Documentation for Conversion Rate Calculation Query

Overview

This document describes the process of calculating the conversion rate for group deals, defined as the ratio of completed orders to the total number of group deals created. This calculation is vital for assessing the effectiveness of group deals in generating sales.

Tables Used

1. **`group_deals`**
   - Contains information about the group deals available in the system.

2. **`orders`**
   - Contains records of all orders placed, including their status.

Query to Calculate Conversion Rate

The conversion rate is determined by counting the number of completed orders and dividing it by the total number of group deals created.

SQL Query

```sql
WITH CompletedOrders AS (
    SELECT
        COUNT(*) AS completed_order_count
    FROM
        orders
    WHERE
```

```
        status = 'COMPLETED'  -- Correct status value for completed orders
),
TotalGroupDeals AS (
    SELECT
        COUNT(*) AS total_group_deal_count
    FROM
        group_deals
)

SELECT
    COALESCE(c.completed_order_count, 0) AS completed_orders,
    COALESCE(t.total_group_deal_count, 0) AS total_group_deals,
    CASE
        WHEN COALESCE(t.total_group_deal_count, 0) = 0 THEN 0
        ELSE COALESCE(c.completed_order_count, 0) * 1.0 / t.total_group_deal_count
    END AS conversion_rate
FROM
    CompletedOrders c,
    TotalGroupDeals t;
```

Explanation of the Query

1. **Common Table Expressions (CTEs)**:
   - **`CompletedOrders`**: This CTE counts all orders from the `orders` table where the status is 'COMPLETED'.
   - **`TotalGroupDeals`**: This CTE counts all records in the `group_deals` table to determine the total number of group deals created.

2. **Final Selection**:

   - The final `SELECT` statement retrieves:

     - The count of completed orders.

     - The total number of group deals.

     - The conversion rate calculated as the ratio of completed orders to total group deals.

   - The use of `COALESCE` ensures that if there are no completed orders or group deals, the output will default to zero instead of returning null values.

   - The conversion rate calculation includes a safeguard against division by zero, returning zero if there are no group deals.

Conclusion

The conversion rate calculation query provides valuable insights into the performance of group deals in driving sales. By understanding this metric, stakeholders can make informed decisions on marketing strategies and group deal offerings. Future analyses may include additional factors such as timeframes for the deals or customer demographics to further refine understanding of conversion rates.