

Running totals do not need a self-join.

D8A.ACADEMY/RESOURCES/RUNNING-TOTAL

THE QUESTION

revenue to date	one row per day, the total so far
the old way	← a self-join, N^2 rows

THE ANSWER

SUM(x) OVER (ORDER BY day)	one pass, one window
PARTITION BY customer	one running total per customer
ROWS UNBOUNDED PRECEDING	← say it, or ties share a total

REMEMBER

RANGE	the default frame: ties are peers
ROWS	row by row, what you meant

WORTH MEMORIZING

01 The running total, per customer

One window, ordered by day, partitioned by customer. The frame clause says row by row.

```
SELECT customer_id, day, amount,
       SUM(amount) OVER (
         PARTITION BY customer_id
         ORDER BY day
         ROWS UNBOUNDED PRECEDING
       ) AS revenue_to_date
FROM orders;
```

→ Without ROWS UNBOUNDED PRECEDING the frame is RANGE: two orders on the same day are peers and both show the total that includes both. Usually not what the question meant.

02 Trap: two orders, same day

Same query, two frames, two answers on the tie.

DAY · AMOUNT	RANGE (DEFAULT)	ROWS
Oct 1 · 10	10	10
Oct 2 · 20	50	30
Oct 2 · 20	50	50

→ Interview phrasing: I order by day and use ROWS UNBOUNDED PRECEDING so each row adds exactly itself, ties included.