SQL

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PIZZA SALES

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PIZZA SALES
BUSSINESS PROBLEM

In this project, we dive deep into the sales data of a pizza business to uncover meaningful insights and help the business make informed decisions. By leveraging SQL, I have tackled several important business-related questions that shed light on the overall performance and trends in pizza sales.

The store needs to boost revenue and efficiency by identifying top-selling pizzas, peak sales times, and optimizing inventory to avoid missed opportunities and potential revenue loss.

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VISSION & MISSION

To Analyse pizza sales data, focusing on revenue, order trends and make business decisions.

1. RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

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

Result Grid

	total_orders
▶	885

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2. CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.

```sql
SELECT
    SUM(order_details.quantity * pizzas.price) AS total_sale
FROM
    order_details
        JOIN
    pizzas ON pizzas.pizza_id = order_details.pizza_id
```

Result Grid | Filte

	total_sale
▶	151731.4499999996

3. IDENTIFY THE HIGHEST-PRICED PIZZA.

```sql
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;
```

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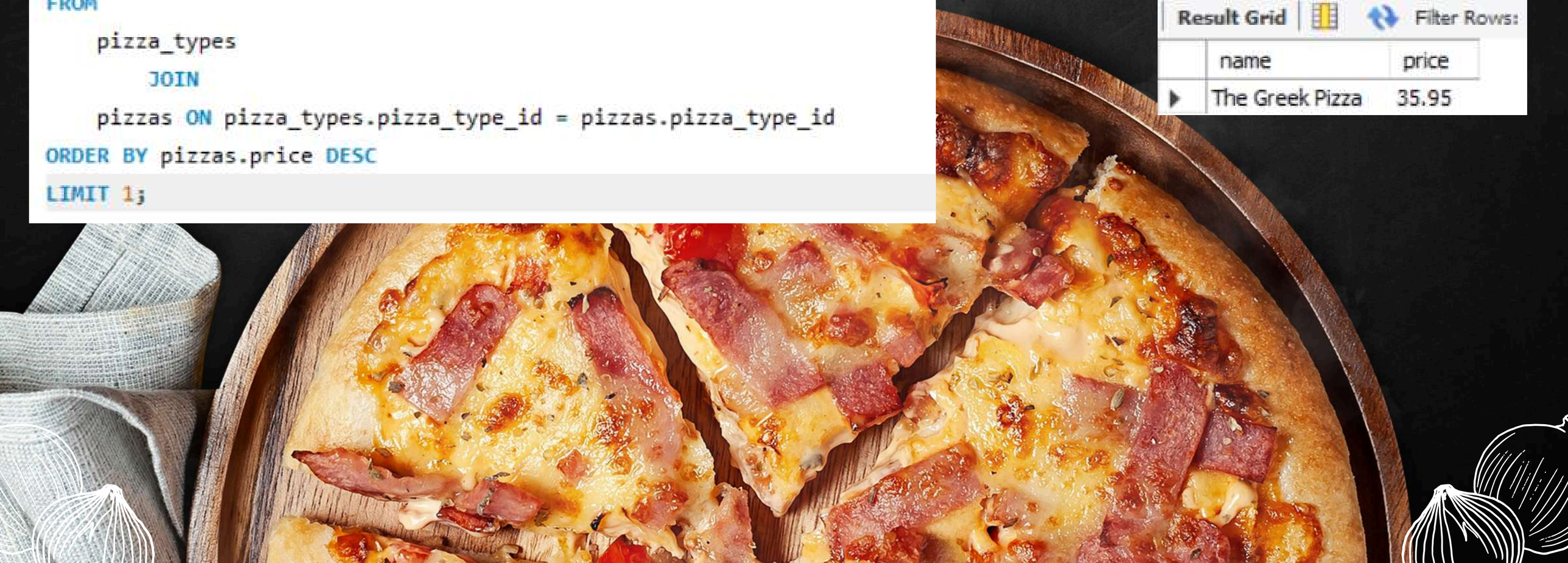
THE GREEK PIZZA

Result Grid | Filter Rows:

	name	price
▶	The Greek Pizza	35.95



4.IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.

```sql
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;
```

Result Grid | Filter

size	order_count
L	3499
M	2774
S	2659
XL	97
XXL	5

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5. LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.

```sql
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;
```

Result Grid | Filter Rows:

name	quantity
The Pepperoni Pizza	486
The Barbecue Chicken Pizza	459
The California Chicken Pizza	459
The Hawaiian Pizza	446
The Classic Deluxe Pizza	413

6. JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.

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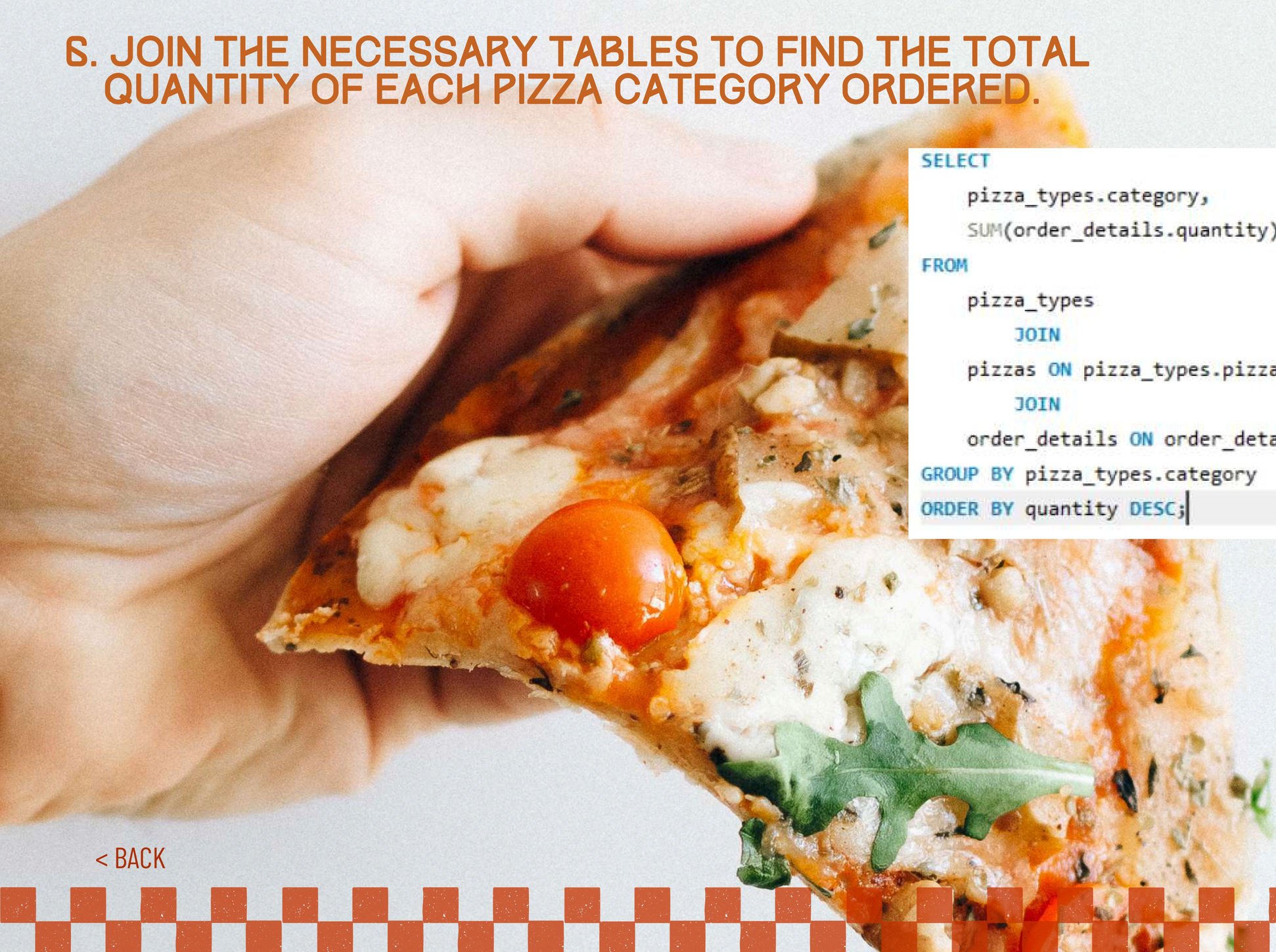

```sql
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity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

Result Grid | Filte

category	quantity
Classic	2733
Supreme	2242
Veggie	2203
Chicken	2025

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7. DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.

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

Result Grid | Filter Rows

HOUR(order_time)	orders
11	44
12	113
13	100
14	81
15	68
16	80
17	95

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NEXT >

8. JOIN RELEVANT TABLES TO FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS

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

Result Grid | Filter Rows:

	category	COUNT(name)
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

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NEXT >

9. GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.


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

Result Grid | Filter Rows:

	avg_pizza_ordered_per_day
▶	136

NEXT >

10. DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.

```sql
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;
```

Result Grid | Filter Rows:

name	revenue
The Barbecue Chicken Pizza	8144.25
The California Chicken Pizza	7980.25
The Thai Chicken Pizza	7446.75

11. CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE.

```sql
SELECT
    pizza_types.category,
    ROUND(
        (SUM(order_details.quantity * pizzas.price) /
        (SELECT SUM(order_details.quantity * pizzas.price) FROM order_details
         JOIN pizzas ON pizzas.pizza_id = order_details.pizza_id)
        ) * 100, 2
    ) AS revenue_percentage
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
    revenue_percentage DESC;
```

Result Grid | Filter Rows:

category	revenue_percentage
Classic	26.53
Supreme	25.58
Veggie	24.21
Chicken	23.68

12. ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.

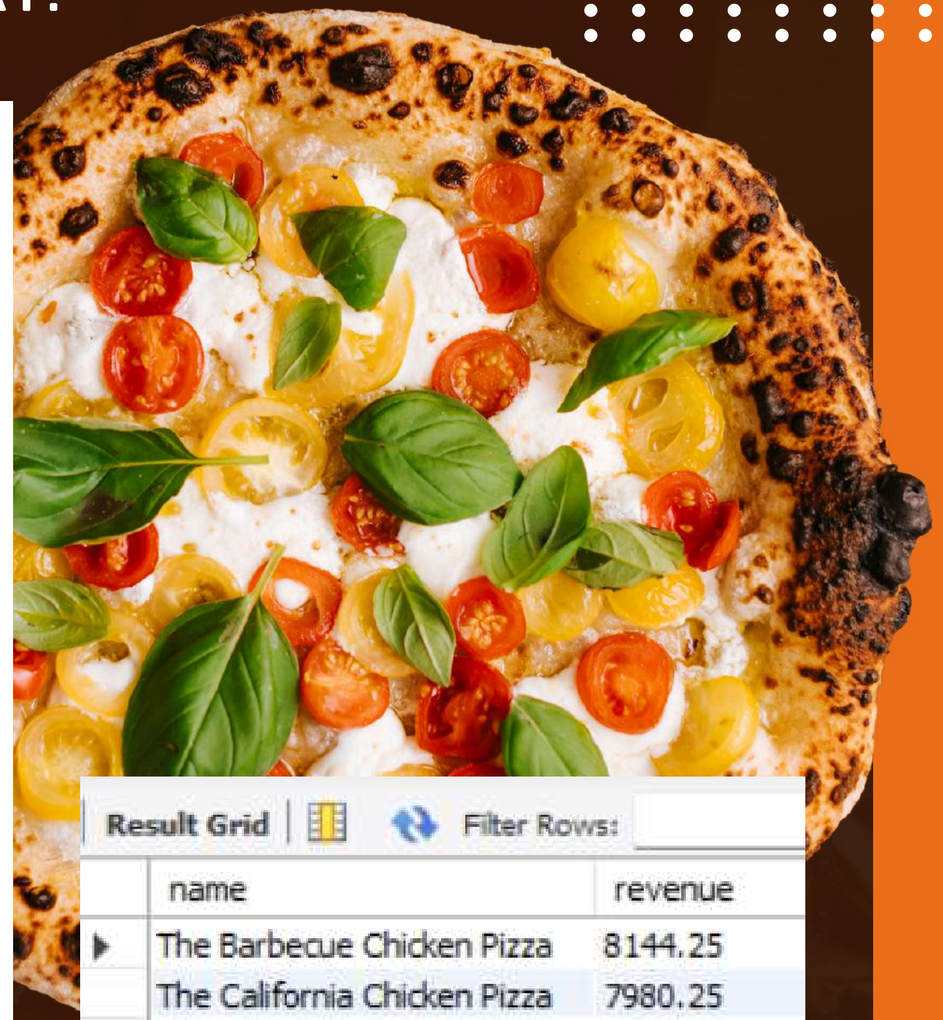
```sql
SELECT order_date,
       SUM(revenue) OVER (ORDER BY order_date) AS cum_revenue
FROM (
    SELECT orders.order_date,  -- Renaming from 'order_data' to 'order_date'
           SUM(order_details.quantity * pizzas.price) AS revenue
    FROM order_details
    JOIN pizzas ON order_details.pizza_id = pizzas.pizza_id
    JOIN orders ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date
) AS sales;
```

Result Grid | Filter Rows:

order_date	cum_revenue
2015-01-01	2713.8500000000004
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55

13. DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.

```sql
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;
```



Result Grid | Filter Rows:

name	revenue
The Barbecue Chicken Pizza	8144.25
The California Chicken Pizza	7980.25
The Thai Chicken Pizza	7446.75
The Classic Deluxe Pizza	6403
The Pepperoni Pizza	6088.75

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THANK YOU!