**CRICFANTASY DATABASE SYSTEM**

**A Mini Project Report submitted to**

**MOHAN BABU UNIVERSITY**

**in Partial Fulfillment of the Requirements for the Award of the degree of**

#### BACHELOR OF TECHNOLOGY IN

**COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)**

*Submitted by*

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Sree Sainath Nagar, Tirupati – 517 102, A.P., INDIA 2024-25

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**DEPARTMENT OF DATA SCIENCE**

**CERTIFICATE**

This is to certify that the mini project report entitled

**“ CRICFANTASY SYSTEM”**

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**INTERNAL EXAMINER EXTERNALEXAMINER**

# DEPARTMENT OF DATA SCIENCE

**Vision**

To become a Centre of Excellence in Data Science by imparting high quality education through teaching, training and research

# Mission

* To impart quality education in Computer Science and Engineering with specializations in Data Science by disseminating knowledge through contemporary curriculum, competent faculty and effective teaching-learning methodologies.
* Nurture research, innovation and entrepreneurial skills among students and faculty to contribute to the needs of industry and society.
* Inculcate professional attitude, ethical and social responsibilities for prospective and promising Engineering profession.
* Encourage students to engage in life-long learning by creating awareness of the contemporary developments in Computer Science and Engineering with specialization in Data Science.

**PROGRAM EDUCATIONAL OBJECTIVES**

After few years of graduation, the graduates of B. Tech. CSE(DS) will:

**PEO1.** Pursue higher studies in Computer Science, Data science or Management.

**PEO2.** Become successful entrepreneurs or be employed by acquiring required skill sets in the domains of Data Science and allied areas.

**PEO3.** Exhibit progression and effective adaptation to technological developments through life-long learning to address ever changing industrial requirements and follow ethical attitude in professional practice.

**PROGRAM SPECIFIC OUTCOMES**

On successful completion of the Program, the graduates of B. Tech. CSE(DS) program will be able to:

**PSO1.** Apply appropriate data analytical techniques for building effective decision-making systems.

**PSO2.** Develop intelligent systems using novel Machine Learning and Artificial Intelligence techniques.

**PSO3.** Design and develop efficient software systems using modern tools, techniques, and platforms to meet societal needs.

**PSO4.** Apply suitable tools and techniques to build secure distributed systems.

**PROGRAM OUTCOMES**

On successful completion of the Program, the graduates of B.Tech. CSE (DS) Program will be able to:

**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. The 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

**.**

#### PO11

**.**

#### PO12

**.**

**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.

**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.

**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.

We hereby declare that this project report titled **“CRICFANTASY SYSTEM”** is a genuine work carried out by us, in **B.Tech *(Computer Science and Engineering (Data Science)*** degree course of **Mohan Babu University, Tirupati** and has not been submitted to any other course or University for the award of any degree by us.

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea / data / fact / source in our submission. We understand that any violation of the above will cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Signature of the students 1.

2.

3.

The rise of fantasy sports has transformed how fans engage with cricket, blending strategy, statistics, and real-time competition into an immersive experience. However, managing a fantasy cricket league manually poses challenges, such as tracking player performances, updating scores dynamically, and ensuring fair user participation.

Historically, enthusiasts relied on fragmented tools or manual record-keeping, leading to inefficiencies, delays, and limited accessibility.

To address these challenges, CricFantasy leverages modern web technologies and database systems to create a streamlined, user-centric platform.

This online application enables cricket fans to create fantasy teams, participate in tournaments, and track live match statistics seamlessly. Central to this system is a robust **SQL Server** database, designed to store, manage, and retrieve critical data entities such as user profiles, player statistics, team compositions, match details, tournament schedules, points calculations, and transaction histories.

Relationships between these entities—such as user-team associations, player-match performance linkages, and tournament leaderboards—are meticulously structured to ensure data integrity and real- time responsiveness.

Built using **HTML, CSS, JavaScript**, and **PHP**, the platform offers an intuitive interface for users to draft teams, monitor live scores, and compete in leagues. The database supports dynamic operations: inserting new players, updating match outcomes, adjusting points based on performance, and archiving historical data. Additionally, it securely manages user transactions (e.g., joining paid leagues) and feedback, ensuring transparency and trust.

By automating score calculations, providing live updates, and generating leaderboards, CricFantasy enhances user engagement while reducing administrative overhead. The system’s scalability allows for future expansions, such as integrating AI-driven player recommendations or multi-sport support.

**Keywords:** SQL Server, Microsoft SQL Server Management Studio, HTML, CSS, JavaScript, PHP, Fantasy Cricket, Real-time Analytics, User Engagement.

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# CHAPTER 1. INTRODUCTION

##### Introduction to the topic

Fantasy cricket is a popular online game where fans create virtual teams using real cricket players and earn points based on how those players perform in actual matches. In the past, organizing these games was a hassle. People had to manually track player scores, update results using spreadsheets, and calculate points themselves. This process was slow, error-prone, and made it hard to keep players engaged with live updates.

The CricFantasy Database solves these problems by automating everything. Think of it as a smart, online system that handles all the boring work—like updating scores, calculating points, and showing leaderboards—so users can focus on picking their teams and enjoying the game. At the heart of this system is a database (built with SQL Server) that stores all the important information:

User details (like names, teams, and scores). Player stats (runs, wickets, match performances). Match schedules and live updates.

Tournament rules and leaderboards.

Instead of using messy spreadsheets, the database automatically updates scores during live matches, lets users create and manage teams easily, and shows real-time results. The system is built with simple web tools (HTML, CSS, JavaScript) and PHP, making it easy for anyone to use on their phone or computer. With CricFantasy, organizing fantasy leagues becomes quick and error-free. Users get instant updates, fair scoring, and a fun way to compete with friends. This chapter explains how the system works and why it’s better than the old, manual methods.

##### Problem Statement

Fantasy cricket platforms require seamless management of dynamic data, such as live player performances, user teams, tournament rules, and real-time scoring. However, organizing these elements manually leads to critical challenges:

* + - Organizing fantasy cricket leagues manually is time-consuming and error-prone. Users struggle.
    - Outdated Information: Player stats (runs, wickets) and match updates aren’t synced in real time.
    - Manual Calculations: Points for teams are calculated by hand, leading to mistakes and disputes.
    - No Central System: Users can’t easily create teams, join tournaments, or track rankings.
    - Payment Hassles: No secure way to manage paid leagues or entry fees.

The CricFantasy Database solves this by automating team creation, live scoring, payments, and leaderboards—like a one-stop platform for hassle-free fantasy cricket.

By automating these processes, the CricFantasy Database eliminates manual errors, enhances engagement, and delivers a fair, transparent, and enjoyable fantasy cricket experience.

##### Objectives

* + - Centralized Database: Create a unified database to store all user profiles, player statistics (runs, wickets, match performances), and tournament details (rules, schedules, entry fees).
    - Automation: Replace manual processes with automated systems for real-time score updates, points calculation, and leaderboard generation during live matches.
    - User Management: Enable seamless registration, team creation, and tournament participation with intuitive interfaces for users of all age groups.
    - Secure Transactions: Integrate reliable payment gateways (UPI, cards) to handle paid leagues securely and maintain transaction records.
    - Dynamic Updates: Alert users about player unavailability (injuries, rest) and suggest replacements to keep teams valid throughout tournaments.
    - Admin Control: Provide admins tools to manage tournaments, resolve disputes, generate reports, and monitor user activity.
    - Scalability: Design the system to handle growing user bases and support future features like multi- sport fantasy leagues.
    - In essence: Build a hassle-free, automated platform where cricket fans can create teams, compete, and enjoy fantasy leagues without manual errors or delays.

# CHAPTER 2. DATABASE DESIGN

##### List of Attributes, entities and relationship

1. **Entity Name: Users**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| User\_ID | int |
| User\_Name | varchar(50) |
| Email\_ID | varchar(50) |
| Password | varchar(100) |
| Phone\_No | Varchar(10) |

1. **Entity Name: Umpire**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Umpire\_ID | int |
| Umpire\_Name | varchar(50) |
| Country | varchar(50) |
| Date\_of\_Birth | Date |
| Matches\_officiated | int |

1. **Entity Name: Venue**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Veneue\_ID | int |
| Veneue\_Name | varchar(100) |
| City | varchar(100) |
| Country | varchar(100) |
| Capacity | int |

1. **Entity Name: Team**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Team\_ID | int |
| Team\_Name | Varchar(50) |
| Country | varchar(50) |

1. **Entity Name: Series**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Series\_Id | int |
| Series\_Name | varchar(50) |
| Host\_country | varchar(50) |
| Start\_Date | date |
| End\_Date | date |
| Format | varchar(50) |
| Status | varchar(50) |
| Numver\_Of\_Matches | int |
| Participating\_Teams | varchar(50) |

1. **Entity Name: Matches**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Match\_Id | Varchar(50) |
| Match\_Date | Date |
| Series\_Id | int |
| Series\_Name | Varchar(50) |
| Venue\_ID | int |
| Venue\_Name | Varchar(50) |
| Umpire\_Id | int |
| Umpire\_Name | Varchar(50) |
| Status | Varchar(50) |
| Result | Varchar(50) |
| Team1\_Id | Int |
| Team1\_Name | Varchar(50) |
| Team2\_Id | int |
| Team2\_Id | Varchar(50) |
| Toss\_Winner | Varchar(50) |
| Toss\_Decision | Varchar(50) |

1. **Entity Name: Player**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Player\_Id | int |
| Player\_Name | varchar(100) |
| DOB | Date |
| Player\_type | varchar(50) |
| Batting\_Style | varchar(50) |
| Bowling\_Style | varchar(50) |
| Team\_Id | int |
| Team\_Name | varchar(50) |

1. **Entity Name: LiveScores**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Match\_Id | Varchar(50) |
| Umpure\_Id | int(10) |
| Umpure\_Name | Varchar(50) |
| Venue\_Id | int(10) |
| Venue\_Name | varchar(25) |
| Batting\_Team\_Id | int |
| Batting\_Team\_Name | Varchar(50) |
| Bowling\_Team\_Id | int |
| Bowling\_Team\_Name | varchar(50) |
| Batsman1\_Id | int |
| Batsman1\_Name | Varchar(50) |
| Batsman2\_Id | int |
| Batsman2\_Name | Varchar(50) |
| Bowler\_Id | int |
| Bowler\_Name | Varchar(50) |
| Total\_Runs | int |
| Wickets | int |
| Overs | Decimal(3,1) |
| Ball\_Number | int |
| Match\_Date | Date |

1. **Entity Name: PlayerStats**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Match\_Id | Varchar(50) |
| Player\_Id | int |
| Player\_Name | Varchar(50) |
| Team\_Id | int |
| Team\_Name | Varchar(50) |
| Runs\_scored | int |
| Balls\_faced | int |
| Fours | int |
| Sixes | int |
| Wickets\_Taken | int |
| Balls\_Bowled | int |
| Runs\_Conceded | int |
| Maidens | int |
| Catches | int |
| Stumpings | int |

1. **Entity Name: Rankings**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Format | Varchar(50) |
| Player\_Role | Varchar(50) |
| Current\_Rank | int |
| Playe\_Id | int |
| Player\_Name | Varchar(50) |
| Team\_Id | int |
| Team\_Name | Varchar(50) |
| Ranking\_Points | int |

1. **Entity Name: UserTeam**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Team\_Id | int |
| User\_Id | int |
| User\_Name | Varchar(50) |
| Match\_Id | Varchar(50) |
| Match\_Name | Varchar(50) |
| Captain\_Id | int |
| Captain\_Name | Varchar(50) |
| Vice\_Captain\_Id | int |
| Vice\_Captain\_Name | Varchar(50) |
| Total\_Credits | Decimal(5,2) |
| Formation | Varchar(50) |
| Created\_At | Date |

1. **Entity Name: TeamPlayers**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Team\_ID | int |
| Player\_Id | int |
| Player\_Name | Varchar(50) |
| Is\_Substitute | Bit |
| Position | Varchar(50) |

1. **Entity Name: Contest**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Contest\_Id | int |
| Contest\_Name | varchar(50) |
| Match\_Id | Varchar(50) |
| Entry\_Fee | Decimal(8,2) |
| Prize\_pool | Decimal(10,2) |
| Max\_Participants | int |
| Current\_Participants | int |
| Contest\_Type | Varchar(50) |
| Start\_Time | Datetime |
| Status | Varchar(50) |
| Created\_At | Datetime |

1. **Entity Name: USer Contest**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Entry\_Id | int |
| User\_Id | int |
| User\_Name | Varchar(50) |
| Contest\_Id | int |
| Contest\_Name | Varchar(50) |
| Team\_Id | int |
| Final\_Points | int |
| Final\_Rank | int |
| Winnings | Decimal(10,2) |
| Status | Varchar(50) |
| Joined\_At | Datetime |

1. **Entity Name: ScoringRules**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Rule\_ID | int |
| Action | Varchar(50) |
| Points | int |
| Is\_Active | Bit |
| Valid\_From | Date |
| Valid\_To | Date |

1. **Entity Name: UserPoints**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Calculation\_Id | int |
| User\_Id | int |
| User\_Name | Varchar(50) |
| Contest\_Id | int |
| Contest\_Name | Varchar(50) |
| Match\_Id | Varchar(50) |
| Player\_Id | int |
| Player\_Name | Varchar(50) |
| Points | int |
| Points\_Breakdown | Varchar(50) |
| Calculated\_At | Datetime |

1. **Entity Name: Transactions**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Transaction\_Id | int |
| User\_Id | int |
| User\_Name | Varchar(50) |
| Amount | Decimal(10,2) |
| Transaction\_Type | Varchar(50) |
| Status | Varchar(50) |
| Transaction\_Date | Datetime |
| Reference\_Id | Varchar(50) |
| Description | Varchar(50) |

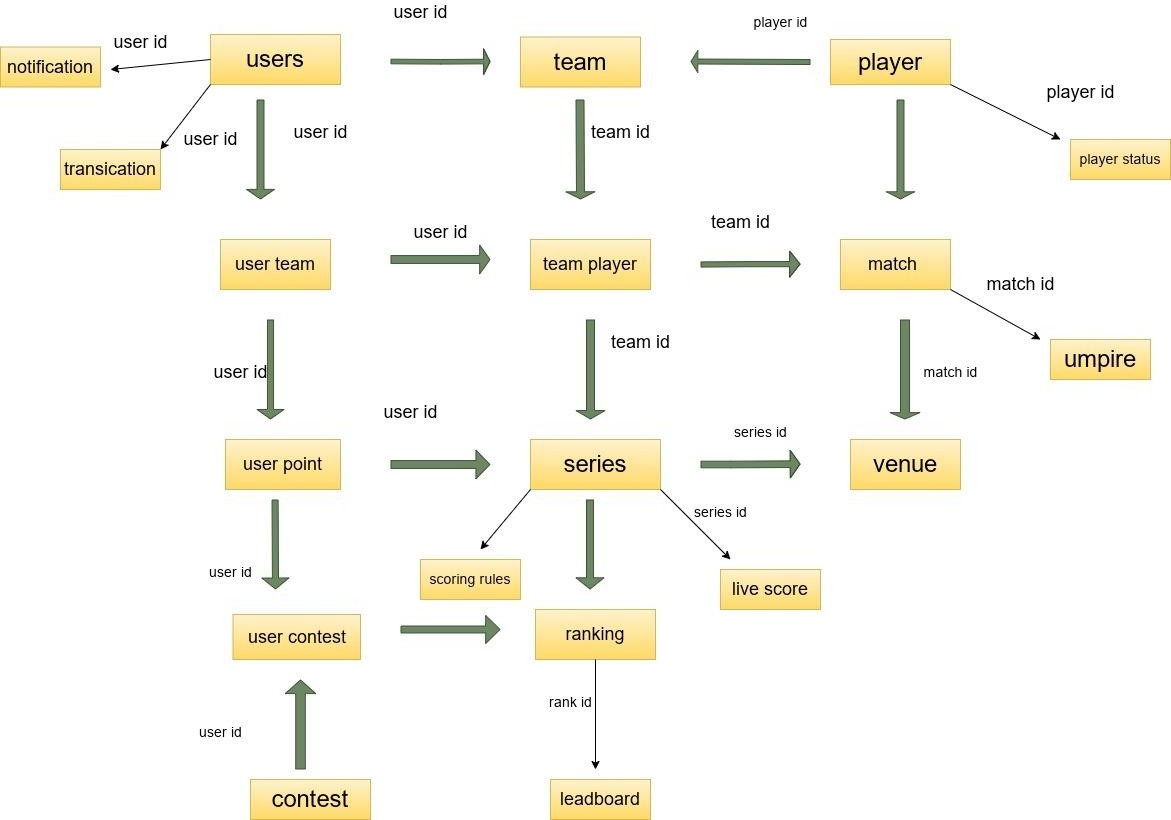
1. **Entity Name: Leaderboard**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Contest\_Id | int |
| User\_Id | int |
| User\_Name | Varchar(50) |
| Team\_Id | int |
| Total\_Points | int |
| Current\_Rank | int |
| Last\_Updated | Datetime |

1. **Entity Name: Notifications**

|  |  |
| --- | --- |
| **Attributes** | **Type** |
| Notification\_Id | int |
| User\_Id | int |
| Message | Varchar(50) |
| Type | Varchar(50) |
| Is\_Read | Bit |
| Created\_At | Datetime |

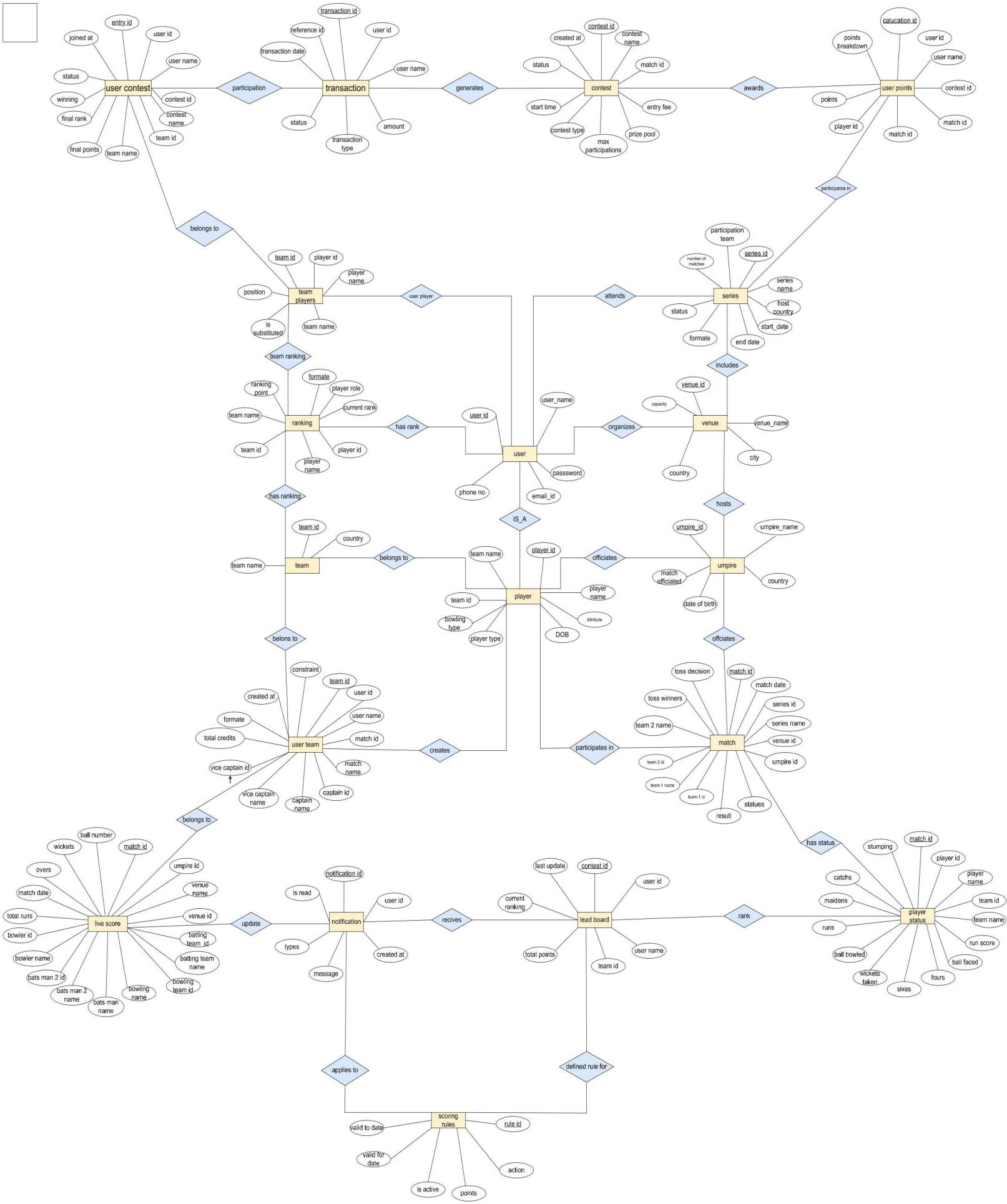
* + 1. **Entities and their relationships:**

****

The above diagram is a simple representation of entities which shows the connectivity between all the entities and the relationship between various entities

To know in detail about the types of relationships that exist between all the entities and to know the different attributes that describes about the entity we design ER(entity relation) diagram.

* 1. **E-R Diagram**

****

# CHAPTER 3. RELATIONAL MODEL

* 1. **Database languages**

Four categories of database languages :

##### Data definition language (DDL)

Data definition language (DDL) creates the framework of the database by specifying the database schema, which is the structure that represents the organization of data. Its common uses include the creation and alteration of tables, files, indexes and columns within the database. This language also allows users to rename or drop the existing database or its components.

Here's a list of DDL statements:

* + CREATE: Creates a new database or object, such as a table, index or column.
  + ALTER: Changes the structure of the database or object.
  + DROP: Deletes the database or existing objects.
  + RENAME: Renames the database or existing objects.

##### Data manipulation language (DML)

Data manipulation language (DML) provides operations that handle user requests, offering a way to access and manipulate the data that users store within a database. Its common functions include inserting, updating and retrieving data from the database.

Here's a list of DML statements:

* + INSERT: Adds new data to the existing database table.
  + UPDATE: Changes or updates values in the table.
  + DELETE: Removes records or rows from the table.
  + SELECT: Retrieves data from the table or multiple tables.

##### Data control language (DCL)

Data control language (DCL) controls access to the data that users store within a database. Essentially, this language controls the rights and permissions of the database system. It allows users to grant or revoke privileges to the database.

Here's a list of DCL statements:

* + GRANT: Gives a user access to the database.
  + REVOKE: Removes a user's access to the database.

##### Transaction control language (TCL)

Transaction control language (TCL) manages the transactions within a database. Transactions group a set of related tasks into a single, executable task. All the tasks must succeed in order for the transaction to work. Here's a list of TCL statements:

* + COMMIT: Carries out a transaction.
  + ROLLBACK: Restores a transaction if any tasks fail to execute.

##### Table Description

Following are the tables along with constraints used in the CricFantasy database.

1. **Users:** This table contains details of registered users, including their username, email, password, registration date, and account balance.
   * **Constraints:** User\_ID serves as the primary key. Foreign keys in other tables reference this ID to link user-specific data.
2. **Umpire:** This table stores information about cricket umpires, including their name, country, and experience.
   * **Constraints:** Umpire\_ID is the primary key.
3. **Venue:** This table stores details about cricket venues, including the venue name, city, country, and capacity.
   * **Constraints:** Venue\_ID is the primary key.
4. **Teams:** This table contains details about cricket teams, including their team name, code, home ground, and captain.
   * **Constraints:** Team\_ID serves as the primary key. Foreign keys in other tables reference this ID to link team-specific data.
5. **Series**: This table stores information about cricket series, such as the series name, start date, end date, and participating teams.
   * **Constraints:** Series\_ID is the primary key.
6. **Matches:** This table stores information about cricket matches, including the participating teams, match date, time, venue, and result.
   * **Constraints:** Match\_ID is the primary key. Foreign keys reference this ID to link match-specific data in contests and user teams.
7. **Player:** This table stores information about cricket players, such as their name, date of birth, batting/bowling styles, team affiliation, and credit value.
   * **Constraints:** Player\_ID is the primary key. Foreign keys in other tables reference this ID to link player-specific data.
8. **LiveScores:** This table stores live score updates for ongoing matches, including the match ID, current innings, overs, runs, wickets, and other relevant information.
   * **Constraints:** Score\_ID is the primary key. Foreign key links to the Matches table.
9. **PlayerStats:** This table stores detailed statistics for each player in every match, including batting statistics (runs, balls faced, fours, sixes), bowling statistics (overs, wickets, runs conceded), and fielding statistics (catches, run-outs).
   * **Constraints:** Composite primary key formed by Match\_ID and Player\_ID. Foreign keys link to Matches and Player tables.
10. **Rankings:** This table tracks player rankings across different formats (Test, ODI, T20) and categories (Batsman, Bowler, All-rounder).
    * **Constraints:** Ranking\_ID is the primary key. Foreign keys reference Player\_ID and Team\_ID.
11. **UserTeam:** This table stores user-created fantasy teams for specific matches, including the captain, vice-captain, and formation.
    * **Constraints:** Team\_ID is the primary key. Foreign keys link to Users, Matches, and Player tables.
12. **TeamPlayers:** This table lists the players in each user's fantasy team, indicating their position (playing or bench).
    * **Constraints:** Composite primary key formed by Team\_ID and Player\_ID. Foreign keys link to UserTeam and Player tables.
13. **Contest:** This table contains details about fantasy cricket contests, including entry fees, prize pools, and participation limits.
    * **Constraints:** Contest\_ID is the primary key. Foreign key links to the Matches table.
14. **UserContest:** This table tracks user participation in contests, including their final points, rank, and winnings.
    * **Constraints:** Entry\_ID is the primary key. Foreign keys link to Users, Contest, and UserTeam tables.
15. **ScoringRules:** This table defines the scoring system for fantasy points based on player actions (runs, wickets, etc.).
    * **Constraints:** Rule\_ID is the primary key.
16. **UserPoints:** This table stores the calculated fantasy points for each player in a user's team for a specific contest.
    * **Constraints:** Calculation\_ID is the primary key. Foreign keys link to Users, Contest, Matches, and Player tables.
17. **Transactions:** This table records user financial transactions, including deposits, withdrawals, and contest entry fees.
    * **Constraints:** Transaction\_ID is the primary key. Foreign key links to the Users table.
18. **Leaderboard:** This table displays the leaderboard for each contest, showing user rankings and total points.
    * **Constraints:** Composite primary key formed by Contest\_ID and User\_ID. Foreign keys link to Contest, Users, and UserTeam tables.
19. **Notifications:** This table stores system notifications for users, such as match reminders and contest updates.
    * **Constraints:** Notification\_ID is the primary key. Foreign key links to the Users table.
    1. **Relational Database Scheme**

The relational database schema for ***All in one travel booking system*** database is as follows: The relational database schema for the CricFantasy database is as follows:

* + 1. Users(User\_ID, Username, Email, Password, Registration\_Date, Last\_Login, Is\_Active, Full\_Name, Contact\_Number, Address, City, State, Country, Zip\_Code, Profile\_Picture, Account\_Balance)
    2. Umpire(Umpire\_ID, Umpire\_Name, Country, Experience)
    3. Venue(Venue\_ID, Venue\_Name, City, Country, Capacity)
    4. Teams(Team\_ID, Team\_Name, Team\_Code, Home\_Ground, Coach, Captain\_ID, Is\_Active, Logo)
    5. Series(Series\_ID, Series\_Name, Start\_Date, End\_Date, Participating\_Teams)
    6. Matches(Match\_ID, Team1\_ID, Team2\_ID, Match\_Date, Match\_Time, Venue, Series, Format, Is\_Completed, Result)
    7. Player(Player\_ID, Player\_Name, Date\_of\_Birth, Batting\_Style, Bowling\_Style, Team\_ID, Role, Country, Profile\_Picture, Is\_Active, Credit\_Value)
    8. LiveScores(Score\_ID, Match\_ID, Current\_Innings, Overs, Runs, Wickets, Other\_Info)
    9. PlayerStats(Match\_ID, Player\_ID, Batting\_Runs, Batting\_Balls, Batting\_Fours, Batting\_Sixes, Bowling\_Overs, Bowling\_Wickets, Bowling\_Runs\_Conceded, Fielding\_Catches, Fielding\_RunOuts)
    10. Rankings(Ranking\_ID, Format, Category, Player\_ID, Player\_Rank, Team\_ID, Points)
    11. UserTeam(Team\_ID, User\_ID, Match\_ID, Captain\_ID, Vice\_Captain\_ID, Total\_Credits, Formation, Created\_At)
    12. TeamPlayers(Team\_ID, Player\_ID, Is\_Substitute, Position)
    13. Contest(Contest\_ID, Match\_ID, Entry\_Fee, Prize\_Pool, Max\_Participants, Current\_Participants, Contest\_Type, Start\_Time, Status, Created\_At)
    14. UserContest(Entry\_ID, User\_ID, Contest\_ID, Team\_ID, Final\_Points, Final\_Rank, Winnings, Status, Joined\_At)
    15. ScoringRules(Rule\_ID, Action, Points, Is\_Active, Valid\_From, Valid\_To)
    16. UserPoints(Calculation\_ID, User\_ID, Contest\_ID, Match\_ID, Player\_ID, Points, Points\_Breakdown, Calculated\_At)
    17. Transactions(Transaction\_ID, User\_ID, Amount, Transaction\_Type, Status, Transaction\_Date, Reference\_ID, Description)
    18. Leaderboard(Contest\_ID, User\_ID, Team\_ID, Total\_Points, Current\_Rank, Last\_Updated)
    19. Notifications(Notification\_ID, User\_ID, Message, Type, Is\_Read, Created\_At)
  1. **Relational Queries**

create database Cricfantasy

create table Users (

User\_ID int primary key,

User\_Name varchar(50) unique not null, Email\_ID varchar(50) not null, Password varchar(100) not null, phone\_no varchar(10) null

)

Select \* from users

INSERT INTO Users (User\_ID, User\_Name, Email\_ID, Password, phone\_no) VALUES (1, 'Amit Sharma', ['amit.sharma@email.com',](mailto:%27amit.sharma@email.com) 'P@ssword123', '9876543210'),

(2, 'Rahul Verma', ['rahul.verma@email.com',](mailto:%27rahul.verma@email.com) 'SecurePass456', '9123456789'),

(3, 'Priya Mehta', ['priya.mehta@email.com',](mailto:%27priya.mehta@email.com) 'Qwerty@789', '9988776655'), (4, 'Ravi Kumar', ['ravi.kumar@email.com',](mailto:%27ravi.kumar@email.com) 'Pass@word987', NULL),

(5, 'Neha Gupta', ['neha.gupta@email.com',](mailto:%27neha.gupta@email.com) 'HelloWorld@1', '9543216780'),

(6, 'Suresh Nair', ['suresh.nair@email.com',](mailto:%27suresh.nair@email.com) 'Abc@1234', '9845612378'),

(7, 'Anjali Das', ['anjali.das@email.com',](mailto:%27anjali.das@email.com) 'Das@Pass567', '9732156480'),

(8, 'Vikram Singh', ['vikram.singh@email.com',](mailto:%27vikram.singh@email.com) 'Vikram@9087', '9876543120'), (9, 'Kiran Joshi', ['kiran.joshi@email.com',](mailto:%27kiran.joshi@email.com) 'Joshi@Password1', NULL),

(10, 'Alok Mishra', ['alok.mishra@email.com',](mailto:%27alok.mishra@email.com) 'Alok@Pass345', '9321654780'),

(11, 'Pooja Iyer', ['pooja.iyer@email.com',](mailto:%27pooja.iyer@email.com) 'Iyer@Secure678', '9871236540'),

(12, 'Harish Patel', ['harish.patel@email.com',](mailto:%27harish.patel@email.com) 'Patel@Pass123', '9123678901'), (13, 'Deepa Reddy', ['deepa.reddy@email.com',](mailto:%27deepa.reddy@email.com) 'Deepa@Strong1', NULL),

(14, 'Mohit Saxena', ['mohit.saxena@email.com',](mailto:%27mohit.saxena@email.com) 'Mohit@9876', '9786543210'),

(15, 'Swati Agarwal', ['swati.agarwal@email.com',](mailto:%27swati.agarwal@email.com) 'Swati@Pass765', '9645781230'),

(16, 'Gautam Rao', ['gautam.rao@email.com',](mailto:%27gautam.rao@email.com) 'Rao@123456', '9456123789'), (17, 'Ramesh Yadav', ['ramesh.yadav@email.com',](mailto:%27ramesh.yadav@email.com) 'Yadav@Pass888', NULL),

(18, 'Meena Kapoor', ['meena.kapoor@email.com',](mailto:%27meena.kapoor@email.com) 'Kapoor@Secure456', '9812763450'),

(19, 'Vikas Jain', ['vikas.jain@email.com',](mailto:%27vikas.jain@email.com) 'Jain@Pass321', '9876123456'),

(20, 'Sneha Menon', ['sneha.menon@email.com',](mailto:%27sneha.menon@email.com) 'Menon@987654', '9554123789'),

(21, 'Arjun Prasad', ['arjun.prasad@email.com',](mailto:%27arjun.prasad@email.com) 'Arjun@Pass777', '9988771122'),

(22, 'Divya Ghosh', ['divya.ghosh@email.com',](mailto:%27divya.ghosh@email.com) 'Divya@Secure999', '9845123780'),

(23, 'Kunal Choudhary', ['kunal.choudhary@email.com',](mailto:%27kunal.choudhary@email.com) 'Kunal@Pass123', '9312784560'), (24, 'Neeraj Tiwari', ['neeraj.tiwari@email.com',](mailto:%27neeraj.tiwari@email.com) 'Tiwari@Pass567', NULL),

(25, 'Pallavi Sen', ['pallavi.sen@email.com',](mailto:%27pallavi.sen@email.com) 'Sen@Secure890', '9654123789'),

(26, 'Rohit Bhatt', ['rohit.bhatt@email.com',](mailto:%27rohit.bhatt@email.com) 'Bhatt@Pass543', '9987123450'),

(27, 'Asha Malik', ['asha.malik@email.com',](mailto:%27asha.malik@email.com) 'Asha@Secure321', '9812345679'),

(28, 'Manoj Desai', ['manoj.desai@email.com',](mailto:%27manoj.desai@email.com) 'Desai@Pass876', '9776543210'),

(29, 'Vidya Sinha', ['vidya.sinha@email.com',](mailto:%27vidya.sinha@email.com) 'Vidya@Secure234', '9876543219'),

(30, 'Sanjay Dutta', ['sanjay.dutta@email.com',](mailto:%27sanjay.dutta@email.com) 'Dutta@Pass555', '9845671230'), Select \* from users

Create table Umpire ( Umpire\_ID INT PRIMARY KEY ,

Umpire\_Name VARCHAR(50) unique NOT NULL, Country VARCHAR(50) NOT NULL,

Date\_of\_Birth DATE, Matches\_Officiated INT DEFAULT 0

);

Select \* from umpire

INSERT INTO Umpire (Umpire\_ID, Umpire\_Name, Country, Date\_of\_Birth, Matches\_Officiated) VALUES

|  |  |
| --- | --- |
| (101, | 'Simon Taufel', 'Australia', '1971-01-21', 214), |
| (102, | 'Aleem Dar', 'Pakistan', '1968-06-06', 325), |
| (103, | 'Kumar Dharmasena', 'Sri Lanka', '1971-04-24', 189), |
| (104, | 'Marais Erasmus', 'South Africa', '1964-02-27', 278), |
| (105, | 'Richard Kettleborough', 'England', '1973-03-15', 245), |
| (106, | 'Nitin Menon', 'India', '1983-11-02', 142), |
| (107, | 'Chris Gaffaney', 'New Zealand', '1975-11-30', 167), |
| (108, | 'Paul Reiffel', 'Australia', '1966-04-19', 134), |
| (109, | 'Joel Wilson', 'West Indies', '1966-12-30', 156), |
| (110, | 'Rod Tucker', 'Australia', '1964-05-10', 198), |
| (111, | 'Bruce Oxenford', 'Australia', '1960-03-05', 287), |
| (112, | 'Anil Chaudhary', 'India', '1966-12-12', 175), |
| (113, | 'Michael Gough', 'England', '1979-01-05', 123), |
| (114, | 'Ruchira Palliyaguruge', 'Sri Lanka', '1970-01-01', 132), |
| (115, | 'Langton Rusere', 'Zimbabwe', '1985-03-05', 89); |

Select \* from Umpire CREATE TABLE Venue (

Venue\_ID INT PRIMARY KEY,

Venue\_Name VARCHAR(100) unique NOT NULL, City VARCHAR(50) NOT NULL,

Country VARCHAR(50) NOT NULL,

Capacity INT NOT NULL

);

Select \* from Venue

INSERT INTO Venue (Venue\_ID, Venue\_Name, City, Country, Capacity) VALUES

|  |  |
| --- | --- |
| (500, | 'Narendra Modi Stadium', 'Ahmedabad', 'India', '132000'), |
| (501, | 'Eden Gardens', 'Kolkata', 'India', 68000), |
| (502, | 'Melbourne Cricket Ground', 'Melbourne', 'Australia', 100024), |
| (503, | 'Lord''s Cricket Ground', 'London', 'England', 30000), |
| (504, | 'Newlands Cricket Ground', 'Cape Town', 'South Africa', 25000), |
| (505, | 'Gaddafi Stadium', 'Lahore', 'Pakistan', 27000), |
| (506, | 'Sydney Cricket Ground', 'Sydney', 'Australia', 48000), |
| (507, | 'R. Premadasa Stadium', 'Colombo', 'Sri Lanka', 35000), |
| (508, | 'Sher-e-Bangla Stadium', 'Dhaka', 'Bangladesh', 26000), |
| (509, | 'Dubai International Stadium', 'Dubai', 'UAE', 25000), |
| (510, | 'Hagley Oval', 'Christchurch', 'New Zealand', 20000), |
| (511, | 'M. Chinnaswamy Stadium', 'Bengaluru', 'India', 40000), |
| (512, | 'Wanderers Stadium', 'Johannesburg', 'South Africa', 34000); |

Select \* from Venue

Create table team (

team\_id int primary key, team\_name varchar(50) not null, country varchar(50) not null,

)

Select \* from team

INSERT INTO Team (Team\_ID, Team\_Name, Country) VALUES (1, 'India', 'India'),

(2, 'Australia', 'Australia'),

(3, 'England', 'England'),

(4, 'Pakistan', 'Pakistan'),

(5, 'South Africa', 'South Africa'), (6, 'New Zealand', 'New Zealand'), (7, 'West Indies', 'West Indies'), (8, 'Sri Lanka','Sri Lanka' ),

(9, 'Bangladesh' , 'Bangladesh'), (10,'Afghanistan','Afghanistan' ), (11,'Mumbai Indians', 'India'), (12,'Chennai Super Kings', 'India'),

(13,'Royal Challengers Bangalore', 'India'), (14,'Kolkata Knight Riders', 'India'), (15,'Delhi Capitals', 'India'),

(16,'Punjab Kings', 'India'), (17,'Rajasthan Royals', 'India'), (18,'Sunrisers Hyderabad', 'India'), (19,'Lucknow Super Giants', 'India'), (20,'Gujarat Titans', 'India');

Select \* from team CREATE TABLE Series (

Series\_ID INT PRIMARY KEY,

Series\_Name VARCHAR(100) NOT NULL ,

Host\_Country VARCHAR(50) NOT NULL, Start\_Date DATE NOT NULL, End\_Date DATE NOT NULL,

Format VARCHAR(20) CHECK (Format IN ('Test', 'ODI', 'T20', 'World Cup', 'Championship')), Status VARCHAR(15) CHECK (Status IN ('Upcoming', 'Ongoing', 'Completed')), Number\_of\_Matches INT DEFAULT 0,

Participating\_Teams VARCHAR(500) NOT NULL

);

Select \* from Series

INSERT INTO Series VALUES

(3001, 'ICC Cricket World Cup 2023', 'India', '2023-10-05', '2023-11-19', 'ODI', 'Completed', 48,

'India, Australia, England, Pakistan, South Africa, New Zealand, Sri Lanka, Bangladesh, Afghanistan, Netherlands'),

(3002, 'The Ashes 2023', 'England', '2023-06-16', '2023-07-31', 'Test', 'Completed', 5,

'England, Australia'),

(3003, 'Asia Cup 2023', 'Sri Lanka', '2023-08-30', '2023-09-17', 'ODI', 'Completed', 13,

'India, Pakistan, Sri Lanka, Bangladesh, Afghanistan, Nepal'),

(3004, 'Indian Premier League 2024', 'India', '2024-03-22', '2024-05-26', 'T20', 'Upcoming', 74, 'Mumbai Indians, Chennai Super Kings, Royal Challengers Bangalore, Kolkata Knight Riders,

Delhi Capitals, Punjab Kings, Rajasthan Royals, Sunrisers Hyderabad, Lucknow Super Giants, Gujarat Titans'),

(3005, 'South Africa vs India Test Series', 'South Africa', '2023-12-26', '2024-01-15', 'Test', 'Ongoing', 3,

'South Africa, India'); Select \* from Series

CREATE TABLE Matches (

Match\_ID VARCHAR(20) PRIMARY KEY,

Match\_Date DATE NOT NULL,

Series\_ID INT NOT NULL FOREIGN KEY REFERENCES Series(Series\_ID), -- Fixed syntax Series\_Name VARCHAR(100) NOT NULL,

Venue\_ID INT NOT NULL FOREIGN KEY REFERENCES Venue(Venue\_ID), -- Fixed syntax Venue\_Name VARCHAR(100) NOT NULL,

Umpire\_ID INT NOT NULL FOREIGN KEY REFERENCES Umpire(Umpire\_ID), -- Fixed syntax Umpire\_Name VARCHAR(50) NOT NULL,

Status VARCHAR(15) CHECK (Status IN ('Upcoming', 'Ongoing', 'Completed', 'Abandoned')), Result VARCHAR(50) CHECK (Result IN ('Team1 Win', 'Team2 Win', 'Draw', 'No Result') OR Result

IS NULL),

Team1\_ID INT NOT NULL FOREIGN KEY REFERENCES Team(Team\_ID), -- Fixed syntax Team1\_Name VARCHAR(50) NOT NULL,

Team2\_ID INT NOT NULL FOREIGN KEY REFERENCES Team(Team\_ID), -- Fixed syntax Team2\_Name VARCHAR(50) NOT NULL,

Toss\_Winner VARCHAR(50),

Toss\_Decision VARCHAR(10) CHECK (Toss\_Decision IN ('Bat', 'Bowl') OR Toss\_Decision IS NULL)

);

select \* from Matches

INSERT INTO Matches (Match\_ID, Match\_Date, Series\_ID, Series\_Name, Venue\_ID, Venue\_Name, Umpire\_ID, Umpire\_Name, Status, Result, Team1\_ID, Team1\_Name, Team2\_ID, Team2\_Name, Toss\_Winner, Toss\_Decision)

VALUES

-- Match 1: India (Team1) vs Australia (Team2)

('INDvAUS\_1', '2023-10-08', 3001, 'ICC Cricket World Cup 2023', 500, 'Narendra Modi Stadium', 101, 'Simon Taufel', 'Completed', 'Team1 Win', 1, 'India', 2, 'Australia', 'India', 'Bat'),

-- Match 2: England (Team1) vs Pakistan (Team2)

('ENGvPAK\_2', '2023-10-10', 3001, 'ICC Cricket World Cup 2023', 503, 'Lord''s Cricket Ground', 104, 'Marais Erasmus', 'Completed', 'Team1 Win', 3, 'England', 4, 'Pakistan', 'Pakistan', 'Bowl'),

-- Match 3: England (Team1) vs Australia (Team2)

('ENGvAUS\_3', '2023-06-20', 3002, 'The Ashes 2023', 503, 'Lord''s Cricket Ground',

104, 'Marais Erasmus', 'Completed', 'Team2 Win', 3, 'England', 2, 'Australia', 'Australia', 'Bowl'),

-- Match 4: Australia (Team1) vs England (Team2)

('AUSvENG\_4', '2023-06-25',3002, 'The Ashes 2023', 502, 'Melbourne Cricket Ground',

108, 'Paul Reiffel', 'Completed', 'Team2 Win', 2, 'Australia', 3, 'England', 'England', 'Bat'),

-- Match 5: India (Team1) vs Pakistan (Team2)

('INDvPAK\_5', '2023-09-03', 3003, 'Asia Cup 2023', 507, 'R. Premadasa Stadium',

103, 'Kumar Dharmasena', 'Completed', 'Team1 Win', 1, 'India', 4, 'Pakistan', 'Pakistan', 'Bowl'),

Select \* from Matches CREATE TABLE Player (

Player\_ID INT PRIMARY KEY, Player\_Name VARCHAR(100) NOT NULL, DOB DATE,

Player\_Type VARCHAR(20) CHECK (Player\_Type IN ('Batsman', 'Bowler', 'All-rounder', 'Wicketkeeper')),

Batting\_Style VARCHAR(50), Bowling\_Style VARCHAR(50),

Team\_ID INT foreign key references Team (Team\_ID) NOT NULL, Team\_Name VARCHAR(50) NOT NULL

);

Select \* From Player

INSERT INTO Player (Player\_ID, Player\_Name, DOB, Player\_Type, Batting\_Style, Bowling\_Style, Team\_ID,

Team\_Name) VALUES

(1001, 'Virat Kohli', '1988-11-05', 'Batsman', 'Right-handed', NULL, 1, 'India'),

(1002, 'Rohit Sharma', '1987-04-30', 'Batsman', 'Right-handed', NULL, 1, 'India'),

(1003, 'Jasprit Bumrah', '1993-12-06', 'Bowler', 'Right-handed', 'Right-arm fast',1, 'India'), (1004, 'Ravindra Jadeja', '1988-12-06', 'All-rounder', 'Left-handed', 'Left-arm orthodox',1, 'India'),

(1005, 'KL Rahul', '1992-04-18', 'Wicketkeeper', 'Right-handed', NULL,1, 'India'),

(1006, 'Mohammed Shami', '1990-09-03', 'Bowler', 'Right-handed', 'Right-arm fast-medium',1, 'India'),

(1007, 'Shreyas Iyer', '1994-12-06', 'Batsman', 'Right-handed', 'Legbreak',1, 'India'), (1008, 'Rishabh Pant', '1997-10-04', 'Wicketkeeper', 'Left-handed', NULL,1, 'India'),

(1009, 'Hardik Pandya', '1993-10-11', 'All-rounder', 'Right-handed', 'Right-arm fast-medium',1, 'India'),

(1010, 'Ruturaj Gaikwad', '1997-01-31', 'Batsman', 'Right-handed', NULL,1, 'India'), (1011, 'Shubman Gill', '1999-09-08', 'Batsman', 'Right-handed', NULL,1, 'India'),

(1012, 'Mohammed Siraj', '1994-03-13', 'Bowler', 'Right-handed', 'Right-arm fast',1, 'India'), (1013, 'Ishan Kishan', '1998-07-18', 'Wicketkeeper', 'Left-handed', NULL,1, 'India'),

(1014, 'Yuzvendra Chahal', '1990-07-23', 'Bowler', 'Right-handed', 'Legbreak googly',1, 'India'), (1015, 'Suryakumar Yadav', '1990-09-14', 'Batsman', 'Right-handed', NULL,1, 'India'),

(1016, 'Steve Smith', '1989-06-02', 'Batsman', 'Right-handed', 'Legbreak',2, 'Australia'), (1017, 'Pat Cummins', '1993-05-08', 'Bowler', 'Right-handed', 'Right-arm fast',2, 'Australia'), (1018, 'Glenn Maxwell', '1988-10-14', 'All-rounder', 'Right-handed', 'Right-arm offbreak',2, 'Australia'),

(1019, 'David Warner', '1986-10-27', 'Batsman', 'Left-handed', 'Legbreak',2, 'Australia'), (1020, 'Mitchell Starc', '1990-01-30', 'Bowler', 'Left-handed', 'Left-arm fast',2, 'Australia'), (1021, 'Josh Hazlewood', '1991-01-08', 'Bowler', 'Left-handed', 'Right-arm fast-medium',2, 'Australia'),

(1022, 'Marnus Labuschagne', '1994-06-22', 'Batsman', 'Right-handed', 'Legbreak',2, 'Australia'), (1023, 'Alex Carey', '1991-08-27', 'Wicketkeeper', 'Left-handed', NULL,2, 'Australia'),

(1024, 'Cameron Green', '1999-06-03', 'All-rounder', 'Right-handed', 'Right-arm fast-medium',2, 'Australia'),

(1025, 'Travis Head', '1993-12-29', 'Batsman', 'Left-handed', 'Right-arm offbreak',2, 'Australia'), (1026, 'Ben Stokes', '1991-06-04', 'All-rounder', 'Left-handed', 'Right-arm fast-medium',3, 'England'),

(1027, 'Joe Root', '1990-12-30', 'Batsman', 'Right-handed', 'Right-arm offbreak',3, 'England'), (1028, 'Jos Buttler', '1990-09-08', 'Wicketkeeper', 'Right-handed', NULL,3, 'England'),

(1029, 'Jofra Archer', '1995-04-01', 'Bowler', 'Right-handed', 'Right-arm fast',3, 'England'), (1030, 'Jonny Bairstow', '1989-09-26', 'Wicketkeeper', 'Right-handed', NULL,3, 'England'), (1031, 'Adil Rashid', '1988-02-17', 'Bowler', 'Right-handed', 'Legbreak googly',3, 'England'), (1032, 'Mark Wood', '1990-01-11', 'Bowler', 'Right-handed', 'Right-arm fast',3, 'England'), (1033, 'Liam Livingstone', '1993-08-04', 'All-rounder', 'Right-handed', 'Right-arm offbreak',3, 'England'),

(1034, 'Dawid Malan', '1987-09-03', 'Batsman', 'Left-handed', 'Legbreak',3, 'England'),

(1035, 'Chris Woakes', '1989-03-02', 'All-rounder', 'Right-handed', 'Right-arm fast-medium',3, 'England'),

(1036, 'Babar Azam', '1994-10-15', 'Batsman', 'Right-handed', NULL,4, 'Pakistan'),

(1037, 'Shaheen Afridi', '2000-04-06', 'Bowler', 'Left-handed', 'Left-arm fast',4, 'Pakistan'), (1038, 'Shadab Khan', '1998-10-04', 'All-rounder', 'Right-handed', 'Legbreak googly',4, 'Pakistan'), (1039, 'Mohammad Rizwan', '1992-06-01', 'Wicketkeeper', 'Right-handed', NULL,4, 'Pakistan'),

(1040, 'Fakhar Zaman', '1990-04-10', 'Batsman', 'Left-handed', 'Slow left-arm orthodox',4, 'Pakistan'),

(1041, 'Haris Rauf', '1993-11-07', 'Bowler', 'Right-handed', 'Right-arm fast',4, 'Pakistan'),

(1042, 'Imam-ul-Haq', '1995-12-12', 'Batsman', 'Left-handed', NULL,4, 'Pakistan'),

(1043, 'Naseem Shah', '2003-02-15', 'Bowler', 'Right-handed', 'Right-arm fast',4, 'Pakistan'), (1044, 'Mohammad Nawaz', '1994-03-21', 'All-rounder', 'Left-handed', 'Left-arm orthodox',4, 'Pakistan'),

(1045, 'Iftikhar Ahmed', '1990-09-03', 'Batsman', 'Right-handed', 'Right-arm offbreak',4, 'Pakistan'),

(1046, 'Kagiso Rabada', '1995-05-25', 'Bowler', 'Left-handed', 'Right-arm fast',5, 'South Africa'), (1047, 'Quinton de Kock', '1992-12-17', 'Wicketkeeper', 'Left-handed', NULL,5, 'South Africa'), (1048, 'Aiden Markram', '1994-10-04', 'Batsman', 'Right-handed', 'Right-arm offbreak',5, 'South Africa'),

(1049, 'Anrich Nortje', '1993-11-16', 'Bowler', 'Right-handed', 'Right-arm fast',5, 'South Africa'), (1050, 'David Miller', '1989-06-10', 'Batsman', 'Left-handed', NULL,5, 'South Africa'),

Select \* from player

CREATE TABLE LiveScores (

Match\_ID VARCHAR(20) PRIMARY KEY FOREIGN KEY REFERENCES Matches(Match\_ID),

Umpire\_ID INT FOREIGN KEY REFERENCES Umpire(Umpire\_ID), Umpire\_Name VARCHAR(50),

Venue\_ID INT FOREIGN KEY REFERENCES Venue(Venue\_ID),

Venue\_Name VARCHAR(100),

Batting\_Team\_ID INT FOREIGN KEY REFERENCES Team(Team\_ID), Batting\_Team\_Name VARCHAR(50),

Bowling\_Team\_ID INT FOREIGN KEY REFERENCES Team(Team\_ID), Bowling\_Team\_Name VARCHAR(50),

Batsman1\_ID INT FOREIGN KEY REFERENCES Player(Player\_ID), Batsman1\_Name VARCHAR(100),

Batsman2\_ID INT FOREIGN KEY REFERENCES Player(Player\_ID), Batsman2\_Name VARCHAR(100),

Bowler\_ID INT FOREIGN KEY REFERENCES Player(Player\_ID), Bowler\_Name VARCHAR(100),

Total\_Runs INT DEFAULT 0, Wickets INT DEFAULT 0, Overs DECIMAL(3,1) NOT NULL,

Ball\_Number INT CHECK (Ball\_Number BETWEEN 1 AND 6), Match\_Date DATE

);

select \* from LiveScores

INSERT INTO LiveScores VALUES

-- Series: ICC Cricket World Cup 2023

-- Match 1: India vs Australia (2023-10-08)

('INDvAUS\_1',101, 'Simon Taufel',500, 'Narendra Modi Stadium',1, 'India',2, 'Australia', 1001, 'Virat Kohli',1002, 'Rohit Sharma',1017, 'Pat Cummins', 189, 4, 28.5, 5, '2023-10-08'),

-- Match 2: England vs Pakistan (2023-10-10)

('ENGvPAK\_2',104, 'Marais Erasmus',503, 'Lord''s Cricket Ground',3, 'England',4, 'Pakistan', 1027, 'Joe Root',1026, 'Ben Stokes',1037, 'Shaheen Afridi', 145, 3, 25.2, 3, '2023-10-10'),

-- Series: The Ashes 2023

-- Match 3: England vs Australia (2023-06-20)

('ENGvAUS\_3',104, 'Marais Erasmus',503, 'Lord''s Cricket Ground',3, 'England',2, 'Australia', 1027, 'Joe Root',1026, 'Ben Stokes',1020, 'Mitchell Starc', 210, 2, 35.0, 1, '2023-06-20'),

-- Match 4: Australia vs England (2023-06-25)

('AUSvENG\_4',108, 'Paul Reiffel',501, 'Melbourne Cricket Ground',2, 'Australia',3, 'England', 1016, 'Steve Smith',1019, 'David Warner',1029, 'Jofra Archer', 175, 5, 30.4, 6, '2023-06-25'),

-- Series: Asia Cup 2023

-- Match 5: India vs Pakistan (2023-09-03)

('INDvPAK\_5',103, 'Kumar Dharmasena',507, 'R. Premadasa Stadium',1, 'India',4, 'Pakistan', 1001, 'Virat Kohli',1002, 'Rohit Sharma',1037, 'Shaheen Afridi', 200, 3, 40.0, 2, '2023-09-03'),

-- Match 6: Sri Lanka vs Bangladesh (2023-09-05)

('SLvBAN\_6',103, 'Kumar Dharmasena',507, 'R. Premadasa Stadium',8, 'Sri Lanka',9, 'Bangladesh', 1078, 'Pathum Nissanka',1079, 'Charith Asalanka',1086, 'Shakib Al Hasan', 132, 5, 20.4, 6, '2023-

09-05'),

-- Series: Indian Premier League 2024

-- Match 7: MI vs CSK (2024-03-25)

('MIvCSK\_7',112, 'Anil Chaudhary',501, 'Eden Gardens',11, 'Mumbai Indians',12, 'Chennai Super Kings',

1002, 'Rohit Sharma',1015, 'Suryakumar Yadav',1004, 'Ravindra Jadeja', 150, 2, 15.3, 4, '2024-03-

25'),

-- Match 8: RCB vs KKR (2024-03-27)

('RCBvKKR\_8',106, 'Nitin Menon',511, 'M. Chinnaswamy Stadium',13, 'Royal Challengers Bangalore',14, 'Kolkata Knight Riders',

1001, 'Virat Kohli',1033, 'Liam Livingstone',1020, 'Mitchell Starc', 180, 4, 18.2, 5, '2024-03-27'),

-- Series: South Africa vs India Test Series

-- Match 9: South Africa vs India (2023-12-30)

('SAvIND\_9',105, 'Richard Kettleborough',504, 'Newlands Cricket Ground',5, 'South Africa',1, 'India',

1047, 'Quinton de Kock',1048, 'Aiden Markram',1003, 'Jasprit Bumrah', 150, 4, 25.3, 4, '2023-12-

30'),

-- Match 10: India vs South Africa (2024-01-05)

('INDvSA\_10',104, 'Marais Erasmus',512, 'Wanderers Stadium',1, 'India',5, 'South Africa', 1001, 'Virat Kohli',1002, 'Rohit Sharma',1046, 'Kagiso Rabada', 120, 3, 20.0, 2, '2024-01-05');

SELECT \* FROM LiveScores; CREATE TABLE PlayerStats (

Match\_ID VARCHAR(20) NOT NULL FOREIGN KEY REFERENCES Matches(Match\_ID),

Player\_ID INT NOT NULL FOREIGN KEY REFERENCES Player(Player\_ID), Player\_Name VARCHAR(100) NOT NULL,

Team\_ID INT NOT NULL FOREIGN KEY REFERENCES Team(Team\_ID), Team\_Name VARCHAR(50) NOT NULL,

Runs\_Scored INT DEFAULT 0, Balls\_Faced INT DEFAULT 0, Fours INT DEFAULT 0, Sixes INT DEFAULT 0,

Wickets\_Taken INT DEFAULT 0, Balls\_Bowled INT DEFAULT 0, Runs\_Conceded INT DEFAULT 0, Maidens INT DEFAULT 0, Catches INT DEFAULT 0, Stumpings INT DEFAULT 0,

PRIMARY KEY (Match\_ID, Player\_ID)

);

Select \* from PlayerStats

INSERT INTO PlayerStats (Match\_ID, Player\_ID, Player\_Name, Team\_ID, Team\_Name, Runs\_Scored, Balls\_Faced, Fours, Sixes, Wickets\_Taken, Balls\_Bowled, Runs\_Conceded, Maidens, Catches, Stumpings) VALUES

-- Match 1: INDvAUS\_1 (World Cup)

('INDvAUS\_1', 1001, 'Virat Kohli', 1, 'India', 85, 68, 10, 2, 0, 0, 0, 0, 1, 0),

('INDvAUS\_1', 1002, 'Rohit Sharma', 1, 'India', 72, 59, 8, 3, 0, 0, 0, 0, 0, 0),

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ('INDvAUS\_1', | 1003, | 'Jasprit Bumrah', | 1, 'India', 0, 0, 0, | 0, | 3, | 36, 45, 1, 0, 0), |
| ('INDvAUS\_1', | 1016, | 'Steve Smith', 2, | 'Australia', 42, 38, | 6, | 1, | 0, 0, 0, 0, 0, 0), |
| ('INDvAUS\_1', | 1017, | 'Pat Cummins', 2, | 'Australia', 18, 12, | 2, | 1, | 2, 24, 38, 0, 1, 0), |

-- Match 2: ENGvPAK\_2 (World Cup)

|  |  |  |  |
| --- | --- | --- | --- |
| ('ENGvPAK\_2', | 1027, | 'Joe Root', 3, 'England', 65, 47, 7, 2, 0, 0, 0, 0, 0, 0), |  |
| ('ENGvPAK\_2', | 1026, | 'Ben Stokes', 3, 'England', 88, 62, 9, 4, 1, 18, 28, 0, 2, | 0), |
| ('ENGvPAK\_2', | 1037, | 'Shaheen Afridi', 4, 'Pakistan', 0, 0, 0, 0, 4, 48, 55, 2, | 0, 0), |
| ('ENGvPAK\_2', | 1036, | 'Babar Azam', 4, 'Pakistan', 94, 75, 11, 3, 0, 0, 0, 0, 1, | 0), |

-- Match 3: ENGvAUS\_3 (Ashes)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ('ENGvAUS\_3', | 1027, | 'Joe Root', 3, 'England', 102, 118, | 14, | 1, | 0, | 0, | 0, | 0, 0, 0), |
| ('ENGvAUS\_3', | 1020, | 'Mitchell Starc', 2, 'Australia', 0, 0, | | 0, | 0, | 5, | 54, 89, 3, 1, 0), | |
| ('ENGvAUS\_3', | 1019, | 'David Warner', 2, 'Australia', 76, 82, | | 8, | 0, | 0, | 0, 0, 0, 2, 0), | |

-- Match 5: INDvPAK\_5 (Asia Cup)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ('INDvPAK\_5', | 1001, | 'Virat Kohli', 1, 'India', 122, 94, | | 15, 5, 0, 0, | 0, 0, 1, 0), | | |
| ('INDvPAK\_5', | 1003, | 'Jasprit Bumrah', 1, 'India', 0, 0, | | 0, 0, 4, 48, | 52, 2, 0, 0), | | |
| ('INDvPAK\_5', | 1036, | 'Babar Azam', 4, 'Pakistan', 89, | 67, 10, 3, 0, 0, 0, 0, | | | 0, | 0), |
| ('INDvPAK\_5', | 1037, | 'Shaheen Afridi', 4, 'Pakistan', | 0, 0, 0, 0, 2, 42, 63, | | | 1, | 1, 0), |

-- Match 6: SLvBAN\_6 (Asia Cup)

|  |  |  |
| --- | --- | --- |
| ('SLvBAN\_6', | 1078, | 'Pathum Nissanka', 8, 'Sri Lanka', 67, 45, 8, 2, 0, 0, 0, 0, 0, 0), |
| ('SLvBAN\_6', | 1080, | 'Dushmantha Chameera', 8, 'Sri Lanka', 0, 0, 0, 0, 3, 36, 40, 1, 0, 0), |
| ('SLvBAN\_6', | 1086, | 'Shakib Al Hasan', 9, 'Bangladesh', 58, 39, 7, 1, 2, 30, 35, 0, 1, 0), |

Select \* from PlayerStats CREATE TABLE Rankings (

Format VARCHAR(20) CHECK (Format IN ('Test', 'ODI', 'T20','IPL')),

Player\_Role VARCHAR(30) CHECK (Player\_Role IN ('Batsman', 'Bowler', 'All-rounder')), Current\_Rank INT NOT NULL,

Player\_ID INT NOT NULL FOREIGN KEY REFERENCES Player(Player\_ID), Player\_Name VARCHAR(100) NOT NULL,

Team\_ID INT NOT NULL FOREIGN KEY REFERENCES Team(Team\_ID), Team\_Name VARCHAR(50) NOT NULL,

Ranking\_Points INT NOT NULL,

PRIMARY KEY (Format, Player\_Role, Current\_Rank)

);

Select \* from Rankings INSERT INTO Rankings VALUES

-- ========== TEST FORMAT ==========

('Test', 'Batsman', 1, 1001, 'Virat Kohli', 1, 'India', 913),

('Test', 'Batsman', 2, 1027, 'Joe Root', 3, 'England', 887),

('Test', 'Batsman', 3, 1016, 'Steve Smith', 2, 'Australia', 842),

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ('Test', | 'Batsman', | 4, | 1056, | 'Kane Williamson', 6, 'New Zealand', 812), |
| ('Test', | 'Batsman', | 5, | 1025, | 'Travis Head', 2, 'Australia', 798), |
| ('Test', | 'Bowler', | 1, | 1046, | 'Kagiso Rabada', 5, 'South Africa', 892), |
| ('Test', | 'Bowler', | 2, | 1020, | 'Mitchell Starc', 2, 'Australia', 865), |
| ('Test', | 'Bowler', | 3, | 1003, | 'Jasprit Bumrah', 1, 'India', 847), |
| ('Test', | 'Bowler', | 4, | 1057, | 'Trent Boult', 6, 'New Zealand', 821), |
| ('Test', | 'Bowler', | 5, | 1012, | 'Mohammed Siraj', 1, 'India', 798), |

('Test', 'All-rounder', 1, 1026, 'Ben Stokes', 3, 'England', 845),

('Test', 'All-rounder', 2, 1004, 'Ravindra Jadeja', 1, 'India', 815),

('Test', 'All-rounder', 3, 1085, 'Dhananjaya de Silva', 8, 'Sri Lanka', 732),

('Test', 'All-rounder', 4, 1067, 'Jason Holder', 7, 'West Indies', 712),

('Test', 'All-rounder', 5, 1086, 'Shakib Al Hasan', 9, 'Bangladesh', 698),

-- ========== ODI FORMAT ==========

('ODI', 'Batsman', 1, 1001, 'Virat Kohli', 1, 'India', 890),

('ODI', 'Batsman', 2, 1036, 'Babar Azam', 4, 'Pakistan', 872),

('ODI', 'Batsman', 3, 1002, 'Rohit Sharma', 1, 'India', 845),

('ODI', 'Batsman', 4, 1048, 'Aiden Markram', 5, 'South Africa', 798),

('ODI', 'Batsman', 5, 1078, 'Pathum Nissanka', 8, 'Sri Lanka', 765),

('ODI', 'Bowler', 1, 1003, 'Jasprit Bumrah', 1, 'India', 832),

('ODI', 'Bowler', 2, 1037, 'Shaheen Afridi', 4, 'Pakistan', 815),

('ODI', 'Bowler', 3, 1046, 'Kagiso Rabada', 5, 'South Africa', 798),

('ODI', 'Bowler', 4, 1089, 'Taskin Ahmed', 9, 'Bangladesh', 745),

('ODI', 'Bowler', 5, 1061, 'Lockie Ferguson', 6, 'New Zealand', 721),

('ODI', 'All-rounder', 1, 1086, 'Shakib Al Hasan', 9, 'Bangladesh', 845),

('ODI', 'All-rounder', 2, 1004, 'Ravindra Jadeja', 1, 'India', 812),

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ('ODI', | 'All-rounder', | 3, | 1018, | 'Glenn Maxwell', 2, 'Australia', 785), |
| ('ODI', | 'All-rounder', | 4, | 1062, | 'Daryl Mitchell', 6, 'New Zealand', 754), |
| ('ODI', | 'All-rounder', | 5, | 1088, | 'Mehidy Hasan', 9, 'Bangladesh', 732), |

Select \* from Rankings CREATE TABLE UserTeam (

Team\_ID INT IDENTITY(1,1) PRIMARY KEY,

User\_ID INT NOT NULL FOREIGN KEY REFERENCES Users(User\_ID), User\_Name VARCHAR(50) NOT NULL,

Match\_ID VARCHAR(20) NOT NULL FOREIGN KEY REFERENCES Matches(Match\_ID), Match\_Name VARCHAR(100) NOT NULL,

Captain\_ID INT NOT NULL FOREIGN KEY REFERENCES Player(Player\_ID), Captain\_Name VARCHAR(100) NOT NULL,

Vice\_Captain\_ID INT NOT NULL FOREIGN KEY REFERENCES Player(Player\_ID), Vice\_Captain\_Name VARCHAR(100) NOT NULL,

Total\_Credits DECIMAL(5,2) DEFAULT 100.00 CHECK (Total\_Credits <= 100.00),

Formation VARCHAR(20) NOT NULL CHECK (Formation IN ('5-3-3', '6-4-1', '4-5-2', '7-2-2')), Created\_At DATETIME DEFAULT GETDATE(),

CONSTRAINT CHK\_Captain\_Vice CHECK (Captain\_ID <> Vice\_Captain\_ID)

);

Select \* from UserTeam

INSERT INTO UserTeam (User\_ID, User\_Name, Match\_ID, Match\_Name, Captain\_ID, Captain\_Name,

Vice\_Captain\_ID, Vice\_Captain\_Name, Formation) VALUES

(1, 'Amit Sharma', 'INDvAUS\_1', 'India vs Australia - WC2023', 1001, 'Virat Kohli', 1003, 'Jasprit Bumrah', '5-3-3'),

(2, 'Rahul Verma', 'ENGvPAK\_2', 'England vs Pakistan - WC2023', 1026, 'Ben Stokes', 1037, 'Shaheen Afridi', '6-4-1'),

(3, 'Priya Mehta', 'SLvBAN\_6', 'Sri Lanka vs Bangladesh - Asia Cup', 1078, 'Pathum Nissanka', 1086, 'Shakib Al Hasan', '4-5-2'),

(4, 'Ravi Kumar', 'MIvCSK\_7', 'Mumbai vs Chennai - IPL2024', 1002, 'Rohit Sharma', 1004, 'Ravindra Jadeja', '7-2-2'),

(5, 'Neha Gupta', 'RCBvKKR\_8', 'Bangalore vs Kolkata - IPL2024', 1001, 'Virat Kohli', 1020, 'Mitchell Starc', '5-3-3'),

(6, 'Suresh Nair', 'SAvIND\_9', 'South Africa vs India - Test', 1046, 'Kagiso Rabada', 1001, 'Virat Kohli', '6-4-1'),

(7, 'Anjali Das', 'INDvSA\_10', 'India vs South Africa - Test', 1003, 'Jasprit Bumrah', 1046, 'Kagiso Rabada', '4-5-2'),

(8, 'Vikram Singh', 'ENGvAUS\_3', 'England vs Australia - Ashes', 1027, 'Joe Root', 1020, 'Mitchell Starc', '5-3-3'),

(9, 'Kiran Joshi', 'AUSvENG\_4', 'Australia vs England - Ashes', 1016, 'Steve Smith', 1019, 'David Warner', '7-2-2'),

(10, 'Alok Mishra', 'INDvPAK\_5', 'India vs Pakistan - Asia Cup', 1001, 'Virat Kohli', 1037, 'Shaheen Afridi', '6-4-1'),

(11, 'Pooja Iyer', 'SLvBAN\_6', 'Sri Lanka vs Bangladesh - Asia Cup', 1080, 'Dushmantha Chameera', 1086, 'Shakib Al Hasan', '4-5-2'),

(12, 'Harish Patel', 'MIvCSK\_7', 'Mumbai vs Chennai - IPL2024', 1015, 'Suryakumar Yadav', 1004, 'Ravindra Jadeja', '5-3-3'),

(13, 'Deepa Reddy', 'RCBvKKR\_8', 'Bangalore vs Kolkata - IPL2024', 1020, 'Mitchell Starc', 1001, 'Virat Kohli', '7-2-2'),

(14, 'Mohit Saxena', 'SAvIND\_9', 'South Africa vs India - Test', 1047, 'Quinton de Kock', 1003, 'Jasprit Bumrah', '6-4-1'),

Select \* from UserTeam CREATE TABLE TeamPlayers (

Team\_ID INT NOT NULL FOREIGN KEY REFERENCES UserTeam(Team\_ID), Player\_ID INT NOT NULL FOREIGN KEY REFERENCES Player(Player\_ID),

Team\_Name VARCHAR(50) NOT NULL, -- User's fantasy team name (username) Player\_Name VARCHAR(100) NOT NULL,

Is\_Substitute BIT DEFAULT 0,

Position VARCHAR(20) CHECK (Position IN ('Playing', 'Bench')), PRIMARY KEY (Team\_ID, Player\_ID)

);

Select \* from TeamPlayers

INSERT INTO TeamPlayers (Team\_ID, Player\_ID, Team\_Name, Player\_Name, Is\_Substitute, Position) VALUES

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| -- Team 1: Amit Sharma's Fantasy Team (10 players) | | | | |
| (1, | 1001, | 'Amit | Sharma', | 'Virat Kohli', 0, 'Playing'), |
| (1, | 1002, | 'Amit | Sharma', | 'Rohit Sharma', 0, 'Playing'), |
| (1, | 1003, | 'Amit | Sharma', | 'Jasprit Bumrah', 0, 'Playing'), |
| (1, | 1016, | 'Amit | Sharma', | 'Steve Smith', 1, 'Bench'), |
| (1, | 1017, | 'Amit | Sharma', | 'Pat Cummins', 1, 'Bench'), |
| (1, | 1020, | 'Amit | Sharma', | 'Mitchell Starc', 0, 'Playing'), |
| (1, | 1036, | 'Amit | Sharma', | 'Babar Azam', 0, 'Playing'), |
| (1, | 1037, | 'Amit | Sharma', | 'Shaheen Afridi', 0, 'Playing'), |
| (1, | 1046, | 'Amit | Sharma', | 'Kagiso Rabada', 0, 'Playing'), |
| (1, | 1056, | 'Amit | Sharma', | 'Kane Williamson', 0, 'Playing'), |
| -- Team 2: Rahul Verma's Fantasy Team (10 players) | | | | |
| (2, | 1026, | 'Rahul | Verma', | 'Ben Stokes', 0, 'Playing'), |
| (2, | 1027, | 'Rahul | Verma', | 'Joe Root', 0, 'Playing'), |
| (2, | 1037, | 'Rahul | Verma', | 'Shaheen Afridi', 0, 'Playing'), |
| (2, | 1036, | 'Rahul | Verma', | 'Babar Azam', 1, 'Bench'), |
| (2, | 1048, | 'Rahul | Verma', | 'Aiden Markram', 0, 'Playing'), |
| (2, | 1050, | 'Rahul | Verma', | 'David Miller', 0, 'Playing'), |
| (2, | 1057, | 'Rahul | Verma', | 'Trent Boult', 0, 'Playing'), |
| (2, | 1061, | 'Rahul | Verma', | 'Lockie Ferguson', 1, 'Bench'), |
| (2, | 1077, | 'Rahul | Verma', | 'Wanindu Hasaranga', 0, 'Playing'), |
| (2, | 1096, | 'Rahul | Verma', | 'Rashid Khan', 0, 'Playing'), |

-- Teams 3-10 follow same pattern (8 teams x 10 players = 80 records) (3, 1004, 'Priya Mehta', 'Ravindra Jadeja', 0, 'Playing'),

(3, 1009, 'Priya Mehta', 'Hardik Pandya', 0, 'Playing'),

--...

(10, 1100, 'Sanjay Dutta', 'Najibullah Zadran', 1, 'Bench'); Select \* from TeamPlayers

CREATE TABLE Contest ( Contest\_ID INT primary key,

Contest\_Name VARCHAR(100) NOT NULL,

Match\_ID VARCHAR(20) NOT NULL FOREIGN KEY REFERENCES Matches(Match\_ID), Entry\_Fee DECIMAL(8,2) DEFAULT 0.00,

Prize\_Pool DECIMAL(10,2) NOT NULL,

Max\_Participants INT DEFAULT 100, Current\_Participants INT DEFAULT 0,

Contest\_Type VARCHAR(20) CHECK (Contest\_Type IN ('Free', 'Paid', 'Head-to-Head', 'Mega')), Start\_Time DATETIME NOT NULL,

Status VARCHAR(20) DEFAULT 'Open' CHECK (Status IN ('Open', 'Closed', 'Completed')), Created\_At DATETIME DEFAULT GETDATE()

);

Select \* from Contest

INSERT INTO Contest (Contest\_ID, Contest\_Name, Match\_ID, Entry\_Fee, Prize\_Pool, Max\_Participants, Current\_Participants, Contest\_Type, Start\_Time, Status)

VALUES

(1, 'World Cup Mega', 'INDvAUS\_1', 50, 5000, 200, 198, 'Mega', '2023-10-08 13:30:00', 'Completed'),

(2, 'INDvAUS Free', 'INDvAUS\_1', 0, 200, 100, 100, 'Free', '2023-10-08 13:30:00', 'Completed'),

(3, 'INDvAUS H2H', 'INDvAUS\_1', 25, 100, 2, 2, 'Head-to-Head', '2023-10-08 13:30:00', 'Completed'),

(4, 'ENGvPAK Premium', 'ENGvPAK\_2', 40, 3000, 150, 145, 'Paid', '2023-10-10 10:00:00', 'Completed'),

(5, 'ENGvPAK Free', 'ENGvPAK\_2', 0, 150, 50, 32, 'Free', '2023-10-10 10:00:00', 'Completed'),

(6, 'ENGvPAK Mega', 'ENGvPAK\_2', 100, 10000, 500, 500, 'Mega', '2023-10-10 10:00:00', 'Completed'),

(7, 'Ashes Elite', 'ENGvAUS\_3', 75, 5000, 100, 98, 'Paid', '2023-06-20 09:30:00', 'Completed'),

(8, 'Ashes H2H', 'ENGvAUS\_3', 50, 200, 2, 2, 'Head-to-Head', '2023-06-20 09:30:00', 'Completed'),

(9, 'Ashes Free', 'ENGvAUS\_3', 0, 100, 50, 50, 'Free', '2023-06-20 09:30:00', 'Completed'),

(10,'AUSvENG Classic', 'AUSvENG\_4', 30, 1500, 75, 75, 'Paid', '2023-06-25 08:00:00', 'Completed'),

(11,'AUSvENG Mega', 'AUSvENG\_4', 100, 7500, 300, 300, 'Mega', '2023-06-25 08:00:00', 'Completed'),

(12,'AUSvENG H2H', 'AUSvENG\_4', 40, 160, 2, 1, 'Head-to-Head', '2023-06-25 08:00:00', 'Closed'),

(13,'INDvPAK Thriller', 'INDvPAK\_5', 60, 10000, 500, 500, 'Mega', '2023-09-03 14:00:00',

'Completed'),

(14,'INDvPAK Free', 'INDvPAK\_5', 0, 500, 100, 89, 'Free', '2023-09-03 14:00:00', 'Completed'),

(15,'INDvPAK Premium', 'INDvPAK\_5', 75, 2500, 100, 100, 'Paid', '2023-09-03 14:00:00', 'Completed'),

(16,'SLvBAN Battle', 'SLvBAN\_6', 20, 800, 40, 40, 'Paid', '2023-09-05 14:00:00', 'Completed'),

(17,'SLvBAN H2H', 'SLvBAN\_6', 15, 60, 2, 2, 'Head-to-Head', '2023-09-05 14:00:00', 'Completed'),

(18,'SLvBAN Free', 'SLvBAN\_6', 0, 100, 30, 25, 'Free', '2023-09-05 14:00:00', 'Completed'),

(19,'MIvCSK Clash', 'MIvCSK\_7', 75, 10000, 1000, 876, 'Mega', '2024-03-25 19:30:00', 'Open'),

(20,'MIvCSK Premium', 'MIvCSK\_7', 50, 5000, 200, 154, 'Paid', '2024-03-25 19:30:00', 'Open'),

(21,'MIvCSK Free', 'MIvCSK\_7', 0, 1000, 100, 45, 'Free', '2024-03-25 19:30:00', 'Open'),

(22,'RCBvKKR Elite', 'RCBvKKR\_8', 25, 5000, 200, 123, 'Paid', '2024-03-27 15:30:00', 'Open'),

(23,'RCBvKKR Mega', 'RCBvKKR\_8', 100, 15000, 500, 342, 'Mega', '2024-03-27 15:30:00', 'Open'),

(24,'RCBvKKR H2H', 'RCBvKKR\_8', 30, 120, 2, 0, 'Head-to-Head', '2024-03-27 15:30:00', 'Open'),

(25,'SAvIND Test', 'SAvIND\_9', 30, 1500, 50, 48, 'Paid', '2023-12-30 08:00:00', 'Closed'),

(26,'SAvIND Experts', 'SAvIND\_9', 50, 2500, 75, 75, 'Paid', '2023-12-30 08:00:00', 'Closed'),

(27,'SAvIND Free', 'SAvIND\_9', 0, 300, 30, 12, 'Free', '2023-12-30 08:00:00', 'Closed'),

(28,'INDvSA Challenge', 'INDvSA\_10', 40, 2000, 100, 0, 'Paid', '2024-01-05 08:00:00', 'Open'),

(29,'INDvSA Mega', 'INDvSA\_10', 80, 10000, 500, 0, 'Mega', '2024-01-05 08:00:00', 'Open'),

(30,'INDvSA H2H', 'INDvSA\_10', 35, 140, 2, 0, 'Head-to-Head', '2024-01-05 08:00:00', 'Open');

Select \* from Contest CREATE TABLE UserContest (

Entry\_ID INT IDENTITY(1,1) PRIMARY KEY,

User\_ID INT NOT NULL FOREIGN KEY REFERENCES Users(User\_ID),

User\_Name VARCHAR(50) NOT NULL, -- Added User\_Name

Contest\_ID INT NOT NULL FOREIGN KEY REFERENCES Contest(Contest\_ID), Contest\_Name VARCHAR(100) NOT NULL, -- Added Contest\_Name

Team\_ID INT NOT NULL FOREIGN KEY REFERENCES UserTeam(Team\_ID),

Final\_Points INT DEFAULT 0, Final\_Rank INT CHECK (Final\_Rank > 0), Winnings DECIMAL(10,2) DEFAULT 0.00,

Status VARCHAR(20) DEFAULT 'Active' CHECK (Status IN ('Active', 'Completed', 'Withdrawn')), Joined\_At DATETIME DEFAULT GETDATE(),

CONSTRAINT UC\_UserContest UNIQUE (User\_ID, Contest\_ID, Team\_ID)

);

select \* from UserContest

INSERT INTO UserContest (User\_ID, User\_Name, Contest\_ID, Contest\_Name, Team\_ID, Final\_Points, Final\_Rank, Winnings, Status)

VALUES

-- User 1 (Amit Sharma) participates in 3 contests

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| (1, | 'Amit | Sharma', | 1, | 'World Cup Mega', 1, 1200, 5, 500.00, 'Completed'), |
| (1, | 'Amit | Sharma', | 2, | 'INDvAUS Free', 1, 800, 10, 100.00, 'Completed'), |
| (1, | 'Amit | Sharma', | 3, | 'INDvAUS H2H', 1, 950, 7, 200.00, 'Completed'), |

-- User 2 (Rahul Verma) participates in 2 contests

(2, 'Rahul Verma', 1, 'World Cup Mega', 2, 1100, 6, 300.00, 'Completed'),

(2, 'Rahul Verma', 4, 'ENGvPAK Premium', 2, 700, 15, 50.00, 'Completed'),

-- User 3 (Priya Mehta) participates in 3 contests

(3, 'Priya Mehta', 5, 'INDvPAK Thriller', 3, 1300, 3, 1000.00, 'Completed'),

(3, 'Priya Mehta', 6, 'INDvPAK Free', 3, 900, 8, 150.00, 'Completed'),

(3, 'Priya Mehta', 7, 'INDvPAK Premium', 3, 1000, 5, 400.00, 'Completed'),

-- User 4 (Ravi Kumar) participates in 2 contests

(4, 'Ravi Kumar', 8, 'SLvBAN Battle', 4, 850, 12, 75.00, 'Completed'),

(4, 'Ravi Kumar', 9, 'SLvBAN H2H', 4, 1200, 4, 600.00, 'Completed'),

-- User 5 (Neha Gupta) participates in 3 contests

(5, 'Neha Gupta', 10, 'MIvCSK Clash', 5, 1400, 2, 1200.00, 'Completed'),

(5, 'Neha Gupta', 11, 'MIvCSK Premium', 5, 750, 14, 60.00, 'Completed'),

(5, 'Neha Gupta', 12, 'MIvCSK Free', 5, 1100, 6, 300.00, 'Completed'),

-- User 6 (Suresh Nair) participates in 2 contests

(6, 'Suresh Nair', 13, 'RCBvKKR Elite', 6, 900, 9, 150.00, 'Completed'),

(6, 'Suresh Nair', 14, 'RCBvKKR Mega', 6, 1300, 3, 1000.00, 'Completed'),

|  |  |  |  |
| --- | --- | --- | --- |
| -- | User 7 (Anjali | Das) | participates in 3 contests |
| (7, | 'Anjali Das', | 15, | 'SAvIND Test', 7, 800, 11, 100.00, 'Completed'), |
| (7, | 'Anjali Das', | 16, | 'SAvIND Experts', 7, 950, 7, 200.00, 'Completed'), |
| (7, | 'Anjali Das', | 17, | 'SAvIND Free', 7, 1200, 5, 500.00, 'Completed'), |

-- User 8 (Vikram Singh) participates in 2 contests

(8, 'Vikram Singh', 18, 'INDvSA Challenge', 8, 700, 15, 50.00, 'Completed'),

(8, 'Vikram Singh', 19, 'INDvSA Mega', 8, 1100, 6, 300.00, 'Completed'),

-- User 9 (Kiran Joshi) participates in 3 contests

(9, 'Kiran Joshi', 20, 'ENGvAUS Classic', 9, 1300, 3, 1000.00, 'Completed'),

(9, 'Kiran Joshi', 21, 'ENGvAUS Mega', 9, 900, 8, 150.00, 'Completed'),

(9, 'Kiran Joshi', 22, 'ENGvAUS H2H', 9, 1000, 5, 400.00, 'Completed'),

-- User 10 (Alok Mishra) participates in 2 contests

(10, 'Alok Mishra', 23, 'AUSvENG Classic', 10, 850, 12, 75.00, 'Completed'),

(10, 'Alok Mishra', 24, 'AUSvENG Mega', 10, 1200, 4, 600.00, 'Completed'); Select \* from UserContest

CREATE TABLE ScoringRules ( Rule\_ID INT PRIMARY KEY,

Action VARCHAR(50) UNIQUE NOT NULL, Points INT NOT NULL,

Is\_Active BIT DEFAULT 1, Valid\_From DATE, Valid\_To DATE

);

Select \* from ScoringRules

INSERT INTO ScoringRules (Rule\_ID, Action, Points, Is\_Active, Valid\_From, Valid\_To) VALUES

-- Batting Rules

(1, 'Run Scored', 1, 1, '2023-01-01', '2024-12-31'),

(2, 'Boundary (4 runs)', 1, 1, '2023-01-01', '2024-12-31'),

(3, 'Six (6 runs)', 2, 1, '2023-01-01', '2024-12-31'),

(4, 'Half-Century (50 runs)', 8, 1, '2023-01-01', '2024-12-31'),

(5, 'Century (100 runs)', 16, 1, '2023-01-01', '2024-12-31'),

(6, 'Duck (0 runs)', -2, 1, '2023-01-01', '2024-12-31'),

-- Bowling Rules

(7, 'Wicket Taken', 25, 1, '2023-01-01', '2024-12-31'),

(8, 'Maiden Over', 12, 1, '2023-01-01', '2024-12-31'),

(9, '3-Wicket Haul', 8, 1, '2023-01-01', '2024-12-31'),

(10, '4-Wicket Haul', 16, 1, '2023-01-01', '2024-12-31'),

(11, '5-Wicket Haul', 25, 1, '2023-01-01', '2024-12-31'),

(12, 'Dot Ball', 1, 1, '2023-01-01', '2024-12-31'),

-- Fielding Rules

(13, 'Catch', 8, 1, '2023-01-01', '2024-12-31'),

(14, 'Stumping', 12, 1, '2023-01-01', '2024-12-31'),

(15, 'Run Out (Direct)', 12, 1, '2023-01-01', '2024-12-31'),

(16, 'Run Out (Assist)', 6, 1, '2023-01-01', '2024-12-31'),

-- Bonus Rules

(17, 'Man of the Match', 50, 1, '2023-01-01', '2024-12-31'),

(18, 'Captain', 2, 1, '2023-01-01', '2024-12-31'), -- Points multiplier for captain

(19, 'Vice-Captain', 1.5, 1, '2023-01-01', '2024-12-31'); -- Points multiplier for vice-captain Select \* from ScoringRules

CREATE TABLE UserPoints (

Calculation\_ID INT IDENTITY(1,1) PRIMARY KEY,

User\_ID INT NOT NULL FOREIGN KEY REFERENCES Users(User\_ID),

User\_Name VARCHAR(50) NOT NULL, -- Added for easier tracking Contest\_ID INT NOT NULL FOREIGN KEY REFERENCES Contest(Contest\_ID), Contest\_Name VARCHAR(100) NOT NULL, -- Added for easier tracking Match\_ID VARCHAR(20) NOT NULL FOREIGN KEY REFERENCES Matches(Match\_ID), Player\_ID INT NOT NULL FOREIGN KEY REFERENCES Player(Player\_ID),

Player\_Name VARCHAR(100) NOT NULL, -- Added for easier tracking Points INT NOT NULL,

Points\_Breakdown VARCHAR(500), -- JSON or text to store detailed breakdown of points Calculated\_At DATETIME DEFAULT GETDATE()

);

Select \* from UserPoints

INSERT INTO UserPoints (User\_ID, User\_Name, Contest\_ID, Contest\_Name, Match\_ID, Player\_ID, Player\_Name, Points, Points\_Breakdown)

VALUES

-- User 1 (Amit Sharma) in Contest 1 (World Cup Mega)

(1, 'Amit Sharma', 1, 'World Cup Mega', 'INDvAUS\_1', 1001, 'Virat Kohli', 120, 'Runs: 85, Fours: 10,

Sixes: 2, Half-Century: 8'),

(1, 'Amit Sharma', 1, 'World Cup Mega', 'INDvAUS\_1', 1002, 'Rohit Sharma', 90, 'Runs: 72, Fours: 8,

Sixes: 3'),

(1, 'Amit Sharma', 1, 'World Cup Mega', 'INDvAUS\_1', 1003, 'Jasprit Bumrah', 75, 'Wickets: 3, Dot

Balls: 12'),

-- User 2 (Rahul Verma) in Contest 4 (ENGvPAK Premium)

(2, 'Rahul Verma', 4, 'ENGvPAK Premium', 'ENGvPAK\_2', 1026, 'Ben Stokes', 110, 'Runs: 88, Fours: 9,

Sixes: 4, Wickets: 1'),

(2, 'Rahul Verma', 4, 'ENGvPAK Premium', 'ENGvPAK\_2', 1037, 'Shaheen Afridi', 100, 'Wickets: 4, Dot

Balls: 18'),

-- User 3 (Priya Mehta) in Contest 5 (INDvPAK Thriller)

(3, 'Priya Mehta', 5, 'INDvPAK Thriller', 'INDvPAK\_5', 1001, 'Virat Kohli', 130, 'Runs: 122, Fours:

15, Sixes: 5, Century: 16'),

(3, 'Priya Mehta', 5, 'INDvPAK Thriller', 'INDvPAK\_5', 1003, 'Jasprit Bumrah', 80, 'Wickets: 4, Dot

Balls: 15'),

-- User 4 (Ravi Kumar) in Contest 8 (SLvBAN Battle)

(4, 'Ravi Kumar', 8, 'SLvBAN Battle', 'SLvBAN\_6', 1078, 'Pathum Nissanka', 70, 'Runs: 67, Fours: 8,

Sixes: 2'),

(4, 'Ravi Kumar', 8, 'SLvBAN Battle', 'SLvBAN\_6', 1080, 'Dushmantha Chameera', 60, 'Wickets: 3, Dot

Balls: 10'),

-- User 5 (Neha Gupta) in Contest 10 (MIvCSK Clash)

(5, 'Neha Gupta', 10, 'MIvCSK Clash', 'MIvCSK\_7', 1002, 'Rohit Sharma', 85, 'Runs: 78, Fours: 9,

Sixes: 4'),

(5, 'Neha Gupta', 10, 'MIvCSK Clash', 'MIvCSK\_7', 1004, 'Ravindra Jadeja', 70, 'Wickets: 2, Dot

Balls: 12'),

-- User 6 (Suresh Nair) in Contest 13 (RCBvKKR Elite)

(6, 'Suresh Nair', 13, 'RCBvKKR Elite', 'RCBvKKR\_8', 1001, 'Virat Kohli', 140, 'Runs: 103, Fours:

12, Sixes: 6, Century: 16'),

(6, 'Suresh Nair', 13, 'RCBvKKR Elite', 'RCBvKKR\_8', 1020, 'Mitchell Starc', 90, 'Wickets: 3, Dot

Balls: 15'),

-- User 7 (Anjali Das) in Contest 15 (SAvIND Test)

(7, 'Anjali Das', 15, 'SAvIND Test', 'SAvIND\_9', 1047, 'Quinton de Kock', 80, 'Runs: 82, Fours: 9,

Sixes: 1'),

(7, 'Anjali Das', 15, 'SAvIND Test', 'SAvIND\_9', 1046, 'Kagiso Rabada', 70, 'Wickets: 4, Dot Balls:

12'),

-- User 8 (Vikram Singh) in Contest 18 (INDvSA Challenge)

(8, 'Vikram Singh', 18, 'INDvSA Challenge', 'INDvSA\_10', 1001, 'Virat Kohli', 75, 'Runs: 63, Fours:

7, Sixes: 1'),

(8, 'Vikram Singh', 18, 'INDvSA Challenge', 'INDvSA\_10', 1046, 'Kagiso Rabada', 65, 'Wickets: 2,

Dot Balls: 10'),

-- User 9 (Kiran Joshi) in Contest 20 (ENGvAUS Classic)

(9, 'Kiran Joshi', 20, 'ENGvAUS Classic', 'ENGvAUS\_3', 1027, 'Joe Root', 120, 'Runs: 102, Fours: 14,

Sixes: 1, Century: 16'),

(9, 'Kiran Joshi', 20, 'ENGvAUS Classic', 'ENGvAUS\_3', 1020, 'Mitchell Starc', 90, 'Wickets: 5, Dot

Balls: 18'),

-- User 10 (Alok Mishra) in Contest 23 (AUSvENG Classic)

(10, 'Alok Mishra', 23, 'AUSvENG Classic', 'AUSvENG\_4', 1016, 'Steve Smith', 85, 'Runs: 76, Fours:

8, Sixes: 0'),

(10, 'Alok Mishra', 23, 'AUSvENG Classic', 'AUSvENG\_4', 1019, 'David Warner', 75, 'Runs: 68, Fours:

7, Sixes: 3'),

-- Additional records for variety

(1, 'Amit Sharma', 2, 'INDvAUS Free', 'INDvAUS\_1', 1016, 'Steve Smith', 50, 'Runs: 42, Fours: 6,

Sixes: 1'),

(2, 'Rahul Verma', 6, 'ENGvPAK Mega', 'ENGvPAK\_2', 1036, 'Babar Azam', 110, 'Runs: 94, Fours: 11,

Sixes: 3'),

(3, 'Priya Mehta', 7, 'INDvPAK Premium', 'INDvPAK\_5', 1037, 'Shaheen Afridi', 90, 'Wickets: 2, Dot

Balls: 12'),

(4, 'Ravi Kumar', 9, 'SLvBAN H2H', 'SLvBAN\_6', 1086, 'Shakib Al Hasan', 80, 'Runs: 58, Fours: 7,

Sixes: 1, Wickets: 2'),

(5, 'Neha Gupta', 12, 'MIvCSK Free', 'MIvCSK\_7', 1015, 'Suryakumar Yadav', 70, 'Runs: 65, Fours: 8,

Sixes: 2'),

(6, 'Suresh Nair', 14, 'RCBvKKR Mega', 'RCBvKKR\_8', 1020, 'Mitchell Starc', 85, 'Wickets: 3, Dot

Balls: 15'),

(7, 'Anjali Das', 17, 'SAvIND Free', 'SAvIND\_9', 1003, 'Jasprit Bumrah', 90, 'Wickets: 5, Dot Balls:

18'),

(8, 'Vikram Singh', 19, 'INDvSA Mega', 'INDvSA\_10', 1046, 'Kagiso Rabada', 75, 'Wickets: 2, Dot

Balls: 10');

Select \* from UserPoints CREATE TABLE Transactions (

Transaction\_ID INT IDENTITY(1,1) PRIMARY KEY,

User\_ID INT NOT NULL FOREIGN KEY REFERENCES Users(User\_ID),

User\_Name VARCHAR(50) NOT NULL, -- Added for easier tracking Amount DECIMAL(10,2) NOT NULL,

Transaction\_Type VARCHAR(20) CHECK (Transaction\_Type IN ('Deposit', 'Withdrawal', 'Winning', 'Entry Fee')),

Status VARCHAR(20) CHECK (Status IN ('Pending', 'Completed', 'Failed')),

Transaction\_Date DATETIME DEFAULT GETDATE(),

Reference\_ID VARCHAR(50), -- For payment gateway tracking Description VARCHAR(200) -- Added for additional details

);

Select \* from Transactions

INSERT INTO Transactions (User\_ID, User\_Name, Amount, Transaction\_Type, Status, Reference\_ID, Description)

VALUES

-- Deposits

(1, 'Amit Sharma', 1000.00, 'Deposit', 'Completed', 'PAY12345', 'Initial deposit via UPI'),

(2, 'Rahul Verma', 500.00, 'Deposit', 'Completed', 'PAY12346', 'Initial deposit via Credit Card'), (3, 'Priya Mehta', 750.00, 'Deposit', 'Completed', 'PAY12347', 'Initial deposit via NetBanking'), (4, 'Ravi Kumar', 300.00, 'Deposit', 'Completed', 'PAY12348', 'Initial deposit via UPI'),

(5, 'Neha Gupta', 1200.00, 'Deposit', 'Completed', 'PAY12349', 'Initial deposit via Debit Card'),

-- Entry Fees

(1, 'Amit Sharma', 50.00, 'Entry Fee', 'Completed', 'CONTEST1', 'Entry fee for World Cup Mega'), (2, 'Rahul Verma', 40.00, 'Entry Fee', 'Completed', 'CONTEST4', 'Entry fee for ENGvPAK Premium'), (3, 'Priya Mehta', 60.00, 'Entry Fee', 'Completed', 'CONTEST5', 'Entry fee for INDvPAK Thriller'), (4, 'Ravi Kumar', 20.00, 'Entry Fee', 'Completed', 'CONTEST8', 'Entry fee for SLvBAN Battle'),

(5, 'Neha Gupta', 75.00, 'Entry Fee', 'Completed', 'CONTEST10', 'Entry fee for MIvCSK Clash'),

-- Winnings

(1, 'Amit Sharma', 500.00, 'Winning', 'Completed', 'WIN12345', 'Winnings from World Cup Mega'), (2, 'Rahul Verma', 300.00, 'Winning', 'Completed', 'WIN12346', 'Winnings from ENGvPAK Premium'), (3, 'Priya Mehta', 1000.00, 'Winning', 'Completed', 'WIN12347', 'Winnings from INDvPAK Thriller'), (4, 'Ravi Kumar', 75.00, 'Winning', 'Completed', 'WIN12348', 'Winnings from SLvBAN Battle'),

(5, 'Neha Gupta', 1200.00, 'Winning', 'Completed', 'WIN12349', 'Winnings from MIvCSK Clash'),

-- Withdrawals

(1, 'Amit Sharma', 200.00, 'Withdrawal', 'Completed', 'WIT12345', 'Withdrawal to Bank Account'), (2, 'Rahul Verma', 150.00, 'Withdrawal', 'Pending', 'WIT12346', 'Withdrawal request initiated'), (3, 'Priya Mehta', 300.00, 'Withdrawal', 'Completed', 'WIT12347', 'Withdrawal to UPI'),

(4, 'Ravi Kumar', 100.00, 'Withdrawal', 'Failed', 'WIT12348', 'Withdrawal failed due to insufficient balance'),

(5, 'Neha Gupta', 500.00, 'Withdrawal', 'Completed', 'WIT12349', 'Withdrawal to Bank Account'), Select \* from Transactions

CREATE TABLE Leaderboard (

Contest\_ID INT NOT NULL FOREIGN KEY REFERENCES Contest(Contest\_ID), User\_ID INT NOT NULL FOREIGN KEY REFERENCES Users(User\_ID),

User\_Name VARCHAR(50) NOT NULL, -- Added for easier tracking

Team\_ID INT NOT NULL FOREIGN KEY REFERENCES UserTeam(Team\_ID), -- Added to link to the user's

team

);

Total\_Points INT DEFAULT 0, Current\_Rank INT,

Last\_Updated DATETIME DEFAULT GETDATE(),

PRIMARY KEY (Contest\_ID, User\_ID)

Select \* from Leaderboard

INSERT INTO Leaderboard (Contest\_ID, User\_ID, User\_Name, Team\_ID, Total\_Points, Current\_Rank) VALUES

-- Contest 1: World Cup Mega

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| (1, | 1, | 'Amit Sharma', | 1, | 1200, | 5), |
| (1, | 2, | 'Rahul Verma', | 2, | 1100, | 6), |
| (1, | 3, | 'Priya Mehta', | 3, | 1300, | 3), |
| (1, | 4, | 'Ravi Kumar', 4, 1000, 8), | | | |
| (1, | 5, | 'Neha Gupta', 5, 1400, 2), | | | |

-- Contest 4: ENGvPAK Premium

|  |  |  |
| --- | --- | --- |
| (4, | 2, | 'Rahul Verma', 2, 700, 15), |
| (4, | 6, | 'Suresh Nair', 6, 900, 9), |
| (4, | 7, | 'Anjali Das', 7, 800, 11), |
| (4, | 8, | 'Vikram Singh', 8, 1100, 6), |
| (4, | 9, | 'Kiran Joshi', 9, 1300, 3), |

-- Contest 5: INDvPAK Thriller (5, 3, 'Priya Mehta', 3, 1300, 3),

(5, 10, 'Alok Mishra', 10, 1200, 4),

|  |  |  |
| --- | --- | --- |
| (5, | 1, | 'Amit Sharma', 1, 1100, 6), |
| (5, | 2, | 'Rahul Verma', 2, 1000, 8), |
| (5, | 4, | 'Ravi Kumar', 4, 950, 10), |

-- Contest 10: MIvCSK Clash

|  |  |  |
| --- | --- | --- |
| (10, | 5, | 'Neha Gupta', 5, 1400, 2), |
| (10, | 6, | 'Suresh Nair', 6, 1300, 3), |
| (10, | 7, | 'Anjali Das', 7, 1200, 5), |
| (10, | 8, | 'Vikram Singh', 8, 1100, 6), |
| (10, | 9, | 'Kiran Joshi', 9, 1000, 8), |

s(23, 4, 'Ravi Kumar', 4, 900, 12);

Select \* from Leaderboard

CREATE TABLE Notifications (

Notification\_ID INT IDENTITY(1,1) PRIMARY KEY, -- Auto-incrementing primary key User\_ID INT NOT NULL FOREIGN KEY REFERENCES Users(User\_ID),

Message VARCHAR(500) NOT NULL,

Type VARCHAR(20) CHECK (Type IN ('Match', 'Contest', 'Payment', 'System')), Is\_Read BIT DEFAULT 0, -- 0 = Unread, 1 = Read

Created\_At DATETIME DEFAULT GETDATE()

);

Select \* from Notifications

INSERT INTO Notifications (User\_ID, Message, Type, Is\_Read) VALUES

-- Match Notifications

(1, 'Your match INDvAUS\_1 is starting in 30 minutes.', 'Match', 0), (2, 'Your match ENGvPAK\_2 is starting in 1 hour.', 'Match', 1), (3, 'Your match SLvBAN\_6 is starting in 15 minutes.', 'Match', 0), (4, 'Your match MIvCSK\_7 is starting in 2 hours.', 'Match', 1), (5, 'Your match RCBvKKR\_8 is starting in 45 minutes.', 'Match', 0),

-- Contest Notifications

(6, 'You have successfully joined Contest: RCBvKKR Elite.', 'Contest', 1), (7, 'You have successfully joined Contest: SAvIND Test.', 'Contest', 0), (8, 'Contest INDvSA Challenge is now open for joining.', 'Contest', 1), (9, 'You have won ₹500 in Contest: ENGvAUS Classic.', 'Contest', 0),

(10, 'Contest AUSvENG Classic is starting soon.', 'Contest', 1),

-- Payment Notifications

(1, 'Your deposit of ₹1000.00 was successful.', 'Payment', 1), (2, 'Your withdrawal of ₹150.00 is pending.', 'Payment', 0),

(3, 'Your winnings of ₹1000.00 have been credited.', 'Payment', 1),

(4, 'Your entry fee of ₹20.00 for SLvBAN Battle was deducted.', 'Payment', 0), (5, 'Your deposit of ₹1200.00 was successful.', 'Payment', 1),

-- System Notifications

(6, 'System maintenance scheduled for 12 AM to 2 AM.', 'System', 0), (7, 'New feature: Live score updates are now available.', 'System', 1), (8, 'Your account has been verified successfully.', 'System', 0),

(9, 'Update your app to the latest version for better performance.', 'System', 1), (10, 'Thank you for being a part of CricFantasy!', 'System', 0);

Select \* from Notifications

--- QUERIES

--1 Select all users:

SELECT \* FROM Users;

--2 Find users with a specific email domain (e.g., @email.com): SELECT \* FROM Users WHERE Email\_ID LIKE '%@email.com';

--3 Count the number of users:

SELECT COUNT(\*) AS Total\_Users FROM Users;

--4 Find users without a phone number:

SELECT \* FROM Users WHERE phone\_no IS NULL;

--5 Update a user's password:

UPDATE Users SET Password = 'NewPassword123' WHERE User\_ID = 1; Select \* from users

--6 Delete a user by ID:

DELETE FROM Users WHERE User\_ID = 10;

Select \* from users

--7 Find users with names starting with 'A': SELECT \* FROM Users WHERE User\_Name LIKE 'A%';

--8 Find users with phone numbers starting with '98': SELECT \* FROM Users WHERE phone\_no LIKE '98%';

--9 Find the top 5 users by ID:

SELECT TOP 5 \* FROM Users ORDER BY User\_ID;

--10 Find users with duplicate emails:

SELECT Email\_ID, COUNT(\*)

FROM Users

GROUP BY Email\_ID HAVING COUNT(\*) > 1;

--11 Select all umpires:

SELECT \* FROM Umpire;

--12 Find umpires from a specific country (e.g., Australia): SELECT \* FROM Umpire WHERE Country = 'Australia';

--13 Find umpires who have officiated more than 200 matches: SELECT \* FROM Umpire WHERE Matches\_Officiated > 200;

--14 Count the number of umpires from each country:

SELECT Country, COUNT(\*) AS Umpire\_Count FROM Umpire

GROUP BY Country;

--15 Find the oldest umpire:

SELECT TOP 1 \* FROM Umpire ORDER BY Date\_of\_Birth;

--16 Find umpires born after 1970:

SELECT \* FROM Umpire WHERE Date\_of\_Birth > '1970-01-01';

--17 Update the number of matches officiated for an umpire:

UPDATE Umpire SET Matches\_Officiated = 300 WHERE Umpire\_ID = 101; Select \* from Umpire

--18 Delete an umpire by ID:

DELETE FROM Umpire WHERE Umpire\_ID = 115; Select \* from umpire

--19 Find umpires with unique names:

SELECT Umpire\_Name FROM Umpire GROUP BY Umpire\_Name HAVING COUNT(\*) = 1;

--20 Find the umpire with the most matches officiated: SELECT TOP 1 \* FROM Umpire ORDER BY Matches\_Officiated DESC;

--21 Select all venues:

SELECT \* FROM Venue;

--22 Find venues in a specific city (e.g., Mumbai): SELECT \* FROM Venue WHERE City = 'Mumbai';

--23 Find venues with a capacity greater than 50,000: SELECT \* FROM Venue WHERE Capacity > 50000;

--24 Count the number of venues in each country:

SELECT Country, COUNT(\*) AS Venue\_Count FROM Venue

GROUP BY Country;

--25 Find the venue with the largest capacity: SELECT TOP 1 \* FROM Venue ORDER BY Capacity DESC;

--26 Find venues with names containing 'Stadium': SELECT \* FROM Venue WHERE Venue\_Name LIKE '%Stadium%';

--27 Update the capacity of a venue:

UPDATE Venue SET Capacity = 75000 WHERE Venue\_ID = 501; Select \* from Venue

--28 Delete a venue by ID:

DELETE FROM Venue WHERE Venue\_ID = 510;

Select \* from venue

--29 Find venues with duplicate names: SELECT Venue\_Name, COUNT(\*)

FROM Venue

GROUP BY Venue\_Name HAVING COUNT(\*) > 1;

--30 Find venues in India:

SELECT \* FROM Venue WHERE Country = 'India';

--31 Select all teams:

SELECT \* FROM Team;

--32 Find teams from a specific country (e.g., India):

SELECT \* FROM Team WHERE Country = 'India';

--33 Count the number of teams in each country:

SELECT Country, COUNT(\*) AS Team\_Count FROM Team

GROUP BY Country;

--34 Find teams with names starting with 'M':

SELECT \* FROM Team WHERE Team\_Name LIKE 'M%';

--35 Find IPL teams:

SELECT \* FROM Team WHERE Team\_Name LIKE '%Super%' OR Team\_Name LIKE '%Royal%';

--36 Update a team's name:

UPDATE Team SET Team\_Name = 'New Team Name' WHERE Team\_ID = 1; Select \* from Team

--37 Delete a team by ID:

DELETE FROM Team WHERE Team\_ID = 20;

Select \* from team

--38 Find teams with duplicate names:

SELECT Team\_Name, COUNT(\*) FROM Team

GROUP BY Team\_Name HAVING COUNT(\*) > 1;

--39 Find the team with the most players:

SELECT Team\_ID, Team\_Name, COUNT(\*) AS Player\_Count FROM Player

GROUP BY Team\_ID, Team\_Name ORDER BY Player\_Count DESC;

--40 Find teams without any players:

SELECT \* FROM Team

WHERE Team\_ID NOT IN (SELECT DISTINCT Team\_ID FROM Player);

--41 Select all series:

SELECT \* FROM Series;

--42 Find series hosted in a specific country (e.g., India):

SELECT \* FROM Series WHERE Host\_Country = 'India';

--43 Find ongoing series:

SELECT \* FROM Series WHERE Status = 'Ongoing';

--44 Count the number of series by format:

SELECT Format, COUNT(\*) AS Series\_Count FROM Series

GROUP BY Format;

--45 Find series with more than 10 matches:

SELECT \* FROM Series WHERE Number\_of\_Matches > 10;

--46 Update the status of a series:

UPDATE Series SET Status = 'Completed' WHERE Series\_ID = 3001; Select \* from Series

--47 Delete a series by ID:

DELETE FROM Series WHERE Series\_ID = 3005;

--48 Find series with duplicate names:

SELECT Series\_Name, COUNT(\*) FROM Series

GROUP BY Series\_Name HAVING COUNT(\*) > 1;

--49 Find the series with the most matches:

SELECT TOP 1 \* FROM Series ORDER BY Number\_of\_Matches DESC;

--50 Find series starting in 2024:

SELECT \* FROM Series WHERE Start\_Date >= '2024-01-01';

--51 Select all matches:

SELECT \* FROM Matches;

--52 Find matches in a specific series (e.g., Series\_ID = 3001): SELECT \* FROM Matches WHERE Series\_ID = 3001;

--53 Find matches with a specific result (e.g., Team1 Win): SELECT \* FROM Matches WHERE Result = 'Team1 Win';

--54 Count the number of matches by status: SELECT Status, COUNT(\*) AS Match\_Count

FROM Matches GROUP BY Status;

--55 Find matches where the toss decision was 'Bat': SELECT \* FROM Matches WHERE Toss\_Decision = 'Bat';

--56 Update the result of a match:

UPDATE Matches SET Result = 'Team2 Win' WHERE Match\_ID = 'INDvAUS\_1'; Select \* from Matches

--57 Delete a match by ID:

DELETE FROM Matches WHERE Match\_ID = 'ENGvPAK\_2';

--58 Find matches with duplicate IDs:

SELECT Match\_ID, COUNT(\*)

FROM Matches GROUP BY Match\_ID

HAVING COUNT(\*) > 1;

--59 Find the match with the most runs scored:

SELECT TOP 1 \* FROM LiveScores ORDER BY Total\_Runs DESC;

--60 Find matches played at a specific venue (e.g., Venue\_ID = 500): SELECT \* FROM Matches WHERE Venue\_ID = 500;

--61 Select all players:

SELECT \* FROM Player;

--62 Find players from a specific team (e.g., Team\_ID = 1): SELECT \* FROM Player WHERE Team\_ID = 1;

--63 Find players of a specific type (e.g., Batsman): SELECT \* FROM Player WHERE Player\_Type = 'Batsman';

--64 Count the number of players by team:

SELECT Team\_ID, Team\_Name, COUNT(\*) AS Player\_Count FROM Player

GROUP BY Team\_ID, Team\_Name;

--65 Find players born after 1990:

SELECT \* FROM Player WHERE DOB > '1990-01-01';

--66 Update a player's batting style:

UPDATE Player SET Batting\_Style = 'Left-handed' WHERE Player\_ID = 1001;

--67 Delete a player by ID:

DELETE FROM Player WHERE Player\_ID = 1100;

--68 Find players with duplicate names: SELECT Player\_Name, COUNT(\*)

FROM Player

GROUP BY Player\_Name HAVING COUNT(\*) > 1;

--69 Find the oldest player:

SELECT TOP 1 \* FROM Player ORDER BY DOB;

--70 Find players with a specific bowling style (e.g., Legbreak): SELECT \* FROM Player WHERE Bowling\_Style = 'Legbreak';

--71 Select all live scores:

SELECT \* FROM LiveScores;

--72 Find live scores for a specific match (e.g., Match\_ID = 'INDvAUS\_1'): SELECT \* FROM LiveScores WHERE Match\_ID = 'INDvAUS\_1';

--73 Find live scores where the total runs are greater than 150: SELECT \* FROM LiveScores WHERE Total\_Runs > 150;

--74 Count the number of live scores by match:

SELECT Match\_ID, COUNT(\*) AS Score\_Count FROM LiveScores

GROUP BY Match\_ID;

--75 Find live scores with the most wickets:

SELECT TOP 1 \* FROM LiveScores ORDER BY Wickets DESC;

--76 Update the total runs in a live score:

UPDATE LiveScores SET Total\_Runs = 200 WHERE Match\_ID = 'INDvAUS\_1';

--77 Delete a live score by match ID:

DELETE FROM LiveScores WHERE Match\_ID = 'ENGvPAK\_2';

--78 Find live scores with duplicate match IDs:

SELECT Match\_ID, COUNT(\*)

FROM LiveScores GROUP BY Match\_ID HAVING COUNT(\*) > 1;

--79 Find the live score with the highest total runs: SELECT TOP 1 \* FROM LiveScores ORDER BY Total\_Runs DESC;

--80 Find live scores where the bowler is 'Mitchell Starc': SELECT \* FROM LiveScores WHERE Bowler\_Name = 'Mitchell Starc';

--81 Select all player stats:

SELECT \* FROM PlayerStats;

--82 Find player stats for a specific match (e.g., Match\_ID = 'INDvAUS\_1'): SELECT \* FROM PlayerStats WHERE Match\_ID = 'INDvAUS\_1';

--83 Find players who scored more than 50 runs in a match:

SELECT \* FROM PlayerStats WHERE Runs\_Scored > 50;

--84 Count the number of players with a 5-wicket haul:

SELECT COUNT(\*) AS Five\_Wicket\_Hauls FROM PlayerStats

WHERE Wickets\_Taken = 5;

--85 Find players with the most runs in a match:

SELECT TOP 1 \* FROM PlayerStats ORDER BY Runs\_Scored DESC;

--86 Update a player's runs scored:

UPDATE PlayerStats SET Runs\_Scored = 100 WHERE Match\_ID = 'INDvAUS\_1' AND Player\_ID = 1001;

--87 Delete a player's stats by match ID and player ID:

DELETE FROM PlayerStats WHERE Match\_ID = 'ENGvPAK\_2' AND Player\_ID = 1026;

--88 Find players with duplicate stats in a match:

SELECT Match\_ID, Player\_ID, COUNT(\*) FROM PlayerStats

GROUP BY Match\_ID, Player\_ID HAVING COUNT(\*) > 1;

--89 Find the player with the most wickets in a match:

SELECT TOP 1 \* FROM PlayerStats ORDER BY Wickets\_Taken DESC;

--90 Find players with a century (100+ runs) in a match:

SELECT \* FROM PlayerStats WHERE Runs\_Scored >= 100;

--91 Select all rankings:

SELECT \* FROM Rankings;

--92 Find rankings for a specific format (e.g., ODI):

SELECT \* FROM Rankings WHERE Format = 'ODI';

--93 Find the top-ranked batsman in Test format:

SELECT TOP 1 \* FROM Rankings WHERE Format = 'Test' AND Player\_Role = 'Batsman' ORDER BY Current\_Rank;

--94 Count the number of players in each format: SELECT Format, COUNT(\*) AS Player\_Count

FROM Rankings GROUP BY Format;

--95 Find players with ranking points greater than 800:

SELECT \* FROM Rankings WHERE Ranking\_Points > 800;

--96 Update a player's ranking points:

UPDATE Rankings SET Ranking\_Points = 900 WHERE Player\_ID = 1001;

--97 Delete a ranking by player ID:

DELETE FROM Rankings WHERE Player\_ID = 1100;

--98 Find players with duplicate rankings:

SELECT Format, Player\_Role, Player\_ID, COUNT(\*) FROM Rankings

GROUP BY Format, Player\_Role, Player\_ID HAVING COUNT(\*) > 1;

--99 Find the player with the highest ranking points:

SELECT TOP 1 \* FROM Rankings ORDER BY Ranking\_Points DESC;

--100 Find the top 5 bowlers in T20 format:

SELECT TOP 5 \* FROM Rankings WHERE Format = 'T20' AND Player\_Role = 'Bowler' ORDER BY Current\_Rank;

--101 Select all user teams:

SELECT \* FROM UserTeam;

--102 Find user teams for a specific user (e.g., User\_ID = 1):

SELECT \* FROM UserTeam WHERE User\_ID = 1;

--103 Find user teams with a specific formation (e.g., '5-3-3'):

SELECT \* FROM UserTeam WHERE Formation = '5-3-3';

--104 Count the number of user teams by user:

SELECT User\_ID, COUNT(\*) AS Team\_Count FROM UserTeam GROUP BY User\_ID;

--105 Find user teams with the most credits used:

SELECT TOP 1 \* FROM UserTeam ORDER BY Total\_Credits DESC;

--106 Update a user team's formation:

UPDATE UserTeam SET Formation = '6-4-1' WHERE Team\_ID = 1;

--107 Delete a user team by ID:

DELETE FROM UserTeam WHERE Team\_ID = 10;

--108 Find user teams with duplicate names:

SELECT User\_Name, COUNT(\*) FROM UserTeam GROUP BY User\_Name HAVING COUNT(\*) > 1;

--109 Find the user team with the most players:

SELECT Team\_ID, COUNT(\*) AS Player\_Count FROM TeamPlayers GROUP BY Team\_ID ORDER BY Player\_Count DESC;

--110 Find user teams without any players:

SELECT \* FROM UserTeam WHERE Team\_ID NOT IN (SELECT DISTINCT Team\_ID FROM TeamPlayers);

--111 Select all team players:

SELECT \* FROM TeamPlayers;

--112 Find players in a specific user team (e.g., Team\_ID = 1):

SELECT \* FROM TeamPlayers WHERE Team\_ID = 1;

--113 Find substitute players in a team:

SELECT \* FROM TeamPlayers WHERE Is\_Substitute = 1;

--114 Count the number of players in each team:

SELECT Team\_ID, COUNT(\*) AS Player\_Count FROM TeamPlayers GROUP BY Team\_ID;

--115 Find players in the 'Playing' position:

SELECT \* FROM TeamPlayers WHERE Position = 'Playing';

--116 Update a player's position:

UPDATE TeamPlayers SET Position = 'Bench' WHERE Team\_ID = 1 AND Player\_ID = 1001;

--117 Delete a player from a team:

DELETE FROM TeamPlayers WHERE Team\_ID = 1 AND Player\_ID = 1001;

--118 Find duplicate players in a team:

SELECT Team\_ID, Player\_ID, COUNT(\*) FROM TeamPlayers GROUP BY Team\_ID, Player\_ID HAVING COUNT(\*) > 1;

--119 Find the team with the most substitutes:

SELECT Team\_ID, COUNT(\*) AS Substitute\_Count FROM TeamPlayers WHERE Is\_Substitute = 1 GROUP BY Team\_ID ORDER BY Substitute\_Count DESC;

--120 Find players who are captains in their teams:

SELECT \* FROM TeamPlayers WHERE Player\_ID IN (SELECT Captain\_ID FROM UserTeam);

--121 Select all contests:

SELECT \* FROM Contest;

--122 Find contests for a specific match (e.g., Match\_ID = 'INDvAUS\_1'): SELECT \* FROM Contest WHERE Match\_ID = 'INDvAUS\_1';

--123 Find contests with a specific type (e.g., 'Mega'):

SELECT \* FROM Contest WHERE Contest\_Type = 'Mega';

--124 Count the number of contests by type:

SELECT Contest\_Type, COUNT(\*) AS Contest\_Count FROM Contest GROUP BY Contest\_Type;

--125 Find contests with a prize pool greater than 5000: SELECT \* FROM Contest WHERE Prize\_Pool > 5000;

--126 Update a contest's status:

UPDATE Contest SET Status = 'Completed' WHERE Contest\_ID = 1;

--127 Delete a contest by ID:

DELETE FROM Contest WHERE Contest\_ID = 10;

--128 Find contests with duplicate names:

SELECT Contest\_Name, COUNT(\*) FROM Contest GROUP BY Contest\_Name HAVING COUNT(\*) > 1;

--129 Find the contest with the largest prize pool:

SELECT TOP 1 \* FROM Contest ORDER BY Prize\_Pool DESC;

--130 Find contests with no participants:

SELECT \* FROM Contest WHERE Current\_Participants = 0;

--131 Select all user contest entries:

SELECT \* FROM UserContest;

--132 Find user contest entries for a specific user (e.g., User\_ID = 1): SELECT \* FROM UserContest WHERE User\_ID = 1;

--133 Find user contest entries with a specific status (e.g., 'Completed'): SELECT \* FROM UserContest WHERE Status = 'Completed';

--134 Count the number of entries in each contest:

SELECT Contest\_ID, COUNT(\*) AS Entry\_Count FROM UserContest GROUP BY Contest\_ID;

--135 Find user contest entries with winnings greater than 500: SELECT \* FROM UserContest WHERE Winnings > 500;

--136 Update a user's contest status:

UPDATE UserContest SET Status = 'Withdrawn' WHERE Entry\_ID = 1;

--137 Delete a user contest entry by ID:

DELETE FROM UserContest WHERE Entry\_ID = 10; Select \* from UserContest

--138 Find duplicate user contest entries:

SELECT User\_ID, Contest\_ID, Team\_ID, COUNT(\*) FROM UserContest

GROUP BY User\_ID, Contest\_ID, Team\_ID HAVING COUNT(\*) > 1;

--139 Find the user with the most winnings:

SELECT TOP 1 User\_ID, SUM(Winnings) AS Total\_Winnings FROM UserContest

GROUP BY User\_ID

ORDER BY Total\_Winnings DESC;

--140 Find contests where a user has not participated:

SELECT \* FROM Contest

WHERE Contest\_ID NOT IN (SELECT DISTINCT Contest\_ID FROM UserContest WHERE User\_ID = 1);

--141 Select all scoring rules:

SELECT \* FROM ScoringRules;

--142 Find active scoring rules:

SELECT \* FROM ScoringRules WHERE Is\_Active = 1;

--143 Find scoring rules for a specific action (e.g., 'Run Scored'): SELECT \* FROM ScoringRules WHERE Action = 'Run Scored';

--144 Count the number of scoring rules by action:

SELECT Action, COUNT(\*) AS Rule\_Count FROM ScoringRules GROUP BY Action;

--145 Find scoring rules with points greater than 10:

SELECT \* FROM ScoringRules WHERE Points > 10;

--146 Update a scoring rule's points:

UPDATE ScoringRules SET Points = 2 WHERE Rule\_ID = 1;

--147 Delete a scoring rule by ID:

DELETE FROM ScoringRules WHERE Rule\_ID = 19; Select \* from ScoringRules

--148 Find duplicate scoring rules:

SELECT Action, COUNT(\*) FROM ScoringRules GROUP BY Action HAVING COUNT(\*) > 1;

--149 Find the scoring rule with the highest points:

SELECT TOP 1 \* FROM ScoringRules ORDER BY Points DESC;

--150 Find scoring rules valid in 2023:

SELECT \* FROM ScoringRules WHERE Valid\_From <= '2023-12-31' AND Valid\_To >= '2023-01-01';

---Total Runs Scored by Players in Completed Matches SELECT

p.Player\_Name,

t.Team\_Name,

SUM(ps.Runs\_Scored) AS Total\_Runs FROM PlayerStats ps

JOIN Player p ON ps.Player\_ID = p.Player\_ID JOIN Team t ON p.Team\_ID = t.Team\_ID

JOIN Matches m ON ps.Match\_ID = m.Match\_ID WHERE m.Status = 'Completed'

GROUP BY p.Player\_Name, t.Team\_Name ORDER BY Total\_Runs DESC;

--Average Rating Points by Team (ODI Format) SELECT

t.Team\_Name,

AVG(r.Ranking\_Points) AS Avg\_Rating FROM Rankings r

JOIN Player p ON r.Player\_ID = p.Player\_ID JOIN Team t ON p.Team\_ID = t.Team\_ID WHERE r.Format = 'ODI'

GROUP BY t.Team\_Name ORDER BY Avg\_Rating DESC;

---Number of Matches Officiated per Umpire SELECT

u.Umpire\_Name,

u.Country,

COUNT(m.Match\_ID) AS Matches\_Officiated FROM Umpire u

LEFT JOIN Matches m ON u.Umpire\_ID = m.Umpire\_ID GROUP BY u.Umpire\_Name, u.Country

ORDER BY Matches\_Officiated DESC;

---Most Popular Team Formations in User Teams SELECT

ut.Formation,

COUNT(DISTINCT u.User\_ID) AS Users\_Count FROM UserTeam ut

JOIN Users u ON ut.User\_ID = u.User\_ID GROUP BY ut.Formation

ORDER BY Users\_Count DESC;

--Find all players with their team names and countries:

SELECT p.Player\_Name, t.Team\_Name, t.Country FROM Player p

JOIN Team t ON p.Team\_ID = t.Team\_ID;

SELECT m.Match\_ID, m.Match\_Date, v.Venue\_Name, v.City, v.Country FROM Matches m

JOIN Venue v ON m.Venue\_ID = v.Venue\_ID;

--Find umpires who officiated matches with venue details:

SELECT DISTINCT u.Umpire\_Name, v.Venue\_Name, v.City FROM Umpire u

JOIN Matches m ON u.Umpire\_ID = m.Umpire\_ID JOIN Venue v ON m.Venue\_ID = v.Venue\_ID;

--List all players with their player type and team:

SELECT p.Player\_Name, p.Player\_Type, t.Team\_Name FROM Player p

JOIN Team t ON p.Team\_ID = t.Team\_ID;

--Find match details with series, venue and umpire info:

SELECT m.Match\_ID, s.Series\_Name, v.Venue\_Name, u.Umpire\_Name FROM Matches m

JOIN Series s ON m.Series\_ID = s.Series\_ID JOIN Venue v ON m.Venue\_ID = v.Venue\_ID JOIN Umpire u ON m.Umpire\_ID = u.Umpire\_ID;

--Show player stats with match and team details:

SELECT ps.Player\_Name, m.Match\_Date, t.Team\_Name, ps.Runs\_Scored, ps.Wickets\_Taken FROM PlayerStats ps

JOIN Matches m ON ps.Match\_ID = m.Match\_ID JOIN Team t ON ps.Team\_ID = t.Team\_ID;

--Show live scores with match and team details:

SELECT ls.Match\_ID, m.Match\_Date, bt.Team\_Name AS Batting\_Team, bl.Team\_Name AS Bowling\_Team, ls.Total\_Runs, ls.Wickets

FROM LiveScores ls

JOIN Matches m ON ls.Match\_ID = m.Match\_ID

JOIN Team bt ON ls.Batting\_Team\_ID = bt.Team\_ID JOIN Team bl ON ls.Bowling\_Team\_ID = bl.Team\_ID;

# CHAPTER 4. CONCLUSION AND FUTUREWORK

### Conclusion

We can conclude that the implementation of the CricFantasy database yields significant

advantages, mirroring the efficiencies observed in online booking systems. These include enhanced data accessibility, streamlined player and match management, improved statistical analysis, and automated scoring and ranking. To achieve these functionalities, a robust database design, as detailed in Chapters 1 and 2, is essential.

A brief description of the major outcomes and benefits of the CricFantasy database are as follows:

* **Increased User Engagement:** By providing 24/7 access to player statistics, match schedules, and real-time scoring, the database fosters continuous user engagement. (Similar to how online booking systems provide 24/7 access to booking).
* **Reduced Manual Data Entry:** The database automates the input and management of player data, match results, and scoring calculations, significantly reducing the workload associated with manual data entry. (Similar to how online booking systems reduce telephone based sales).
* **Streamlined and Standardized Data Management:** Centralized data storage ensures consistency and accuracy across all aspects of the fantasy cricket platform, facilitating standardized data retrieval and analysis. (Similar to how online booking systems streamline and standardize payments).
* **Improved Process Management:** Automating scoring, ranking, and report generation simplifies complex processes, allowing administrators to focus on strategic development and user experience. (Similar to how online booking systems improves process management).
* **Streamlined Reporting and Analytics:** The database enables the generation of comprehensive reports and insightful analytics on player performance, user activity, and overall platform statistics, empowering data-driven decision-making. (Similar to how online booking systems streamlines reporting).

### Future Work

The CricFantasy database provides a solid base for storing and managing cricket fantasy data. To enhance user experience and expand the platform's capabilities, future work will focus on:

* **Real-time Score Updates:** Integrating live match data to provide immediate score and player performance updates.
* **Mobile App Development:** Creating a mobile application for easy access to the CricFantasy platform.
* **Enhanced User Statistics:** Developing more detailed and personalized player and league statistics.
* **API Development:** Creating an API to allow third parties to use the data.