

SQL Exercise: Calculating Percent with CASE and AVG

Learn / Courses / Data Manipulation In SQL

← Course Outline →

Daily XP 776

Exercise

Calculating percent with CASE and AVG

CASE statements will return any value you specify in your THEN clause. This is an incredibly powerful tool for robust calculations and data manipulation when used in conjunction with an aggregate statement. One key task you can perform is using CASE inside an AVG function to calculate a percentage of information in your database.

Here's an example of how you set that up:

```
AVG(CASE WHEN condition_is_met THEN 1
        WHEN condition_is_not_met THEN 0 END)
```

With this approach, it's important to accurately specify which records count as 0, otherwise your calculations may not be correct!

Your task is to examine the number of wins, losses, and ties in each country. The matches table is filtered to include all matches from the 2013/2014 and 2014/2015 seasons.

Instructions 1/3 35 XP 1 2 3

- Create 3 CASE statements to COUNT the total number of home team wins, away team wins, and ties, which will allow you to examine the total number of records.

Take Hint (-10 XP)

query.sql

```
1 SELECT
2   c.name AS country,
3   -- Count the home wins, away wins, and ties in each country
4   --- (CASE WHEN m.home_goal > m.away_goal THEN m.id
5   END) AS home_wins,
6   --- (CASE WHEN m.home_goal < m.away_goal THEN m.id
7   END) AS away_wins,
8   --- (CASE WHEN m.home_goal = m.away_goal THEN m.id
9   END) AS ties
10  FROM country AS c
11  LEFT JOIN matches AS m
12  ON c.id = m.country_id
13  GROUP BY country;
```

Run Code Submit Answer

query result matches country

No query executed yet...

Showing 0 out of 0 rows

Question: Create 3 CASE statements to COUNT the total number of home team wins, away team wins, and ties, which will allow you to examine the total number of records.

Correct Answer:

SQL Query:

SELECT

c.name AS country,

-- Count the home wins, away wins, and ties in each country

COUNT(CASE WHEN m.home_goal > m.away_goal THEN m.id END) AS

```
home_wins,  
    COUNT(CASE WHEN m.home_goal < m.away_goal THEN m.id END) AS  
away_wins,  
    COUNT(CASE WHEN m.home_goal = m.away_goal THEN m.id END) AS  
ties  
FROM country AS c  
LEFT JOIN matches AS m  
ON c.id = m.country_id  
GROUP BY country;
```

Explanation:

- The query selects the country name (`c.name`) and aliases it as `country` for grouping.
- Three `COUNT` functions with `CASE WHEN` conditions calculate the total home wins, away wins, and ties:
 - `home_wins` counts matches where the home team's goals exceed the away team's.
 - `away_wins` counts matches where the away team's goals exceed the home team's.
 - `ties` count matches where both teams scored an equal number of goals.
- The `LEFT JOIN` ensures all countries are included, even those without matches.
- The `GROUP BY` clause groups results by country, ensuring accurate counts for each country.