

5 Complex Query

Query 1 - Referee strictness

```
SELECT
    r.refereename, AVG(ght.penalties) AS avg_penalties_per_game,
    CASE
        WHEN AVG(ght.penalties) >= 10 THEN 'Strict'
        WHEN AVG(ght.penalties) >= 5 THEN 'Average'
        ELSE 'Lenient'
    END AS strictness_category
FROM referee AS r
JOIN game_has_referee AS ghr
    ON ghr.idReferee = r.idreferee
JOIN game_has_teams AS ght
    ON ght.Game_idGame = ghr.idGame
GROUP BY
    r.refereename
ORDER BY
    avg_penalties_per_game DESC;
```

	refereename	avg_penalties_per_game	strictness_category
▶	Cole Robinson	6.5000	Average
	Christopher Hill	6.3333	Average
	Brandon Davis	6.0000	Average
	Owen Hill	6.0000	Average
	Logan Boyd	5.3333	Average
	Aaron Moore	5.0000	Average
	Brandon Douglas	5.0000	Average
	Adam Martin	5.0000	Average

	refereename	avg_penalties_per_game	strictness_category
	Aaron Whitaker	5.0000	Average
	Ethan Lewis	4.5000	Lenient
	Tyler Lee	4.5000	Lenient
	Blake Hill	4.3333	Lenient
	Tyler Taylor	4.3333	Lenient
	Sean Moore	3.5000	Lenient
	Nathan Lee	2.0000	Lenient
	James Martinez	2.0000	Lenient

Managerial Reasoning:

This query averages the overall penalties that refs make to gauge their level of strictness. Knowing how strict referees are can help coaching staff prepare players for the flow of the game and plan game strategy according to how strict referees are.

Query 2 - Average point differential by team- error game team stats

```
```sql
SELECT
 t.Teamname,
 AVG(g.totalhome - g.totalaway) AS avg_point_diff
FROM team AS t
JOIN game_has_teams AS gts
 ON t.idteam = gts.Team_idTeam
JOIN games AS g
 ON g.idgames = gts.Game_idGame
GROUP BY t.Teamname
ORDER BY avg_point_diff DESC;
```

...

	Teamname	avg_point_diff
▶	Ole Miss	76.0000
	Alabama	63.0000
	Texas	52.0000
	Oklahoma	48.0000
	Kentucky	31.0000
	Vanderbilt	7.0000
	South Carolina	4.0000
	Texas A&M	-10.0000

#### Managerial Reasoning:

Point differential is a better measure of team strength than wins alone.

Teams with high differentials are dominating games, not winning by luck.

Conference leaders and coaching staff can use this to judge true performance and predict championship contenders.

**## Query 3- we do not have a access to view so i can't run it**

# Query

Average home attendance using a view

```
```sql
-- Step 1: Create the view
CREATE OR REPLACE VIEW home_attendance AS
SELECT
    t.teamname,
    g.attendance
FROM games AS g
JOIN team AS t
    ON g.Stadium_idStadium = t.homestadiumID;
```

-- Step 2: Query the view

```
SELECT
    teamname,
    AVG(attendance) AS avg_home_attendance
FROM home_attendance
GROUP BY teamname
ORDER BY avg_home_attendance DESC;
...`
```

Managerial Reasoning

Attendance shows the strength of a teams brand and fan engagement.

High attendance supports revenue, stadium investments, and marketing plans.

Low attendance can show weak fan support or gaps in game day experience.

Query 4 - Weather impact on scoring

```
```sql
WITH weather_points AS (
 SELECT
 weather,
 (totalhome + totalaway) AS total_points
 FROM games
)
SELECT
 weather,
 AVG(total_points) AS avg_points_scored
FROM weather_points
GROUP BY weather
ORDER BY avg_points_scored DESC;
```

	weather	avg_points_scored
▶	Hot	57.2500
	Overcast	55.9000
	sunny	54.6364
	Clear	51.7170
	Cool	50.2000
	Cloudy	49.5667
	Humid	48.8333
	Snow	46.0000
		...

### Managerial Reasoning:

Weather affects scoring and team performance.

This helps coaches prepare for bowl games, late season travel, and games in unfamiliar climates.

Teams can decide if they should train more in rain, heat, or cold depending on the results.

## # Query 5 - Turnover impact on win percentage

```

SELECT
 t.Teamname,
 AVG(ght.turnovers) AS avg_turnovers,
 SUM(
 CASE
 WHEN ght.Team_idTeam = t.idteam
 AND (
 ght.Team_idTeam = t.idteam AND g.totalhome > g.totalaway)
) THEN 1
 ELSE 0
 END
) AS wins,
 COUNT(*) AS total_games,
 (
 SUM(
 CASE
 WHEN ght.Team_idTeam = t.idteam
 AND (
 ght.Team_idTeam = t.idteam AND g.totalhome > g.totalaway)
) THEN 1
 ELSE 0
 END
) / COUNT(*)
) AS win_percentage
FROM team AS t
JOIN game_has_teams AS ght
 ON t.idteam = ght.Team_idTeam
JOIN games AS g
 ON g.idgames = ght.Game_idGame
GROUP BY t.Teamname
ORDER BY win_percentage DESC;

```

	Teamname	avg_turnovers	wins	total_games	win_percentage
▶	Oklahoma	3.0000	2	2	1.0000
	Alabama	2.0000	1	1	1.0000
	Kentucky	1.0000	1	1	1.0000
	Ole Miss	1.0000	1	1	1.0000
	South Carolina	1.0000	1	1	1.0000
	Texas	2.0000	1	1	1.0000
	Vanderbilt	3.0000	1	1	1.0000
	Texas A&M	2.0000	0	1	0.0000

### Managerial Reasoning:

Turnovers have a big effect on game outcome. Teams that protect the ball win more. Coaches can use this to focus training on ball security, quarterback decision making, and forcing defensive turnovers.

This gives a clear picture of how much turnovers affect winning in the SEC.

