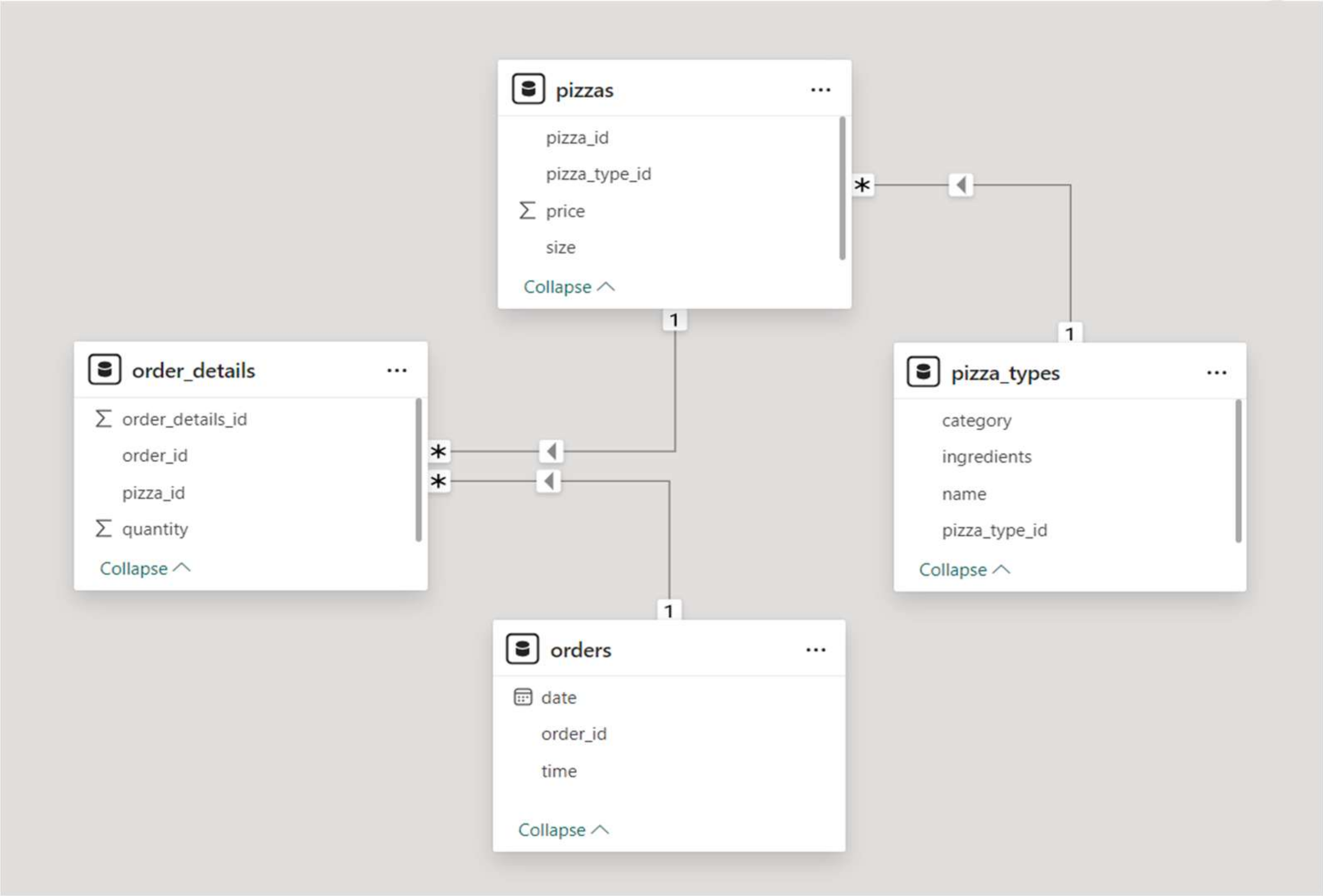
PIZZA - SALES-SQL

Presented by Mital Vejani
Data Analyst

Introduction

- Hello everyone, my name is Mital Vejani,
- I'm a Data Analyst with a passion for uncovering insights from data.
- In this project, I've undertaken a detailed analysis of pizza sales, utilizing SQL from basic to advanced levels.
- This presentation will walk you through the methods and insights gained from this analysis, showcasing how SQL can be a powerful tool for driving data-driven decisions.

Data Model



pizzas

pizza_id
pizza_type_id
∑ price
size
Collapse

order_details

∑ order_details_id
order_id
pizza_id
∑ quantity
Collapse

pizza_types

category
ingredients
name
pizza_type_id
Collapse

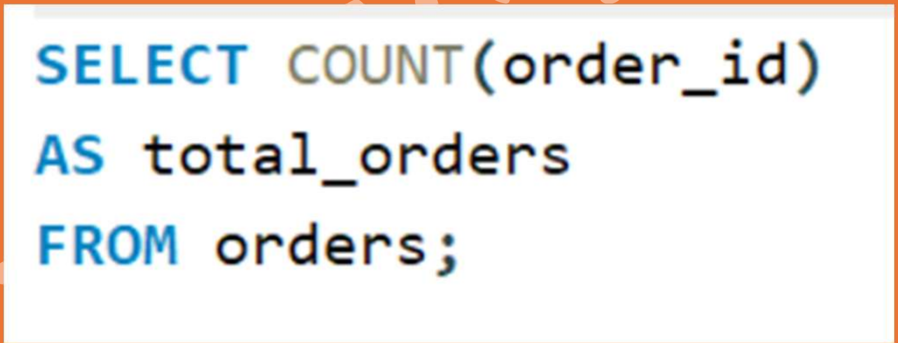
orders

date
order_id
time
Collapse

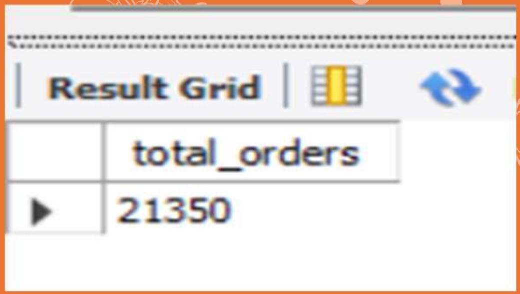
Skills Applied

- Imported data from a CSV file into MySQL Workbench.
- Utilized Joins to combine data from multiple tables.
- Applied Group By to aggregate data for insightful analysis.
- Used Order By to sort data for better clarity.
- Implemented Subqueries to solve complex questions.

Retrieve the total number of orders placed

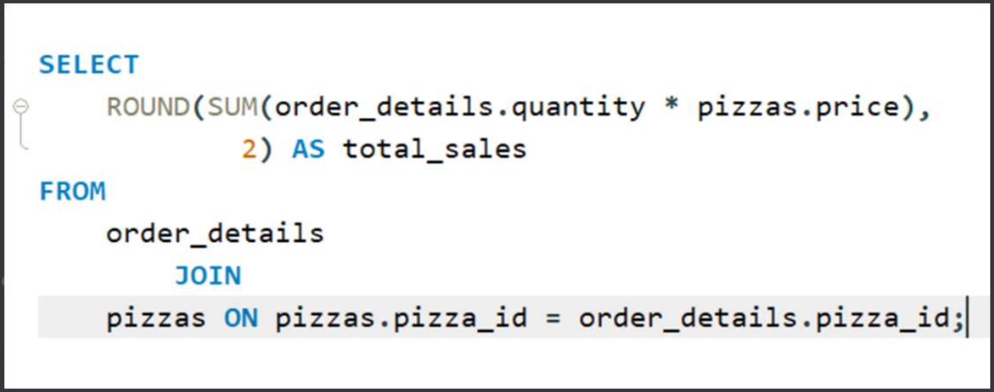


```
SELECT COUNT(order_id)
AS total_orders
FROM orders;
```

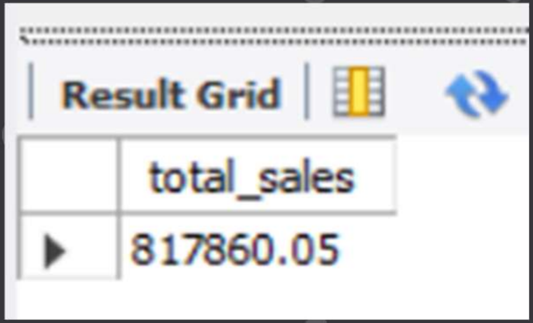


```
total_orders
21350
```

Calculate the total revenue generated from pizza sales



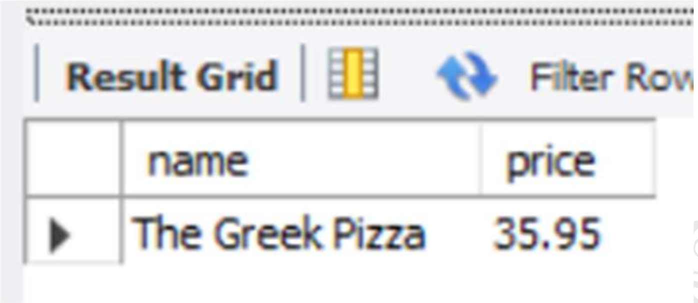
```
SELECT
    ROUND(SUM(order_details.quantity * pizzas.price),
            2) AS total_sales
FROM
    order_details
        JOIN
    pizzas ON pizzas.pizza_id = order_details.pizza_id;
```



	total_sales
▶	817860.05

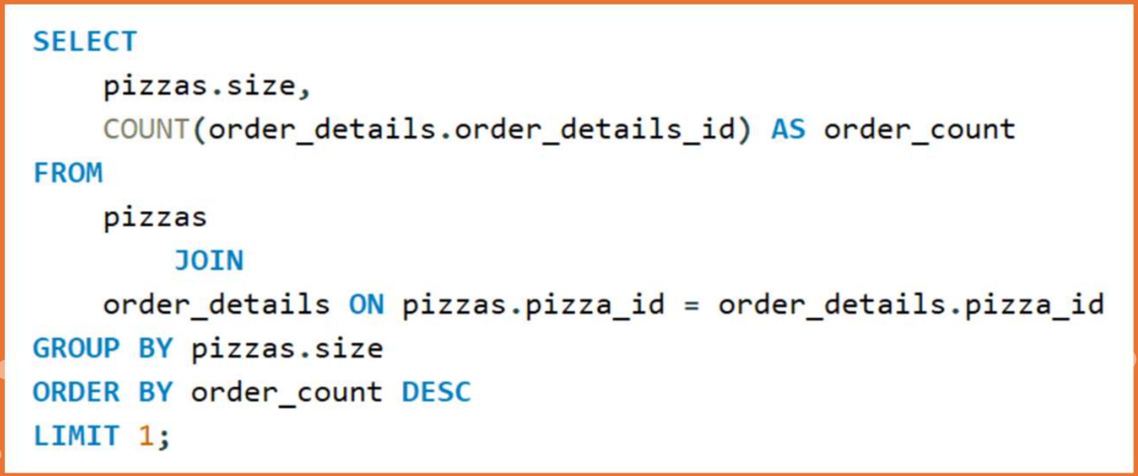
Identify the highest-priced pizza

```
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;
```

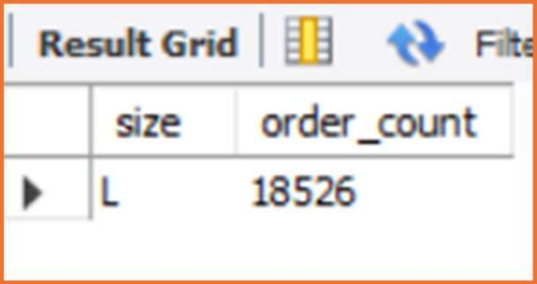


name	price
The Greek Pizza	35.95

Identify the most common pizza size ordered

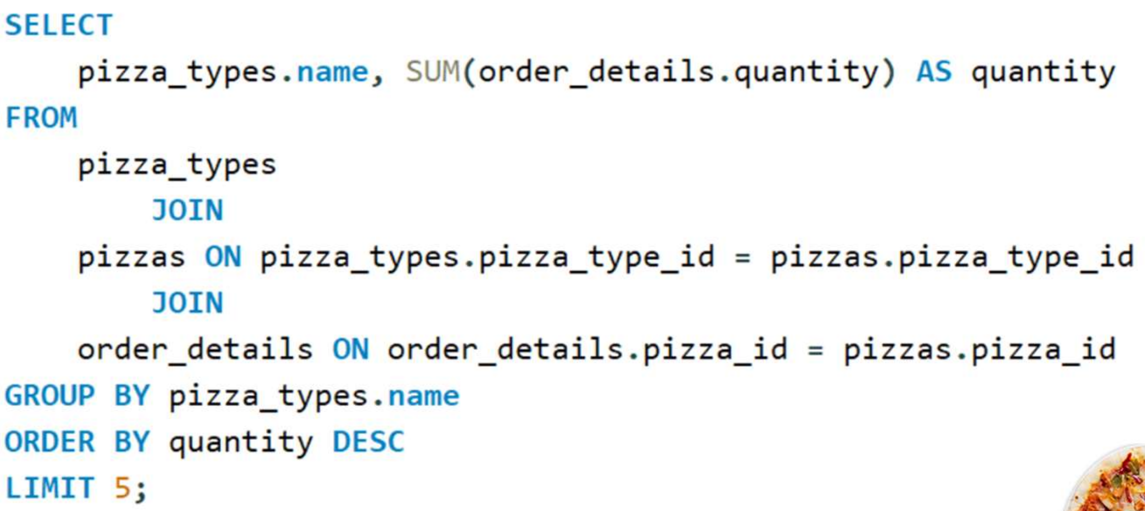


```sql
SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC
LIMIT 1;
```

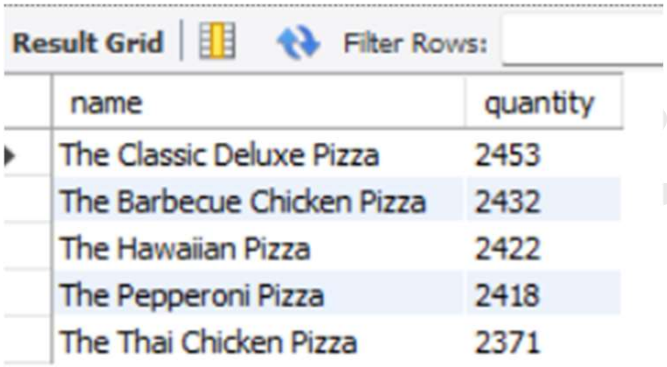


size	order_count
L	18526

List the top 5 most ordered pizza types along with their quantities

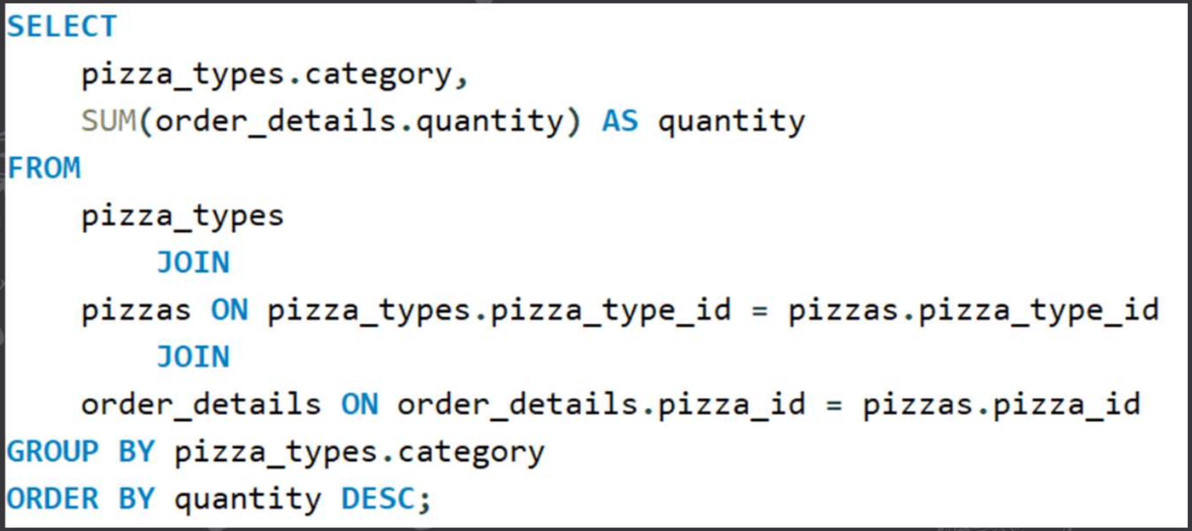


```
SELECT
    pizza_types.name, SUM(order_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;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

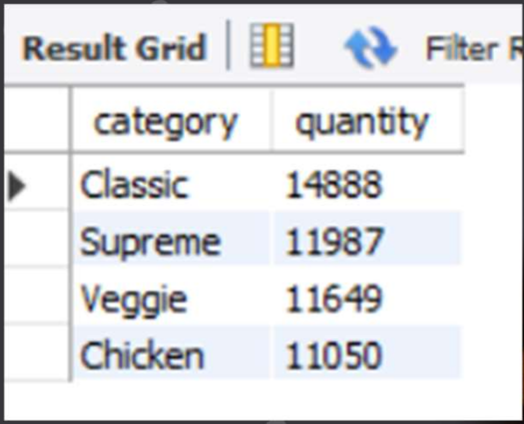


name	quantity
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

Join the necessary tables to find the total quantity of each pizza category ordered

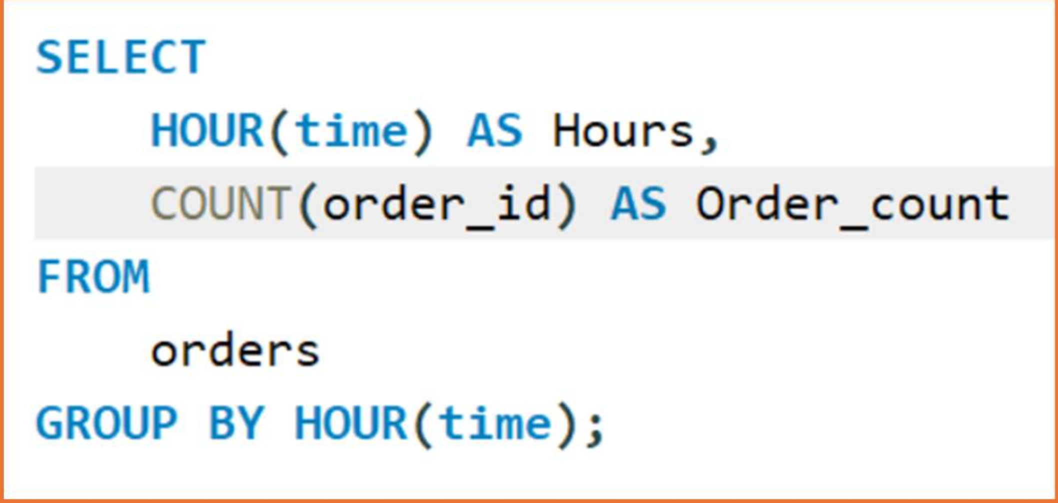


```
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity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

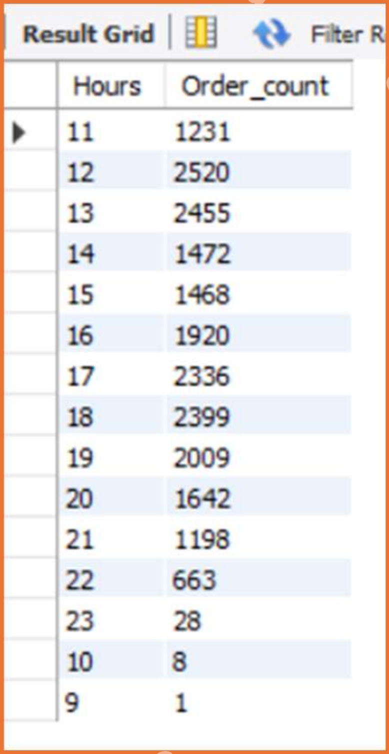


```
category   quantity
Classic    14888
Supreme    11987
Veggie     11649
Chicken    11050
```

Determine the distribution of orders by hour of the day



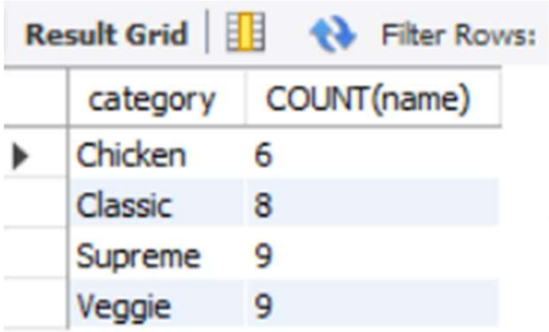
```
SELECT
    HOUR(time) AS Hours,
    COUNT(order_id) AS Order_count
FROM
    orders
GROUP BY HOUR(time);
```



Hours	Order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336
18	2399
19	2009
20	1642
21	1198
22	663
23	28
10	8
9	1

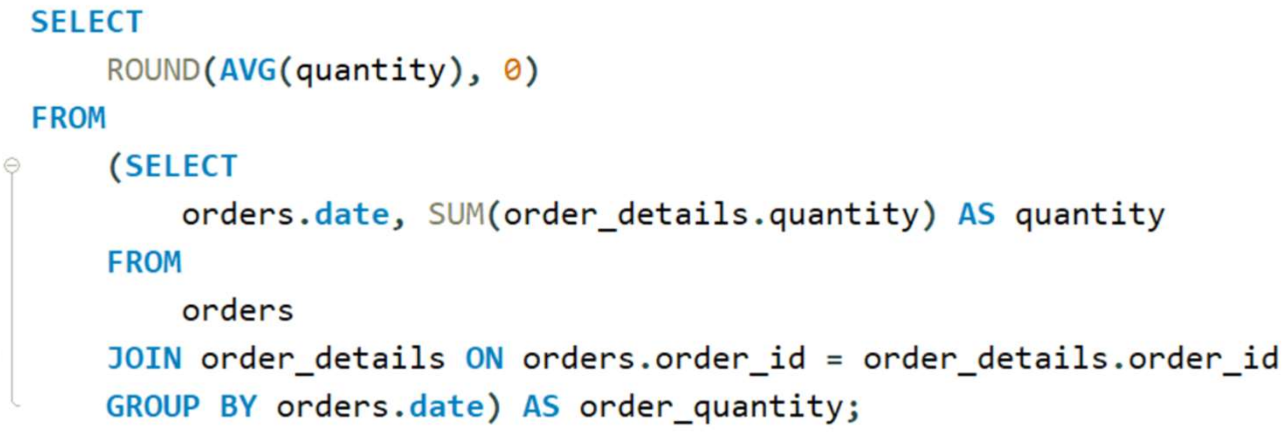
Join relevant tables to find the category-wise distribution of pizzas

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

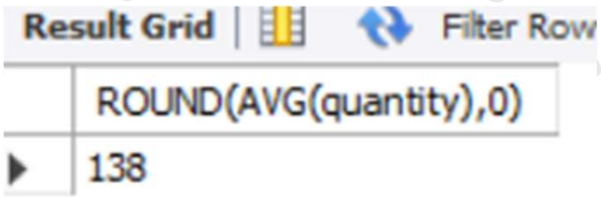


category	COUNT(name)
Chicken	6
Classic	8
Supreme	9
Veggie	9

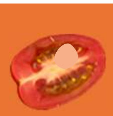
Group the orders by date and calculate the average number of pizzas ordered per day



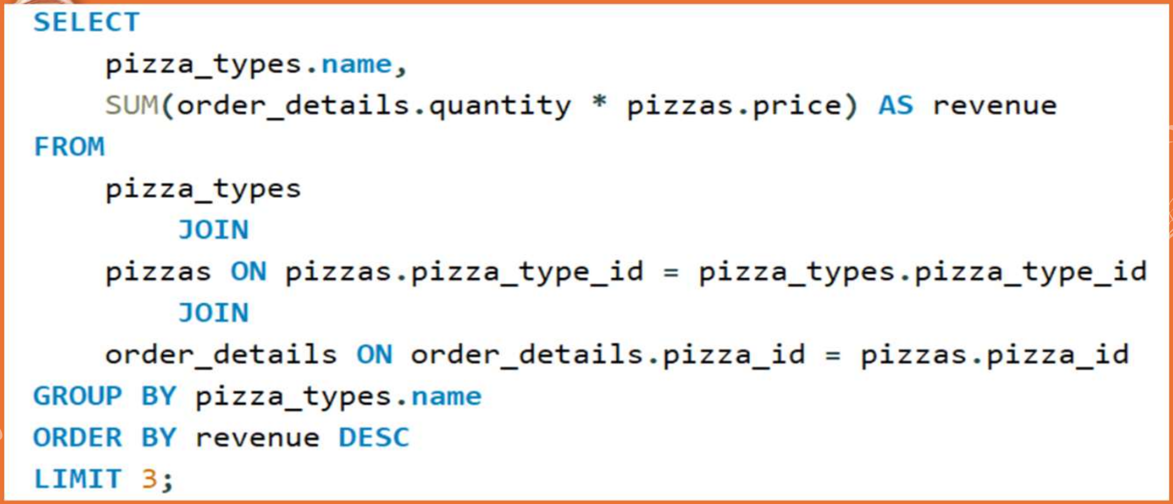
```sql
SELECT
    ROUND(AVG(quantity), 0)
FROM
    (SELECT
        orders.date, SUM(order_details.quantity) AS quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.date) AS order_quantity;
```



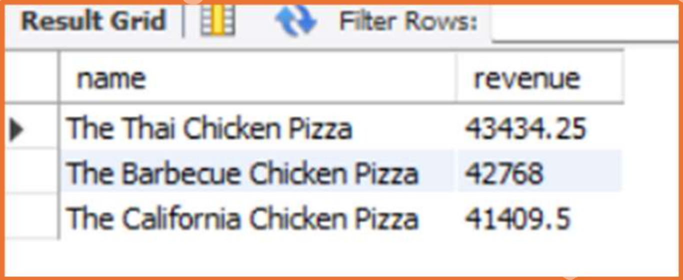
```
  ROUND(AVG(quantity),0)
▶ 138
```



Determine the top 3 most ordered pizza types based on revenue

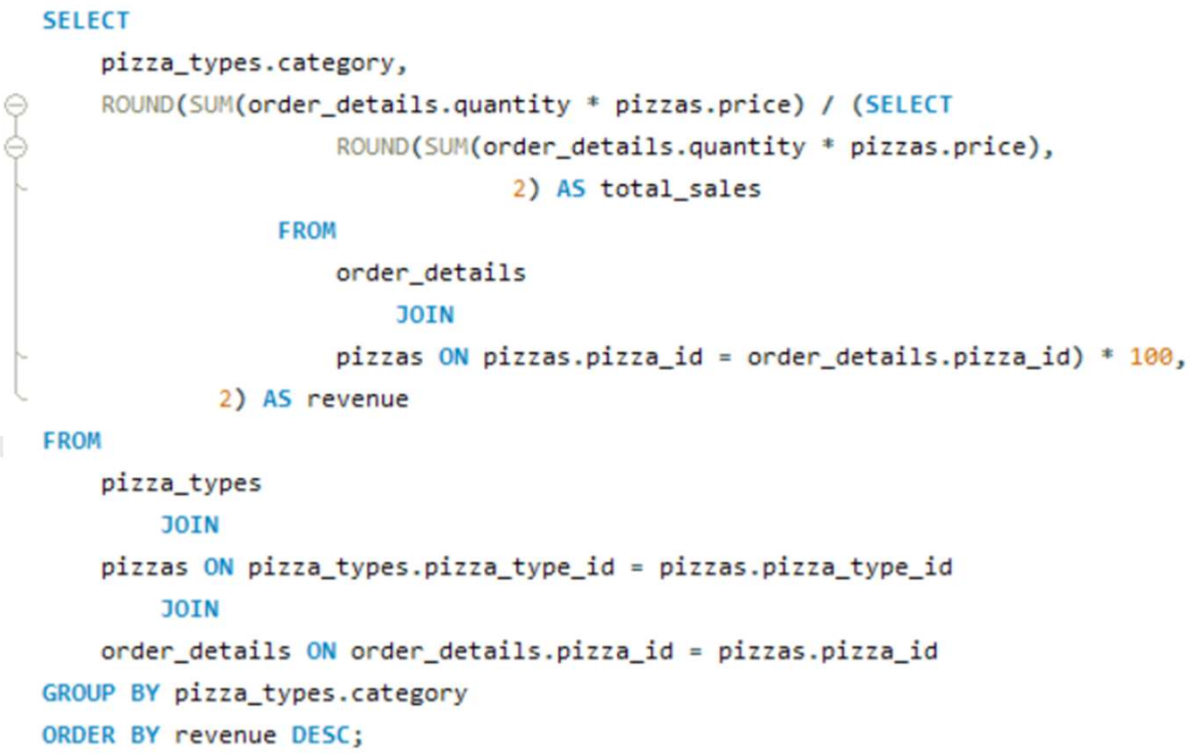


```
SELECT
    pizza_types.name,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY revenue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

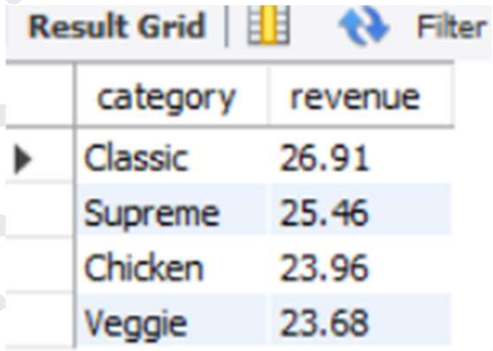


name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

Calculate the percentage contribution of each pizza type to total revenue

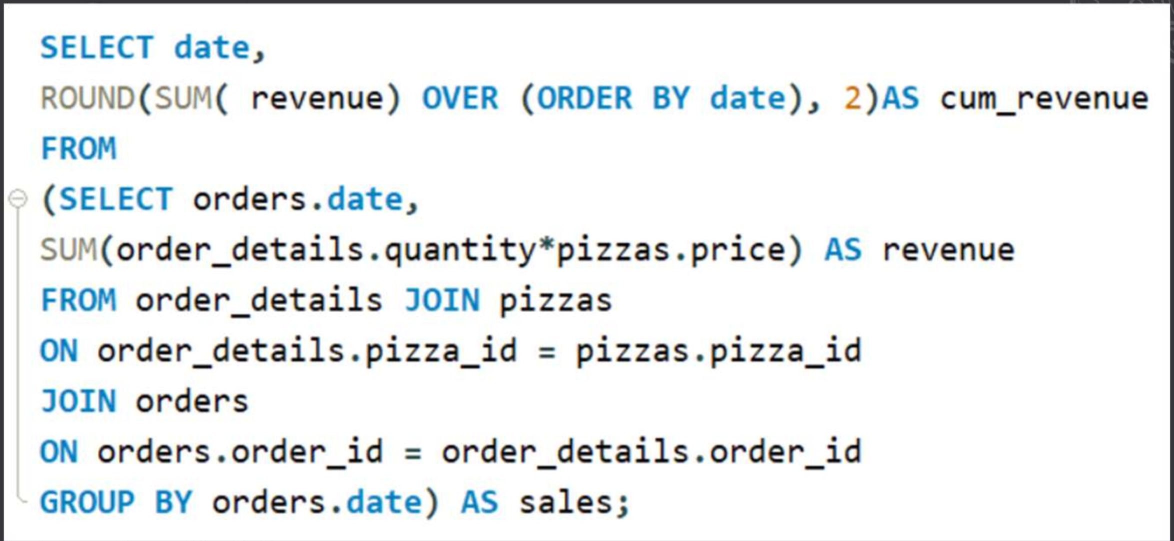


```
SELECT
    pizza_types.category,
    ROUND(SUM(order_details.quantity * pizzas.price) / (SELECT
                ROUND(SUM(order_details.quantity * pizzas.price),
                            2) AS total_sales
            FROM
                order_details
                    JOIN
                pizzas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

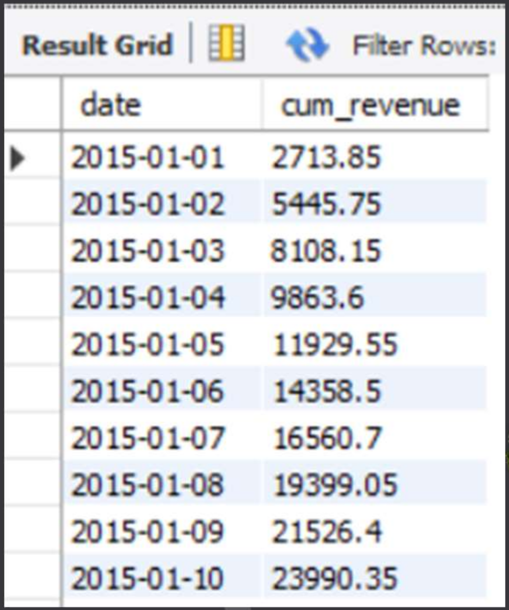


category	revenue
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

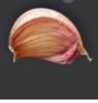
Analyze the cumulative revenue generated over time



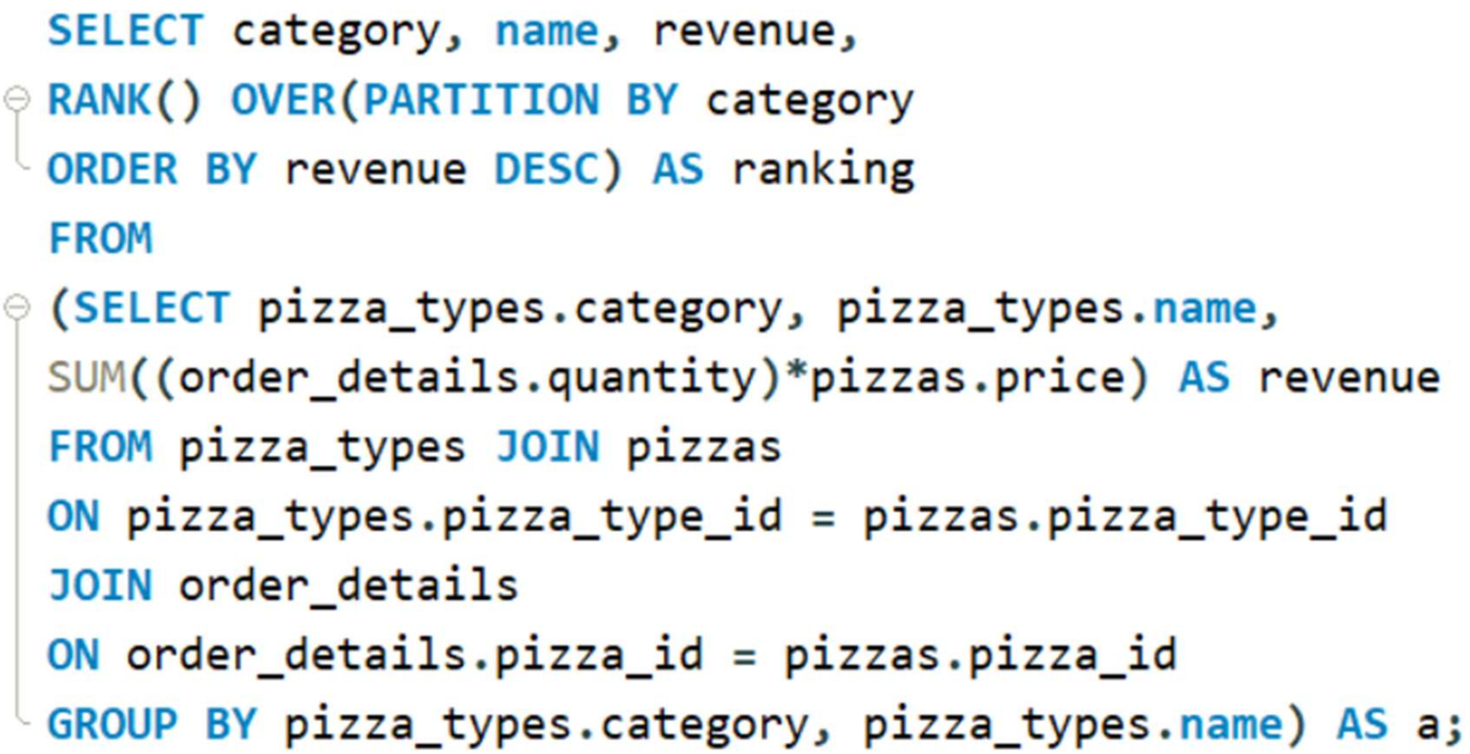
```
SELECT date,
ROUND(SUM( revenue) OVER (ORDER BY date), 2)AS cum_revenue
FROM
(SELECT orders.date,
SUM(order_details.quantity*pizzas.price) AS revenue
FROM order_details JOIN pizzas
ON order_details.pizza_id = pizzas.pizza_id
JOIN orders
ON orders.order_id = order_details.order_id
GROUP BY orders.date) AS sales;
```



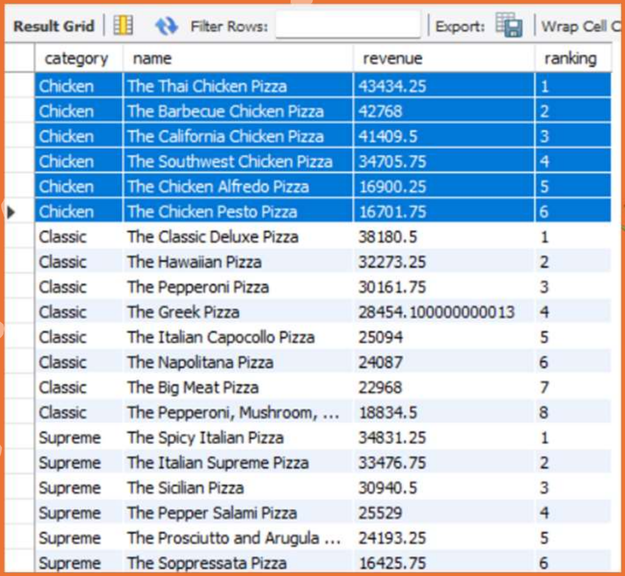
date	cum_revenue
2015-01-01	2713.85
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55
2015-01-06	14358.5
2015-01-07	16560.7
2015-01-08	19399.05
2015-01-09	21526.4
2015-01-10	23990.35



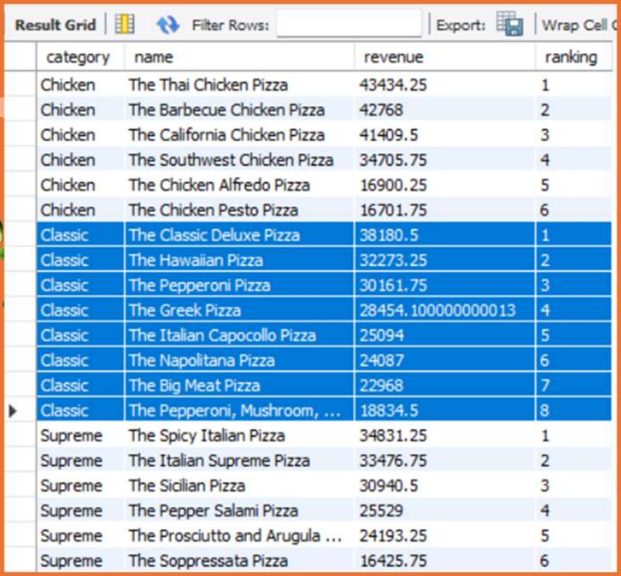
Determine the top 3 most ordered pizza types based on revenue for each pizza category



```
SELECT category, name, revenue,
RANK() OVER(PARTITION BY category
ORDER BY revenue DESC) AS ranking
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;
```



category	name	revenue	ranking
Chicken	The Thai Chicken Pizza	43434.25	1
Chicken	The Barbecue Chicken Pizza	42768	2
Chicken	The California Chicken Pizza	41409.5	3
Chicken	The Southwest Chicken Pizza	34705.75	4
Chicken	The Chicken Alfredo Pizza	16900.25	5
Chicken	The Chicken Pesto Pizza	16701.75	6
Classic	The Classic Deluxe Pizza	38180.5	1
Classic	The Hawaiian Pizza	32273.25	2
Classic	The Pepperoni Pizza	30161.75	3
Classic	The Greek Pizza	28454.100000000013	4
Classic	The Italian Capocollo Pizza	25094	5
Classic	The Napolitana Pizza	24087	6
Classic	The Big Meat Pizza	22968	7
Classic	The Pepperoni, Mushroom, ...	18834.5	8
Supreme	The Spicy Italian Pizza	34831.25	1
Supreme	The Italian Supreme Pizza	33476.75	2
Supreme	The Sicilian Pizza	30940.5	3
Supreme	The Pepper Salami Pizza	25529	4
Supreme	The Prosciutto and Arugula ...	24193.25	5
Supreme	The Soppressata Pizza	16425.75	6



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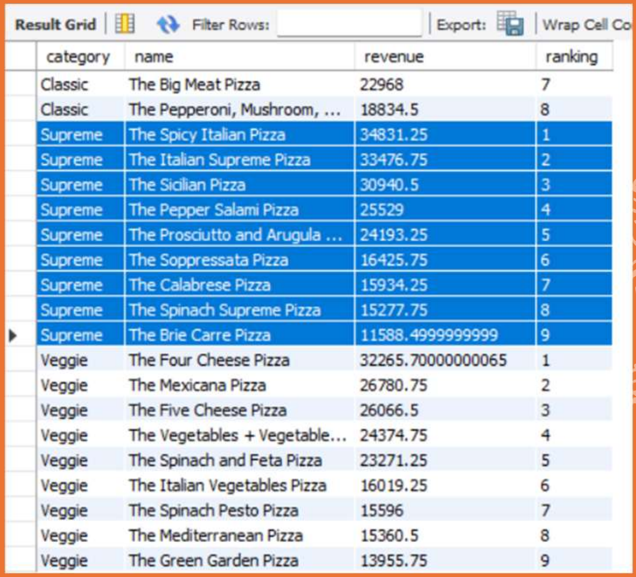

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Supreme	The Spicy Italian Pizza	34831.25	1
Supreme	The Italian Supreme Pizza	33476.75	2
Supreme	The Sicilian Pizza	30940.5	3
Supreme	The Pepper Salami Pizza	25529	4
Supreme	The Prosciutto and Arugula ...	24193.25	5
Supreme	The Soppressata Pizza	16425.75	6
Supreme	The Calabrese Pizza	15934.25	7
Supreme	The Spinach Supreme Pizza	15277.75	8
Supreme	The Brie Carre Pizza	11588.4999999999	9
Veggie	The Four Cheese Pizza	32265.70000000065	1
Veggie	The Mexicana Pizza	26780.75	2
Veggie	The Five Cheese Pizza	26066.5	3
Veggie	The Vegetables + Vegetable...	24374.75	4
Veggie	The Spinach and Feta Pizza	23271.25	5
Veggie	The Italian Vegetables Pizza	16019.25	6
Veggie	The Spinach Pesto Pizza	15596	7
Veggie	The Mediterranean Pizza	15360.5	8
Veggie	The Green Garden Pizza	13955.75	9

Thanks!

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