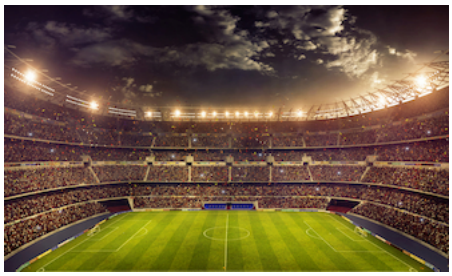
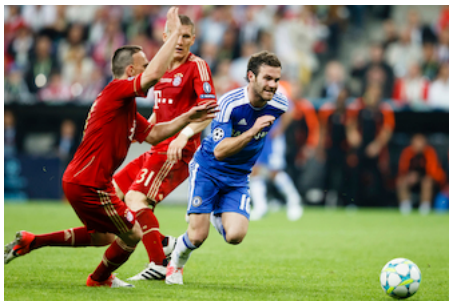
The UEFA Champions League, often called the Champions League, is a preeminent annual soccer competition that captivates fans worldwide. Established in 1955 as the European Champion Clubs' Cup, it evolved into the UEFA Champions League in 1992, broadening its appeal. The modern format features 32 top-tier club teams selected based on their domestic league performance, adding to the intrigue.



This electrifying event transcends sports, becoming a celebration of unity, culture, and national pride. Fans, draped in their countries' colors, create an electric atmosphere, making the tournament as much about the spectators as the players.Financially, the Champions League is a lifeline for clubs, boosting revenues and offering transformative opportunities. Nevertheless, it sparks debates about wealth disparities in European soccer.



The Champions League is synonymous with historic rivalries, underdog triumphs, and individual brilliance. For players, it represents a career pinnacle, while for fans, it's a cultural phenomenon. The iconic anthem and rituals enrich the soccer experience. In 200 words, the UEFA Champions League is the epitome of European soccer excellence, offering unforgettable moments, financial rewards, and a unique cultural impact, with 32 top clubs adding to its allure.

Schema name: `SOCCER`

Table Name(s): `TBL_UEFA_2020` | `TBL_UEFA_2021` | `TBL_UEFA_2022`

Note : All three tables have same column names and data types

Column	Definition	Data type
`STAGE`	Stage of the March	`VARCHAR(50)`
`DATE`	When the match occurred.	`DATE`
`PENS`	Did the match end with penalty	`VARCHAR(50)`
`PENS_HOME_SCORE`	In case of penalty, score by home team	`VARCHAR(50)`
`PENS_AWAY_SCORE`	In case of penalty, score by away team	`VARCHAR(50)`
`TEAM_NAME_HOME`	Team home name	`VARCHAR(50)`
`TEAM_NAME_AWAY`	Team away name	`VARCHAR(50)`
`TEAM_HOME_SCORE`	Team home score	`NUMBER`
`TEAM_AWAY_SCORE`	Team away score	`NUMBER`
`POSSESSION_HOME`	Ball possession for the home team	`FLOAT`
`POSSESSION_AWAY`	Ball possession for the away team	`FLOAT`
`TOTAL_SHOTS_HOME`	Number of shots by the home team	`NUMBER`
`TOTAL_SHOTS_AWAY`	Number of shots by the away team	`NUMBER`
`SHOTS_ON_TARGET_HOME`	Total shot for home team	`FLOAT`
`SHOTS_ON_TARGET_AWAY`	Total shot for away team	`FLOAT`
`DUELS_WON_HOME`	duel win possession of ball - for home team	`NUMBER`
`DUELS_WON_AWAY`	duel win possession of ball - for away team	`NUMBER`

Column	Definition	Data type
`PREDICTION_TEAM_HOME_WIN`	Probability of home team to win	`FLOAT`
`PREDICTION_DRAW`	Probability of draw	`FLOAT`
`PREDICTION_TEAM_AWAY_WIN`	Probability of away team to win	`FLOAT`
`LOCATION`	Stadium where the match was held	`VARCHAR(50)`

Note that *in Snowflake all databases, tables, and columns are **upper case*** by default.

You will execute SQL queries to answer three questions, as listed in the instructions.

Soccer DataFrame as `TEAM_HOME_WITH_MOST_GOALS`

```
-- Find the top 3 teams which scored highest goals while playing at their home ground in UEFA Champions League 2020-21. The output should contain two columns: TEAM_NAME_HOME and TEAM_HOME_SCORE arranged in descending order of TEAM_HOME_SCORE. Save the query as TEAM_HOME_WITH_MOST_GOALS.
SELECT team_name_home, team_home_score -- selected home team name and score
FROM SOCCER.TBL_UEFA_2020 --from
ORDER BY team_home_score DESC --sorted the team home score in order of most to least (desc)
LIMIT 3; -- limited data to three as that is top 3
```

index	TEAM_NAME_HOME	TEAM_HOME_SCORE
0	PSG	
1	Manchester United	
2	Barcelona	

Rows: 3 Expand Table

Soccer DataFrame as `TEAM_WITH_MAJORITY_POSSESSION`

```
-- TFind the team with majority possession for maximum number of times during UEFA Champions League 2021-22. The result should include two columns: TEAM_NAME and GAME_COUNT which is number of times the team had majority possession while playing soccer game. Save this query as TEAM_WITH_MAJORITY_POSSESSION
SELECT CASE WHEN possession_home > possession_away THEN team_name_home
        WHEN possession_home < possession_away THEN team_name_away END AS team_name, -- created case argument that gives us home team name when the possesion of the home team was more than the away team and vice versa. Also used ths is groupby so that the result of this field would be the grouping in which the count below occurred.
        COUNT(*) AS game_count --created a count so that it would count each time the team that had more possession game.
FROM SOCCER.TBL_UEFA_2021
WHERE team_name IS NOT NULL --do not want values of NULL
GROUP BY CASE WHEN possession_home > possession_away THEN team_name_home
        WHEN possession_home < possession_away THEN team_name_away END -- created groupby with case when so that we can have the count in the select field group the count by the number of times each teams name appears
ORDER BY game_count DESC -- we want the team with teh highest games with most possession so we create desc list and limit to 1.
LIMIT 1;
```

index	TEAM_NAME	GAME_COUNT
0	Liverpool	

Rows: 1 Expand Table

Soccer DataFrame as T

```sql
-- Find the list of teams for each stage of the game, which won the duel in a match but still ended up losing the game in UEFA Championship 2022-23. The output should contain two columns: STAGE and TEAM_LOST. Save the query as TEAM_WON_DUEL_LOST_GAME_STAGE_WISE.
SELECT stage,
CASE WHEN duels_won_home > duels_won_away AND team_home_score < team_away_score THEN team_name_home
    WHEN duels_won_home < duels_won_away AND team_home_score > team_away_score THEN team_name_away END AS team_lost -- we select the stage and create a case when statement that gives us the away team name and stage if they won duels but lost and another that does the same for the home team. Titled this column as team_lost
FROM SOCCER.TBL_UEFA_2022
WHERE team_lost IS NOT NULL --we do not want null values
```

	STAGE	TEAM_LOST
0	Group stage: Matchday 1	Chelsea
1	Group stage: Matchday 1	København
2	Group stage: Matchday 1	Juventus
3	Group stage: Matchday 1	Maccabi Haifa
4	Group stage: Matchday 1	Rangers
5	Group stage: Matchday 1	Liverpool
6	Group stage: Matchday 1	Porto
7	Group stage: Matchday 1	Bayer Leverkusen
8	Group stage: Matchday 1	Viktoria Plze?
9	Group stage: Matchday 1	Marseille
10	Group stage: Matchday 2	Ajax
11	Group stage: Matchday 2	Atletico Madrid
12	Group stage: Matchday 2	Barcelona
13	Group stage: Matchday 2	Tottenham Hotspur
14	Group stage: Matchday 2	RB Leipzig
15	Group stage: Matchday 3	Rangers

Rows: 56 Expand Table