

QUOTA PROGRESSION ANALYSIS

FEB 2024

Window Function

LinkedIn Coding Challenge

Advanced

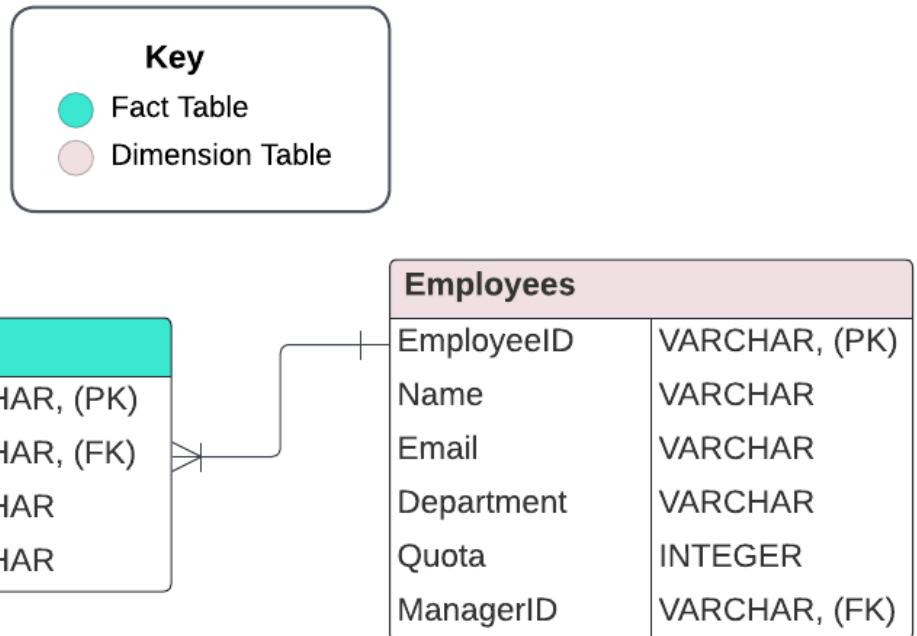
The manager of a sales team would like to track each employee's performance as it trends throughout the year. Each sales employee has to meet a certain quota in order to earn their full commission and be considered for a pay raise in the following year.

Query the sales occurrences of each employee along with a running total after each sale and the percentage of the quota set for each employee.

INPUT FORMAT

The main source tables are **SALES** and **EMPLOYEES**.

Sales Data Model



CODE SOLUTION

```
SELECT
sales.salesemployeeid,
sales.saledate,
sales.saleamount,
SUM(sales.saleamount) OVER (PARTITION BY sales.salesemployeeid ORDER BY
sales.saledate) AS running_total,
ROUND((CAST((sum(sales.saleamount) OVER (PARTITION BY sales.salesemployeeid
ORDER BY sales.saledate)) AS FLOAT) / emp.Quota)*100,2) AS percent_quota
FROM sales
JOIN employees emp
ON sales.SalesEmployeeID = emp.EmployeeID
ORDER BY sales.SalesEmployeeID, sales.saledate
```

SOLUTION PROCESS

- Join function: This function joins the **EMPLOYEES** table using employee ID numbers to allow for querying the quota set for each employees in the joined table.
 - SUM OVER WINDOW function: This creates a running total of the summed value while maintaining the partitioning of each row value.
 - Round and Cast functions: These functions are used to calculated the percentage of the quota achieved by each sales employee and round them to two decimal places
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OUTPUT

| SALESEMPLOYEEID | SALEDATE | SALEAMOUNT | RUNNING_TOTAL | PERCENT_QUOTA |
|-----------------|------------|------------|---------------|---------------|
| E172 | 2023-03-11 | 9000 | 9000 | 18.0 |
| E172 | 2023-06-11 | 11000 | 20000 | 40.0 |
| E172 | 2023-06-15 | 15000 | 35000 | 70.0 |
| E172 | 2023-07-17 | 3000 | 38000 | 76.0 |
| E192 | 2023-02-09 | 14000 | 14000 | 23.33 |
| E192 | 2023-03-14 | 9000 | 23000 | 38.33 |
| E192 | 2023-05-16 | 16000 | 39000 | 65.0 |
| E429 | 2023-01-30 | 4000 | 4000 | 5.0 |
| E429 | 2023-04-03 | 7000 | 11000 | 13.75 |
| E429 | 2023-07-13 | 10000 | 21000 | 26.25 |
| E738 | 2023-01-04 | 18000 | 18000 | 36.0 |
| E738 | 2023-03-18 | 10000 | 28000 | 56.0 |
| E738 | 2023-03-26 | 5000 | 33000 | 66.0 |
| E738 | 2023-04-16 | 1000 | 34000 | 68.0 |
| E738 | 2023-07-16 | 12000 | 46000 | 92.0 |
| E738 | 2023-07-28 | 11000 | 57000 | 114.0 |
