

NBA Data Analysis

SQL Queries

--Finding Player Points Per Game (Top 50)

```
SELECT PName, POS, Team, (PTS/GP) AS PPG,
FROM `sharp-arcanum-421619.nba_stats_2023.player_stats_2023`
ORDER BY PPG DESC
LIMIT 50
```

Result:

Row	PName	POS	Team	PPG
1	Joel Embiid	C	PHI	33.07575757575...
2	Luka Doncic	PG	DAL	32.39393939393...
3	Damian Lillard	PG	POR	32.17241379310...
4	Shai Gilgeous-Alexander	PG	OKC	31.39705882352...
5	Giannis Antetokounmpo	PF	MIL	31.09523809523...
6	Jayson Tatum	SF	BOS	30.06756756756...
7	Stephen Curry	PG	GSW	29.42857142857...
8	Kevin Durant	PF	PHX	29.06382978723...
9	LeBron James	SF	LAL	28.90909090909...

--Finding Each players contribution to the teams total points scored in the season

```
SELECT players.PName, players.PTS, players.team, team.points, team.win_percentage
(players.PTS/team.points) AS player_point_contr_percentage
FROM `sharp-arcanum-421619.nba_stats_2023.player_stats_2023` AS players
LEFT JOIN `sharp-arcanum-421619.nba_stats_2023.team_stats_2023` AS team
ON players.Team = team.team_abbr
ORDER BY player_point_contr_percentage DESC
```

Result:

Row	PName	PTS	team	points	player_point_contr_p
1	Joel Embiid	2183	PHI	9397	0.232308183462...
2	Jayson Tatum	2225	BOS	9887	0.225042985738...
3	Luka Doncic	2138	DAL	9664	0.221233443708...
4	Shai Gilgeous-Alexander	2135	OKC	9847	0.216817304762...
5	Damian Lillard	1866	POR	8722	0.213941756477...
6	Anthony Edwards	1946	MIN	9264	0.210060449050...
7	Julius Randle	1936	NYK	9249	0.209319926478...
8	Donovan Mitchell	1922	CLE	9236	0.208098744045...
9	Zach LaVine	1913	CHI	9206	0.207799261351...
10	Giannis Antetokounmpo	1959	MIL	9756	0.200799507995...

-- What percentage of scoring per team was from 3 point makes.

```
SELECT Team, (three_pointers_made*3) as points_from_3pt, points,
((three_pointers_made*3)/points) AS percentage_of_total_points_from_3pt
FROM sharp-arcanum-421619.nba_stats_2023.team_stats_2023
ORDER BY percentage_of_total_points_from_3pt DESC
```

Result:

Row	Team	points_from_3pt	points	percentage_of_total
1	Boston Celtics	4053	9887	0.409932234246...
2	Golden State Warriors	3633	9657	0.376203789996...
3	Dallas Mavericks	3591	9664	0.371585264900...
4	Memphis Grizzlies	3213	8677	0.370289270485...
5	Sacramento Kings	3534	9558	0.369742623979...
6	Brooklyn Nets	3267	9050	0.360994475138...
7	Cleveland Cavaliers	3324	9236	0.359896058899...
8	Milwaukee Bucks	3489	9756	0.357626076260...
9	New York Knicks	3249	9249	0.351281219591...

- Do the teams with more points coming from 3pts have a better win percentage?

```
SELECT Team, (three_pointers_made*3) as points_from_3pt, points,
((three_pointers_made*3)/points) AS percentage_of_total_points_from_3pt,
win_percentage
FROM sharp-arcanum-421619.nba_stats_2023.team_stats_2023
ORDER BY percentage_of_total_points_from_3pt DESC
```

To more easily identify a possible correlation we can visualize this data.

- Making a table with the lead scorer contribution percentage and the team's win percentage

```
SELECT Team, win_percentage, max(player_point_contr_percentage) as lead_scorer_per
FROM sharp-arcanum-421619.nba_stats_2023.player_contr_and_win_per
Group By Team, win_percentage
ORDER BY lead_scorer_per DESC
```

