

● Basic Level

1. Total Number of Orders

```
SELECT COUNT(order_id) AS total_orders FROM orders;
```

👉 **COUNT** used to get total number of orders.

2. Total Revenue from Pizza Sales

```
SELECT ROUND(SUM(order_details.quantity * pizzas.price), 2) AS  
total_sales  
FROM order_details  
JOIN pizzas ON pizzas.pizza_id = order_details.pizza_id;
```

👉 **JOIN**, **SUM** used to calculate total sales; **ROUND** for formatting.

3. Highest Priced Pizza

```
SELECT pizza_types.name, pizzas.price  
FROM pizza_types  
JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id  
ORDER BY pizzas.price DESC  
LIMIT 1;
```

👉 **JOIN** to get names, **ORDER BY** + **DESC** + **LIMIT** for highest price.

4. Most Common Pizza Size Ordered

```
SELECT pizzas.size, COUNT(order_details.order_details_id) AS  
order_count  
FROM pizzas  
JOIN order_details ON pizzas.pizza_id = order_details.pizza_id  
GROUP BY pizzas.size  
ORDER BY order_count DESC;
```

👉 GROUP BY size, COUNT orders, ORDER BY for most common.

5. Top 5 Most Ordered Pizza Types

```
SELECT pizza_types.name, SUM(order_details.quantity) AS quantity
FROM pizza_types
JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;
```

👉 JOIN, SUM, GROUP BY, ORDER BY, LIMIT for top 5 ordered types.

🟡 Intermediate Level

6. Total Quantity by Pizza Category

```
SELECT pizza_types.category, SUM(order_details.quantity) AS quantity
FROM pizza_types
JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity DESC;
```

👉 GROUP BY category, SUM total quantity.

7. Order Distribution by Hour

```
SELECT HOUR(order_time) AS hour, COUNT(order_id) AS order_count
FROM orders
GROUP BY HOUR(order_time);
```

👉 HOUR() to extract hour, GROUP BY and COUNT to count orders.

8. Pizza Count by Category

```
SELECT category, COUNT(name)
FROM pizza_types
GROUP BY category;
```

👉 COUNT pizza names, GROUP BY category.

9. Average Pizzas Ordered Per Day

```
SELECT ROUND(AVG(quantity), 0) AS avg_pizza_ordered_per_day
FROM (
    SELECT orders.order_date, SUM(order_details.quantity) AS quantity
    FROM orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date
) AS order_quantity;
```

👉 Inner GROUP BY per date, outer AVG for daily average.

10. Top 3 Pizza Types by Revenue

```
SELECT pizza_types.name, SUM(order_details.quantity * pizzas.price) AS
revenue
FROM pizza_types
JOIN pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
JOIN order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY revenue DESC
LIMIT 3;
```

👉 SUM revenue, GROUP BY name, ORDER BY top 3.

🔴 Advanced Level

11. Revenue Percentage by Category

```

SELECT
    pt.category,
    ROUND(SUM(od.quantity * p.price) * 100.0 /
          SUM(SUM(od.quantity * p.price)) OVER (), 2) AS
revenue_percentage
FROM pizza_types pt
JOIN pizzas p ON pt.pizza_type_id = p.pizza_type_id
JOIN order_details od ON od.pizza_id = p.pizza_id
GROUP BY pt.category
ORDER BY revenue_percentage DESC;

```

👉 SUM, OVER() for total, ROUND for %, GROUP BY category.

12. Cumulative Revenue Over Time

```

SELECT order_date, SUM(revenue) OVER(ORDER BY order_date) AS
cum_revenue
FROM (
    SELECT orders.order_date, SUM(order_details.quantity * pizzas.price)
AS revenue
    FROM order_details
    JOIN pizzas ON order_details.pizza_id = pizzas.pizza_id
    JOIN orders ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date
) AS sales;

```

👉 Inner GROUP BY date, outer SUM OVER() for cumulative.

13. Top 3 Pizzas by Revenue per Category

```

SELECT name, revenue
FROM (
    SELECT category, name, revenue,
           RANK() OVER(PARTITION BY category ORDER BY revenue DESC) AS
rn
    FROM (
        SELECT pizza_types.category, pizza_types.name,

```

```
        SUM(order_details.quantity * pizzas.price) AS revenue
FROM pizza_types
JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category, pizza_types.name
) AS a
) AS b
WHERE rn <= 3;
```

👉 **RANK()** + **PARTITION BY** for top 3 per category based on revenue.
