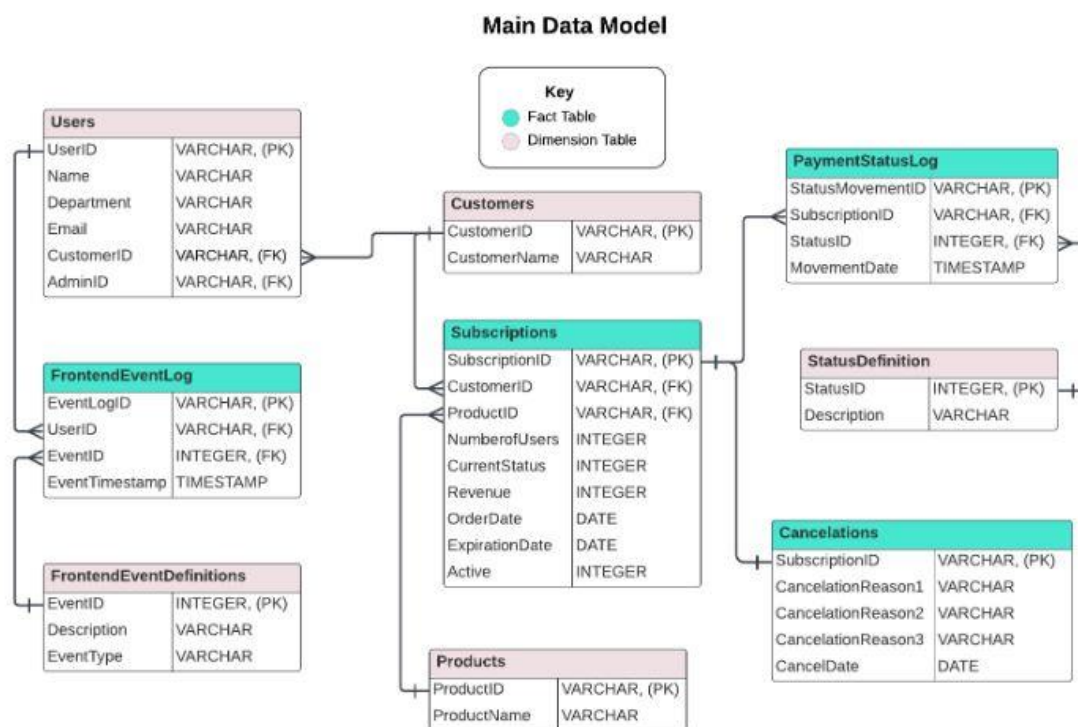


Using Self Joins to Compare Rows Within the Same Table

Business problem: Comparing MoM Revenue

It's time for end-of-year reporting, and your manager wants you to put together a slide deck summarizing the top revenue highlights of the year and present it to the whole company on the all-hands call. Among other metrics and insights, your manager suggests that you highlight months where revenue was up month-over-month (MoM). In other words, she wants you to highlight the months where revenue was up from the previous month. You know this can be done with window functions using lead or lag (see the window functions chapter of this course), but you decide to exercise your self join skills to accomplish the task.



```

1  -- SQL code by John Uzoma
2  with monthly_revenue_cte as (
3      select
4          date_trunc('month', orderdate) as order_month,
5          sum(revenue) as monthly_revenue
6      from
7          subscriptions
8      group by
9          date_trunc('month', orderdate)
10 )
11
12 select
13     curr.order_month as current_month,
14     prev.order_month as previous_month,
15     curr.monthly_revenue as current_revenue,
16     prev.monthly_revenue as previous_revenue
17 from monthly_revenue_cte curr
18 join monthly_revenue_cte prev
19 where
20     curr.monthly_revenue > prev.monthly_revenue
21 and
22     datediff('month', prev.order_month, curr.order_month) = 1

```

Result

CURRENT_MONTH	PREVIOUS_MONTH	CURRENT_REVENUE	PREVIOUS_REVENUE
2022-07-01 00:00:00.0	2022-06-01 00:00:00.0	63000	31000
2022-10-01 00:00:00.0	2022-09-01 00:00:00.0	27000	26000