

# *ASSIGNMENT 2*

INFO20003

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Q1) List the first name and last name of all players who have ever played in the league and their current club if applicable. List the players in ascending alphabetical order, primarily on last name and secondarily on first name. A game is still considered to have been 'played' even if it was cancelled or a walkover.

```
SELECT FirstName, LastName, ClubName
FROM player NATURAL JOIN playerteam NATURAL JOIN game NATURAL JOIN clubplayer
NATURAL JOIN club
GROUP BY playerID
ORDER BY LastName, FirstName;
```

FirstName	LastName	ClubName	
▶ Katrina	Adams	Moorabbin Rugby	
Francesca	Angelou	Melbourne City	
Adam	Ant	Moorabbin Rugby	
Kristina	Applegate	Powerhouse Rugby	
Diane	Arbus	Melbourne City	
Stella	Artois	Moorabbin Rugby	
Silvio	Auric	Footscray Rugby Club	
Eric	Bana	Moorabbin Rugby	
Bruce	Banner	Melbourne University Rugby Club	
Rhonda	Bassett	Moorabbin Rugby	

143 row(s) returned

Q2) List the full name (presented as a single string) of female players who have played for more than one team.

```
SELECT CONCAT(FirstName, ' ', LastName) AS FullName
FROM (SELECT * FROM player NATURAL JOIN playerteam NATURAL JOIN team WHERE
sex='F' GROUP BY teamid, playerid) temp
GROUP BY playerid
HAVING COUNT(playerid)>1;
```

FullName	
▶ Sally Davis	
Tiffany Lightshade	
Barbara Standwick	
Kate Hudson	
Fiona Bruce	
Rosalyn McQuarrie	
Donna Reed	
Susanne Hoffis	
Tabitha Stephens	
Betty Davis	

59 row(s) returned

Q3) List the full name (presented as a single string) of players who have never played in a 'mixed' competition.

```
SELECT CONCAT(FirstName, ' ', LastName) AS FullName
FROM player
WHERE playerID NOT IN
    (SELECT playerID FROM player NATURAL JOIN playerteam NATURAL JOIN game
     NATURAL JOIN season NATURAL JOIN competition
     GROUP BY playerID, CompetitionID, CompetitionType HAVING
     CompetitionType='Mixed' ORDER by playerID);
```

FullName	
▶ Dave Ganey	
Mia Farrow	
Don Dunstan	
Doug Liman	
Melanie Griffith	
Michelle Pfeiffer	
Damian Elsevier	
Randall Thompson	
Michael Mouse	
Melinda Gates	

15 row(s) returned

Q4) List the season year(s) with the highest number of cancelled games, and the corresponding number of cancelled games in the year(s).

```
SELECT SeasonYear, COUNT(*) AS 'No of Cancelled Games'  
FROM season NATURAL JOIN game  
WHERE T1Score IS NULL AND T2Score IS NULL  
GROUP BY SeasonYear  
ORDER BY COUNT(*) DESC;
```

SeasonYear	No of Cancelled Games	
2017	1	
2018	1	

2 row(s) returned

Q5) List the name of the clubs where the number of current male members is not the same as the number of current female members. For these clubs, present the number of current male and female players, and the absolute difference between the number of current males and females in the club. Order the results by the absolute difference between current males and females in the club, with the club having the highest difference listed first.

```
SELECT ClubName, F_COUNT AS Female, M_COUNT AS Male, abs(F_COUNT - M_COUNT) AS
Difference
FROM club INNER JOIN
    (SELECT ClubID AS FClubID, COUNT(*) AS F_COUNT FROM player NATURAL JOIN
    clubplayer NATURAL JOIN club WHERE Sex='F' AND ToDate IS NULL GROUP BY clubid
    ORDER BY FClubid) FEMALE
ON ClubID=FClubID INNER JOIN
    (SELECT ClubID AS MClubID, COUNT(*) AS M_COUNT FROM player NATURAL JOIN
    clubplayer NATURAL JOIN club WHERE Sex='M' AND ToDate IS NULL GROUP BY
    clubid ORDER BY Clubid) MALE
ON FClubID=MClubID
WHERE F_COUNT != M_COUNT
ORDER BY Difference DESC;
```

ClubName	Female	Male	Difference	
Melbourne City	9	11	2	
Moorabbin Rugby	9	8	1	
Animatus Rugby Club	8	9	1	
Melbourne University Rugby Club	9	8	1	

4 row(s) returned

Q6) List the first name, sex, and number of games played in 2018 and 2017 of players who played more games in 2017 than in 2018. There might be players that didn't play in 2018 but did in 2017. You should take these cases in account as well. A game is still considered to have been 'played' even if it was cancelled or a walkover.

```
SELECT YEAR17.FirstName, YEAR17.Sex, CASE WHEN Games_2018 IS NULL THEN 0
ELSE Games_2018 END AS 'Games Played in 2018', Games_2017 AS 'Games Played in 2017'
FROM
    (SELECT PlayerID AS PlayerID_17, FirstName, Sex, SeasonYear, COUNT(*) AS
    Games_2017
    FROM player NATURAL JOIN playerteam NATURAL JOIN game NATURAL JOIN season
    GROUP BY playerID, SeasonYear
    HAVING SeasonYear=2017
    ORDER BY playerID) YEAR17
LEFT JOIN
    (SELECT PlayerID AS PlayerID_18, FirstName, Sex, SeasonYear, COUNT(*) AS
    Games_2018
    FROM player NATURAL JOIN playerteam NATURAL JOIN game NATURAL JOIN season
    GROUP BY playerID, SeasonYear
    HAVING SeasonYear=2018
    ORDER BY playerID) YEAR18
ON PlayerID_17=PlayerID_18
WHERE Games_2017> Games_2018 OR (Games_2017> Games_2018) IS NULL;
```

FirstName	Sex	Games Played in 2018	Games Played in 2017
▶ Barbara	F	5	6
Kate	F	4	5
Mia	F	4	5
Fiona	F	8	9
Rosalyn	F	7	8
Donna	F	9	10
Betty	F	6	7
Karin	F	4	5
Miranda	F	5	6
Frida	F	7	8

50 row(s) returned

Q7) List the name of all teams that scored more than 100 points in the Bingham Trophy in 2017, along with the total points they scored. Order the result according to the points the team scored, highest scoring team first.

```
SELECT TeamName, SUM(Score) AS 'Total Score'
FROM
    (SELECT Team1, Team2, T1Score, T2Score, TeamID, CASE WHEN TeamID=Team1
    THEN T1Score WHEN TeamID=Team2 THEN T2Score END AS Score, TeamName
    FROM game NATURAL JOIN season NATURAL JOIN competition INNER JOIN team ON
    team1=TeamID OR team2=TeamID WHERE CompetitionName='Bingham Trophy'
    AND SeasonYear='2017' ORDER BY TeamID, team2) games
GROUP BY TeamID
HAVING SUM(SCORE)>100
ORDER BY SUM(SCORE) DESC;
```

TeamName	Total Score	
► Melbourne City Mixed	129	
Monash Uni Mixed	119	
Powerhouse mixed	117	
Animatus Mixed	111	
Melbourne Uni Mixed	104	

5 row(s) returned



Q8) For the player who has spent the fewest number of days as a member of 'Melbourne City' club as of April 30th 2020, give the full name (presented as a single string) and the total number of days spent as a member. Only consider players who have been a member of the club at some point (i.e. do not include players who have never been signed up with Melbourne City). Assume there are no joint shortest serving players.

```
SELECT CONCAT(FirstName, ' ', LastName) AS FullName, CASE WHEN ToDate IS NOT NULL
THEN datediff(ToDate, FromDate) ELSE datediff('2020-04-30', FromDate) END AS Days
FROM player NATURAL JOIN clubplayer NATURAL JOIN club
WHERE ClubName='Melbourne City'
ORDER BY Days
LIMIT 1;
```

FullName	Days	
► Karin Carpenter	32	

1 row(s) returned

Q9) Return the team name, the highest number of walkovers (forfeits) the team has ever given away in a season, and the season year(s) during which this occurred for teams who have given away 2 or more walkovers in the same season. Assume that any game with one team scoring 28 and the other scoring 0 implies that the game was a walkover.

```
SELECT FirstName, LastName, COUNT(*) AS 'Foreign Games Played'
FROM
    (SELECT PlayerID, FirstName, LastName, team.TeamID, MatchDate, ClubID FROM
    (SELECT * FROM player NATURAL JOIN playerteam NATURAL JOIN
    game)Player_Game INNER JOIN team ON Player_Game.TeamID=team.TeamID
    ORDER BY PlayerID)Player_TEAM
WHERE NOT EXISTS
    (SELECT PlayerID FROM (SELECT *, CASE WHEN ToDate IS NULL THEN curdate() ELSE
    ToDate END AS DATE FROM player NATURAL JOIN clubplayer) Player_CLUB WHERE
    Player_TEAM.PlayerID=Player_CLUB.PlayerID AND
    Player_TEAM.ClubID=Player_CLUB.ClubID AND (MatchDate>=Player_CLUB.FromDate
    AND MatchDate<=Player_CLUB.Date))
GROUP BY playerID
ORDER BY COUNT(*) DESC
LIMIT 20;
```

FirstName	LastName	Foreign Games Played	
► Diana	Rigg	21	
Donna	Reed	19	
Florence	Henderson	19	
Brock	Briers	18	
Bruce	Banner	18	
Alex	Skaarsgard	18	
Brian	Blessed	18	
Bevan	Jackson	18	
Broderick	Davis	18	
Francesca	Angelou	17	

20 row(s) returned

Q10) Return the team name, the highest number of walkovers (forfeits) the team has ever given away in a season, and the season year(s) during which this occurred for teams who have given away 2 or more walkovers in the same season. Assume that any game with one team scoring 28 and the other scoring 0 implies that the game was a walkover.

```
SELECT TeamName, SeasonYear, COUNT(*) AS Forfeits
FROM
    (SELECT * FROM game INNER JOIN team ON team1=TeamID OR team2=TeamID
    NATURAL JOIN season WHERE (T1Score=0 AND T2Score=28) OR (T1Score=28 AND
    T2Score=0) ORDER BY TeamID, Team2) Forfeit_Games
WHERE (TeamID=Team1 AND T1Score=0) OR (TeamID=Team2 AND T2Score=0)
GROUP BY TeamName, SeasonYear
HAVING Forfeits>=2;
```

TeamName	SeasonYear	Forfeits	
▶ Powerhouse Men	2017	2	
Footscray Mixed	2017	3	
Powerhouse Men	2018	2	

3 row(s) returned