IPL MANAGEMENT SYSTEM

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CONTENT

IPL (Indian Premier League) Overview

The IPL Management System is designed to facilitate the management and analysis of various aspects related to the IPL cricket tournament. It aims to provide a comprehensive database solution for managing teams, player statistics, match results, and generating insights through queries and views.

DESCRIPTION OF PROJECT

DATABASE CREATION: THE PROJECT INVOLVES CREATING A DATABASE NAMED IPL USING SQL, WITH TABLES FOR TEAMS, PLAYERS, AND MATCH POINTS.

TABLE STRUCTURE: DETAILS THE STRUCTURE OF THE TEAM_TABLE, POINT_TABLE, AND INDIVIDUAL TEAM TABLES (RCB, CSK, MI, ETC.).

DATA ANALYSIS QUERIES: DESCRIBES THE EXECUTION OF QUERIES TO ANALYZE TEAM STANDINGS, RETRIEVE TOP PERFORMERS, AND CREATE VIEWS FOR UPCOMING MATCH FIXTURES.
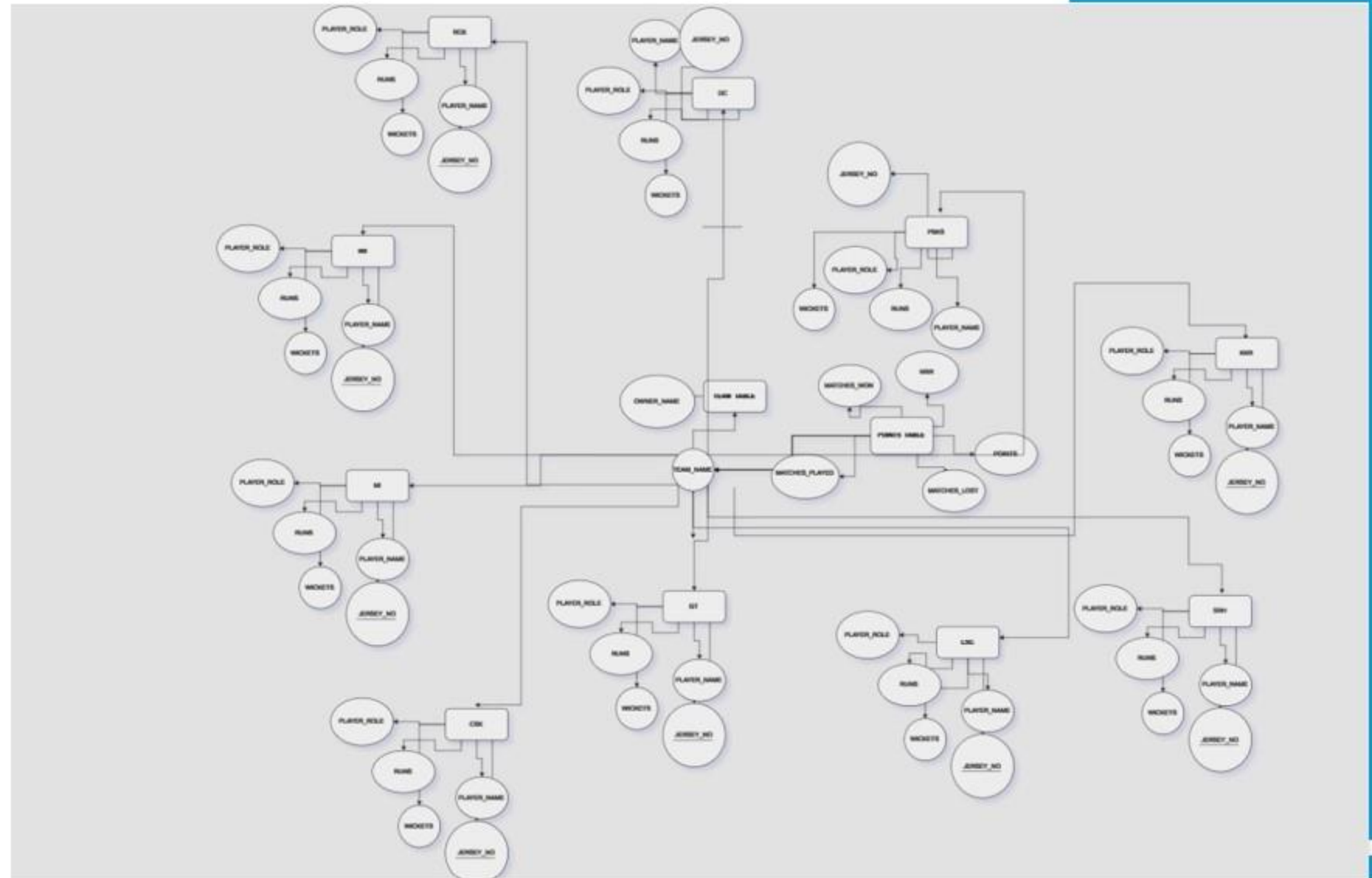
DATA RETRIEVAL: VARIOUS SQL QUERIES ARE EXECUTED TO RETRIEVE AND DISPLAY INFORMATION FROM THE DATABASE.

DATA MANAGEMENT: INCLUDES TRUNCATING AND UPDATING TABLES AS NEEDED TO REFLECT CHANGES IN TEAM STANDINGS AND PLAYER PERFORMANCE.

ER DIAGRAM

DESCRIPTION OF ER DIAGRAM

TEAM_TABLE

Attributes:

TEAM_NAME (Primary Key): Represents the name of the team participating in the IPL.

OWNER_NAME: Stores the name of the owner(s) of the team.

Relationships:

This table serves as the primary entity storing information about IPL teams.

POINT_TABLE:

Attributes:

TEAM_NAME (Primary Key, Foreign Key): Links to the TEAM_NAME attribute in the TEAM_TABLE.

MATCHES_PLAYED: Indicates the total number of matches played by the team.

MATCHES_WON: Stores the count of matches won by the team.

MATCHES_LOST: Represents the count of matches lost by the team.

NRR (Net Run Rate): Measures the team's performance based on run rate.

POINTS: Stores the total points earned by the team.

Relationships:

The TEAM_NAME attribute serves as a foreign key referencing the TEAM_TABLE, establishing a one-to-one relationship between teams and their performance metrics.

Individual Team Tables (SRH, CSK, RCB, DC, MI, RR, KKR, LSG, GT, PBKS):

Attributes:

PLAYER_NAME: Holds the name of the player.

JERSEY_NO (Primary Key): Represents the unique jersey number assigned to each player.

RUNS: Indicates the total runs scored by the player.

WICKETS: Stores the total number of wickets taken by the player.

PLAYER_ROLE: Describes the role or playing position of the player.

TEAM_NAME (Foreign Key): Links to the TEAM_NAME attribute in the TEAM_TABLE, indicating the team the player belongs to.

Relationships:

Each team table has a foreign key referencing the TEAM_TABLE, establishing a one-to-many relationship between teams and their respective players.

SQL QUERIES

Inserting values into team table.

ATTRIBUTE	DATATYPE
TEAM_NAME	VARCHAR(20) PRIMARY KEY
OWNER_NAME	VARCHAR(20)

Points Table

ATTRIBUTE	DATATYPE
PLAYER_NAME	VARCHAR(50)
JERSEY_NO	INT PRIMARY KEY
RUNS	INT
WICKETS	INT
PLAYER_ROLE	VARCHAR(50)
TEAM_NAME	VARCHAR(20)

Data Insertion

- SQL queries to insert sample data into the TEAM_TABLE and individual team tables.

Team Standings

- SQL query to retrieve and display team standings based on points and net run rate.

Creation of views

01
Orange Cap View
View to display top performers in terms of runs scored.

02
Purple Cap View
View to display top performers in terms of wickets taken.

03
Allrounder List View
View to list top all-rounders based on both runs scored and wickets taken.

04
Playoffs View
View to generate fixture information for qualifier and eliminator matches based on team standings.

Conclusion

The IPL Management System project successfully demonstrates the implementation of a relational database model to manage IPL team and player data effectively.

The IPL database project provides a comprehensive platform for managing and analyzing cricket team data. Through this project, we have:

Established Database Structure: Designed a well-structured relational database consisting of tables for teams, player statistics, and match points.

Data Entry and Management: Populated the database with team information, player statistics, and match points using SQL queries.

Data Analysis: Conducted various analyses such as finding the top run-scorers and wicket-takers, identifying all-rounders, determining team standings, and generating fixtures for qualifiers.

Views for Easy Access: Created views like ORANGE_CAP, PURPLE_CAP, ALLROUNDER_LIST, and QUALIFIER_FIXTURES to simplify access to important information.

Team Standings: Developed a view TEAM_STANDINGS to showcase the current standings of teams based on points and net run rate.