

Queries and Outputs for E-Sports Tournament Analysis

Which teams performed the best in terms of total scores?

```
SELECT Teams.TeamName, SUM(Scores.Score) AS TotalScore
FROM Teams
JOIN Players ON Teams.TeamID = Players.TeamID
JOIN Scores ON Players.PlayerID = Scores.PlayerID
WHERE Scores.TournamentID = 1
GROUP BY Teams.TeamName
ORDER BY TotalScore DESC;
```

1. **Output:**

TeamName	TotalScore
Team A	250
Team B	220

What is the average score for each player?

```
SELECT Players.PlayerName, AVG(Scores.Score) AS AverageScore
FROM Players
JOIN Scores ON Players.PlayerID = Scores.PlayerID
WHERE Scores.TournamentID = 1
GROUP BY Players.PlayerName
ORDER BY AverageScore DESC;
```

2. **Output:**

PlayerName	AverageScore
Alice	80
Charlie	75
Bob	70

What is the win rate of each team in the tournament?

```
SELECT Teams.TeamName,
```

```

        SUM(CASE WHEN Matches.WinnerID = Teams.TeamID THEN 1 ELSE 0
END) * 100.0 / COUNT(Matches.MatchID) AS WinRate
FROM Teams
JOIN Matches ON Teams.TeamID IN (Matches.Team1ID, Matches.Team2ID)
WHERE Matches.TournamentID = 1
GROUP BY Teams.TeamName
ORDER BY WinRate DESC;

```

3. **Output:**

TeamName	WinRate
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Team A	75%
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Team B	60%
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Which players participated in the most matches?

```

SELECT Players.PlayerName, COUNT(Matches.MatchID) AS MatchesPlayed
FROM Players
JOIN Teams ON Players.TeamID = Teams.TeamID
JOIN Matches ON Teams.TeamID IN (Matches.Team1ID, Matches.Team2ID)
WHERE Matches.TournamentID = 1
GROUP BY Players.PlayerName
ORDER BY MatchesPlayed DESC;

```

4. **Output:**

PlayerName	MatchesPlaye d
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Alice	5
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Charlie	4
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Bob	4
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Which teams had the highest scores in each match?

```

SELECT Matches.MatchID,
       CASE
           WHEN Matches.Team1Score > Matches.Team2Score THEN
Teams1.TeamName
           ELSE Teams2.TeamName
       END AS TopScoringTeam

```

```

FROM Matches
JOIN Teams AS Teams1 ON Matches.Team1ID = Teams1.TeamID
JOIN Teams AS Teams2 ON Matches.Team2ID = Teams2.TeamID
WHERE Matches.TournamentID = 1;

```

5. **Output:**

MatchID	TopScoringTeam
1	Team A
2	Team A

Who are the top-scoring players in the tournament?

```

SELECT Players.PlayerName, MAX(Scores.Score) AS TopScore
FROM Players
JOIN Scores ON Players.PlayerID = Scores.PlayerID
WHERE Scores.TournamentID = 1
GROUP BY Players.PlayerName
ORDER BY TopScore DESC;

```

6. **Output:**

PlayerName	TopScore
Alice	120
Charlie	110
Bob	100

Which teams won the most matches?

```

SELECT Teams.TeamName,
       COUNT(CASE WHEN Matches.WinnerID = Teams.TeamID THEN 1 END) AS
Wins
FROM Teams
JOIN Matches ON Teams.TeamID IN (Matches.Team1ID, Matches.Team2ID)
WHERE Matches.TournamentID = 1
GROUP BY Teams.TeamName
ORDER BY Wins DESC;

```

7. **Output:**

TeamName	Wins
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Team A	2
Team B	1

Which players participated in the most matches?

```
SELECT Players.PlayerName, COUNT(Matches.MatchID) AS MatchesPlayed
FROM Players
JOIN Teams ON Players.TeamID = Teams.TeamID
JOIN Matches ON Teams.TeamID IN (Matches.Team1ID, Matches.Team2ID)
WHERE Matches.TournamentID = 1
GROUP BY Players.PlayerName
ORDER BY MatchesPlayed DESC;
```

8. Output:

PlayerName	MatchesPlayed
Alice	5
Charlie	4
Bob	4

What are the results of each match in the tournament?

```
SELECT Matches.MatchID,
       Teams1.TeamName AS Team1,
       Teams2.TeamName AS Team2,
       Matches.Team1Score,
       Matches.Team2Score,
       CASE
           WHEN Matches.Team1Score > Matches.Team2Score THEN
               Teams1.TeamName
           ELSE Teams2.TeamName
       END AS Winner
FROM Matches
JOIN Teams AS Teams1 ON Matches.Team1ID = Teams1.TeamID
JOIN Teams AS Teams2 ON Matches.Team2ID = Teams2.TeamID
WHERE Matches.TournamentID = 1;
```

9. Output:

MatchID	Team1	Team2	Team1Score	Team2Score	Winner
1	Team A	Team B	120	100	Team A
2	Team A	Team C	110	90	Team A

How do the performance metrics compare between different teams and players?

```
SELECT Teams.TeamName,
       Players.PlayerName,
       AVG(Scores.Score) AS AverageScore,
       COUNT(Matches.MatchID) AS MatchesPlayed
FROM Teams
JOIN Players ON Teams.TeamID = Players.TeamID
JOIN Scores ON Players.PlayerID = Scores.PlayerID
JOIN Matches ON Teams.TeamID IN (Matches.Team1ID, Matches.Team2ID)
WHERE Scores.TournamentID = 1
GROUP BY Teams.TeamName, Players.PlayerName
ORDER BY Teams.TeamName, AverageScore DESC;
```

10. **Output:**

TeamName	PlayerName	AverageScore	MatchesPlayed
Team A	Alice	80	5
Team A	Bob	70	4
Team B	Charlie	75	4