

1. 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 player.FirstName, player.LastName, club.ClubName
FROM player LEFT JOIN clubplayer ON player.PlayerID = clubplayer.PlayerID AND
clubplayer.ToDate IS NULL LEFT JOIN club ON clubplayer.ClubID = club.ClubID
ORDER BY LastName ASC, FirstName ASC;
```

FirstName	LastName	ClubName
Katrina	Adams	Moorabbin Rugby
Francesca	Angelou	Melbourne City
Adam	Ant	NULL
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

144 rows returned

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

```
SELECT CONCAT(player.FirstName, ' ', player.LastName) AS Name
FROM player NATURAL JOIN playerteam
WHERE player.Sex = 'F'
GROUP BY player.PlayerID
HAVING COUNT(DISTINCT playerteam.TeamID) >= 2;
```

Name
Sally Davis
Tiffany Lightshade
Barbara Standwick
Kate Hudson
Fiona Bruce
Rosalyn McQuarrie
Donna Reed
Susanne Hoffs
Tabitha Stephens
Betty Davis

59 rows returned

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

```
SELECT DISTINCT CONCAT(player.FirstName, ' ', player.LastName) AS Name
FROM player
WHERE (player.FirstName, player.LastName) NOT IN (SELECT player.FirstName,
player.LastName
FROM player NATURAL JOIN playerteam NATURAL JOIN game NATURAL JOIN season
NATURAL JOIN competition
WHERE competition.CompetitionType = 'Mixed');
```

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

15 rows returned

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

```
SELECT season.SeasonYear AS Year, COUNT(season.SeasonYear) AS 'Cancelled Games'  
FROM season NATURAL JOIN game  
WHERE game.GameID IS NOT NULL AND game.T1Score IS NULL AND game.T2Score IS NULL  
GROUP BY Year  
HAVING 'Cancelled Games' = MAX('Cancelled Games')  
ORDER BY 'Cancelled Games' DESC;
```

Year	Cancelled Games
2017	1
2018	1

2 rows returned

5. 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 club.ClubName,  
       COUNT(CASE WHEN (clubplayer.ToDate IS NULL AND player.Sex = 'M') THEN 1 END) AS  
Men,  
       COUNT(CASE WHEN (clubplayer.ToDate IS NULL AND player.Sex = 'F') THEN 1 END) AS  
Women,  
       ABS(COUNT(CASE WHEN (clubplayer.ToDate IS NULL AND player.Sex = 'M') THEN 1 END)  
- COUNT(CASE WHEN (clubplayer.ToDate IS NULL AND player.Sex = 'F') THEN 1 END)) AS  
Difference  
FROM club NATURAL JOIN clubplayer NATURAL JOIN player  
GROUP BY club.ClubID  
HAVING Difference > 0  
ORDER BY Difference DESC;
```

ClubName	Men	Women	Difference
Melbourne City	11	9	2
Moorabbin Rugby	8	9	1
Animatus Rugby Club	9	8	1
Melbourne University Rugby Club	8	9	1

4 rows returned

6. 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 player.FirstName, player.Sex,  
       COUNT(CASE WHEN (season.SeasonYear = 2018) THEN 1 END) AS '2018',  
       COUNT(CASE WHEN (season.SeasonYear = 2017) THEN 1 END) AS '2017'  
FROM player NATURAL JOIN playerteam NATURAL JOIN game NATURAL JOIN season  
GROUP BY player.FirstName, player.Sex  
HAVING COUNT(CASE WHEN (season.SeasonYear = 2018) THEN 1 END) < COUNT(CASE WHEN  
(season.SeasonYear = 2017) THEN 1 END)  
ORDER BY player.FirstName;
```

FirstName	Sex	2018	2017	
Barbara	F	5	6	
Beatrix	F	6	7	
Bella	F	5	6	
Bernyce	F	7	8	
Betty	F	6	7	
Bo	F	11	12	
Bridget	F	5	6	
Brittany	F	6	7	
Cinda	F	10	11	
Daphne	F	8	9	

49 rows returned

7. 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 team.TeamName,  
       IFNULL(SUM(CASE WHEN team.TeamID = game.Team1 THEN game.T1Score END), 0)  
       + IFNULL(SUM(CASE WHEN team.TeamID = game.Team2 THEN game.T2Score END), 0) AS  
TotalPoints  
FROM team NATURAL JOIN game NATURAL JOIN season NATURAL JOIN competition  
WHERE season.SeasonYear = '2017' AND competition.CompetitionName = 'Bingham Trophy'  
GROUP BY team.TeamName  
HAVING TotalPoints > 100  
ORDER BY TotalPoints DESC;
```

TeamName	TotalPoints
Melbourne City Mixed	129
Monash Uni Mixed	119
Powerhouse mixed	117
Animatus Mixed	111
Melbourne Uni Mixed	104

5 rows returned

8. 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(player.FirstName, ' ', player.LastName) AS Name,  
       IFNULL(DATEDIFF(clubplayer.ToDate, clubplayer.FromDate),  
              DATEDIFF('2020-04-30', clubplayer.FromDate)) AS Days  
FROM player NATURAL JOIN clubplayer NATURAL JOIN club  
WHERE club.ClubName = 'Melbourne City'  
ORDER BY Days ASC  
LIMIT 1;
```

Name	Days
Karin Carpenter	32

1 row returned



9. A 'foreign game' is when a player has played a game in a team which was not part of the club they were a member of at the time. Find the first and last names and the number of 'foreign games' played for the 20 players who have played the most 'foreign games'. List them from highest number of foreign games to lowest.

```
SELECT player.FirstName, player.LastName, count(player.PlayerID) AS ForeignGames
FROM player INNER JOIN playerteam ON player.PlayerID = playerteam.PlayerID
INNER JOIN team ON playerteam.TeamID = team.TeamID
INNER JOIN game ON playerteam.GameID = game.GameID
INNER JOIN clubplayer ON player.PlayerID = clubplayer.PlayerID
INNER JOIN club ON clubplayer.ClubID = club.ClubID
WHERE game.MatchDate BETWEEN clubplayer.FromDate AND IFNULL(clubplayer.ToDate,
CURDATE())
AND team.ClubID != club.ClubID
GROUP BY player.PlayerID
ORDER BY ForeignGames DESC
LIMIT 20;
```

FirstName	LastName	ForeignGames
Diana	Rigg	21
Florence	Henderson	19
Donna	Reed	19
Broderick	Davis	18
Alex	Skaarsgard	18
Brian	Blessed	18
Bruce	Banner	18
Brock	Briers	18
Bevan	Jackson	18
Diane	Arbus	17

20 rows returned

10. 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 team.TeamName,  
       COUNT(CASE WHEN (team.TeamID = game.Team1 AND game.T1Score = 0) THEN 1 END)  
       + COUNT(CASE WHEN (team.TeamID = game.Team2 AND game.T2Score = 0) THEN 1 END) AS  
Walkovers,  
       season.SeasonYear  
FROM game INNER JOIN season ON game.SeasonID = season.SeasonID  
INNER JOIN team ON (game.Team1 = team.TeamID) OR (game.Team2 = team.TeamID)  
WHERE (game.T1Score = 28 AND game.T2Score = 0) OR (game.T1Score = 0 AND game.T2Score  
= 28)  
GROUP BY team.TeamName, season.SeasonYear  
HAVING Walkovers >= 2  
ORDER BY Walkovers DESC;
```

TeamName	Walkovers	SeasonYear
Footscray Mixed	3	2017
Powerhouse Men	2	2018
Powerhouse Men	2	2017

3 rows returned