
       <img src="Events2.jpg" alt="Event 4">
       <div class="event-cd">
         <h3>Event 2</h3>
         <p>Date: December 31, 2023</p>
       </div>
      </div>
      <div class="event-cd">
       <img src="Events5.jpg" alt="Event 5">
       <div class="event-ab">
         <h3>Event 3</h3>
         <p>Date: January 21, 2023</p>
       </div>
      </div>
      <div class="event-ab">
       <img src="Events6.jpg" alt="Event 6">
       <div class="event-bc">
         <h3>Event 4</h3>
         <p>Date: February 1, 2023</p>
       </div>
```

```
      </div>
    </div>

    <div class="slide-btn prev" onclick="prevSlide()">❮</div>
    <div class="slide-btn next" onclick="nextSlide()">❯</div>
  </section>

  <script>
   let currentSlide = 0;

   function showSlide(index) {
     const eventContainer = document.querySelector('.event-container');
     const  eventCards  = document.querySelectorAll('.event-card');
     const totalSlides = eventCards.length;

     if (index >= totalSlides) {
      currentSlide = 0;
     } else if (index < 0) {
      currentSlide = totalSlides - 1;
      } else {
       currentSlide = index;
      }

     const translateValue = -currentSlide * (eventCards[0].offsetWidth + 1);
     eventContainer.style.transform = `translateX(${translateValue}px)`;
    }

    function nextSlide() {
     showSlide(currentSlide + 1);
    }

    function prevSlide() {
     showSlide(currentSlide - 1);
    }
  </script>

</body>
</html>
```

Login Page:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Login Page</title>
    <style>
```

```css
body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
    background-color: #f4f4f4;
}

header {
    background-color: #333;
    padding: 10px;
    text-align: center;
    color: white;
}

nav {
    background-color: #444;
    padding: 10px;
    text-align: center;
}

nav a {
    color: white;
    text-decoration: none;
    padding: 14px 16px;
    display: inline-block;
}

nav a:hover {
    background-color: #555;
}

.login-container {
    max-width: 400px;
    margin: 50px auto;
    background-color: #fff;
    padding: 20px;
    border-radius: 5px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
}

label {
    display: block;
    margin-bottom: 8px;
}

input {
    width: 100%;
    padding: 8px;
    margin-bottom: 12px;
    box-sizing: border-box;
```

```
        }

        button {
            background-color: #4caf50;
            color: #fff;
            padding: 10px 15px;
            border: none;
            border-radius: 3px;
            cursor: pointer;
        }
    </style>
</head>
<body>

    <header>
        <h1>Login Page</h1>
    </header>

    <nav>
        <a class="nav-link" href="home.html">Home</a>
        <a class="nav-link" href="#">Events</a>
        <a class="nav-link" href="reg1.html">Register</a>
        <a class="nav-link" href="login.html">Login</a>
     </nav>

    <div class="login-container">
        <form action="login.php" method="post">
            <label for="username">Username:</label>
            <input type="text" id="username" name="username" required>

            <label for="password">Password:</label>
            <input type="password" id="password" name="password" required>

            <button type="submit">Login</button>
        </form>
    </div>

</body>
</html>
```

Registration Page:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Sports Management System</title>
  <style>
```

```css
body {
 margin: 0;
 padding: 0;
 font-family: Arial, sans-serif;
 background: url('reg.jpg') center/cover no-repeat fixed ;
}

header {
 text-align: center;
 padding: 20px;
 background-color: #333;
 color: #fff;
}

nav {
 display: flex;
 justify-content: center;
 background-color: #444;
 padding: 10px;
}

nav a {
 color: #fff;
 text-decoration: none;
 padding: 10px 20px;
 margin: 0 10px;
 border-radius: 5px;
 background-color: #555;
}

nav a:hover {
 background-color: #777;
}

.container {
 max-width: 600px;
 margin: 50px auto;
 padding: 20px;
 background-color: rgba(255, 255, 255, 0.8);
 border-radius: 10px;
 box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
}

label {
 display: block;
 margin-bottom: 8px;
}

input {
 width: 100%;
```

```css
      padding: 8px;
      margin-bottom: 15px;
      box-sizing: border-box;
      border: 1px solid #ccc;
      border-radius: 4px;
    }

    button {
      background-color: #333;
      color: #fff;
      padding: 10px 20px;
      border: none;
      border-radius: 5px;
      cursor: pointer;
    }

    button:hover {
      background-color: #555;
    }
  </style>
</head>
<body>
  <header>
    <h1>Sports Management System</h1>
  </header>

  <nav>
    <a href="home.html">Home</a>
    <a href="#">Events</a>
    <a href="reg1.html">Register</a>
    <a href="login.html">Login</a>
  </nav>

  <div class="container">
    <h2>Registration</h2>
    <form>
      <label for="username">Username:</label>
      <input type="text" id="username" name="username" required>

      <label for="email">Email:</label>
      <input type="email" id="email" name="email" required>

      <label for="password">Password:</label>
      <input type="password" id="password" name="password" required>

      <button type="submit">Register</button>
    </form>
  </div>
</body>
</html>
```
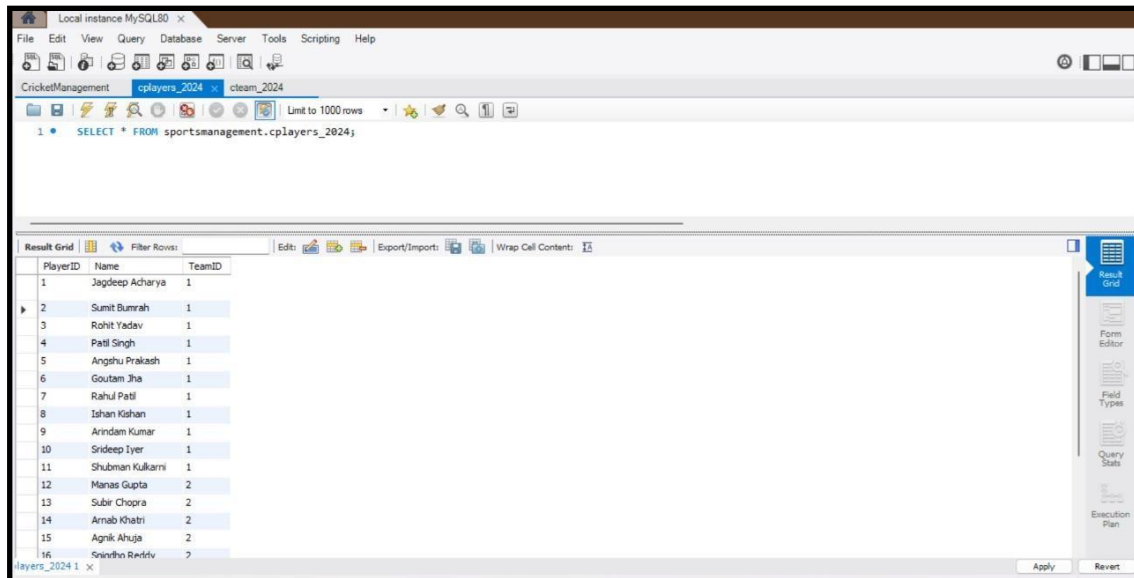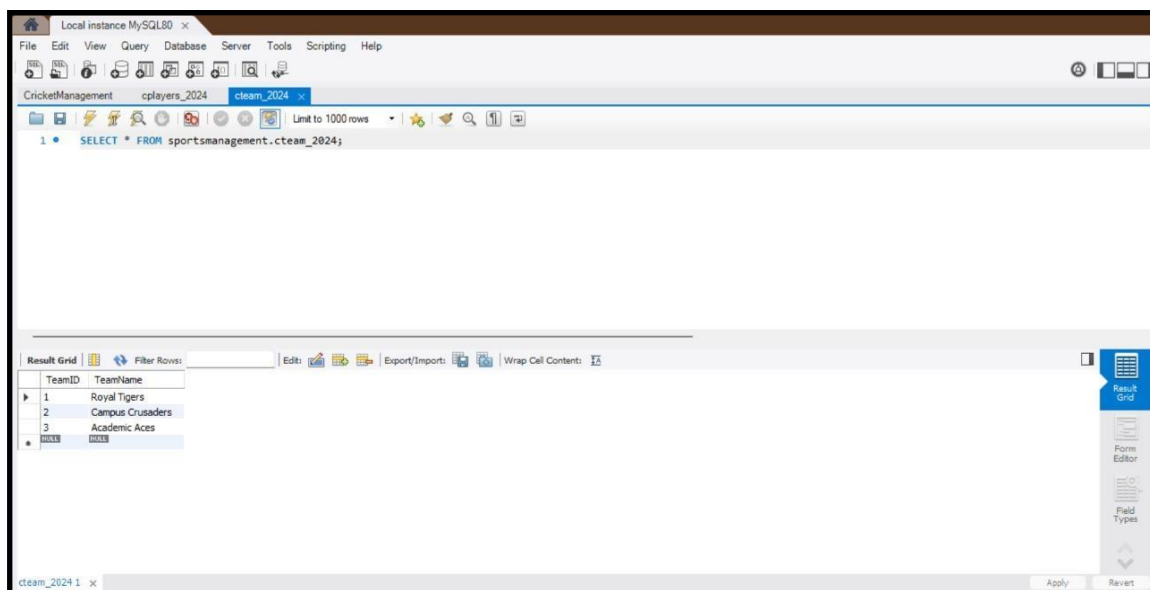
Data Structures and Tables

Player Profile

Teams Profile

RESULTS AND DISCUSSIONS

Sports are one of the most important activities or events that will be taking place at colleges. The traditional system of management system was used to manage sports at colleges. As, there were large number of sports and large amount of data to be manage, it was tedious to manage all this data manually. In this, sports event management platform we try to bring out a simple process where all these data about sports and students can be managed automatically by the database.

Presentation of System Functionality

User Experience
The implementation of the sports management system has resulted in a significantly enhanced user experience. Users, including players, coaches, and administrators, have reported a more intuitive interface, personalized dashboards, and smoother navigation. The frontend design, built using React.js, has contributed to a visually appealing and responsive platform.

Event Management
The dynamic event scheduling and registration features have streamlined the overall event management process. Administrators can easily create, modify, and track events, while participants benefit from real-time updates and automated reminders. This has led to increased efficiency in organizing and participating in sports events.

Chatbot Interaction
The integration of a chatbot has proven to be a valuable asset, providing natural language interaction for users. The chatbot effectively assists users in event inquiries, registration processes, and general information retrieval. Continuous learning mechanisms have improved the chatbot's responsiveness over time.

Data-driven Decision Making
With a robust backend infrastructure and data management system, the sports management system has empowered administrators with data-driven insights. Real-time statistics, historical data, and performance analytics for teams and players contribute to more informed decision-making processes.

Comparison with Initial Objectives

User Experience Enhancement
Objective: Improve the overall user experience for players, coaches, and administrators. Result: Achieved. User feedback and system analytics indicate a substantial improvement in user satisfaction and engagement.

Efficient Event Management
Objective: Streamline the planning, scheduling, and execution of sports events. Result: Achieved. The automated event management features have reduced administrative burdens and enhanced the overall efficiency of organizing events.

Real-time Communication
Objective: Facilitate instant communication and updates through a chatbot interface.
Result: Achieved. The chatbot has become a reliable tool for users to receive real-time updates, event information, and assistance with queries.

Data-driven Decision Making
Objective: Implement robust data management for informed decision-making and analytics.
Result: Achieved. The system's backend infrastructure has provided administrators with comprehensive data analytics tools, supporting strategic planning and decision making.

Discussion of Deviations from the Plan

Technical Challenges
The implementation phase faced challenges related to integrating third-party APIs for additional functionalities. However, the development team successfully addressed these challenges through collaborative problem-solving and adapting the system architecture.

User Adoption
While the system has been well-received overall, there were initial challenges in user adoption. Training sessions and user guides were introduced to address this, resulting in increased user acceptance over time.

User Feedback and Improvements

Positive Feedback
Users have expressed satisfaction with the improved user interface, real-time updates, and the chatbot's convenience. Positive feedback highlights the successful achievement of the system's objectives.

Areas for Improvement
Feedback also identified areas for improvement, including additional features for team collaboration and enhanced customization options. These suggestions will be considered in future updates to further refine the system.

Conclusion

In conclusion, the results and discussion demonstrate the successful implementation of the sports management system, achieving its objectives of enhancing user experience, improving event management, facilitating real-time communication, and enabling data-driven decision-making. Continuous feedback and planned updates will ensure the system remains adaptive to the evolving needs of sports organizations and their stakeholders.

FUTURE PLAN

Chatbot Implementation:

We will integrate chatbot in our website. Implementing a chatbot in a sports management system website involves integrating various technologies.

LangChain:

Overview: LangChain is likely a technology or library for natural language processing (NLP) or conversational interfaces. It could handle tasks such as understanding user input, generating responses, and managing the flow of conversation.

Role in the Implementation:

LangChain would be used to process and understand user queries or commands in natural language.

It might include functionalities for language understanding, intent recognition, and entity extraction.

SQL Database:

Overview: SQL databases are used for storing and managing structured data. In the context of a sports management system, you might store information about teams, players, schedules, etc.

Role in the Implementation:

The SQL database would store data related to the sports management system, such as user accounts, team details, match schedules, and player information.

The chatbot might interact with the database to retrieve or update information based on user queries.

Dialog Flow:

Overview: Dialog Flow is a natural language understanding platform provided by Google. It allows you to design and build conversational interfaces (chatbots) for various platforms.

Role in the Implementation:

Dialog Flow would be used to define the conversational flow and natural language understanding capabilities of the chatbot.

You would create intents in Dialog Flow to capture the various actions or queries that users might make regarding sports management.

Dialog Flow can be integrated with other services or your backend to fulfill user requests, such as retrieving data from the SQL database.

Integration Flow:

User Interaction:

Users interact with the chatbot through the website's interface.

They can ask questions or give commands related to sports management.

LangChain Processing:

LangChain processes the user input, extracting intents and entities.

Dialog Flow Interaction:

The processed input is sent to Dialog Flow, which determines the intent of the user and extracts any relevant information.

SQL Database Interaction:

If the user query requires information from the database, the chatbot interacts with the SQL database to fetch or update data.

Response Generation:

Based on the information gathered, the chatbot generates a response using LangChain, ensuring a natural and coherent conversation.

User Feedback:

The response is then presented to the user on the website.

The cycle continues as users can further interact with the chatbot.

In summary, the integration involves a collaborative effort between LangChain for natural language processing, Dialog Flow for conversation design and understanding, and an SQL database for storing and retrieving data related to the sports management system. The goal is to create a seamless and intuitive chat-based interface for users to interact with the sports management system.

Continuous Improvement and Iterative Development

User Feedback Mechanism
Implement a systematic user feedback mechanism to collect ongoing insights from players, coaches, administrators, and fans. Regular surveys, feedback forms, and analytics will be utilized to understand user preferences and areas for improvement.

Agile Development Methodology
Continue utilizing the Agile development methodology to ensure the system remains adaptable to changing requirements. Regular sprint cycles will allow for the incorporation of new features, enhancements, and bug fixes based on user feedback and emerging industry trends.

Additional Features and Functionalities

Enhanced Customization Options
Provide users with more customization options for their dashboards and profiles. This will allow individuals to tailor their experience based on their specific roles, preferences, and the information they find most relevant.

Integration with Wearable Technology
Explore integration with wearable technology to capture real-time data on player performance, health metrics, and fitness levels. This data can be used for personalized training programs and injury prevention strategies.

Data Analytics and Artificial Intelligence

Advanced Analytics Modules
Develop advanced analytics modules that leverage machine learning algorithms to provide deeper insights into player and team performance. This could include predictive analytics for match outcomes and player development trajectories.

AI-driven Personalization
Further enhance the AI-driven chatbot's capabilities to provide personalized recommendations and assistance. Natural language processing improvements will contribute to more accurate and context-aware interactions.

Expansion and Collaboration

Integration with External Systems
Explore opportunities for integration with external systems, such as sports analytics platforms, social media channels, and sports merchandise providers, to expand the system's capabilities and provide additional value to users.

Collaboration with Sports Organizations
Collaborate with sports organizations, leagues, and associations to tailor the system to their specific needs. Establish partnerships that facilitate the adoption of the sports management system across a broader user base.

Conclusion

The future plan outlines a roadmap for the continuous improvement and expansion of the sports management system. By incorporating user feedback, introducing new features, enhancing data analytics and artificial intelligence capabilities, and ensuring security and compliance, the system will remain at the forefront of technology in the dynamic field of sports management. Regular updates and collaboration with stakeholders will drive the ongoing success and relevance of the system.

Finally in sports good management system, we have a system where User comes to the shop and his registration will be done with the details of him and choice will be considered and staff brings out the goods and admin prepare this bill and according to gives the goods to him. Before that admin puts all the goods in a very classified manner in different racks according to the type of products and assigns the staff to the racks. Hence the system completes its task at best.

Backend (using PHP):

The backend of a sports management system website developed in PHP typically involves handling user authentication, data storage, and processing user requests. You'd use PHP to interact with a database to store and retrieve information such as user credentials, sports events, and participant details.

User authentication is a crucial aspect, ensuring secure access to the system. PHP scripts validate user credentials against those stored in the database and manage user sessions for logged-in users.

For data storage, PHP interacts with a relational database management system (RDBMS) like MySQL or PostgreSQL. It's responsible for creating, reading, updating, and deleting records in the database. The backend also manages relationships between different entities, such as connecting participants to specific sports events.

Moreover, PHP handles user requests from the frontend, ensuring that data is processed appropriately. This may involve form submissions, data validation, and responding to queries from the frontend.

In summary, the PHP backend of a sports management system plays a crucial role in managing user authentication, interacting with databases for data storage, and processing user requests to provide a seamless and secure experience for users.

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