

# Moving Average of Russian Medals

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Daily XP 700

Exercise

### Moving average of Russian medals

Using frames with aggregate window functions allow you to calculate many common metrics, including moving averages and totals. These metrics track the change in performance over time.

Instructions

100 XP

- Calculate the 3-year moving average of medals earned.

Take Hint (-30 XP)

query.sql

```
1 WITH Russian_Medals AS (  
2   SELECT  
3     Year, COUNT(*) AS Medals  
4   FROM Summer_Medals  
5   WHERE  
6     Country = 'RUS'  
7     AND Medal = 'Gold'  
8     AND Year >= 1980  
9   GROUP BY Year)  
10  
11  SELECT  
12    Year, Medals,  
13    --- Calculate the 3-year moving average of medals earned  
14    --- OVER  
15    (ORDER BY Year ASC  
16     ROWS BETWEEN  
17     --- AND ---) AS Medals_MA  
18  FROM Russian_Medals  
19  ORDER BY Year ASC;
```

↺

Run Code

Submit Answer

query result

summer\_medals

No query executed yet...

Showing 0 out of 0 rows

Using frames with aggregate window functions allow you to calculate many common metrics, including moving averages and totals. These metrics track the change in performance over time.

This exercise involves calculating the 3-year moving average of gold medals earned by Russia since 1980. The results help analyze trends in Russian performance over consecutive years.

## Correct Answer

WITH Russian\_Medals AS (

```

SELECT
  Year,
  COUNT(*) AS Medals
FROM Summer_Medals
WHERE
  Country = 'RUS' AND
  Medal = 'Gold' AND
  Year >= 1980
GROUP BY Year
)
SELECT
  Year,
  Medals,
  AVG(Medals) OVER (ORDER BY Year ASC ROWS BETWEEN 2
PRECEDING AND CURRENT ROW) AS Medals_MA
FROM Russian_Medals
ORDER BY Year ASC;

```

Explanation of the query:

1. `WITH Russian\_Medals AS (...)`: Calculates the total number of gold medals won by Russia for each year since 1980, grouping results by year.
2. `AVG(Medals) OVER (ORDER BY Year ASC ROWS BETWEEN 2 PRECEDING AND CURRENT ROW) AS Medals\_MA`: Computes the 3-year moving average of medals, including the current year and the two preceding years.
3. `ORDER BY Year ASC`: Ensures the results are sorted by year in ascending order.