

# Data-Driven Decision Making in Institutional Sports: Developing a Comprehensive Database and Analytics Framework for Tournament Management and Performance Analysis

Sadashiv S. Prabhu

Assistant Professor, Department of Information Technology,  
Sant Rawool Maharaj Mahavidyalaya, Kudal, Maharashtra, India

## 1. INTRODUCTION

➤ **Overview of the Project:** This paper explores the design and development of a website to manage championship point tables and records, typically used in sports or competitions. The website allows users to view standings, records, and statistics in real time.

➤ **Purpose of the Website:** To create an efficient and dynamic system where users can check the points, rankings, and historical data of various competitions or sports.

➤ **Target Audience:** Sports fans, event organizers, and statisticians.

## 2. Technology Stack

### ➤ Frontend:

- HTML, CSS, and JavaScript (for dynamic interactions and rendering)
- Bootstrap CSS (for responsive design)

### ➤ Backend:

- **PHP:** The server-side language to handle data manipulation, such as updating records, retrieving points, and generating rankings.
- **MySQL:** Database management system to store data (user profiles, event details, match results, points, etc.)

➤ **Web Hosting:** Use shared or dedicated hosting services or cloud solutions like AWS or DigitalOcean.

➤ **Version Control:** GitHub for managing code versions and collaboration.

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## 3. Database Design

### ➤ Tables:

- **Users Table:** Stores information about participants or teams, including their name, class, ranking, etc.
- **Events Table:** Stores details of the events/competitions (e.g., event name, date, and location).
- **Matches Table:** Stores individual match results (team 1, team 2, score, etc.).
- **Points Table:** Stores points awarded for each match result based on the type of competition.
- **Records Table:** Stores historical records, such as most points, highest scores, etc.

## 4. Website Functionality

➤ **Homepage:** The homepage displays a summary of the most recent championship standings, recent matches, upcoming events, etc.

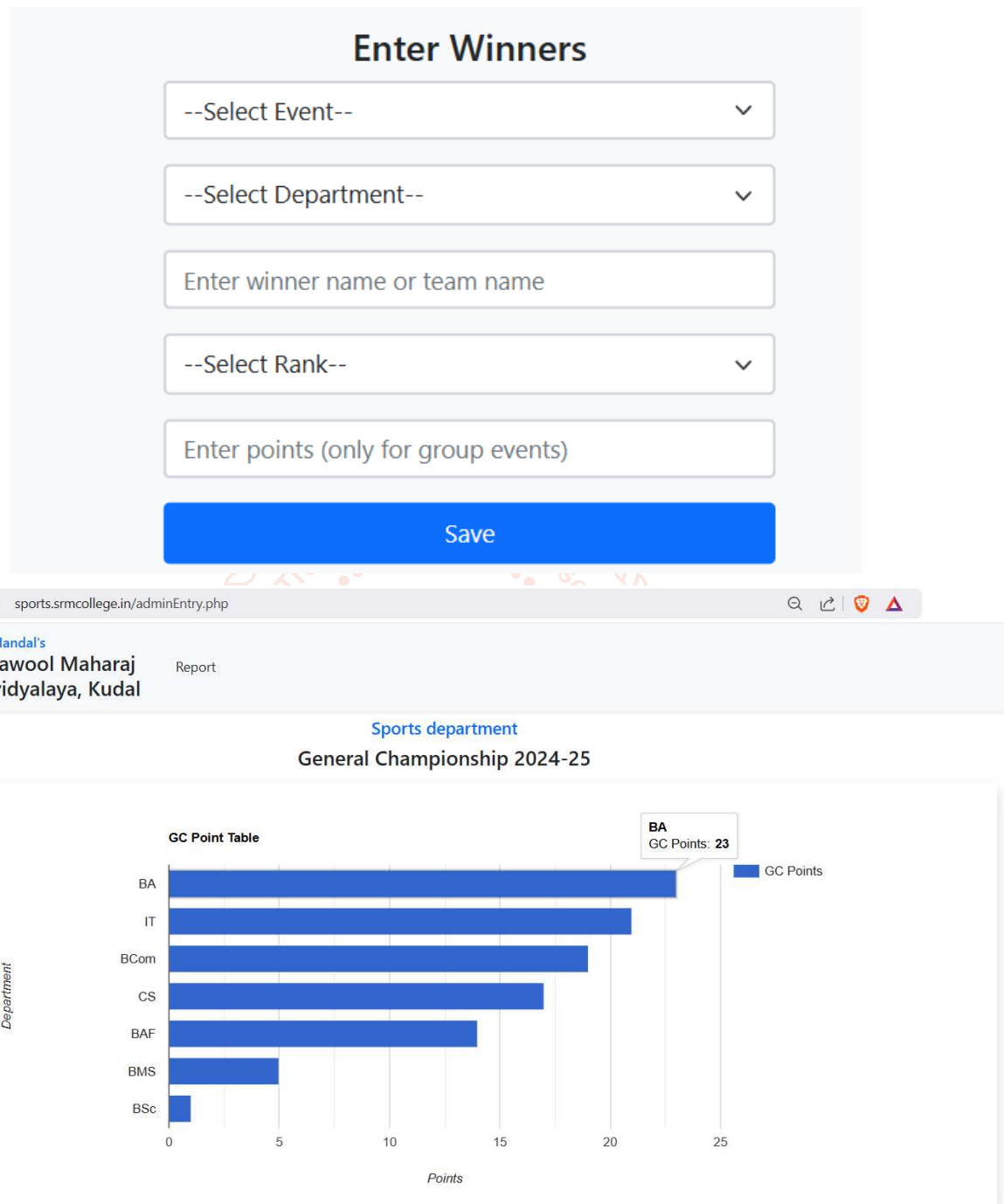
➤ **Champion Table:** A dynamic table that shows participants/teams and their respective points, rank, and performance across various events. The table should be sortable and filterable by various criteria (e.g., event name, date, ranking, etc.).

➤ **Match Results:** A page that displays individual match results with relevant data (teams, scores, points awarded).

➤ **Record Keeping:** Display records like highest score, longest streak, or other specific achievements in the competition.

- **User Management:** Include a login system where participants can update their profile or view their performance in different events.
- **Admin Panel:** Admins can manage users, events, and match results, and adjust points as needed
- **Link:** <https://sports.srmcollege.in>

## 5. Reports



### Winners

<b>Cricket (Boys)</b> 1 Team IT (IT) 2 Team CS (CS) 3 Team BCom (BCom) 4 Team BMS (BMS)	<b>Cricket (Girls)</b> 1 Team BCom (BCom) 2 Team IT (IT) 3 Team BAF (BAF) 4 Team CS (CS)	<b>Vollyball (Boys)</b> 1 Team IT (IT) 2 Team BAF (BAF) 3 Team CS (CS) 4 Team BMS (BMS)
<b>Vollyball (Girls)</b> 1 Team CS (CS) 2 Team BA (BA) 3 Team IT (IT) 4 Team BAF (BAF)	<b>Kabaddi (Boys)</b> 1 Team BA (BA) 2 Team IT (IT) 3 Team BMS (BMS) 4 Team CS (CS)	<b>Kabaddi (Girls)</b> 1 Team BA (BA) 2 Team BCom (BCom) 3 Team IT (IT) 4 Team BSc (BSc)
<b>Kho-kho (Boys)</b> 1 BA Team (BA) 2 BAF Team (BAF) 3 BMS Team (BMS) 4 IT Team (IT)	<b>Kho-kho (Girls)</b> 1 CS Team (CS) 2 BAF Team (BAF) 3 BA Team (BA) 4 IT Team (IT)	<b>Relay (Boys)</b> 1 Saurabh Prakash More (BCom) 2 Sanjay Rajaram Nikam (BA) 3 Ramchandra Muralidhar Khavane (BMS) 4 Paras Narayan Kanekar (CS)
<b>Relay (Girls)</b> 1 Harshada Deepak Salgaonkar (BCom) 2 Ashwini Anil Teli (BAF) 3 Siddhi Satyavan Dharane (IT) 4 Nikita Sabaji Kubal (BA)	<b>Badminton (Boys)</b> 1 Kamlesh Arvind Mestri (IT) 2 Gandhar Dipak Patade (IT)	<b>Badminton (Girls)</b> 1 Sanika Keluskar (IT) 2 Geeta Khanolkar (BAF)

## 6. Challenges and Solutions

- **Data Integrity:** Ensure that data like scores and points are consistent, and implement validation mechanisms.
- **Performance:** As the data grows, optimize SQL queries and consider using caching mechanisms to improve page load speed.
- **Security:** Implement proper security practices, such as data sanitization, user authentication, and protection against SQL injection.

## 7. Future Enhancements

- **Real-Time Updates:** Implement WebSocket or AJAX for real-time updates when new match results come in.

- **Mobile Version:** Build a responsive mobile-friendly version of the website.

- **Multilingual Support:** Add support for multiple languages for international audiences.

## 8. Conclusion

- Recap of how PHP and MySQL were used to develop a championship point table and record system.
- A summary of potential real-world applications, such as for sports leagues, competitive gaming, or academic competitions.