Football Match Challenge

The dataset contains details of all games in the English Premier League season. The data is from England Football Results Betting Odds | Premiership Results & Betting Odds (football-data.co.uk)

Exploratory data analysis if the Match dataset

Analyse this dataset and answer the set of questions below.

- How many matches have been played?
- Which date had the most matches?
- List all the teams in the Premier League
- How many matches were played each month?
- Were any matches played on a Thursday?
- In which matches did the home team score more than three goals?
- In which matches were more than 4 goals scored?
- What was the average number of goals scored per match?
- Is there an advantage to playing at home? What was the percentage of home wins?
- What was the average number of goals scored per team?

Hint: You may want to use a Calendar table – a dates table containing a row for all dates in the season.

Build the League Table from the Match Results

The English Premier League Table (example here) is a summary report of the relative performance of about 20 football teams during a football season. This is what the columns mean

- Team – there are typically about 20 teams in a league
- Played – the number of matches played by the team
- Won – the number of matches won by the team
- Drawn – the number of matches drawn by the team
- Lost – the number of matches lost by the team
- For - the number of goals scored by the team during the season
- Against – the number of goals scored against the team scored during the season
- GD – the goal difference, equal to *For* less *Against*. Note that this can be negative.
- Points - the number of points accumulated by the team. **A team gains 3 points if they win a match, 1 if they draw and none if they lose.**

The source data for the report, the detailed operational data, are the match results. During a season, each team in the league will play every other team twice, once at their home ground and once at their opponent's home ground.

The essential columns in the Match table are the

- home team, the team playing at its own stadium
- away team, the visiting team
- full time home goals (FTHG), those scored by the home team during the match
- full time away goals (FTAG), those scored by the away team during the match

Using FTHG and FTAG, we can determine the winning team and the points awarded to each team for the match.

Note that each match may generate points for both the home team and the away team, and we must build a table of match results based on the match table. For example, let's assume that Chelsea have already played Arsenal both home and away with these results

Date	Home Team	Away Team	FTHG	FTAG
1-Sep	Chelsea	Arsenal	3	2
1-Oct	Arsenal	Chelsea	4	4

The Match Results table would look like

Date	Team	For	Against	Points
1-Sep	Chelsea	3	2	3
1-Sep	Arsenal	2	3	0
1-Oct	Chelsea	4	4	1
1-Oct	Arsenal	4	4	1

Instructions

Build the league table like the one on the BBC Sport page (apart from the Form column). We need to apply some business rules to calculate the number of points for each team then summarise this data. This involves either writing some DAX or applying a few transforms using the Query Editor to apply the business rules.

Advanced Optional Exercises

The league table is a snapshot of performance but contains no history (well, apart from a tiny glimpse in the Form column). Can we create a visualisation that shows the journey of each team during the season e.g. a line chart that shows the teams' progress, in terms of points, through the season?

Add the Form, the team's results of the last five games