

# CS 411 - SportsUniverse

- Megha, Manan, Rudhi, Ishanvi

## 1. Describe what data is stored in the database. (Where is the data from, and what attributes and information would be stored?)

- The database for the SportsUniverse application would incorporate data from two primary datasets: the "2021 Olympics in Tokyo" dataset and the "Indian Premier League (IPL) - All Seasons" dataset, both available on Kaggle. Here's a breakdown of the data that would be stored in the database:

### 2021 Olympics in Tokyo Dataset:

- **Athletes Data:** This dataset includes information about athletes participating in the 2021 Tokyo Olympics, such as their names, unique athlete IDs, genders, and birthdates.
- **EntriesGender Data:** This dataset provides details about the entries in various sports events, including the athlete IDs, the events they participate in, and their corresponding genders.
- **Medals Data:** This dataset records the medals won by athletes, including the athlete IDs, medal types (gold, silver, bronze), and the events in which they won medals.
- **Teams Data:** Information about the countries and teams participating in the Olympics, including their names, National Olympic Committee (NOC) codes, and other related attributes.
- Attributes stored from the "2021 Olympics in Tokyo" dataset would include athlete names, unique IDs, genders, birthdates, event participation, medal information, and country affiliations.

### Indian Premier League (IPL) - All Seasons Dataset:

- **Player Data:** This dataset contains information about IPL players, including their player IDs, names, country of origin, roles (batsman, bowler, all-rounder), and playing roles (batsman, bowler, all-rounder, wicketkeeper).
- **Match Summary Data:** This dataset provides match-related information, such as match IDs, dates, venues (grounds/locations), and outcomes (match results, winners).
- **Player Performance Data:** Detailed statistics for each IPL player across different seasons, including runs scored, wickets taken, batting and bowling averages, strike rates, and more.

- Attributes stored from the "Indian Premier League (IPL) - All Seasons" dataset would encompass player IDs, names, country of origin, roles, match details, and comprehensive player performance statistics.
- In addition to these core datasets, the database may also include auxiliary tables for user accounts and preferences, such as user profiles, preferences for favorite players and teams, and user-generated content (e.g., comments, reviews). This user-related data would enable personalization and user engagement within the SportsUniverse application, enhancing the overall user experience.

## 2. What are the basic functions of your web application? (What can users of this website do? Which simple and complex features are there?)

### Basic Features

- **User Registration and Authentication:** User accounts and personalized experiences would be facilitated through registration and authentication processes.
- **Dashboard:** A central dashboard displaying ongoing global sports leagues, including schedules, scores, and upcoming matches, would be provided.
- **Top Players/Trending Players:** Users would have the ability to explore profiles of top players in various sports, including their detailed statistics and achievements.
- **Stats Visualization:** A dedicated page for exploring graphical representations of data related to gender distribution, medal counts, countries performing well, and more would be included, with charts, graphs, and interactive visuals.
- **Olympics and IPL Sections:** The data would be segregated into separate sections for the Tokyo Olympics and Indian Premier League, enabling users to switch between them seamlessly.
- **Athlete and Team Profiles:** Comprehensive profiles for athletes, coaches, teams, and countries participating in events would be available.
- **Medal Tally:** A real-time medal tally for the Olympics and comprehensive statistics for the IPL, including team rankings, player stats, and points tables, would be displayed.
- **Complex Features:** Community Forum: Discussion forums where users can engage in conversations, share insights, and connect with fellow sports enthusiasts would be established.
- **News and Updates:** Integration of a news feed or blog section to keep users updated on the latest happenings in both sports, utilizing RSS feeds or APIs to fetch news from reliable sources, would be included.

In conclusion, SportsUniverse is poised to offer a comprehensive and engaging sports-centric experience. Whether you're a casual sports fan or a dedicated enthusiast, our platform will

provide you with the tools and information you need to dive deep into the world of sports. Stay connected, explore the stats, and be part of a vibrant sports community with SportsUniverse.

**3. What would be a good creative component (function) that can improve the functionality of your application? (What is something cool that you want to include? How are you planning to achieve it?)**

One standout creative component that will elevate the functionality of our SportsUniverse application is the 'Sports Enthusiast Hub.' This multifaceted hub combines the power of an Analytics Dashboard, a vibrant Community Forum, real-time News and Updates into a single dynamic space. Users can not only monitor their personal sports engagement and activity metrics through the Analytics Dashboard but also engage in real-time discussions with fellow sports enthusiasts on the Community Forum. They'll have access to the latest sports news and updates from various sources, all integrated seamlessly. This integrated hub transforms SportsUniverse into a one-stop destination for sports fans, fostering a sense of community, knowledge sharing, and real-time interaction while keeping users informed and engaged.

**4. Project Title**

TITLE - "SportsUniverse: Your Ultimate Sports Companion"

**5. Project Summary: It should be a 1-2 paragraph description of what your project is.**

Introducing SportsUniverse, an all-in-one sports enthusiast's paradise. Recognizing the demand for fantasy leagues and the need to simplify the experience, SportsUniverse offers users the opportunity to create accounts and personalize their engagement while ensuring seamless access to ongoing global leagues, like the upcoming Olympics and the IPL, right from a comprehensive dashboard. Users can delve into detailed athlete and team profiles, explore the top players' statistics and achievements, and stay up-to-date with real-time medal tallies and IPL statistics, all conveniently organized into separate sections. SportsUniverse takes it a step further by providing a captivating stats visualization page, where users can delve into graphical representations of data encompassing gender distribution, medal counts, and standout performing countries. To foster community engagement, SportsUniverse seamlessly integrates a community Forum, allowing users to share their favorite players, achievements, and match results with friends, making sports more interactive and connected than ever before. Say goodbye to missing out on scores and trends, especially across different time zones, and embrace SportsUniverse for an immersive sports experience tailored to your preferences.

"SportsUniverse" is an ambitious and comprehensive web-based application that serves as the ultimate companion for sports enthusiasts. With a primary focus on the 2021 Tokyo Olympics and the Indian Premier League (IPL), this platform offers an extensive array of features. Users can create accounts for a personalized experience, explore real-time data, and engage with a dynamic dashboard displaying ongoing global sports leagues, schedules, scores, and upcoming matches. The application boasts a unique "Sports Enthusiast Hub," combining an Analytics Dashboard for user insights, a vibrant Community Forum for discussions, and real-time News and Updates from multiple sources. "SportsUniverse" is designed to deliver an immersive experience, from in-depth athlete profiles to real-time medal tallies and captivating data visualizations. It's a hub where sports fans can connect, engage, and stay updated, making it the go-to destination for all things sports.

**6. Description of an application of your choice. State as clearly as possible what you want to do. What problem do you want to solve, etc.?**

**Objective:** SportsUniverse is a comprehensive sports-centric application that will help address the needs of sports enthusiasts. The goal of this application is to simplify the sports experience while providing in-depth information, fostering community engagement, and keeping users informed about their favorite sports and athletes. SportsUniverse aims to solve the problem of fragmented sports information and provide a one-stop platform for everyone.

**Problem to Solve:** Sports fans often struggle with the scattered nature of sports information. Staying updated on various sports events, exploring detailed statistics, and connecting with like-minded individuals can be a daunting task. SportsUniverse aims to simplify this process by centralizing sports-related content and interaction in one convenient location.

**Solution:** The many different and comprehensive features of SportsUniverse can help solve this problem:

1. **Centralized Dashboard:** The comprehensive dashboard displaying information about all the upcoming schedules and matches will be a one spot solution for all sports lovers to plan their calendars.
2. **Player and Team Profiles:** The player and team profiles will cater to all sports enthusiasts who wish to know more about certain teams/games.
3. **Engaging Stats Visualization:** The engaging visual stats feature of SportsUniverse will serve as a go to spot to get in touch with all the games.

4. Community Interaction: The Community Forum where sports enthusiasts can engage in real-time discussions, share insights, and connect with individuals will help connect people with similar interests and form a better sense of community.

5. News and Updates: Users can stay informed with real-time news and updates from various sources. Integration with news feeds and blogs will ensure that users are always up-to-date with the latest happenings in the sports world.

6. Personalization: Users can create accounts for a personalized experience. They can set preferences for favorite players and teams, engage with user-generated content (such as comments and reviews), and tailor their sports journey to their liking.

Unique Feature: The standout feature of SportsUniverse is the "Sports Enthusiast Hub." This multifaceted hub combines an Analytics Dashboard, and a vibrant Community Forum, real-time News and Updates from multiple sources. Here, users will be able to monitor their personal sports engagement and activity metrics through the Analytics Dashboard. Simultaneously, they can engage in real-time discussions with fellow sports enthusiasts on the Community Forum. They'll have access to the latest sports news and updates from various sources, all integrated seamlessly. This integrated hub transforms SportsUniverse into a one-stop destination for sports fans, fostering a sense of community, knowledge sharing, and real-time interaction while keeping users informed and engaged.

**7. Usefulness. Explain as clearly as possible why your chosen application is useful. Make sure to answer the following questions: Are there any similar websites/applications out there? If so, what are they, and how is yours different?**

We're all passionate about sports, and we've noticed a need in the market. While many platforms cater to e-Sports or offer real-time updates like ESPN, we aim to offer something different. Our platform will stand out with its clear and engaging stats visualization. We'll provide in-depth statistics for both teams and individual players. As major events like the IPL and the Olympics take place, our platform will give users an informative and streamlined experience, perfect for those with busy lifestyles

**8. Realness. Describe what your data is and where you will get it.**

We plan to use the dataset provided on the TA datasets which was available on Kaggle. This dataset covers over 11,000 athletes from 47 disciplines who participated in the Tokyo 2020 Olympics, held in 2021. It provides data on athletes, coaches, teams, and gender-specific entries, including details like names, countries represented, and disciplines.

<https://www.kaggle.com/datasets/arjunprasadsarkhel/2021-olympics-in-tokyo>

We also found an IPL - All Seasons dataset on Kaggle which entails a match level summary as well as ball by ball details format for all matches in the T20 cricket from 2008 to 2023.

<https://www.kaggle.com/datasets/rajsengo/indian-premier-league-ipl-all-seasons>

Additionally, we're considering reputable sources like SB Nation and The Guardian to integrate real-time news and updates into our platform.

**9.Description of the functionality that your website offers. A low-fidelity UI mockup: What do you imagine your final application's interface might look like? A PowerPoint slide or a pencil sketch on a piece of paper works!**

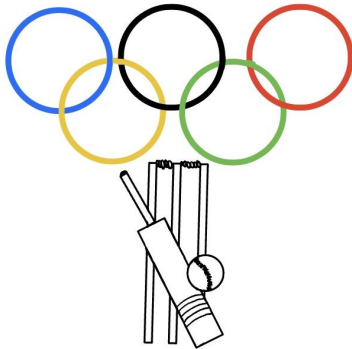
SportsUniverse offers many functionalities to cater to sports enthusiasts. Users can create accounts with secure authentication, have a dashboard that is personalized, and many other features such as statistics, scores, and schedules. The user can interact with the application by being able to create their own league and keep track of their score and ranking. The user can also search for specific people or teams and see their stats.

**A low-fidelity UI mockup:**

Home  
Page

Dashboard News Rankings Statistics

SPORTS UNIVERSE



username

password

Sign In

create an account

Dashboard

Dashboard News Rankings Statistics

MY LEAGUES

Current Game Stats

Games Live Finished Scheduled

Player  
Info

Dashboard News Rankings Statistics

Q Search Bar


PLAYER NAME

FILTER

Country +

Sport +

Position +



Sport : ~~~~~

Country : ~~~~~

Position : ~~~~~

Team : ~~~~~

Awards : ~~~~~

Stats  
page

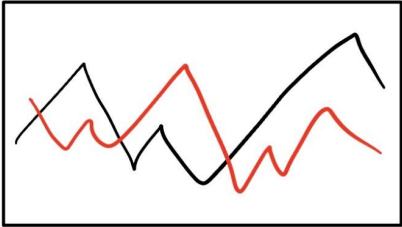
Dashboard News Rankings Statistics

Olympics IPL

Year

Team

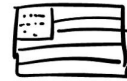
Country





Team Profile

TEAM NAME



### COACHES

Name

~

Country

~

Sport

~

### ATHLETES

Name

~

Country

~

Position

~

Adding  
league/  
players

Dashboard News Rankings Statistics

Choose a Player  
and a League

Player

League

News /  
Updates

# NEWS

LATEST

Personalized  
News stories

Community  
Forum

DashboardNewsRankingsStatistics

TOPICS/  
Games

add Comment

**Who would be responsible for each of the tasks or subtasks?**

**List of the person responsible for which exact functionalities in section 6. Explain how backend systems will be distributed across members. Be as specific as possible as this could be part of the final peer evaluation metrics.**

Task	Description	Assignment
Database Setup	<ol style="list-style-type: none"><li>1. Design database schema to store all the information in the two datasets</li><li>2. Manage on AWS</li><li>3. Database management on SQL</li></ol>	1. Manan
Getting and Cleaning Data	<ol style="list-style-type: none"><li>1. Use pandas to clean and format data to liking</li></ol>	1. Ishanvi
Data Integration	<ol style="list-style-type: none"><li>1. Import data from the kaggle datasets</li><li>2. Can use a data processing script</li></ol>	1. Ishanvi
User Authentication	<ol style="list-style-type: none"><li>1. Implement user registration/sign up and authentication functionality</li><li>2. This also can be done using AWS</li><li>3. Backend server needed</li></ol>	1. Megha
Centralized Dashboard	<ol style="list-style-type: none"><li>1. Create a dashboard for users to view schedules, scores, and stats</li><li>2. HTML, CSS, Javascript</li><li>3. Backend APIs</li></ol>	1. Ishanvi
Player Profiles	<ol style="list-style-type: none"><li>1. Create pages for athlete profiles with detailed info</li><li>2. HTML, CSS,</li></ol>	1. Megha

	Javascript 3. Backend APIs	
Team Profiles	4. Create pages for teams with detailed info 5. HTML, CSS, Javascript	1. Megha
Engaging Stats Visualization	1. Design and implement data visualization pages 2. Javascript libraries 3. Backend APIs for data visualization	1. Rudhi
Community Forum	1. Build discussion forum for users to engage in and have multiple different topics to discuss about 2. HTML, CSS, Javascript 3. Backend Server	1. Rudhi
News and Updates	1. Integrate news feeds 2. Use APIs for real time sports news updates 3. Javascript, External APIs 4. Backend Server	1. Manan
Personalization	1. Allow users to set preferences for favorite players and teams 2. HTML, CSS, Javascript 3. Backend APIs	1. Manan