Dhirubhai Ambani Institute of Information and Communication Technology

IT214 – Database Management System

Database for keeping records of Indian Premier League

G5_14

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(1) Queries

1. List of all the players who have been participating in the IPL in the past years/particular year

All the years:
SELECT playerid, "Name" FROM players;

Particular years:
SELECT playerid, "Name" FROM
      players NATURAL JOIN YearWisePlayerDetails
      WHERE "Year" = 2019;

2. List of all the players who have participated from the same team in all the seasons of IPL

SELECT distinct playerid, teamid, "Name" FROM
      (SELECT count(distinct teamid),playerid FROM yearwiseplayerdetails
       GROUP BY playerid HAVING count(distinct teamid) = 1) AS r2
      NATURAL JOIN yearwiseplayerdetails
      NATURAL JOIN players as r1;

3. The champions of a particular year/all the years

All the Years:
SELECT "Year", championteam, teamname FROM ipl JOIN teams on championteam = teamid;

Particular Year
SELECT "Year", championteam, teamname FROM ipl JOIN teams on championteam = teamid WHERE "Year" = 2022;

4. The winning teams in all the matches played during an IPL season

```
SELECT * FROM
        (SELECT matchid, matchtype, teamid AS winning_team FROM "Match"
        NATURAL JOIN played
        WHERE extract(year FROM "Date") = 2015 and winner='1') AS r1
        NATURAL JOIN
        (SELECT matchid, matchtype, teamid as losing_team FROM "Match"
        NATURAL JOIN played WHERE
        extract(year FROM "Date") = 2015 and winner='0') AS r2;
```

5. The details about the man of the match of a particular match/ of all the matches

All the matches:
```
SELECT * FROM
        (SELECT matchid,  m.manofthematch , pl."Name", y.teamid, p.teamid as
        team1 FROM
        played as p NATURAL JOIN "Match" as m
        JOIN YearWisePlayerDetails as y on m.manofthematch = y.playerid and
        extract(year FROM m."Date") = y."Year"
        NATURAL JOIN players as pl WHERE p.winner = '1') as r1
        NATURAL JOIN
        (SELECT matchid,  m.manofthematch , pl."Name", y.teamid, p.teamid as
        team2 FROM
        played as p NATURAL JOIN "Match" as m
        JOIN YearWisePlayerDetails as y on m.manofthematch = y.playerid and
        extract(year FROM m."Date") = y."Year"
        NATURAL JOIN players as pl WHERE p.winner = '0') as r2
```

Particular match
```
SELECT * FROM
        (SELECT matchid,  m.manofthematch , pl."Name", y.teamid, p.teamid as
        team1 FROM
        played as p NATURAL JOIN "Match" as m
```

```
JOIN YearWisePlayerDetails as y on m.manofthematch = y.playerid and
extract(year FROM m."Date") = y."Year"
NATURAL JOIN players as pl WHERE p.winner = '1' and (p.teamid = 'CSK'
or p.teamid = 'RCB') and y."Year" = 2015) as r1
NATURAL JOIN
(SELECT matchid,  m.manofthematch , pl."Name", y.teamid, p.teamid as
team2 FROM
played as p NATURAL JOIN "Match" as m
JOIN YearWisePlayerDetails as y on m.manofthematch = y.playerid and
extract(year FROM m."Date") = y."Year"
NATURAL JOIN players as pl WHERE p.winner = '0' and (p.teamid = 'CSK'
or p.teamid = 'RCB') and y."Year" = 2015) as r2
```

6. The details of the coaches for any particular year/any particular team

Particular Year
```
SELECT "Year", CoachID, CoachName, Teamid FROM headcoach NATURAL JOIN
teamdetails WHERE "Year" = 2019;
```

Particular Team
```
SELECT  Teamid,"Year", CoachID, CoachName FROM headcoach NATURAL JOIN
teamdetails WHERE teamid = 'CSK';
```

7. The details of the sponsor of the IPL during a specific year/all the years

Particular year
```
SELECT "Year", teamid, sponsorCompany,businessdomain,country
FROM teamdetails AS td JOIN Titlesponsor AS t ON
td.sponsorcompany=t.companyname WHERE "Year" = 2019;
```

All the years
```
SELECT "Year", teamid, sponsorCompany,businessdomain,country
FROM teamdetails AS td JOIN Titlesponsor AS t ON
td.sponsorcompany=t.companyname;
```

Particular Team
SELECT "Year", teamid, sponsorCompany,businessdomain,country
FROM teamdetails AS td JOIN Titlesponsor AS t ON
td.sponsorcompany=t.companyname WHERE teamid = 'MI';

8. Details of Owner Company of a particular team

SELECT teamid,o.* FROM TeamOwner as o JOIN Teams
on o.companyname = teams.ownercompany WHERE TeamID = 'CSK';

9. Give details of the sponsor of a particular team in a particular year

SELECT teamid, "Year",CompanyName, businessdomain, Country FROM
TitleSponsor as s JOIN teamdetails as t
on s.companyname = t.sponsorcompany
WHERE TeamID = 'RCB' AND "Year" = 2019;

10. All the information of any particular player like his age, DOB, country, his
speciality, etc.

SELECT * FROM Players WHERE "Name" = 'Hardik Pandya';

11. The details(runs, wickets) of any particular player for a particular season

For a particular season

SELECT "Name", TotalWickets, TotalRuns FROM YearwisePlayerDetails
NATURAL JOIN Players WHERE PlayerID = '00012' and "Year" = 2019;

12. Give details of a player with his performance stats over the years

SELECT playerid, "Name", "Total Wickets Taken", "Total Runs",
MostWicketTaken, strikerate FROM
(SELECT PlayerID, sum(TotalWickets) as "Total Wickets Taken", sum(TotalRuns)
as "Total Runs", max(MaximumWickets) as MostWicketTaken FROM
YearwisePlayerDetails WHERE PlayerID = '00012' GROUP BY PlayerID) as r1
NATURAL JOIN players as p;

13. The details about all the stadiums where IPL has been conducted or played
before.

 SELECT DISTINCT s.* FROM Stadium AS s NATURAL JOIN "Match" AS m;

14. List the total number of matches played in a particular stadium.

SELECT StadiumName, City, COUNT(MatchID) AS "Number of matches played"
FROM "Match" Group BY StadiumName,City;

15. List the total number of different teams handled by a particular coach over
all the seasons.

SELECT CoachID, Coachname, "No. of Teams Handled"
FROM (SELECT coachID, count(DISTINCT TeamID) AS "No. of Teams Handled"
FROM TeamDetails GROUP BY CoachID) AS r NATURAL JOIN Headcoach AS h;

16. List the name of teams sponsored by a particular sponsor over all the
seasons{Display Company name, name of the team and year in which the
company sponsored that team}.

SELECT SponsorCompany, "Year", TeamID FROM TeamDetails WHERE
SponsorCompany = 'Royal Stag';

17. Give yearwise budget spent by teams on player purchase.

SELECT teamid, "Year", (sum(playerprice)/10000000) AS "Budger Spent to buy Players(in Crores)" FROM YearWisePlayerDetails GROUP BY Teamid, "Year" ORDER BY "Year";

18. Total budget spent in the IPL seasons

SELECT "Year", SUM("Budger Spent to buy Players") AS "Total Budget Spent"
FROM (SELECT "Year", sum(playerprice) AS "Budger Spent to buy Players"
FROM YearWisePlayerDetails GROUP BY "Year"
UNION
SELECT EXTRACT(YEAR FROM "Date") AS "Year", SUM(RentAmount)
FROM "Match" AS m
NATURAL JOIN STADIUM AS s GROUP BY EXTRACT(YEAR FROM "Date")) AS r
GROUP BY "Year";

19. Generate winning statistics of a team (how many matches did a particular team win throughout the season).

SELECT TeamID, "Year", COUNT(winner) FROM
        (SELECT td.teamid, td."Year",winner FROM TeamDetails AS td LEFT JOIN
        ((SELECT MatchID, EXTRACT(YEAR FROM "Date") AS "Year"
        FROM "Match" AS m) AS r
        NATURAL JOIN (SELECT * FROM Played AS p
        WHERE p.winner='1') AS t) ON td.teamid=t.teamid AND
        td."Year"=r."Year") as rel
        GROUP BY TeamID, "Year" ORDER BY "Year";

20. Generate coaching statistics of a coach over the past five years (the number of times his team won the IPL)

SELECT CoachID, CoachName, Years_of_Experience, "No. of times his team won IPL match" FROM HeadCoach AS h
NATURAL JOIN (SELECT CoachID, COUNT(Winner) AS "No. of times his team won IPL match" FROM TeamDetails AS td
NATURAL JOIN (SELECT TeamID, EXTRACT(YEAR FROM "Date") AS "Year", Winner FROM "Match" AS m NATURAL JOIN PLAYED AS p WHERE Winner='1') AS r2
GROUP BY CoachID) AS r;

21. Who is the coach whose team won the maximum number of times?

SELECT CoachID, CoachName, Years_of_Experience, "No. of times his team won the IPL"
FROM HeadCoach AS h NATURAL JOIN
(SELECT CoachID, COUNT(Winner) AS "No. of times his team won the IPL"
FROM TeamDetails AS td NATURAL JOIN
(SELECT TeamID, EXTRACT(YEAR FROM "Date") AS "Year", Winner
FROM "Match" AS m NATURAL JOIN PLAYED AS p WHERE Winner='1') AS r2
GROUP BY CoachID) AS r
ORDER BY "No. of times his team won the IPL" DESC LIMIT 2;

22. List the details of the player who has earned the title of "Man of the match" for more than once during a particular year (2019) of IPL

SELECT p.* FROM players as p JOIN
        (SELECT ManOfTheMatch FROM "Match"
        WHERE extract(year FROM "Date")=2019
        group by ManOfTheMatch having count(ManOfTheMatch)>1) as r1
        on manofthematch = playerid;

23. List the details of the player who has earned the title of "Man of the match" in multiple seasons of the IPL.

```
SELECT p.* FROM players AS p JOIN
        (SELECT COUNT(DISTINCT EXTRACT(YEAR FROM
        "Date")),manofthematch FROM "Match"
        GROUP BY manofthematch HAVING COUNT(DISTINCT EXTRACT(YEAR
        FROM "Date"))>1)AS r
        ON playerid=manofthematch;
```

24. List the teams who reached the finals maximum number of times

```
SELECT teamid, count(teamid) as No_of_times_team_reached_finals FROM
played NATURAL JOIN "Match" WHERE matchtype = 'Final'
GROUP BY teamid ORDER BY No_of_times_team_reached_finals DESC LIMIT 1;
```

25. List of coaches who have mentored winning/champion teams of the IPL

```
SELECT championteam as WinnerTeam, ipl."Year", headcoach.coachid,
coachname FROM ipl JOIN teamdetails
on championteam = teamid and ipl."Year" = teamdetails."Year"
JOIN headcoach on headcoach.coachid = teamdetails.coachid;
```

26. List of coaches who have mentored runners-up teams of the IPL
```
SELECT teamid, "Year", coachid, coachname FROM
(SELECT teamid, extract(year FROM "Date") as "Year" FROM
"Match" NATURAL JOIN played WHERE winner='0' and matchtype = 'Final') as r
NATURAL JOIN teamdetails
NATURAL JOIN headcoach;
```

27. List the players who has best bowling statistics in a particular season / who deserves the purple cap in a particular season .
Judge the players on the basis of maximum wickets, if same, check who gave minimum runs.

```
SELECT * FROM
        (SELECT playerid, "Year" , teamid, maximumwickets,
        maximumwicketsruns FROM yearwiseplayerdetails
        WHERE "Year" = 2015 and maximumwickets is not null
        order by maximumwickets desc) as r1
        JOIN
        (SELECT max(maximumwickets) FROM yearwiseplayerdetails
        WHERE "Year" = 2015 and maximumwickets is not null) as r2
        on r1.maximumwickets = r2.max
        order by maximumwicketsruns limit 1;
```

28. List the players who scored most runs in particular season

```
SELECT * FROM
        (SELECT playerid, "Year" , teamid, maximumruns, out_notout FROM
        yearwiseplayerdetails
        WHERE "Year" = 2022 and maximumruns is not null
        order by maximumruns desc) as r1
        JOIN
        (SELECT max(maximumruns) FROM yearwiseplayerdetails
        WHERE "Year" = 2022 and maximumruns is not null) as r2
        on r1.maximumruns = r2.max
        order by out_notout desc limit 1;
```

29. count of total wickets taken by all the bowlers

```
SELECT SUM(TotalWickets) FROM yearwiseplayerdetails NATURAL JOIN players
WHERE "Role" = 'Bowler';
```

30. List all the umpires who worked in finals of the ipl

```
SELECT u.*, EXTRACT(YEAR FROM "Match"."Date") as year FROM "Match"
NATURAL JOIN UmpiredBy NATURAL JOIN Umpire as u
WHERE MatchType = 'Final';
```

31. A team who won all the matches played by it during a particular season

SELECT DISTINCT TeamID,EXTRACT(YEAR FROM "Date")
    FROM "Match" AS m NATURAL JOIN Played AS p
    WHERE EXTRACT(YEAR FROM "Date")='2019' AND p.winner='1'
    EXCEPT
    SELECT DISTINCT TeamID,EXTRACT(YEAR FROM "Date") FROM "Match"
    AS m NATURAL JOIN Played AS p
    WHERE EXTRACT(YEAR FROM "Date")='2019' AND p.winner='0';