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

Select distinct count(*) from dim_customers
where city = "Surat"

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

```
Select f.product_id,p.product_name, max(order_qty) as MAX,
min(order_qty) as MIN from fact_order_lines f
join dim_products p
on f.product_id=p.product_id
group by 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.

```
select monthname(order_placement_date) as month_name,
sum((order_qty - delivery_qty)) as unfulfilled_orders  from fact_order_lines
group by month_name
having unfulfilled_orders >0
```

Question 4: What is the percentage breakdown of order_qty by category?
The final output includes the following fields:
- category
- order_qty_pct.

```
with cte1 as (Select p.category, sum(order_qty) as total_count from fact_order_lines f
join dim_products p
on f.product_id = p.product_id
group by p.category)
select category,total_count*100/sum(total_count) over() as perc from cte1
```

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.

```
with cte1 as (Select c.customer_id,c.customer_name, ontime_target_pct,
case
when  ontime_target_pct > 90 then "Above 90"
when  ontime_target_pct > 80 then "Above 80"
when  ontime_target_pct > 70 then "Above 70"
else "Less than 70"
end as target_badge from dim_targets_orders t
join dim_customers c
on c.customer_id = t.customer_id)

Select count(*) from cte1
where target_badge = "Above 90"
```

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.

```
SELECT
    category,
    GROUP_CONCAT(product_name) AS products,
    COUNT(product_name) AS product_count
FROM
    dim_products
GROUP BY
    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.

```
select f.product_id,p.product_name, round(sum(order_qty)/1000000, 2) as total_orders_in_mln from
fact_order_lines f
join dim_products p
on f.product_id = p.product_id
where category = "Dairy"
group by product_id
order by total_orders_in_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

```
select c.customer_name,
100*count(On_time_In_Full)/(select count(On_time_In_Full) from fact_order_lines f
join dim_customers c
on f.customer_id = c.customer_id
where c.customer_name like "%Vijay Stores%"
group by c.customer_name) as otif_perc from fact_order_lines f
join dim_customers c
on f.customer_id = c.customer_id
where c.customer_name like "%Vijay Stores%" and On_time_In_Full = 1
group by c.customer_name
```

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?

```
WITH product_if_target AS (
    SELECT
        p.product_name,
        SUM(CASE WHEN f.in_full = 1 THEN 1 ELSE 0 END) AS if_count,  -- Fixed syntax here
        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
),
cte2 as (
SELECT
    product_name,
    ROUND(if_count / total_count * 100, 2) AS IF_percentage  -- Fixed ROUND function
FROM
    product_if_target
ORDER BY
    IF_percentage DESC)
    Select count(*) from cte2 where if_percentage > 67
```