Birla Institute of Technology and Science Pilani, Pilani Campus
Department of Computer Science and Information System
2nd Semester 2023-24
Database System (CS F212)
Lab Test (Set A)

Maximum Marks: 22   **Date :** 27-04-24   **Time:** 90 Minutes

Instructions:- This paper consists of 12 questions. Write your answers in yoursolution.sql and rename with your IDNO_SET.sql (eg. 2022A7PS1111P_SETA.sql). Save the file in a folder name with your IDNO on the Desktop. DO NOT create views or temporary tables unless asked in the question

Data Set Description: - We want to design and implement a database that handles the data of the Indian Premier League (IPL). The IPL dataset is structured to capture comprehensive details of IPL cricket matches. It includes information on players, teams, match specifics, individual performances, and venues, enabling in-depth statistical analysis of players and match outcomes across different venues. The schema is provided for your reference.

Q:-1. Write a query to display the top 10 players in IPL who scored highest runs in all matches that they have played. Display the player`s name, team name and total run scored.   [1]

Q:-2. Write a query to find the number of wins for each team when playing in city 55. Display the team name and the count of wins.   [1]

Q:-3. Write a query to find all players who are bowlers and have taken more than 4 wickets in any single match. Display the player's name, match ID, and wickets taken.   [1]

Q:-4. Write a query to determine the venue that has hosted the maximum number of matches. Display the venue name, city, and the number of matches hosted.   [1]

Q:-5. Write a query to list players who have scored over 100 runs and taken at least 10 wickets in their IPL career. Display the player's name, total runs, and total wickets.   [1]

Q:-6. Write a query to identify the most valuable players for each team based on total runs scored and wickets taken. Rank the players based on above criteria. Display TeamID, PlayerID Name, TotalRuns, TotalWickets and Rank.   [2]

Q:-7. Write a query to list players who have scored at least 30 runs in more than 5 matches. Display player name, number of matches, and average score.   [1]

Q:-8. Write a SQL function, GetBattingAverage (for player id 2), to calculate the batting average of a player. The batting average is calculated as total runs scored divided by the number of matches the player has been declared out. Also function call statement and display the result.   [3]
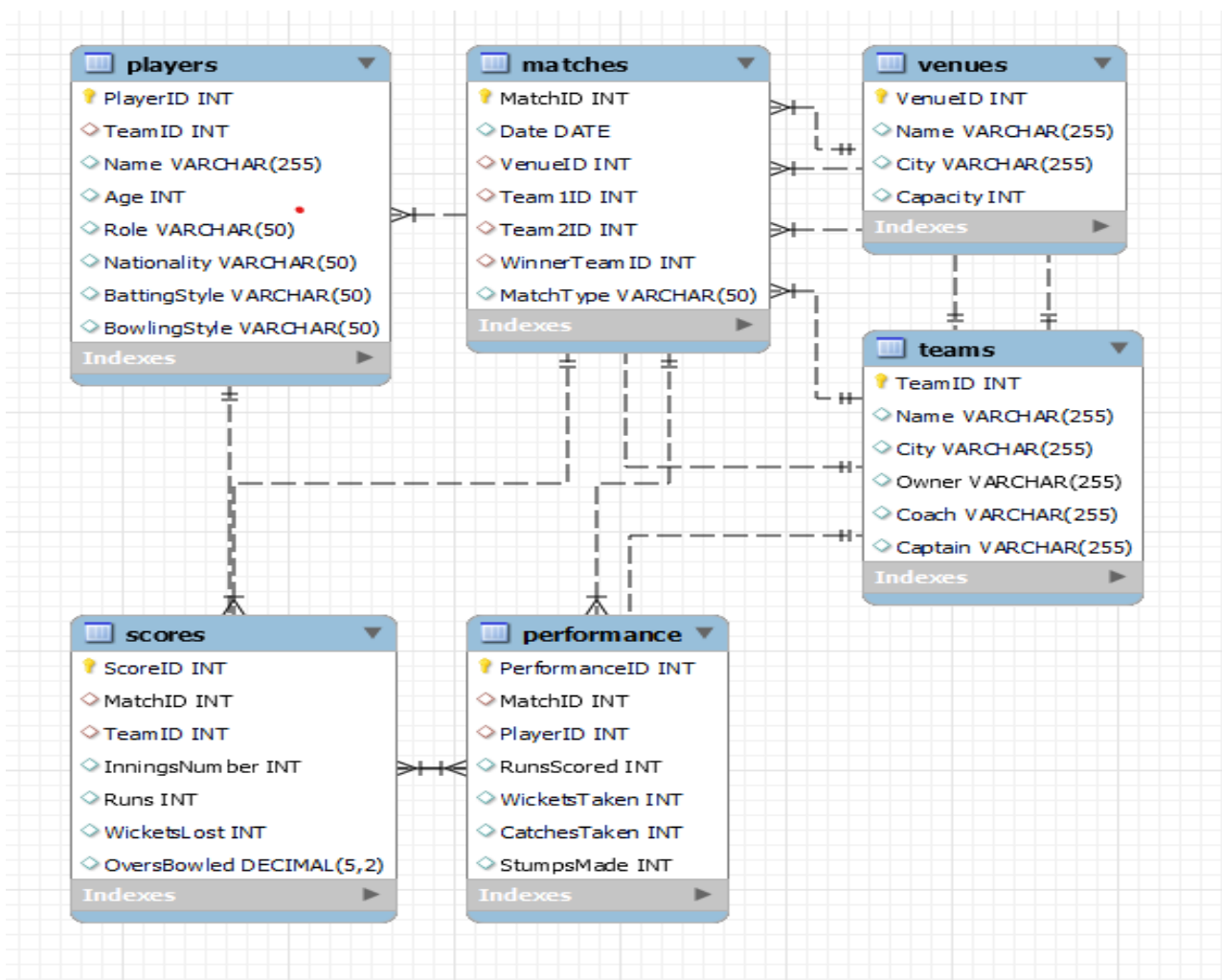
Q:-9. Write a query to find the player who had the best all-round performance in a single match. Display the match ID, player name, RunScored, WicketTaken, CatchTaken, PerfomanceRank   . (Hint- the criteria for best all rounder performance is player with highest sum of run scored, wicket * 20 and catches taken *10)   [3]

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Q:-10. Write a query to list the top 5 players by highest batting averages along with their team names and cities. Display player`s name, team`s name, city, and Batting Avg.   [2]

Q:-11. Write a query for calculating player performance summary namely PlayerPerformanceSummary that shows each player's total runs scored, total wickets taken, total catches, and total stumps made. Display the player's name, team name, total runs, total catches, total stumps.   [3]

Q:-12. Create a view named HighScoringVenues that lists venues where the average total score (sum of runs from both teams) in matches exceeds 150 runs. Use this view to write a query to retrieve the name of each venue along with its city and the average total score. Display only those venues where more than 2 matches have been played.   [3]

IPL Schema Diagram

*** Good Luck***