

# INFO – 5707 Data Modeling for Information Professionals (Fall 2024)

Professor - Dr. Lingzi Hong

Project Group – 8

## PROJECT PROPOSAL

### Team Members:

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## **Project Proposals during discussions:**

### **Title: NBA League (Sri Saaketh Ram Haridasyam)**

The NBA(National Basketball Association) is one of the main professional sports leagues that happens every year in the United States and Canada. Many people around the US follow the league as it has a huge fanbase and generates vast amounts of data in each game. It includes league players, coach, and event location.

### **Title: Hospital Patient Management (Vinay Daram)**

Healthcare organizations are capable of handling patient data, medical appointments, past records, and bill payments more efficiently related to the hospital patient management database system. By gathering the data, the system will automatically improve patient care.

### **Title: Game Explore System (Surya Teja Garneni)**

Implementing a game database collection of different game CDs and emulator games. Providing detailed descriptions, reviews, and pricing for every game. It's like a one-stop where gamers can browse and pick their favorite game titles.

### **Title: PRO Kabaddi League Database Management (Avinash Keerthi)**

The database management system of the Pro Kabaddi League would hold information regarding the teams, players, matches, coaches, seasons, fans, tickets, venues, sponsorships, and statistics. Further, by connecting these entities, a database management system gets stored and retrieved data in an efficient manner. This architecture allows the league to perform easy operations, analyze player performance, and to develop fan engagement strategies by technology development.

## **Title: Travel and Tourism Database (Nanditha Aitha)**

The travel and tourism database is designed to store, organize, maintain, and update data in database tables. This database system consists of entities like Customers, travel agencies, booking, packages, etc allowing admins to manage and access efficiently. By maintaining consistent data in entities to ensure the uniqueness of records providing access for updating records in entities and improving customer service.

After discussing the above topics with my teammates, we eventually chose the **Pro Kabaddi League Database Management**. Since it is a sport that is currently trending and very much like a contact sport, the project we think is not only up-to-date but also very relevant and it is an exciting challenge to store and manage all the data that the league generates. Its database will gather and link the description of teams, players, matches, coaches, fans, and other entities to ensure the proper data storage and analysis.

We are using **Microsoft SQL** as it has high-performance data processing, high availability, reliability, and high scalability, we will also use **draw.io** to draw the ERD.

### **General Objectives** for the Pro Kabaddi League Database Management

- The Pro Kabaddi League database is used to store, organize, and manage data between different entities such as players, teams, sponsorship, etc to provide easy access and data management
- To evaluate the team and players we use historical data and analytical tools.
- Improving interaction by increasing the number of tickets sold, through advertising, and providing match updates and new information.
- Ensuring data protection and integrity by managing sensitive data and maintaining accuracy and consistency.

## **Scope**

### **Player Management Team**

This team will work on various activities related to the management of teams and players. Key duties include:

- **Team Structure:** Organizing and keeping a complete team list of each coach, team roster, and location assignments.
- **Player Development:** Observing- the profiles and records of players, including stats, internets, progression, and injury histories.
- **Coaching Oversight:** Solving the team's information about the coaching staff, strategies, and their contribution to team performance and player development.
- **Seasonal Adjustments:** Shifting from one player replacing, drafting, and team reshuffling as the seasons move, so that the team compositions are kept up-to-date.

### **Match and Event Management Team**

This team will be in charge of the scheduling of the matches and their successful execution, as well as the improvement of the overall event experience. Responsibilities include:

- **Match Scheduling:** Arranging the match fixture, and securing the availability of the ground At the end of the match, a score record and outcomes summary is produced.
- **Ticket Sales Management:** Controlling ticket inventory, pricing, sales transactions, and seat assignments to best profit fan access and experience.
- **Event Coordination:** The planning and execution of updates to the website and, at the same time, the coordination of logistics to ensure the smooth running of operations on the game day.
- **Fan Engagement Initiatives:** Working with the marketing department to launch special promotions of fans' favorite products and to organize interactive activities.

## **Sponsorship and Fan Relations Team**

This team will concentrate on sponsorship management and developing relationships with fans. The main tasks are as follows:

- **Sponsorship Management:** Keeping track of sponsor contracts, financial contributions and the success of sponsorship deals in terms of promoting the league.
- **Financial Oversight:** Controlling income from ticket sales, sponsorships, clothes, which consists of financial reporting to assure transparency and accountability.
- **Fan Interaction:** Creating ways to entice the fans to participate by dealing with them on a personal level, the use of membership programs, and receiving feedback from them.
- **Promotional Activities:** To arrange promotional activities aimed at increasing visibility for sponsors and fan turnout, hence creating a healthy community around the league.
- **The Kabaddi League Database** is the mastermind behind bringing these teams together. This means that it provides a solid foundation for both efficient management and cooperation in all areas of the league's work, equal involvement of team members, accurate match execution, and promotion of fan engagement.

## **Here are the Tables and Features which are contained in the Pro Kabaddi League's Database**

### **Entities**

#### **1. Teams**

- Team\_ID (Primary Key)
- Team\_Name
- Coach\_ID (Foreign key)
- Established\_Year
- Home\_Ground

#### **2. Players**

- Player\_ID (Primary Key)
- Player\_Name
- Team\_ID (Foreign Key)
- Position
- Player\_DOB
- Nationality
- Height
- Weight

#### **3. Matches**

- Match\_ID (Primary Key)
- Team\_A\_ID (Foreign Key)
- Team\_B\_ID (Foreign Key)
- Match\_Date
- Venue\_ID (Primary Key)
- Score\_Team\_A
- Score\_Team\_B
- Status (Scheduled/Completed)

#### 4. Statistics

- Stat\_ID (Primary Key)
- Player\_ID (Foreign Key)
- Match\_ID (Foreign Key)
- Points\_Scored
- Tackles\_Made
- Raid\_Points
- Defensive\_Points

#### 5. Sponsors

- Sponsor\_ID (Primary Key)
- Sponsor\_Name
- Contact\_number
- Sponsor\_Email
- Sponsorship\_Amount
- Contract\_Start\_Date
- Contract\_End\_Date

#### 6. Tickets

- Ticket\_ID (Primary Key)
- Match\_ID (Foreign Key)
- Ticket\_Price
- Seat\_Number
- Purchase\_Date
- Buyer\_Name

#### 7. Fans

- Fan\_ID (Primary Key)
- Ticket\_ID(Foreign Key)
- Fan\_Name
- Fan\_Email
- Preferred\_Team\_ID (Foreign Key)

## 8. Venues

- Venue\_ID (Primary Key)
- Venue\_Name
- Location
- Capacity

## 9. Season

- Season\_ID (Primary Key)
- Season\_Year
- Start\_Date
- End\_Date
- Total\_Matches

## 10.Coaches

- Coach\_ID (Primary Key)
- Coach\_Name
- Team\_ID (Foreign Key)
- Experience\_Years
- Nationality
- Coach\_DOB
- Coaching\_License