**Debugging Queries**

**Question 1:** How many unique customers are in the city of 'Surat'?

SQL Query:

SELECT

COUNT(DISTINCT customer\_id) AS distinct\_customers

FORM gdb080.dim\_customers

WHERE city == 'surat';

**Question 2:** What are the minimum and maximum order quantities for each product?

SQL Query:

SELECT

p.product\_id,

p.product\_name,

MIN(p.order\_qty) as minimum\_qty

MAX(p.order\_qty) as maximum\_qty

FROM gdb080.fact\_order\_lines f

JOIN gdb080.dim\_products p ON f.product\_id = p.product\_id

GROUP BY p.product\_id;

**Question 3:** Generate a report with month\_name and number of unfullfilled\_orders(i.e order\_qty - delivery\_qty) in that respective month.

SQL Query:

SELECT

MONTHNAME(order\_placement\_date as month\_name,

SUM(order\_qty-delivery\_qty)

FROM gdb080.fact\_orders\_lines

GROUP By MONTHNAME(order\_placement\_date)

ORDER BY unfullfilled\_orders DESC;

**Question 4:** What is the percentage breakdown of order\_qty by category?

The final output includes the following fields:

- category

- order\_qty\_pct.

SQL Query:

with total\_order\_qty\_by\_category as

(

SELECT

p.category,

SUM(f.order\_qty) as total\_quantity

FROM gdb080.dim\_products p

JOIN gdb080.fact\_order\_lines f ON p.product\_id = f.product\_id

GROUP BY p.category;

)

SELECT

category,

ROUND(100 \* total\_quantity / SUM(total\_quantity) OVER (), 2) AS order\_qty\_pct

FROM total\_order\_quantity\_by\_category

order by order\_qty\_pct DESC;

**Question 5:** Generate a report that includes the customer ID, customer name, ontime\_target\_pct, and percentage\_category.

The percentage category is divided into four types: 'Above 90' if the ontime\_target\_pct is greater than 90, 'Above 80' if it is greater than 80, 'Above 70' if it is greater than 70, and 'Less than 70' for all other cases.

SQL Query:

SELECT

customer\_id,

customer\_name,

t.ontime\_target\_pct,

CASE

WHEN t.ontime\_target\_pct > 90 THEN 'Above 90"

WHEN t.ontime\_target\_pct > 80 THEN 'Above 80'

WHEN t.ontime\_target\_pct > 70 THEN 'Above 70'

ELSE "Below 70"

END AS percentage\_category,

FROM gdb080.dim\_targets\_orders t

JOIN gdb080.dim\_customers c

ON t.customer\_id = c.customer\_id;

**Question 6:** Generate a report that lists all the product categories, along with the product names and total count of products in each category.

The output should have three columns:

category, products, and product\_count.

SQL Query:

SELECT category, GROUP\_CONCAT(product\_name) AS products COUNT(\*) AS product\_count

FROM gdb080.dim\_products

GROUP category;

**Question 7:** What are the top 3 most demanded products in the 'Dairy' category, and their respective order quantity in millions?

The final output includes the following fields:

- product name

- order\_qty\_mln.

SQL Query:

SELECT

p.product\_name,

ROUND(SUM(f.order\_qt) / 1000000,2) AS order\_qty\_mln

FROM gdb080.dim\_products p

JOIN gdb080.fact\_order\_lines f

WHERE p.category = 'Dairy'

GROUP BY p.product\_name

ORDER BY order\_qty\_mln DESC

LIMIT 3;

**Question 8:** Calculate the OTIF % for a customer named Vijay Stores

The final output should contain these fields,

customer\_name

OTIF\_percentage

SQL Query:

SELECT

c.customer\_names,

ROUND((SUM(f.otif) / COUNT(f.order\_id) \* 100),2) AS

OTIF\_percentage

FROM gdb080.fact\_orders\_aggregate f

JOIN gdb080.dim\_customers c

ON c.customer\_id = f.customer\_id

GROUP BY c.customer\_name

WHERE c.customer\_name = "Vijay Stores";

**Question 9:** What is the percentage of 'in full' for each product and which product has the highest percentage, based on the data from the 'fact\_order\_lines' and 'dim\_products' tables?

SQL Query:

WITH product\_if\_target AS (

SELECT

p.product\_name,

SUM(CASE WHEN f.in\_full = 1 THEN 1 ELSE 0) AS if\_count,

COUNT(f.order\_id) AS total\_count

FROM

gdb080.fact\_order\_lines f

JOIN gdb080.dim\_products p ON p.product\_id = f.product\_id

GROUP BY p.product\_name

)

SELECT

product\_name,

ROUND(if\_count / total\_count \* 100), 2) AS IF\_percentage

FROM

product\_if\_target

order by IF\_percentage DESC;