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ASSIGNMENT 2

Question 1: Count the number of players by the first letter of their surname. List the results in alphabetical order.

SELECT SUBSTR(LastName, 1, 1) AS last_name_first_letter, COUNT(*) AS last_name_count

FROM player

GROUP BY SUBSTR(LastName, 1, 1)

ORDER BY SUBSTR(LastName, 1, 1);

last_name_first_letter	last_name_count
Α	7
В	16
С	6
D	15
E	5
F	8
G	8
Н	10
J	3
K	2

Question 2: List the game ID, year, and participating team names for every cancelled game.

SELECT game.GameID, SeasonYear, team1.TeamName AS Team1, team2.TeamName AS Team2

FROM game

INNER JOIN

team team1

ON game.Team1 = team1.TeamID

INNER JOIN

team team2

ON game.Team2 = team2.TeamID

NATURAL JOIN season

WHERE game.T1Score IS NULL AND game.T2Score IS NULL;

GameID	SeasonYear	Team1	Team2
44	2017	Footscray Women	Moorabbin Women

Question 3: List the first and last names of players who have played more than 20 games in total across all competitions.

SELECT FirstName, LastName

FROM player

NATURAL JOIN playerteam

GROUP BY FirstName, LastName

HAVING COUNT(GameID) > 20;

FirstName	LastName
Diana	Rigg
Cinda	Rella
Во	Peep

Question 4: For all current members of the Melbourne City club who have played fewer than 12 games across all competitions, list their first and last names and the number of games they have played. Place the players who have played the most games first.

SELECT DISTINCT FirstName, LastName, COUNT(GameID) AS games_played

FROM playerteam

NATURAL JOIN player NATURAL JOIN clubplayer NATURAL JOIN club

WHERE ToDate IS NULL AND ClubID = 2

GROUP BY ClubName, FirstName, LastName, FromDate, ToDate

HAVING COUNT(GameID) < 12

ORDER BY games_played DESC;

FirstName	LastName	games_played
Kimberley	Ranges	11
Callum	Hotspor	10
Linda	Evangalista	10
Melanie	Griffith	9
Don	Dunstan	8

Question 5: List the names of men who play in the Bingham Trophy but not the Dewar Shield competition.

SELECT FirstName, LastName

FROM player

NATURAL JOIN competition

NATURAL JOIN playerteam NATURAL JOIN game NATURAL JOIN season

WHERE player.Sex = 'M' AND PlayerID NOT IN

(SELECT PlayerID

FROM player

NATURAL JOIN competition

NATURAL JOIN playerteam NATURAL JOIN game NATURAL JOIN season

WHERE CompetitionName = 'Dewar Shield'
GROUP BY PlayerID)

GROUP BY FirstName, LastName;

FirstName	LastName
Steven	Spielberg
Stuart	Mills
Seth	Greene
Silvio	Auric
Simon	Brown
Sandy	Pentland
Beaker	LeLab

Question 6: List the full name (in one column) and current club of players who did not play a game in any competition in the 2017 season.

 ${\tt SELECT\ DISTINCT\ CONCAT(player.FirstName, '', player.LastName)\ AS\ full_name,\ ClubName}$

FROM player

LEFT JOIN playerteam ON player.PlayerID = playerteam.PlayerID

LEFT JOIN clubplayer ON player.PlayerID = clubplayer.PlayerID

NATURAL JOIN season NATURAL JOIN club

WHERE playerteam.GameID IS NULL AND SeasonYear = '2017' AND ToDate IS NULL;

full_name	ClubName
Rod Temperton	Melbourne City

Question 7: Which club currently has the fewest female players? Print the club name and the number of female players in it.

SELECT COUNT(*) AS female_players, ClubName

FROM club

NATURAL JOIN clubplayer NATURAL JOIN player

WHERE ToDate IS NULL AND Sex = 'F'

GROUP BY ClubName

HAVING COUNT(FirstName)

ORDER BY female_players ASC LIMIT 1;

female_players	ClubName
8	Animatus Rugby Club

Question 8: A team has a "winless season" when it does not win any of the games it plays in that season. Find the teams that have had exactly one winless season. List the team name and the year in which their winless season occurred.

SELECT DISTINCT TeamName, SeasonID

FROM team

/* Inner Join with two nested SELECT queries unioned together to create table of only teams that participated per SeasonID */

INNER JOIN (

(SELECT DISTINCT Team1 AS Participated, SeasonID FROM game)

UNION

(SELECT DISTINCT Team2 AS Participated, SeasonID FROM game)

) ParticipatingTeam ON Participated = TeamID

/* Create two nested SELECT each with another nested SELECT query unioned together to create table of only teams that won a game per SeasonID and only show values NOT IN this new table */

WHERE (TeamID, SeasonID) NOT IN

(SELECT DISTINCT TeamID, SeasonID

FROM team

INNER JOIN (SELECT DISTINCT Team1, COUNT(SeasonID), SeasonID

FROM team NATURAL JOIN game NATURAL JOIN season

WHERE T1Score>T2Score

GROUP BY Team1, SeasonID) AS foo ON team. TeamID = Team1

UNION

SELECT DISTINCT TeamID, SeasonID

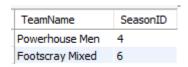
FROM team

INNER JOIN (SELECT DISTINCT Team2, COUNT(SeasonID), SeasonID

FROM team NATURAL JOIN game NATURAL JOIN season

WHERE T2Score>T1Score

GROUP BY Team2, SeasonID) AS bar ON team.TeamID = Team2);



Question 9: Find the first and last names of players who have played against all their former clubs.

Got completely and utterly confused and stuck with this question so purposely omitted 🙁

(Question 10 is still below!)

Question 10: How many points did the 'Melbourne City Women' team score in the Williams Plate in 2017?

```
SELECT DISTINCT (Scores1.T1Score_total + Scores2.T2Score_total) AS SumScores
FROM team
       /* Natural Join with a nested SELECT only when Team1 is Melbourne City Women
       and use this SELECT in the above sum*/
       NATURAL JOIN
              (SELECT DISTINCT Team1, sum(T1Score) AS T1Score_total
               FROM game
                      NATURAL JOIN season NATURAL JOIN competition
               WHERE Team1 = '12' AND CompetitionName = 'Williams plate'
                      AND SeasonYear = '2017'
              GROUP BY Team1) Scores1
       /* Natural Join with a nested SELECT only when Team2 is Melbourne City Women
       and use this SELECT in the above sum*/
       NATURAL JOIN
               (SELECT DISTINCT Team2, sum(T2Score) AS T2Score_total
               FROM game
                      NATURAL JOIN season NATURAL JOIN competition
              WHERE Team2 = '12' AND CompetitionName = 'Williams plate'
                      AND SeasonYear = '2017'
              GROUP BY Team2) Scores2;
 SumScores
```

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