Pizza Sales

SQL PROJECT

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OBJECTIVE

I’ve explored Pizza Sales Dataset using SQL queries to unravel customer preferences, sales trends, and peak sales hours .

Dataset comprises 4 tables - Pizzas, pizza_types, Orders ,Order_details

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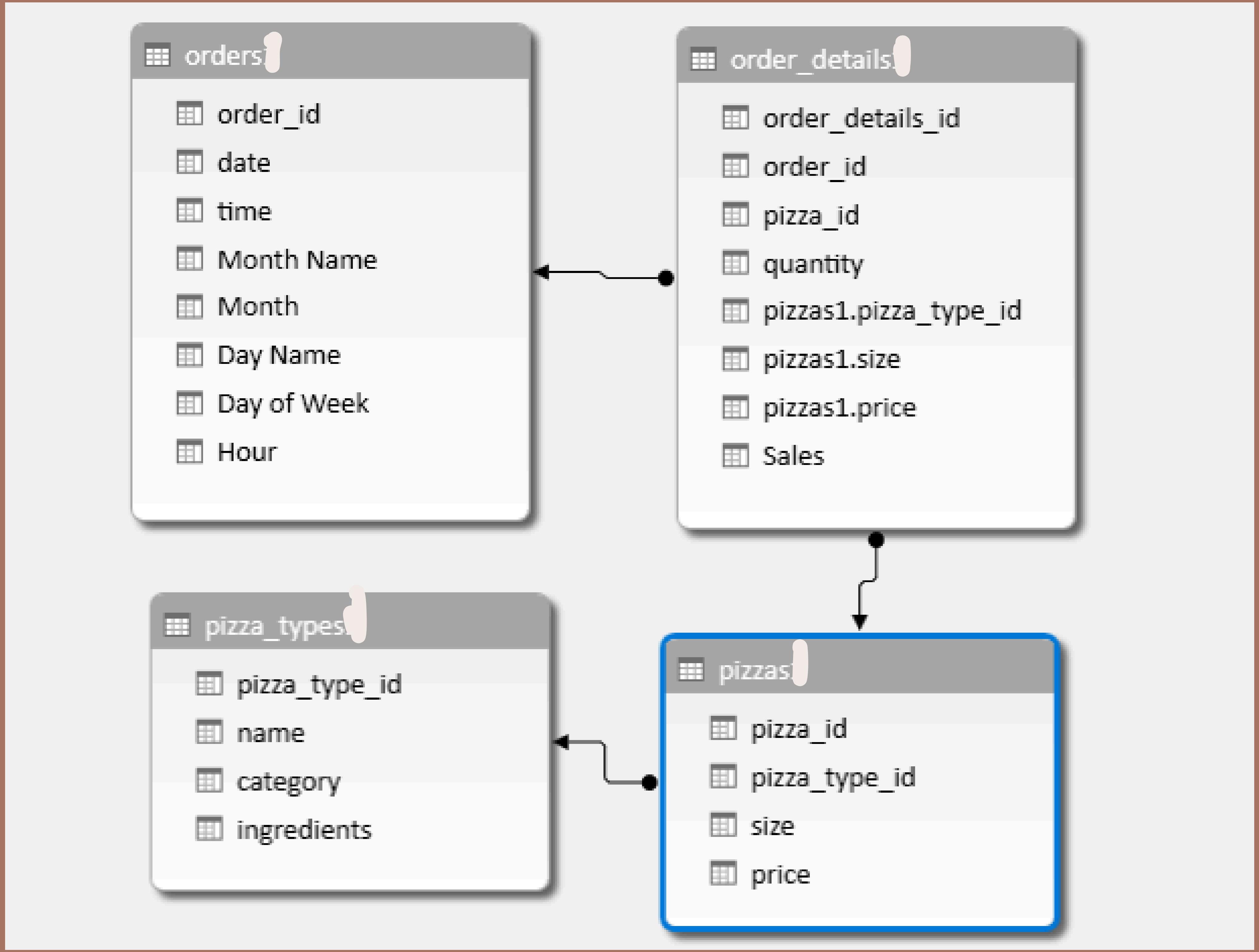
Pizza Sales Schema



orders

- order_id
- date
- time
- Month Name
- Month
- Day Name
- Day of Week
- Hour

order_details

- order_details_id
- order_id
- pizza_id
- quantity
- pizzas1.pizza_type_id
- pizzas1.size
- pizzas1.price
- Sales

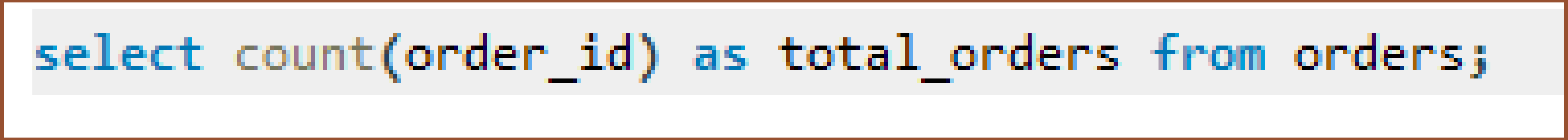
pizza_types

- pizza_type_id
- name
- category
- ingredients

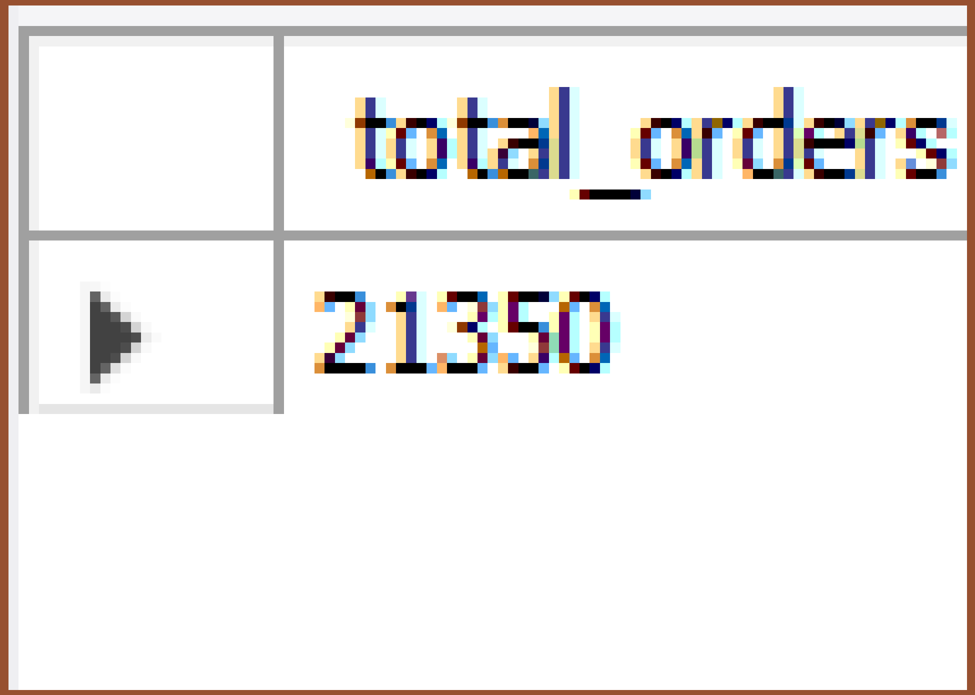
pizzas

- pizza_id
- pizza_type_id
- size
- price

Retrieve the total number of orders placed.

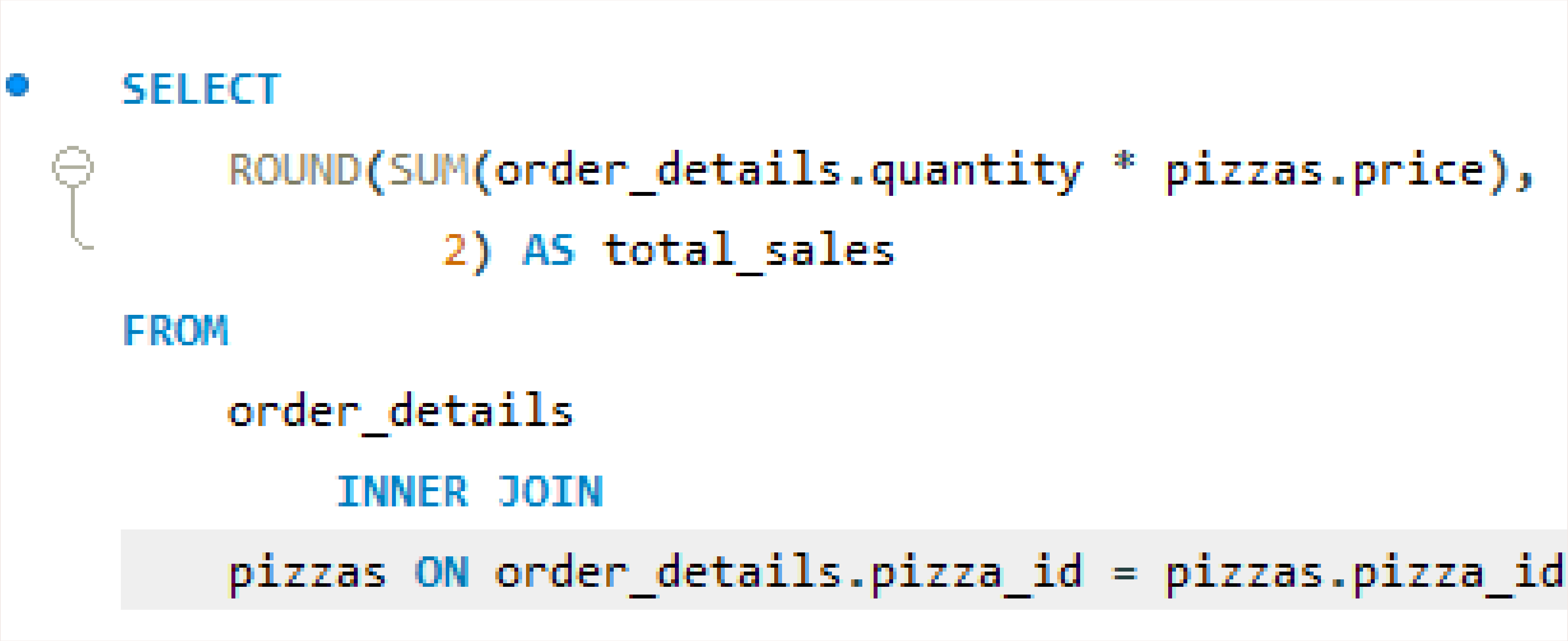


```sql
select count(order_id) as total_orders from orders;
```

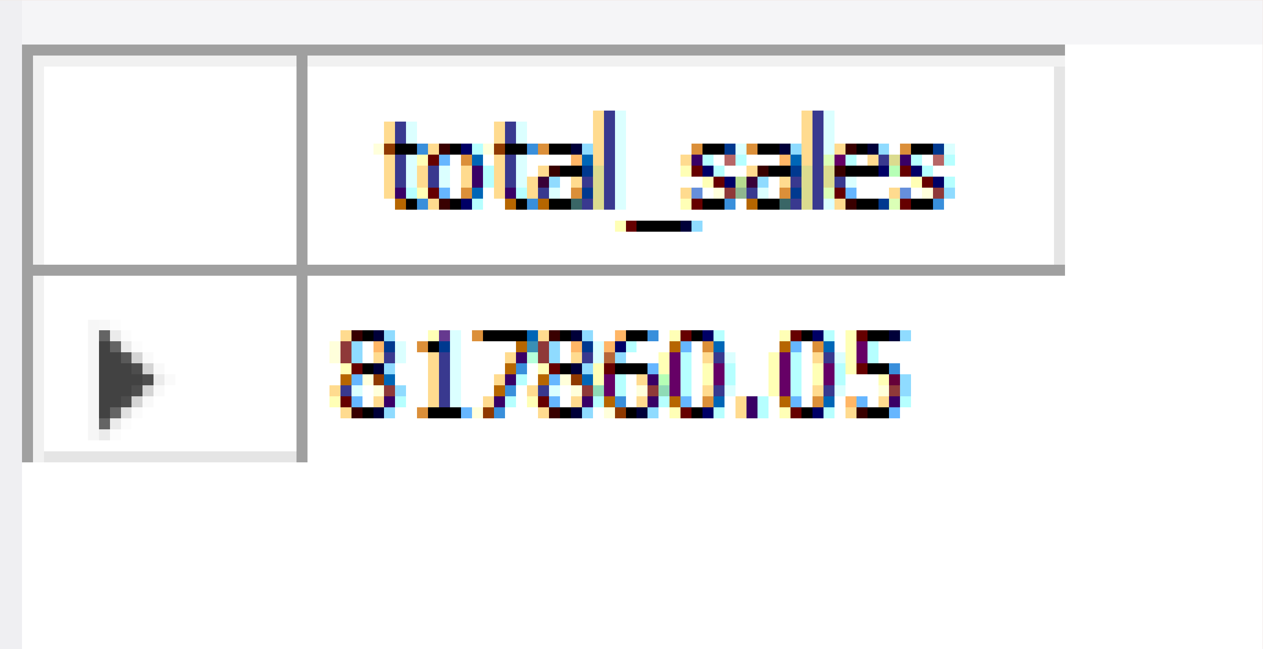


total_orders
21350

Calculate the total revenue generated from pizza sales.

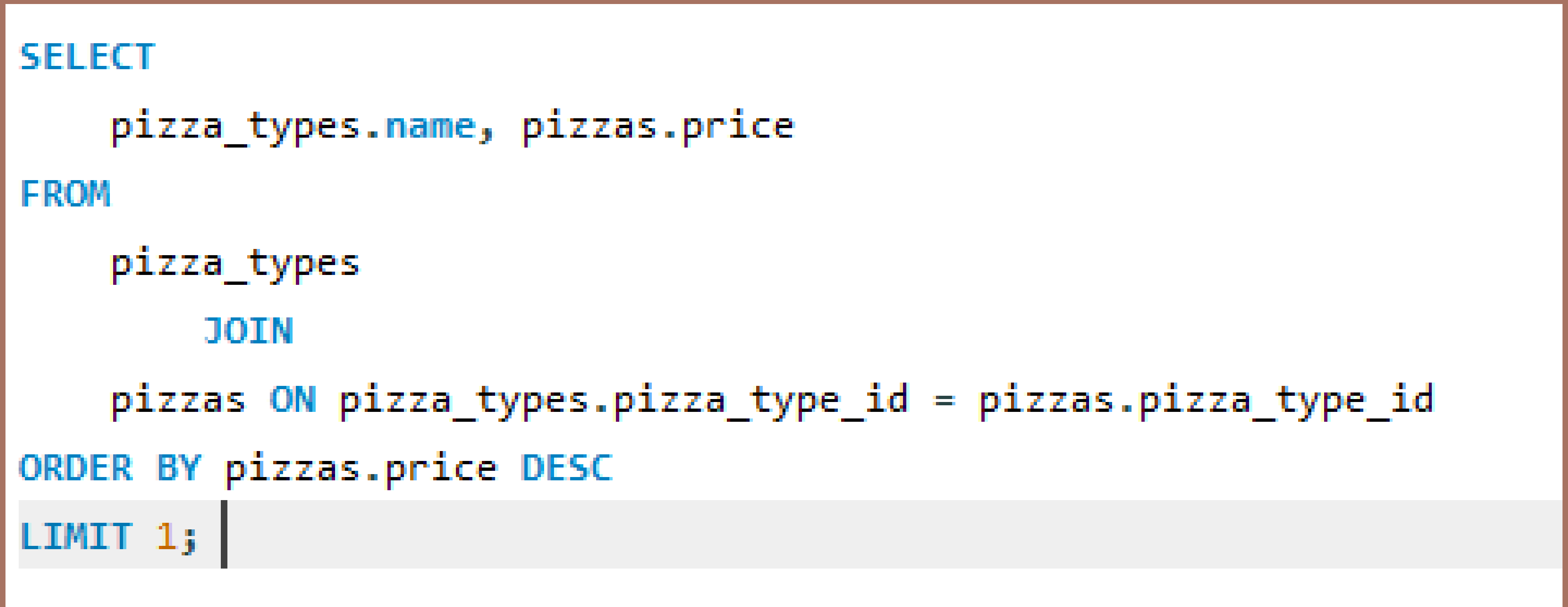


```
SELECT
    ROUND(SUM(order_details.quantity * pizzas.price),
            2) AS total_sales
FROM
    order_details
        INNER JOIN
    pizzas ON order_details.pizza_id = pizzas.pizza_id
```

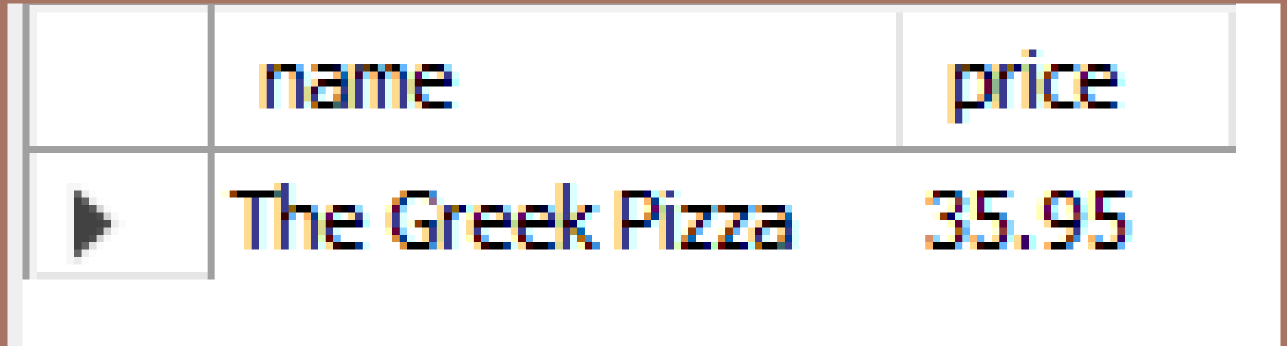


```
total_sales
817860.05
```

Identify the highest-priced pizza.

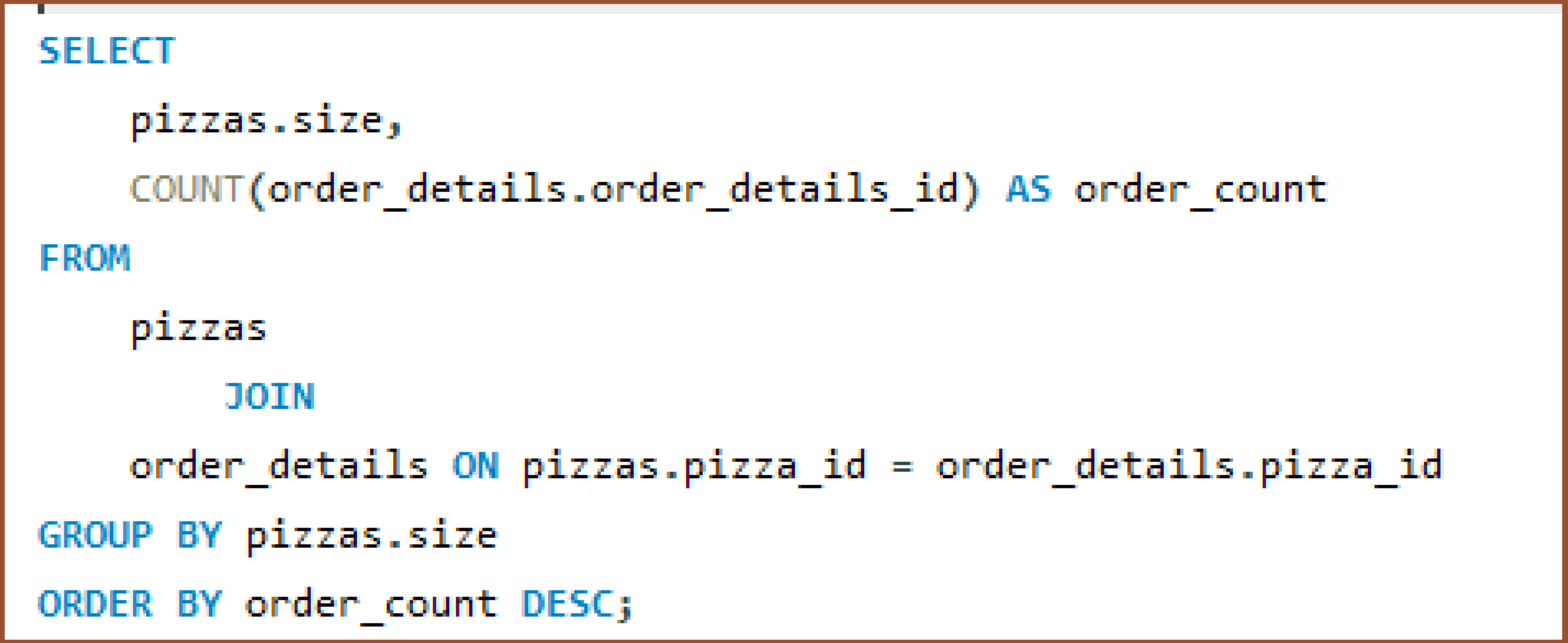


```
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1;
```

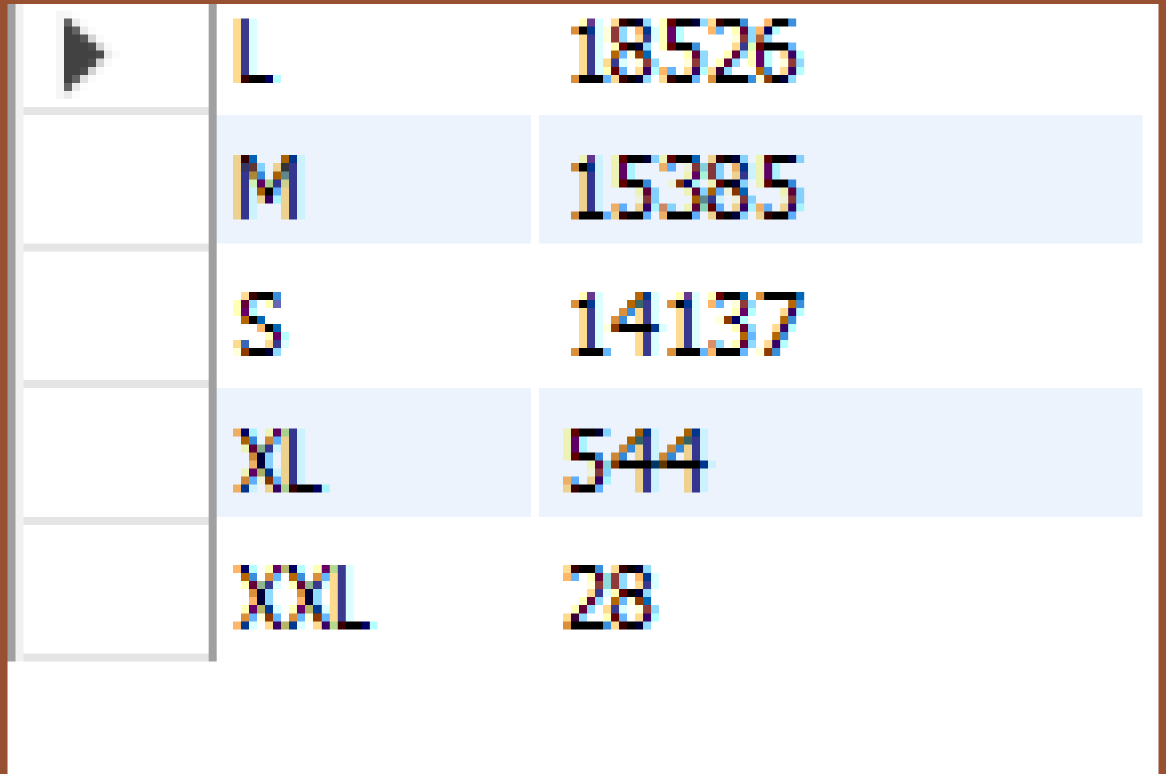


name	price
The Greek Pizza	35.95

Identify the most common pizza size ordered.

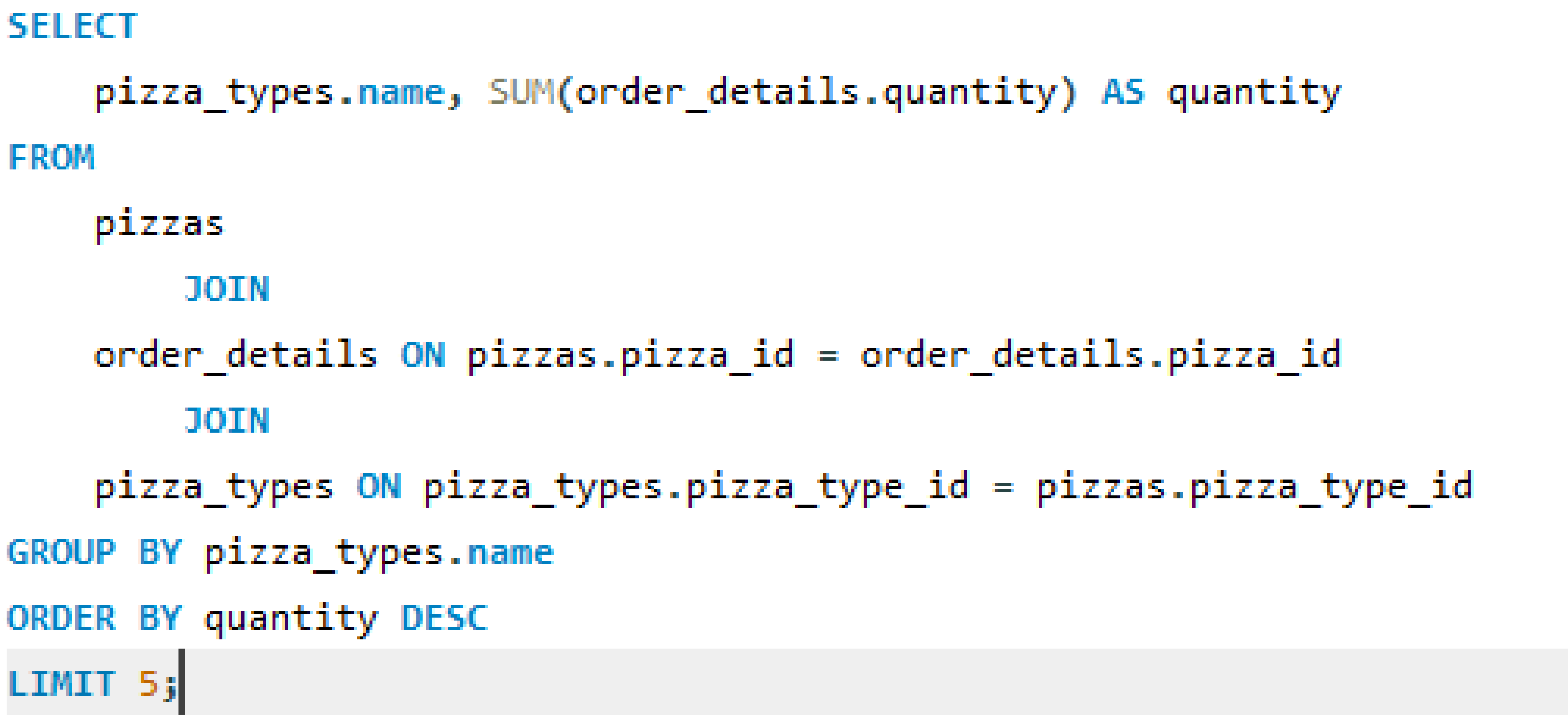


```
SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC;
```

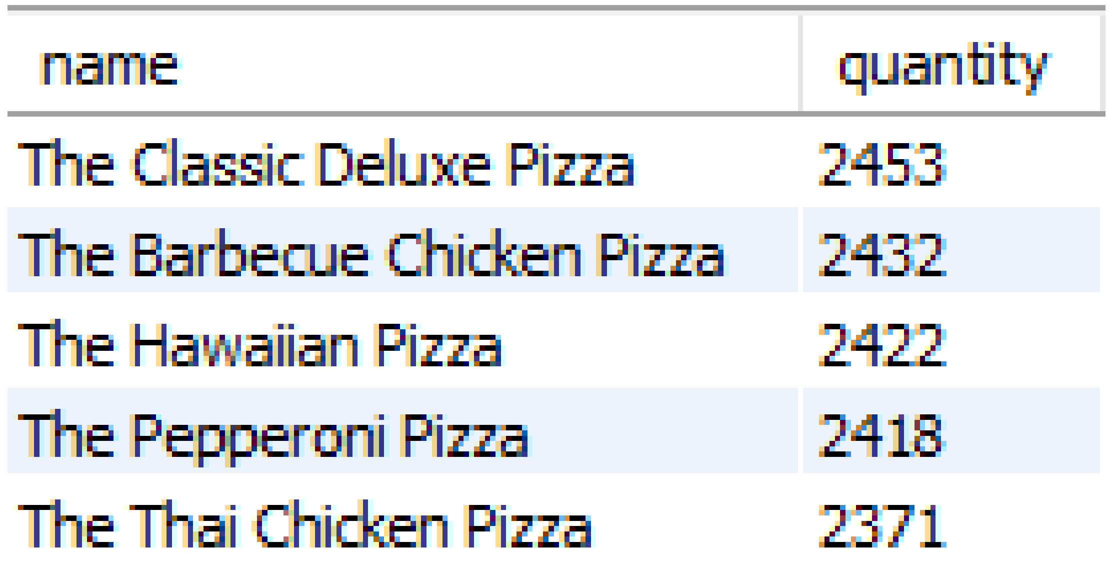


L	18526
M	15385
S	14137
XL	544
XXL	28

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

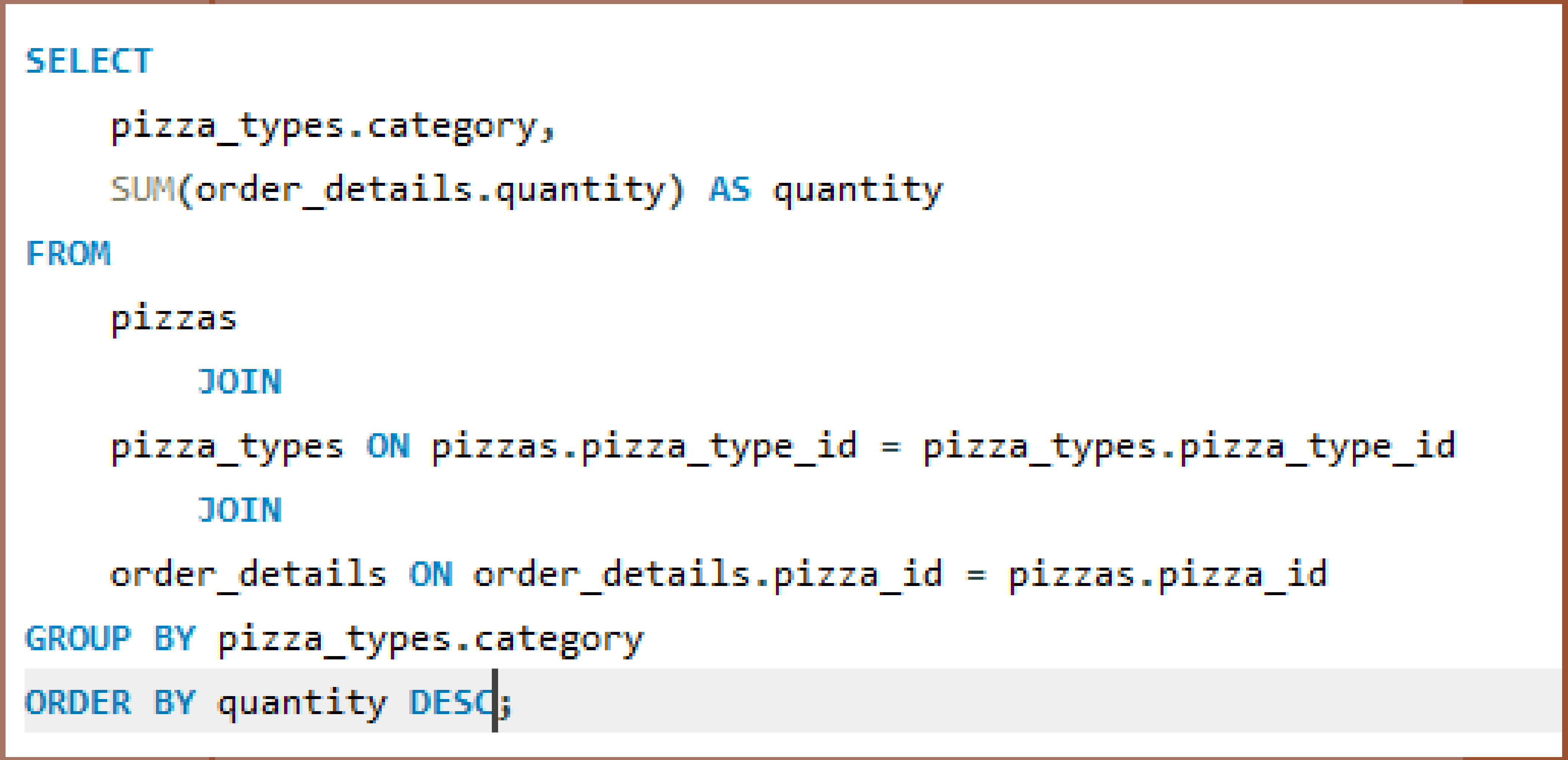


```
SELECT
    pizza_types.name, SUM(order_details.quantity) AS quantity
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
        JOIN
    pizza_types ON pizza_types.pizza_type_id = pizzas.pizza_type_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;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

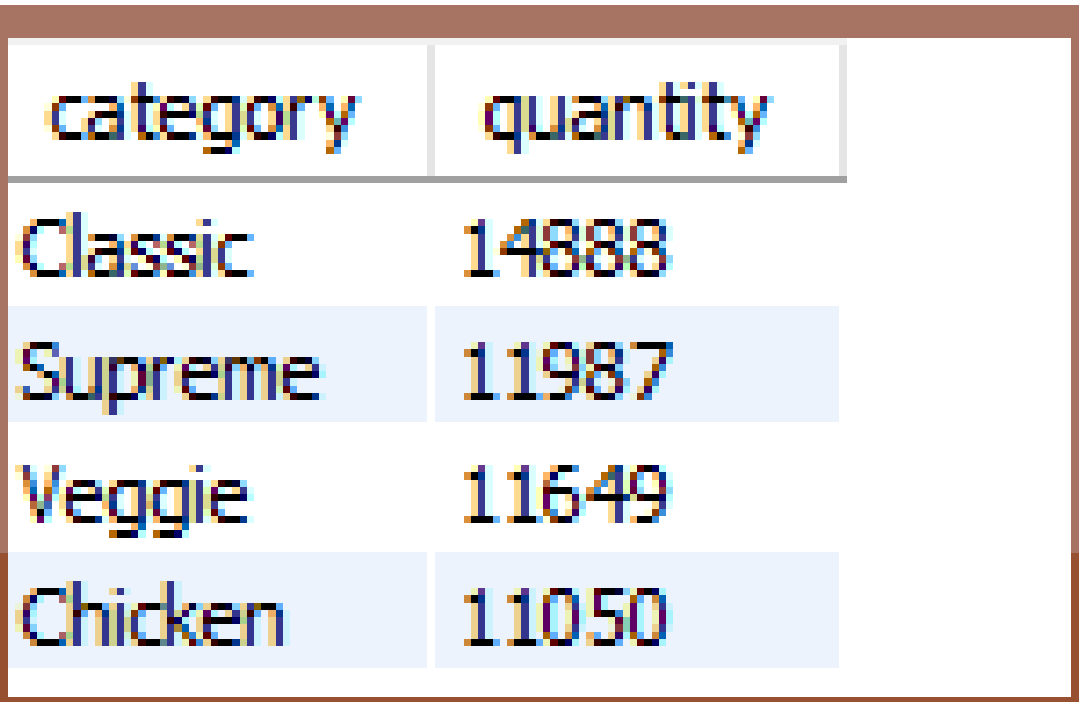


name	quantity
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

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

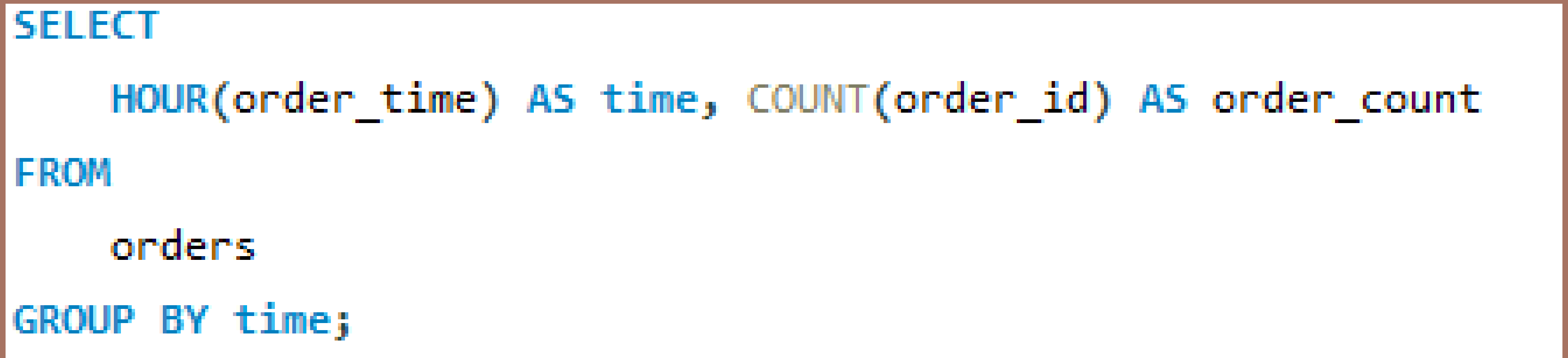


```
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS quantity
FROM
    pizzas
        JOIN
    pizza_types ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity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

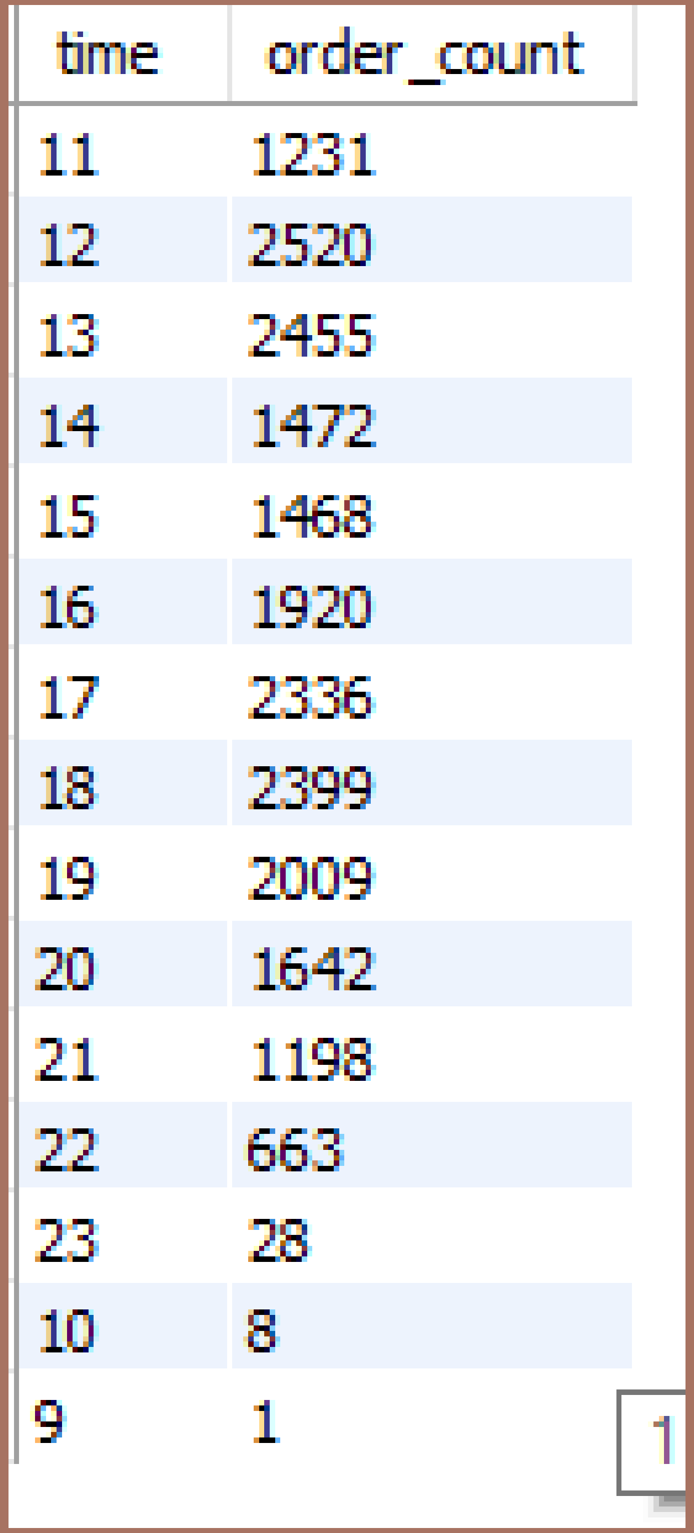


category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

Determine the distribution of orders by hour of the day.

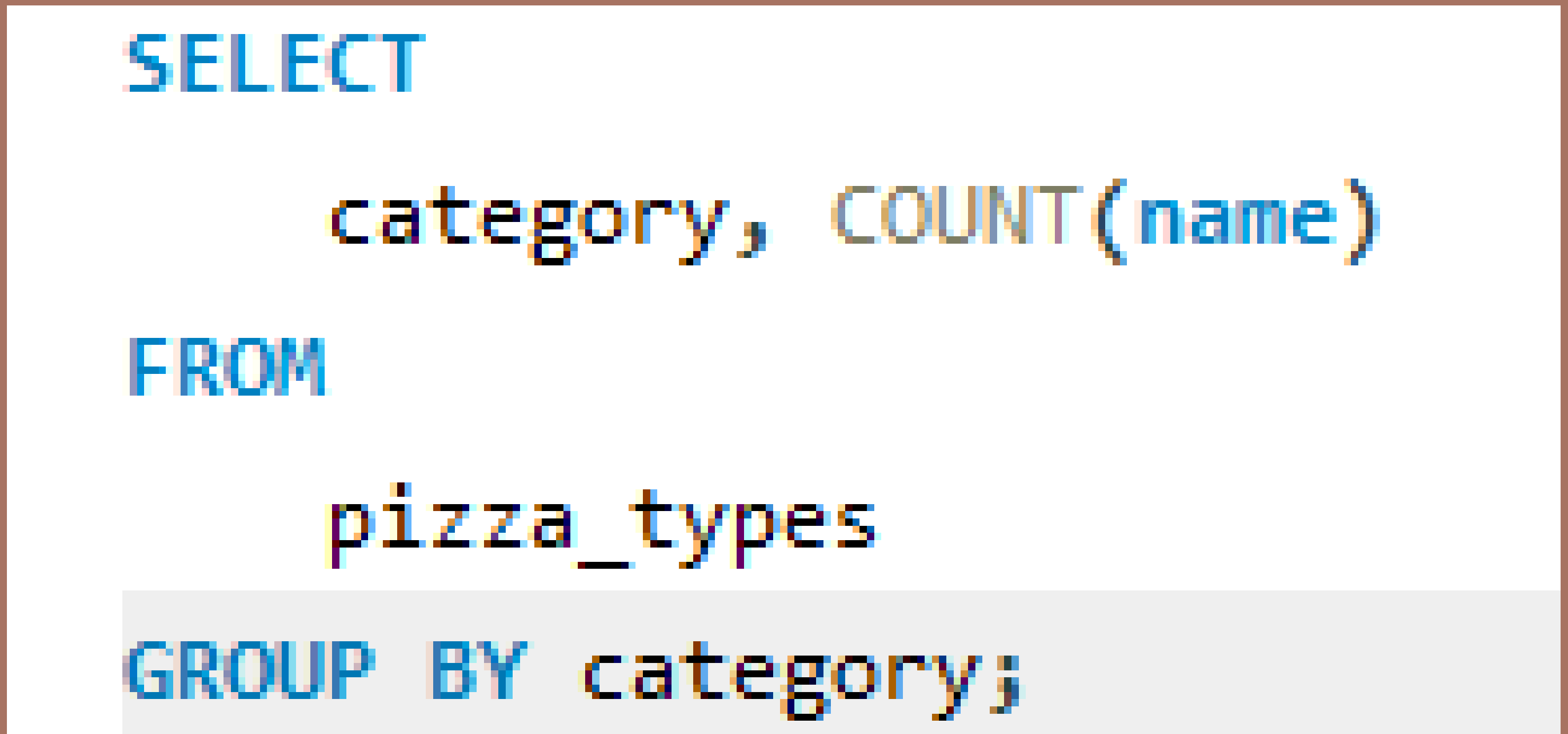


```
SELECT
    HOUR(order_time) AS time, COUNT(order_id) AS order_count
FROM
    orders
GROUP BY time;
```

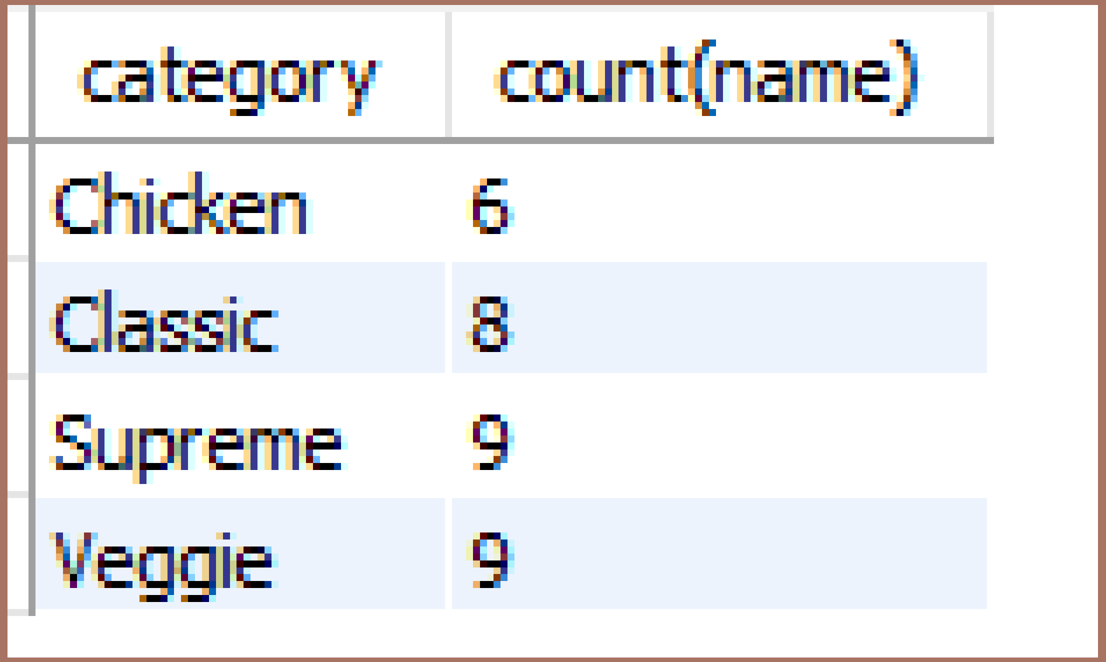


time	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336
18	2399
19	2009
20	1642
21	1198
22	663
23	28
10	8
9	1

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

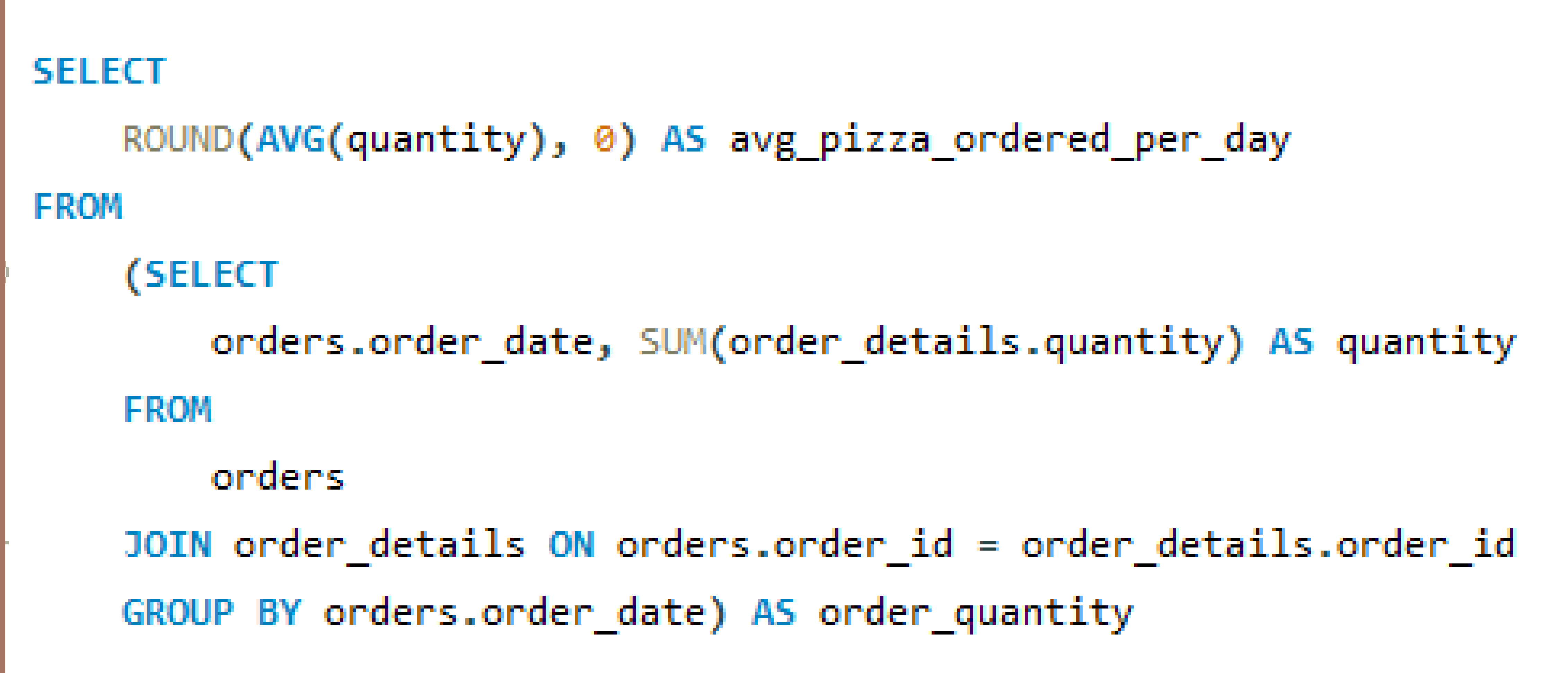


```
SELECT
    category, COUNT(name)
FROM
    pizza_types
GROUP BY category;
```

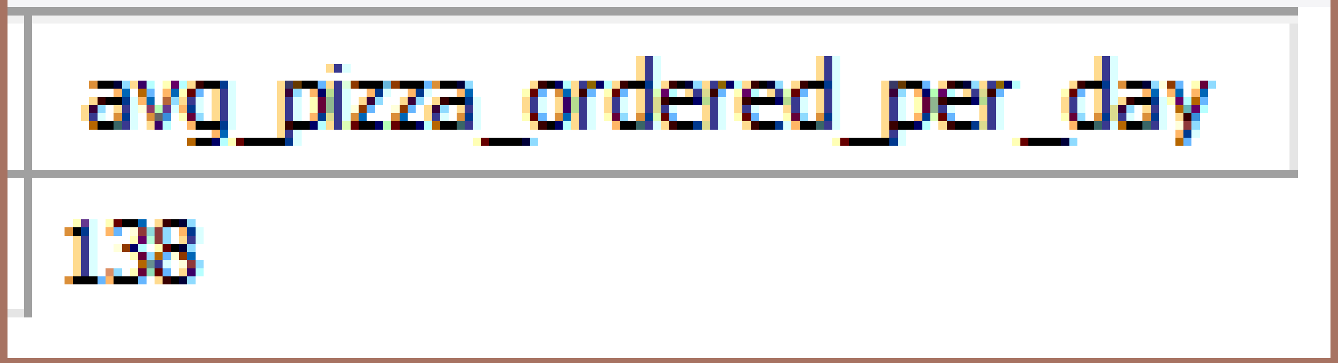


category	count(name)
Chicken	6
Classic	8
Supreme	9
Veggie	9

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

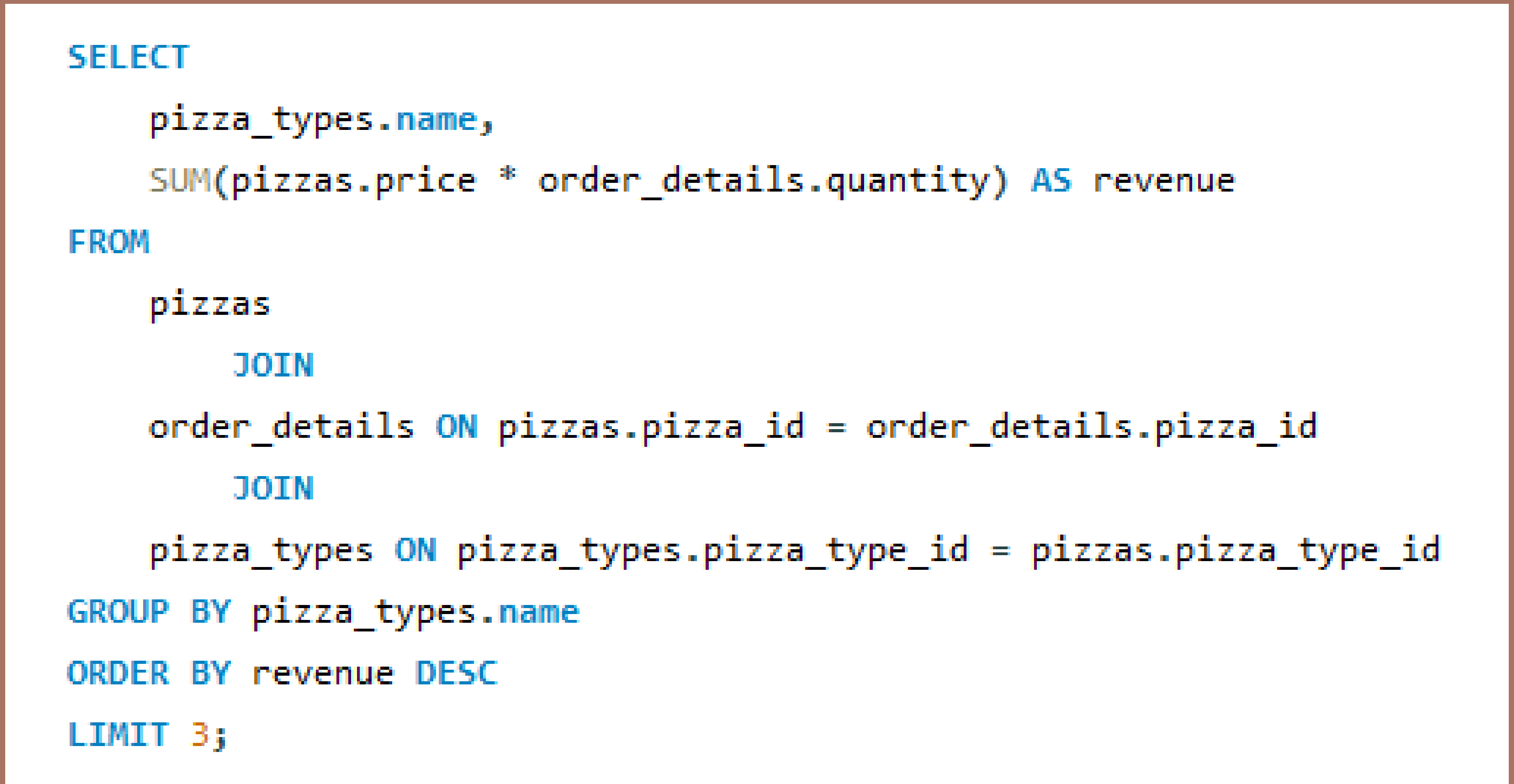


```
SELECT
    ROUND(AVG(quantity), 0) AS avg_pizza_ordered_per_day
FROM
    (SELECT
        orders.order_date, SUM(order_details.quantity) AS quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date) AS order_quantity
```

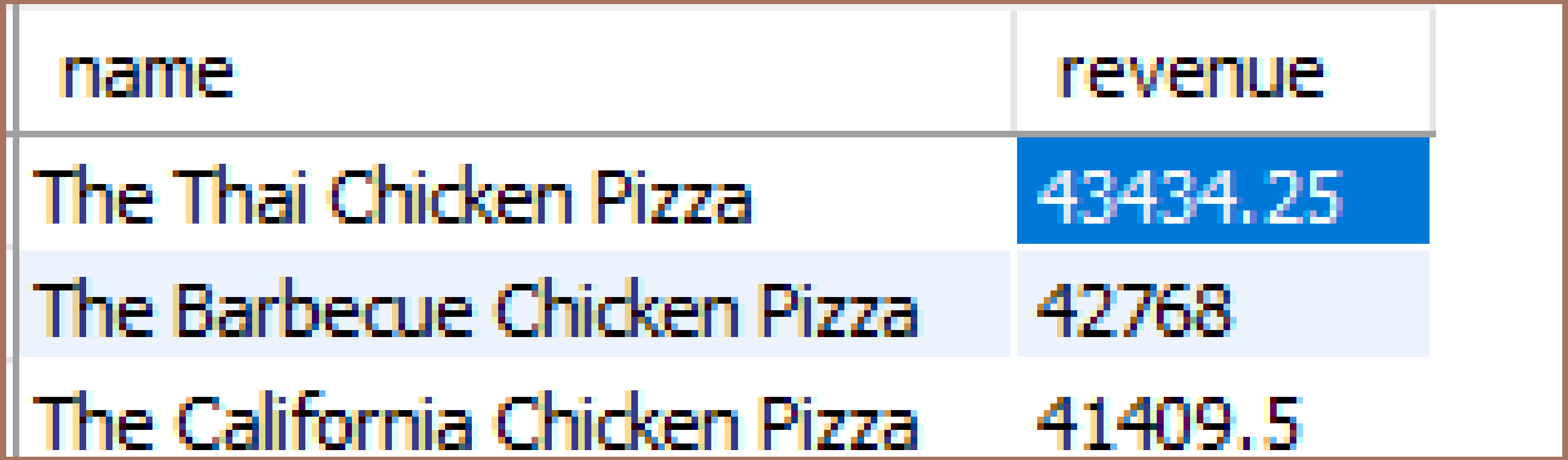


avg_pizza_ordered_per_day
138

Determine the top 3 most ordered pizza types based on revenue.

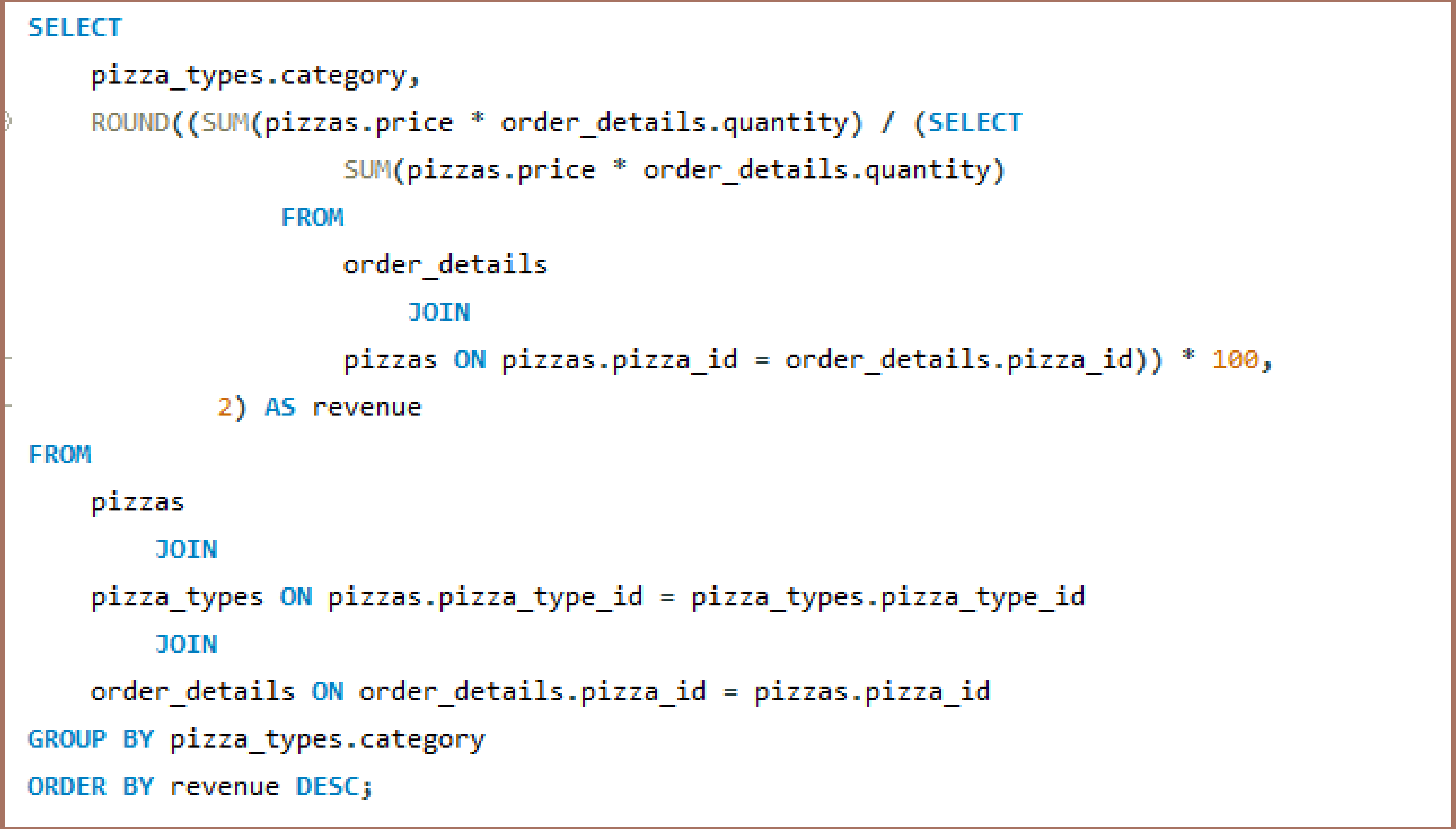


```
SELECT
    pizza_types.name,
    SUM(pizzas.price * order_details.quantity) AS revenue
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
        JOIN
    pizza_types ON pizza_types.pizza_type_id = pizzas.pizza_type_id
GROUP BY pizza_types.name
ORDER BY revenue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

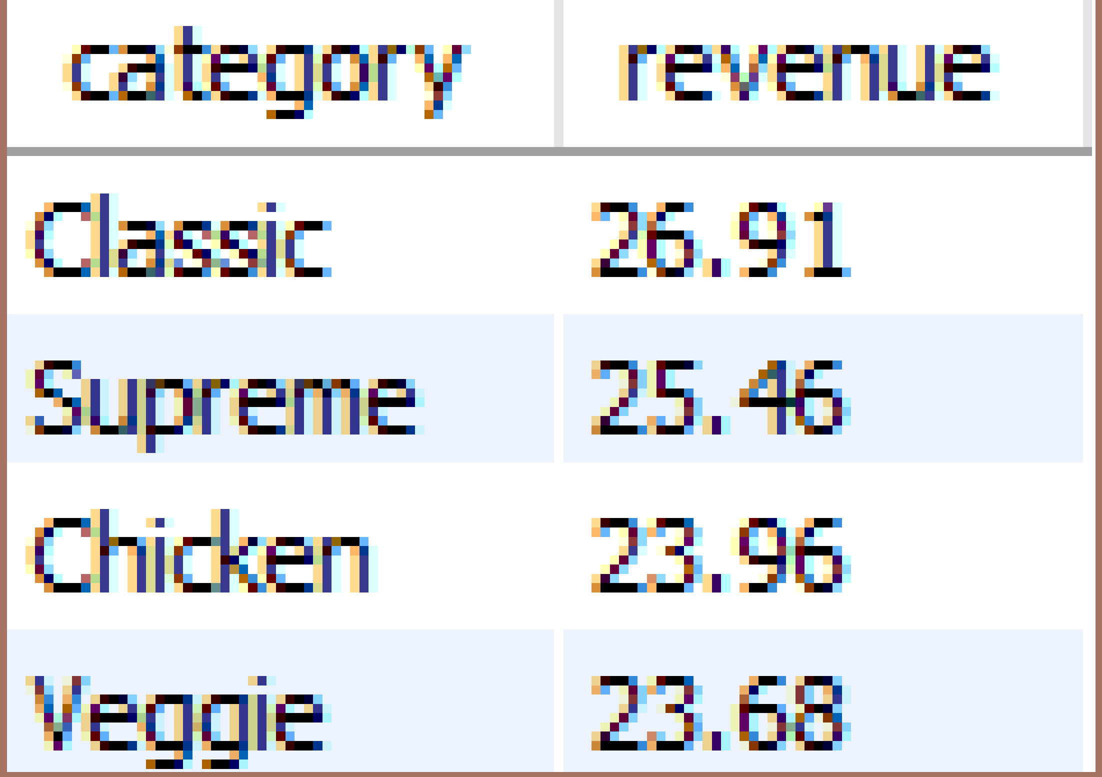


name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

Calculate the percentage contribution of each pizza type to total revenue.

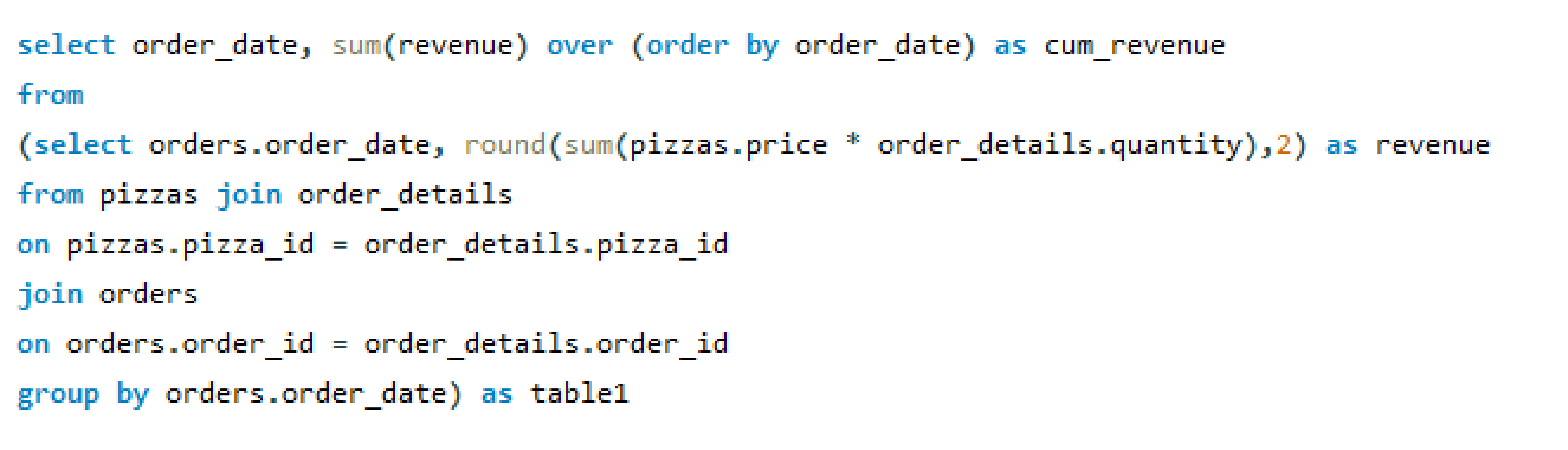


```
SELECT
    pizza_types.category,
    ROUND((SUM(pizzas.price * order_details.quantity) / (SELECT
                SUM(pizzas.price * order_details.quantity)
            FROM
                order_details
                    JOIN
                pizzas ON pizzas.pizza_id = order_details.pizza_id))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

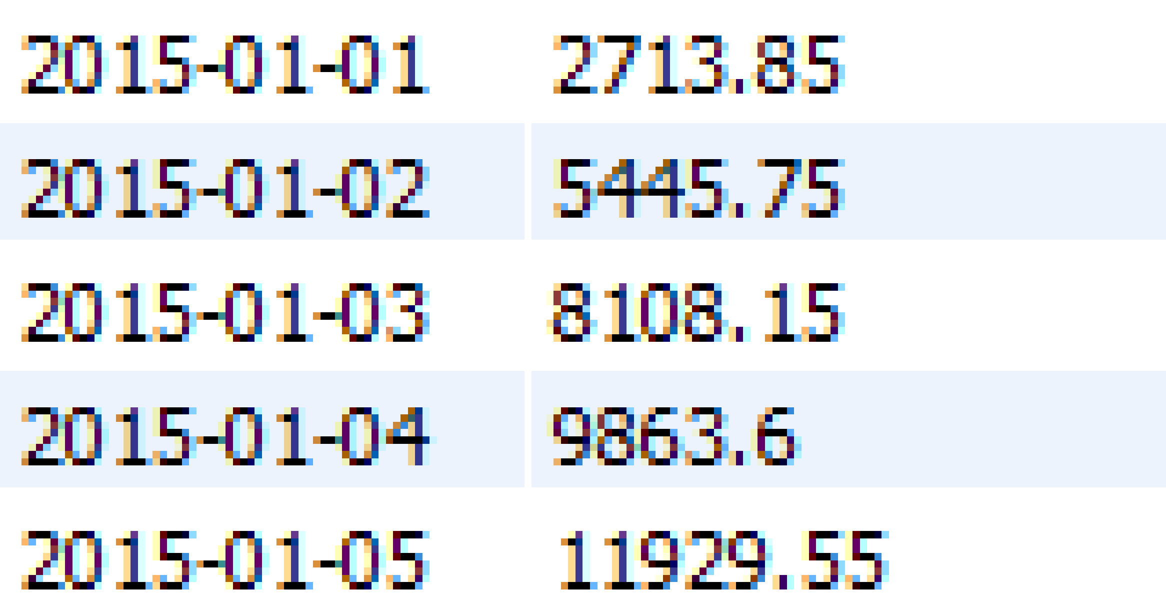


category	revenue
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

Analyze the cumulative revenue generated over time.

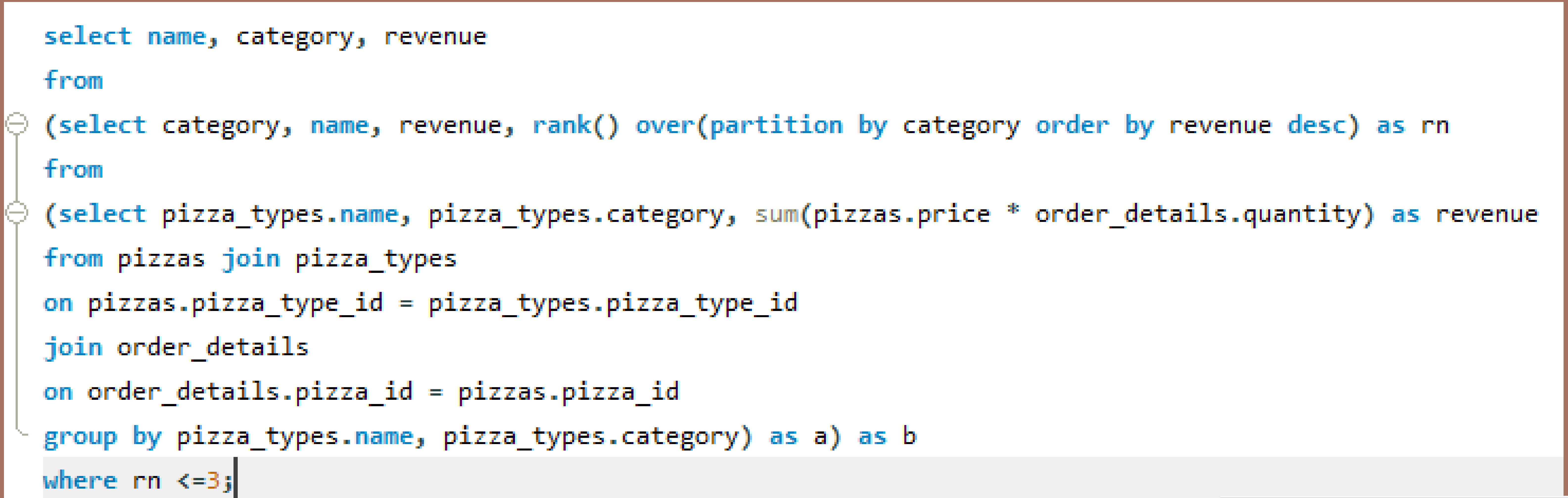


```sql
select order_date, sum(revenue) over (order by order_date) as cum_revenue
from
(select orders.order_date, round(sum(pizzas.price * order_details.quantity),2) as revenue
from pizzas join order_details
on pizzas.pizza_id = order_details.pizza_id
join orders
on orders.order_id = order_details.order_id
group by orders.order_date) as table1
```

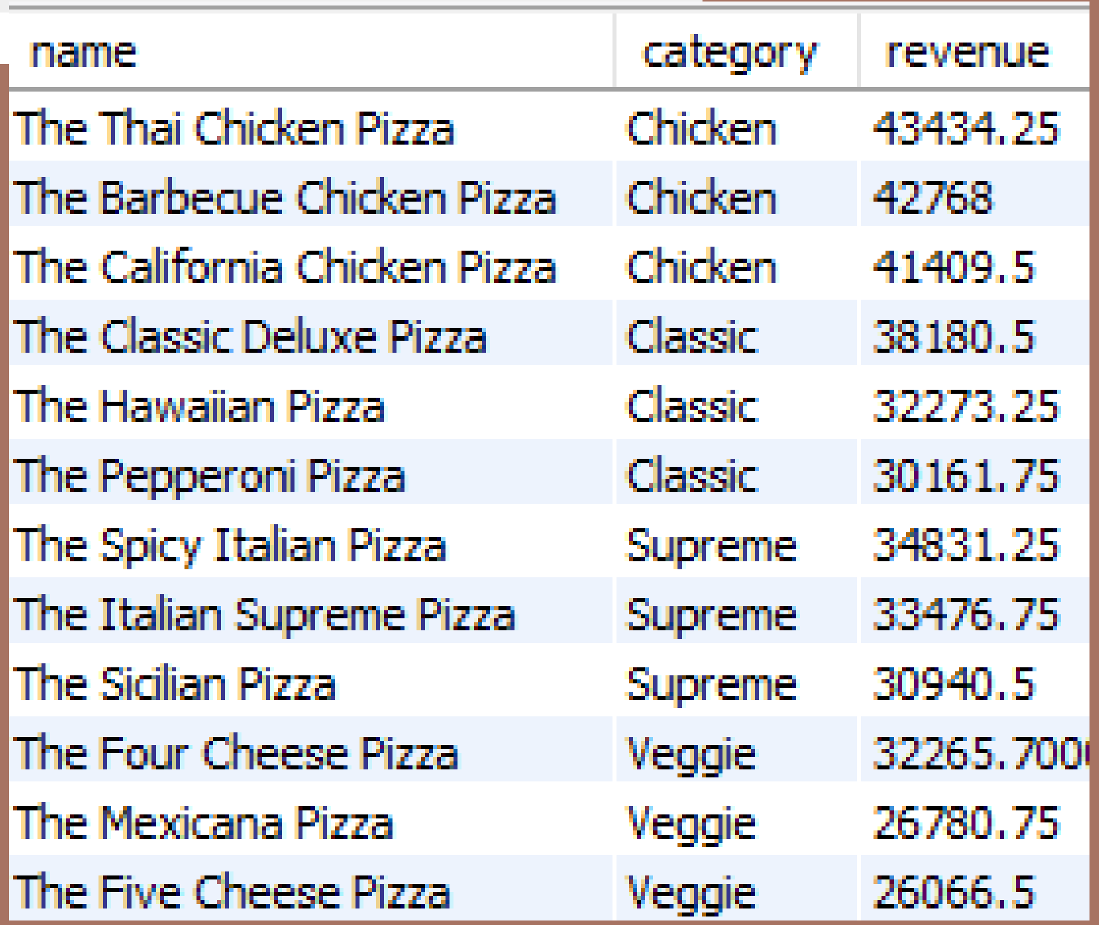


2015-01-01	2713.85
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55

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



```
select name, category, revenue
from
(select category, name, revenue, rank() over(partition by category order by revenue desc) as rn
from
(select pizza_types.name, pizza_types.category, sum(pizzas.price * order_details.quantity) as revenue
from pizzas join pizza_types
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, pizza_types.category) as a) as b
where rn <=3;
```



name	category	revenue
The Thai Chicken Pizza	Chicken	43434.25
The Barbecue Chicken Pizza	Chicken	42768
The California Chicken Pizza	Chicken	41409.5
The Classic Deluxe Pizza	Classic	38180.5
The Hawaiian Pizza	Classic	32273.25
The Pepperoni Pizza	Classic	30161.75
The Spicy Italian Pizza	Supreme	34831.25
The Italian Supreme Pizza	Supreme	33476.75
The Sicilian Pizza	Supreme	30940.5
The Four Cheese Pizza	Veggie	32265.700
The Mexicana Pizza	Veggie	26780.75
The Five Cheese Pizza	Veggie	26066.5