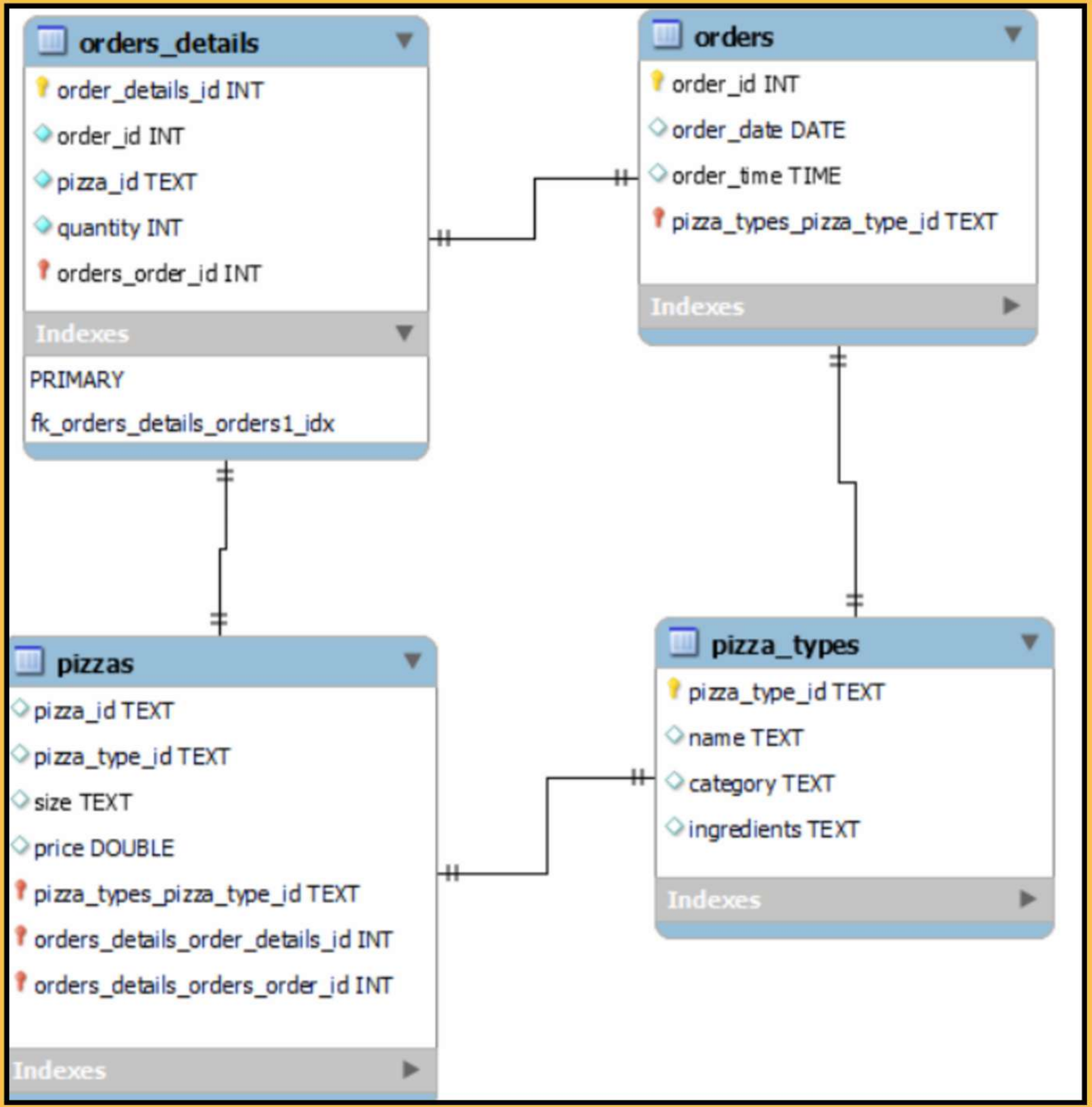
PIZZA SALES ANALYSIS USING MYSQL



orders_details
- order_details_id INT
- order_id INT
- pizza_id TEXT
- quantity INT
- orders_order_id INT

Indexes
- PRIMARY
- fk_orders_details_orders1_idx

orders
- order_id INT
- order_date DATE
- order_time TIME
- pizza_types_pizza_type_id TEXT

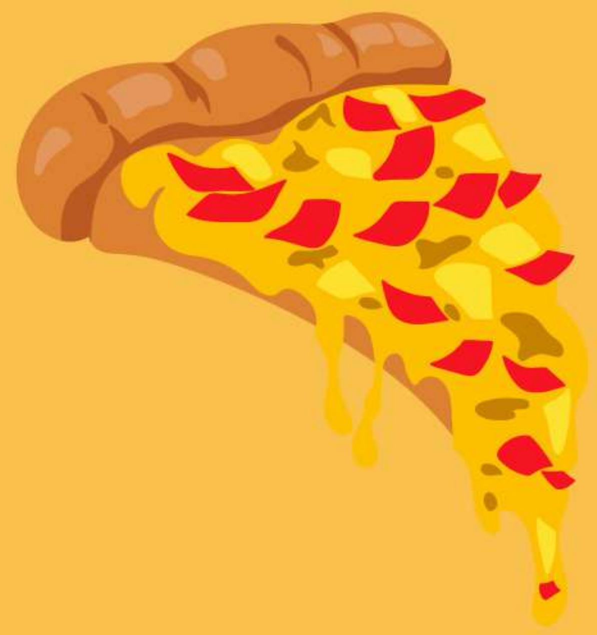
Indexes

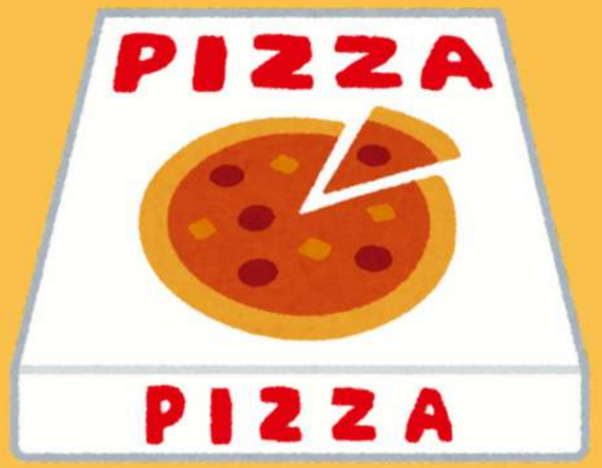
pizzas
- pizza_id TEXT
- pizza_type_id TEXT
- size TEXT
- price DOUBLE
- pizza_types_pizza_type_id TEXT
- orders_details_order_details_id INT
- orders_details_orders_order_id INT

Indexes

pizza_types
- pizza_type_id TEXT
- name TEXT
- category TEXT
- ingredients TEXT

Indexes





BASIC:

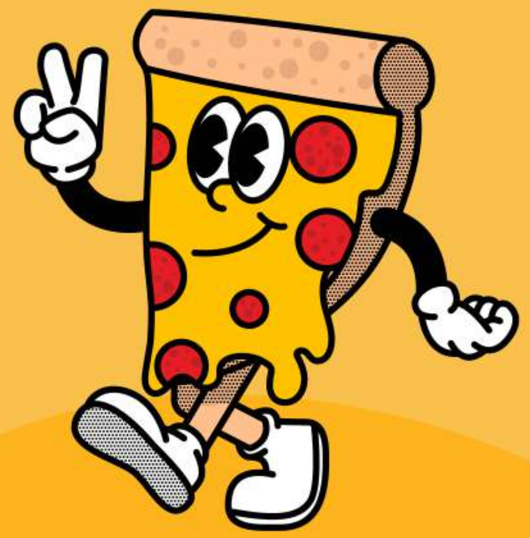
RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.
CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.
IDENTIFY THE HIGHEST-PRICED PIZZA.
IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.
LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.

INTERMEDIATE:

JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.
DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.
JOIN RELEVANT TABLES TO FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS.
GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.
DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.

ADVANCED:

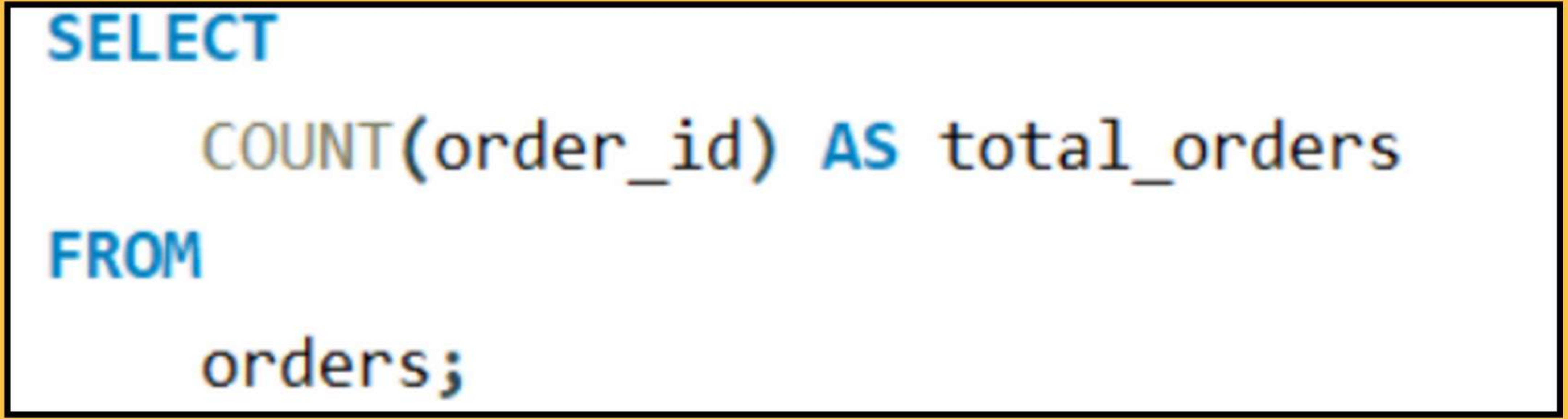
CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE.
ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.
DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.



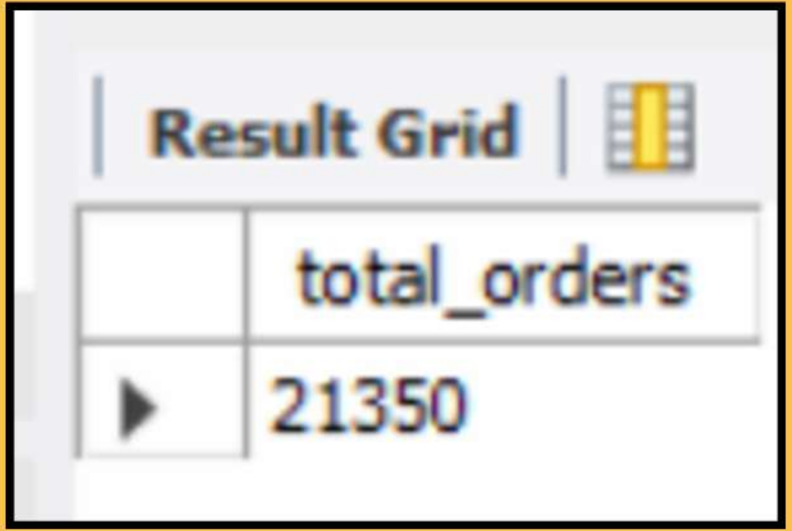
KEY HIGHLIGHTS

TOTAL REVENUE: 817860.05
EXPENSIVE PIZZA: THE GREEK PIZZA
POPULAR SIZE: MEDIUM
TOP CATEGORY: CLASSIC
BUSIEST HOUR: 12:00
AVERAGE ORDER VALUE: 17RS.
MOST ORDERED SIZE: L

RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED

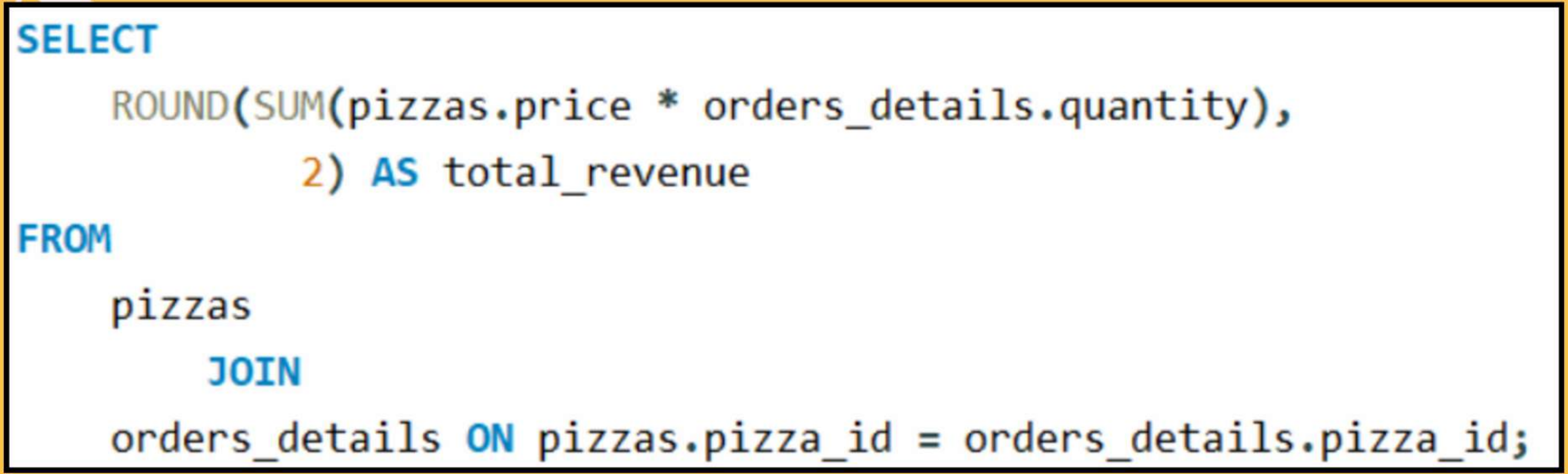


```sql
SELECT
    COUNT(order_id) AS total_orders
FROM
    orders;
```

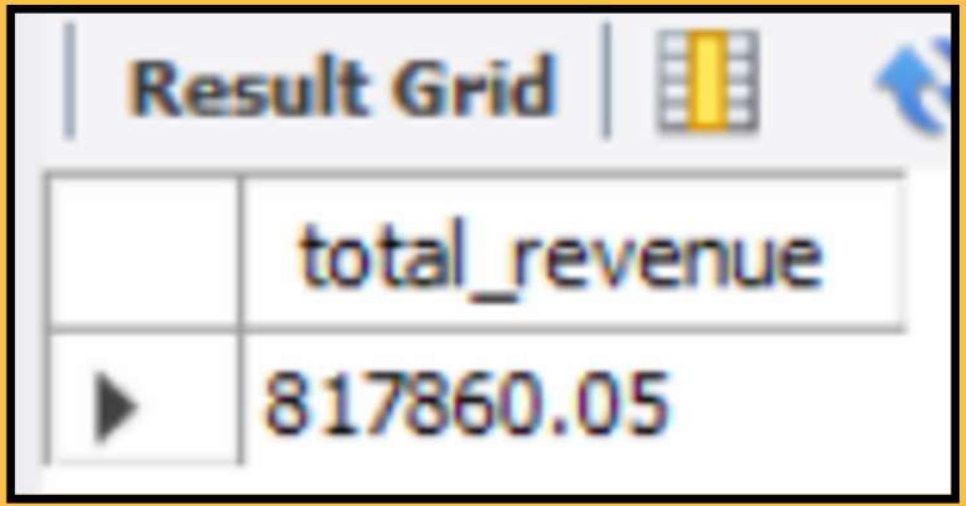


	total_orders
▶	21350

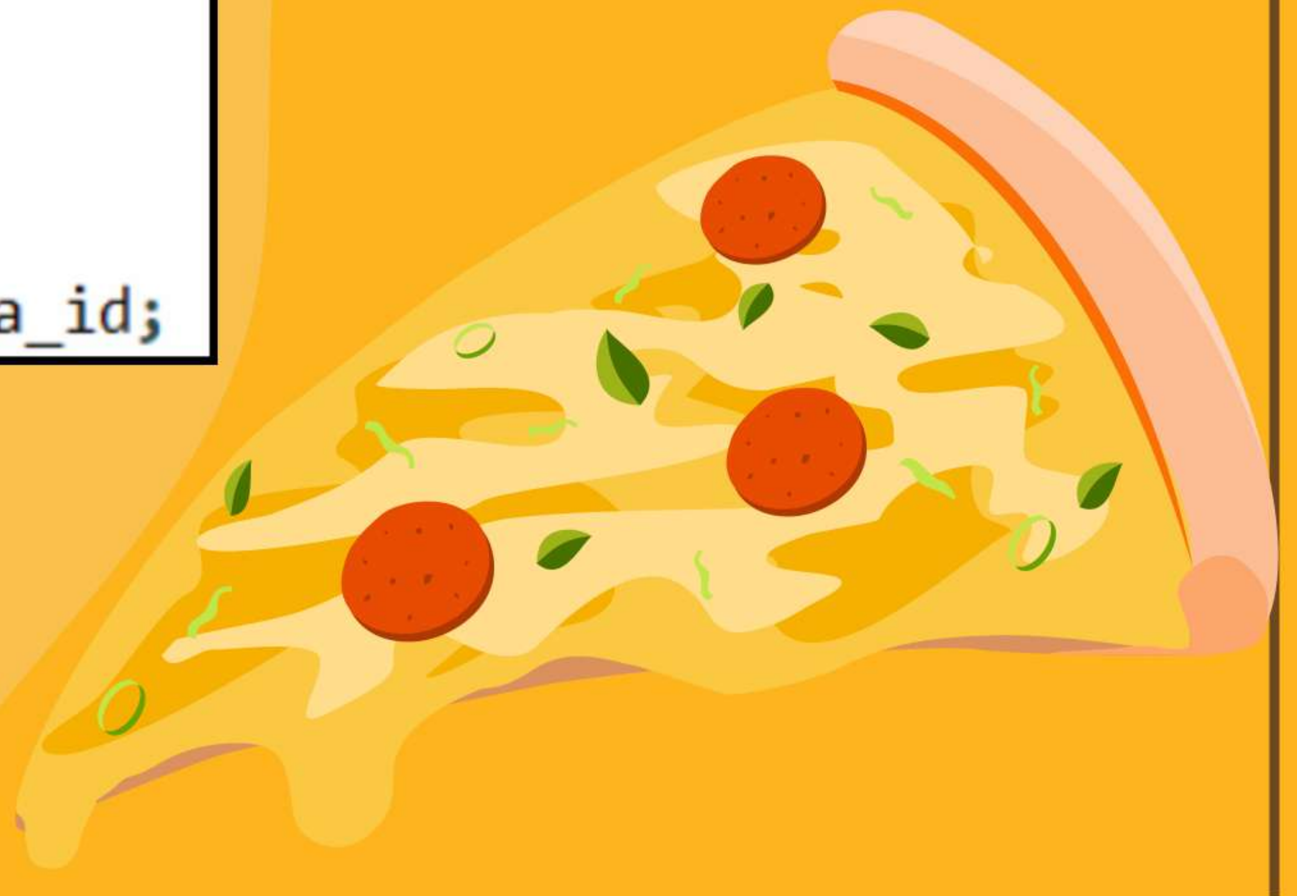
CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES



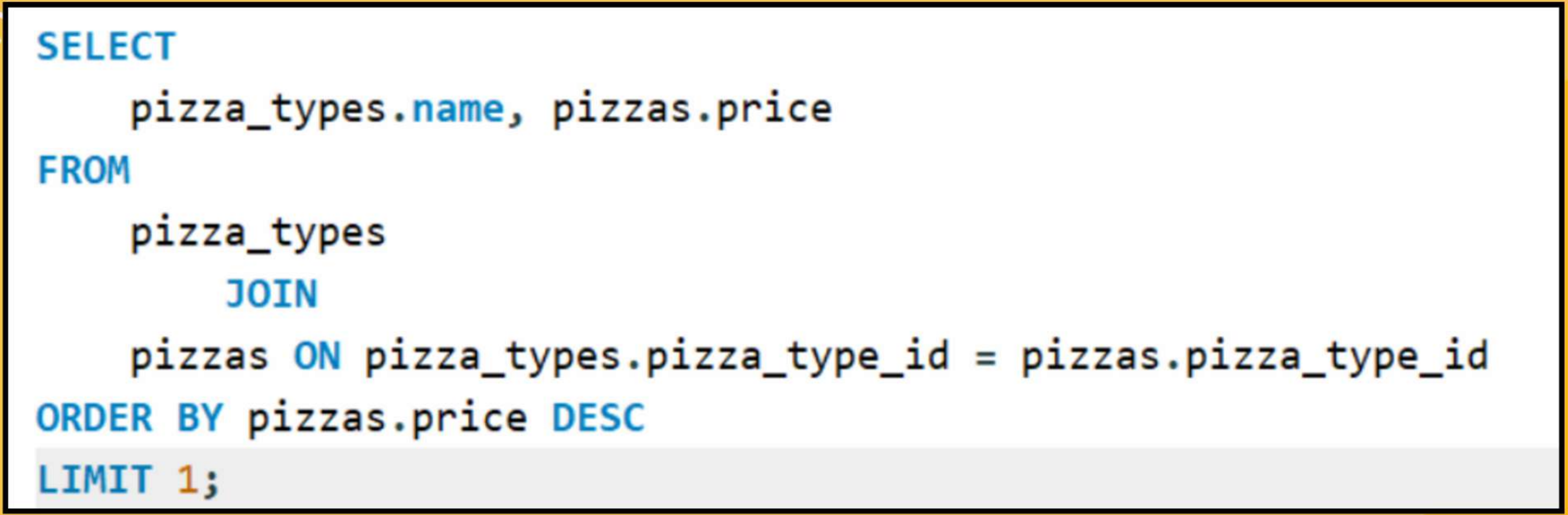
```
SELECT
    ROUND(SUM(pizzas.price * orders_details.quantity),
            2) AS total_revenue
FROM
    pizzas
        JOIN
    orders_details ON pizzas.pizza_id = orders_details.pizza_id;
```



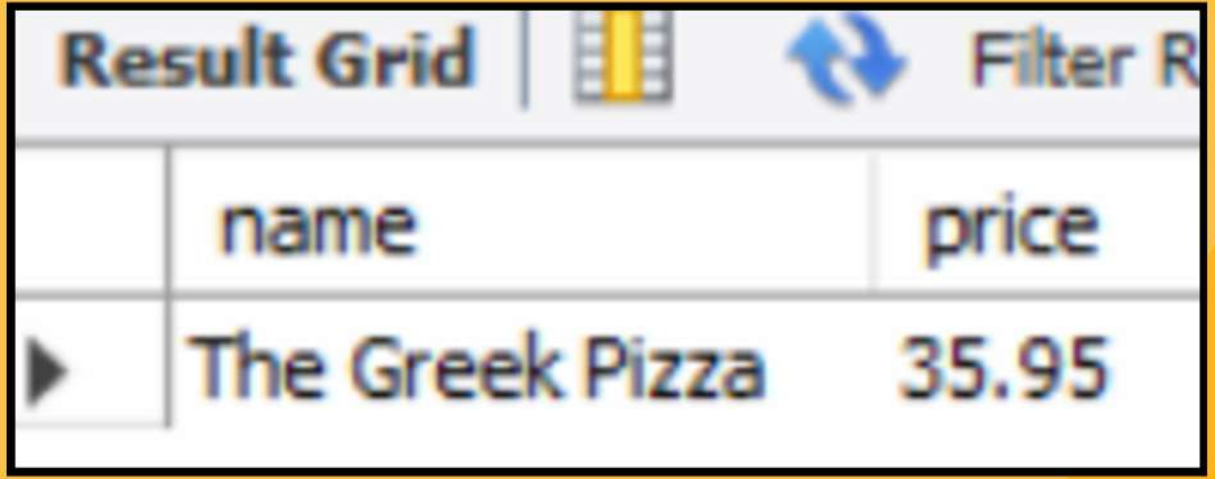
```
total_revenue
817860.05
```



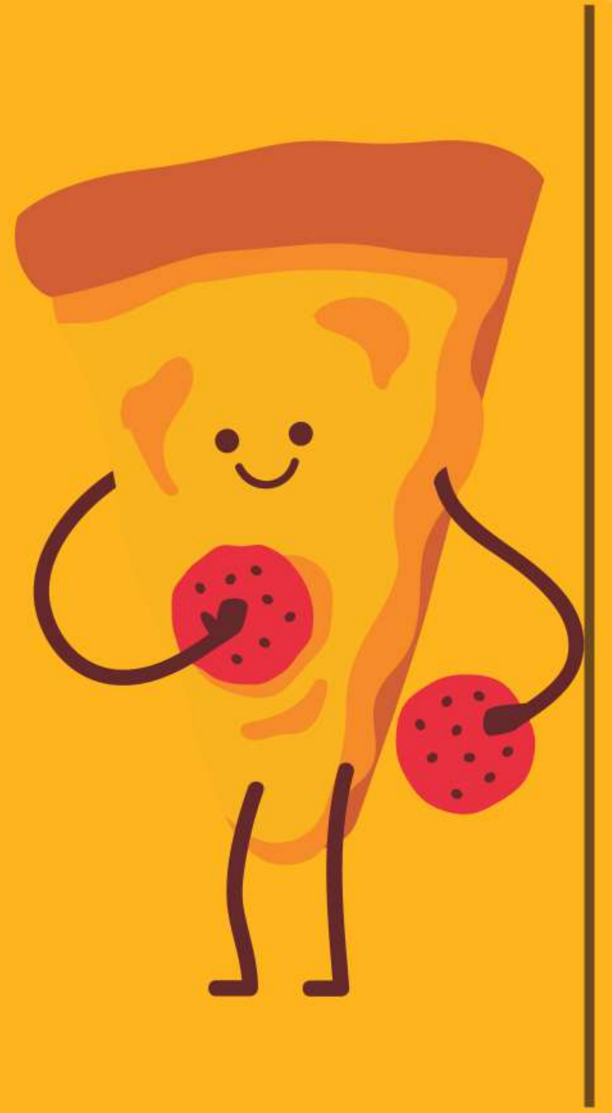
IDENTIFY THE HIGHEST-PRICED PIZZA



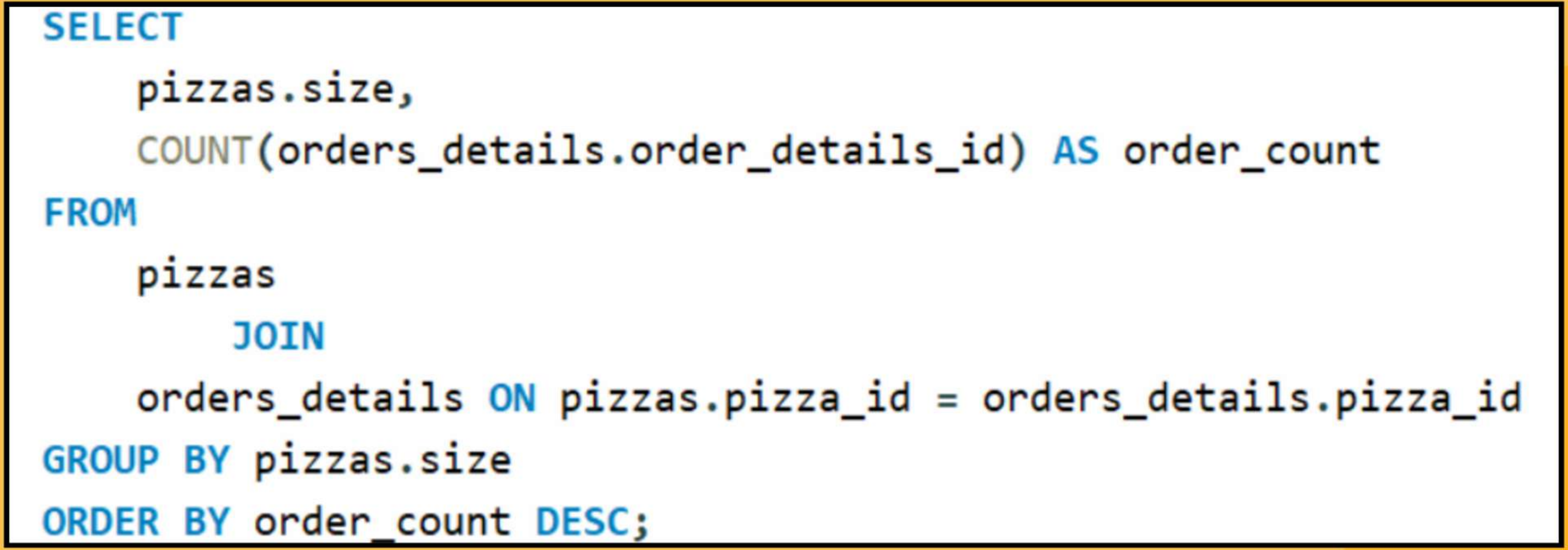
```sql
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1;
```



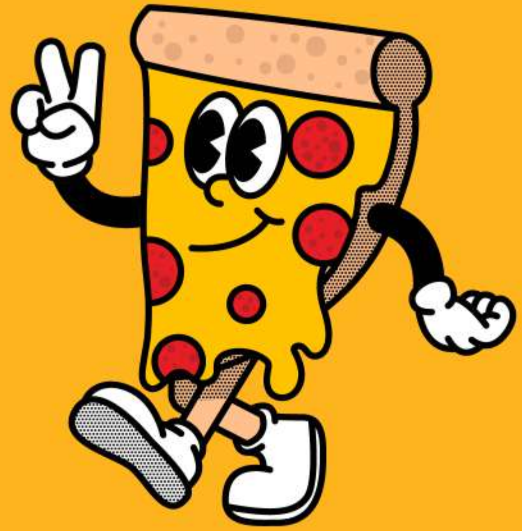
name	price
The Greek Pizza	35.95

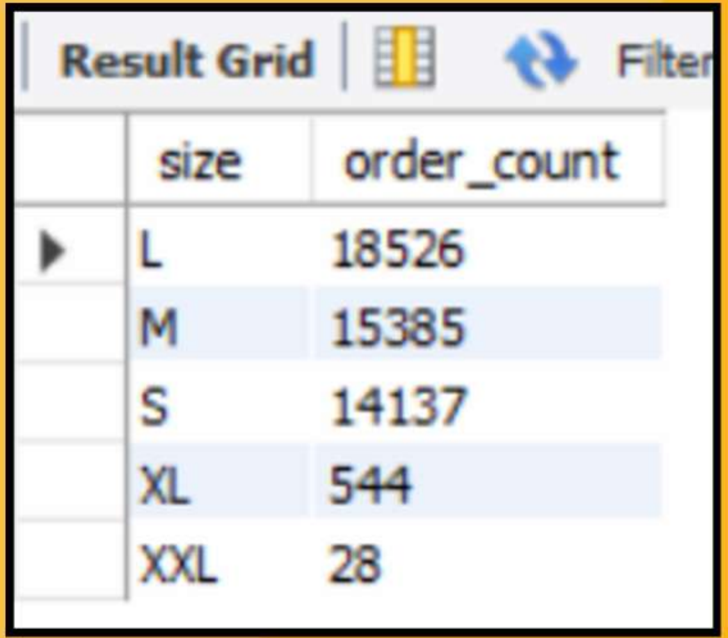


IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED



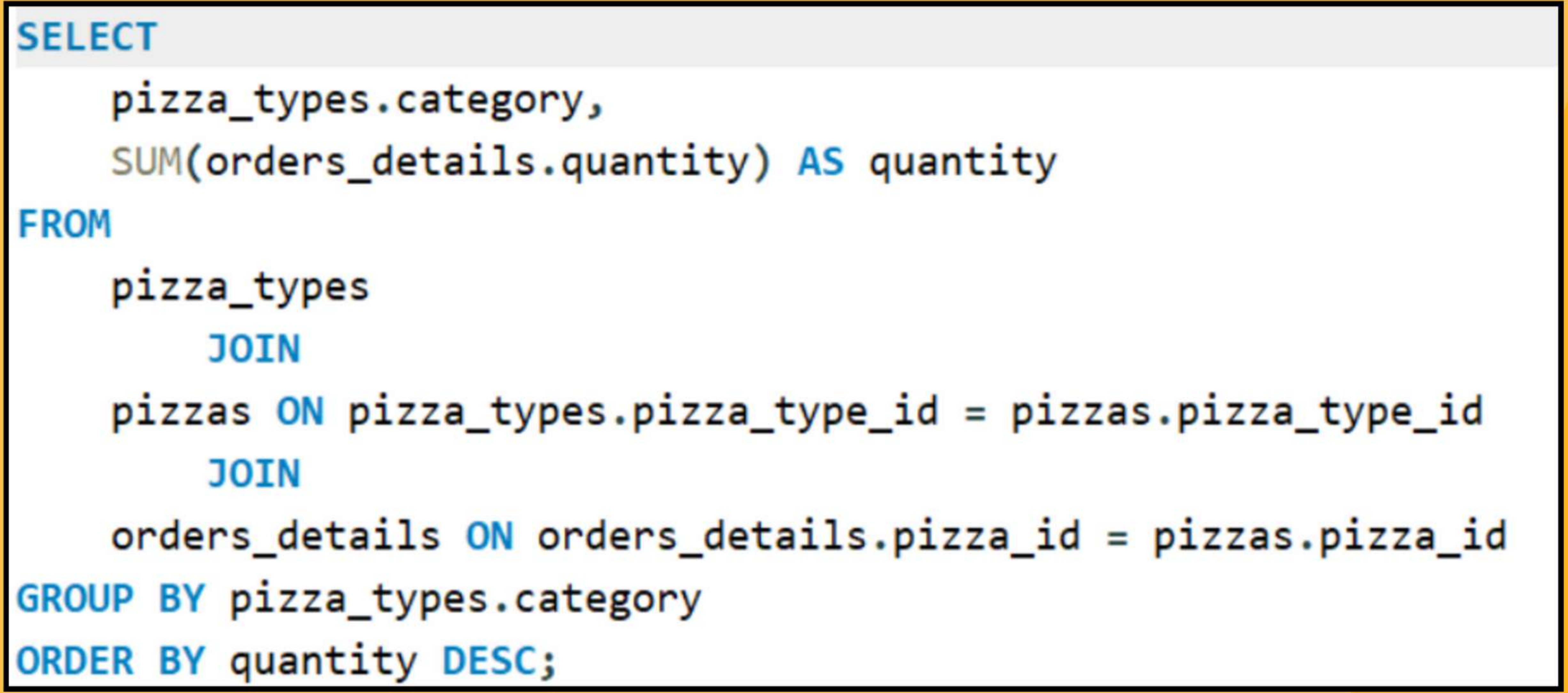
```
SELECT
    pizzas.size,
    COUNT(orders_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    orders_details ON pizzas.pizza_id = orders_details.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC;
```



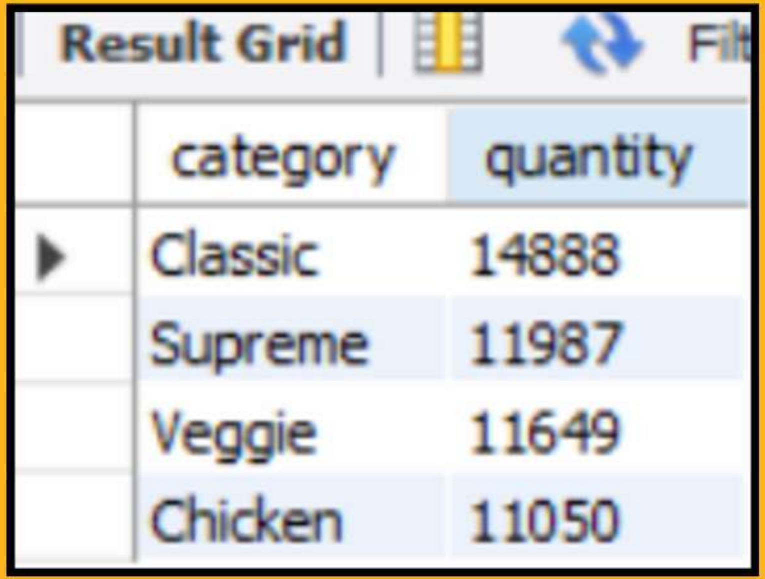


size	order_count
L	18526
M	15385
S	14137
XL	544
XXL	28

JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA

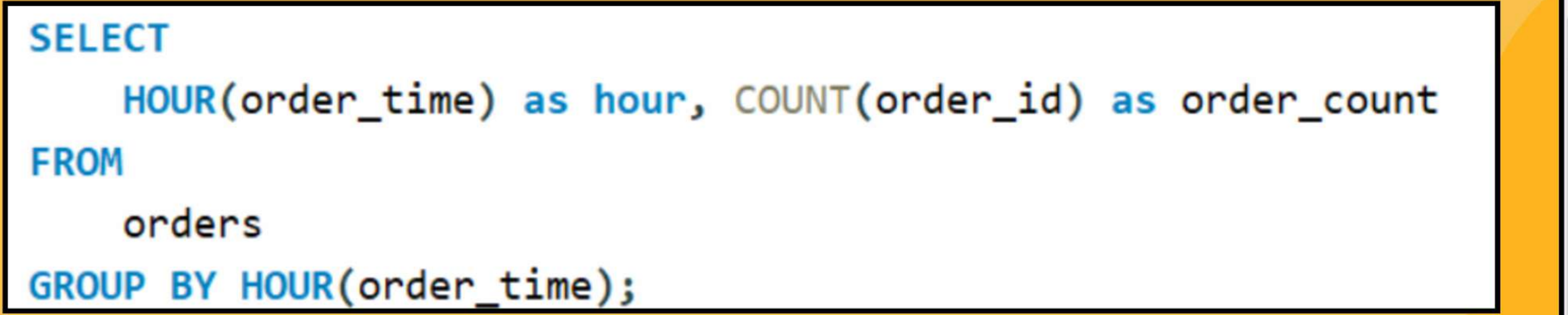


```
SELECT
    pizza_types.category,
    SUM(orders_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity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

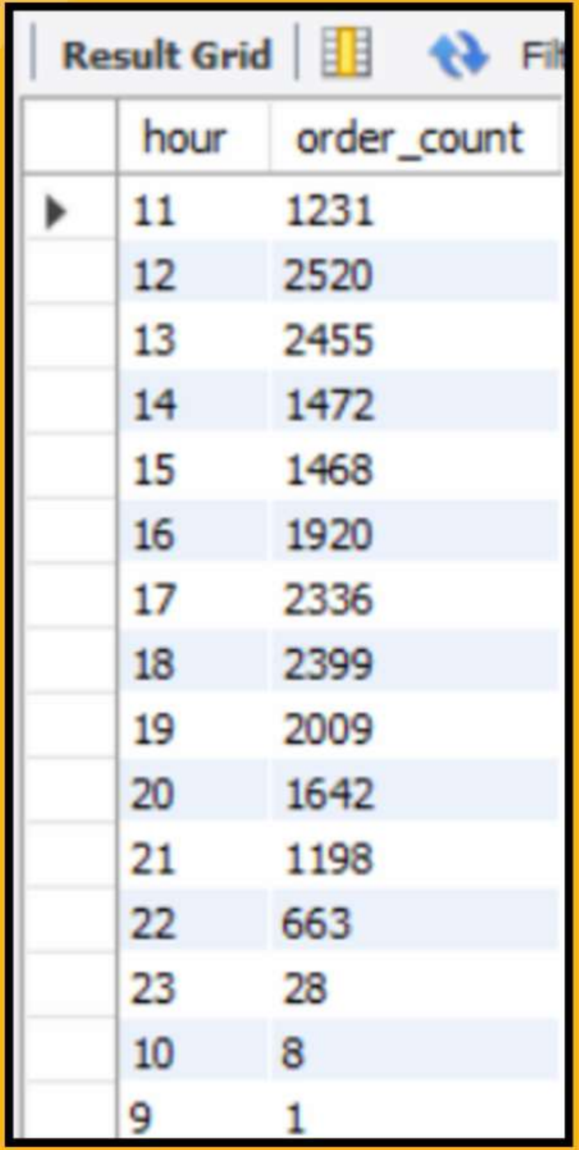


category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY

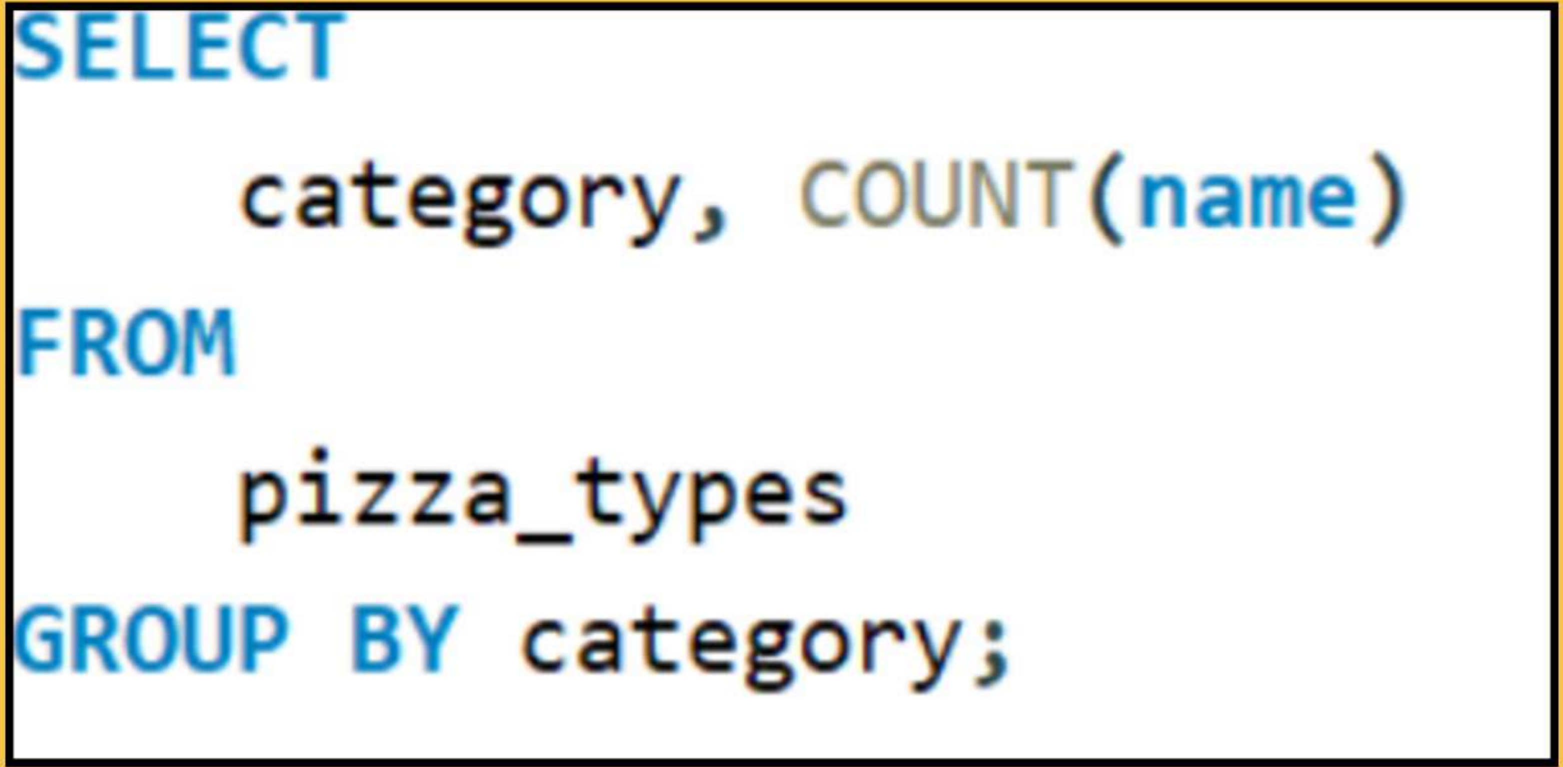


```
SELECT
    HOUR(order_time) as hour, COUNT(order_id) as order_count
FROM
    orders
GROUP BY HOUR(order_time);
```

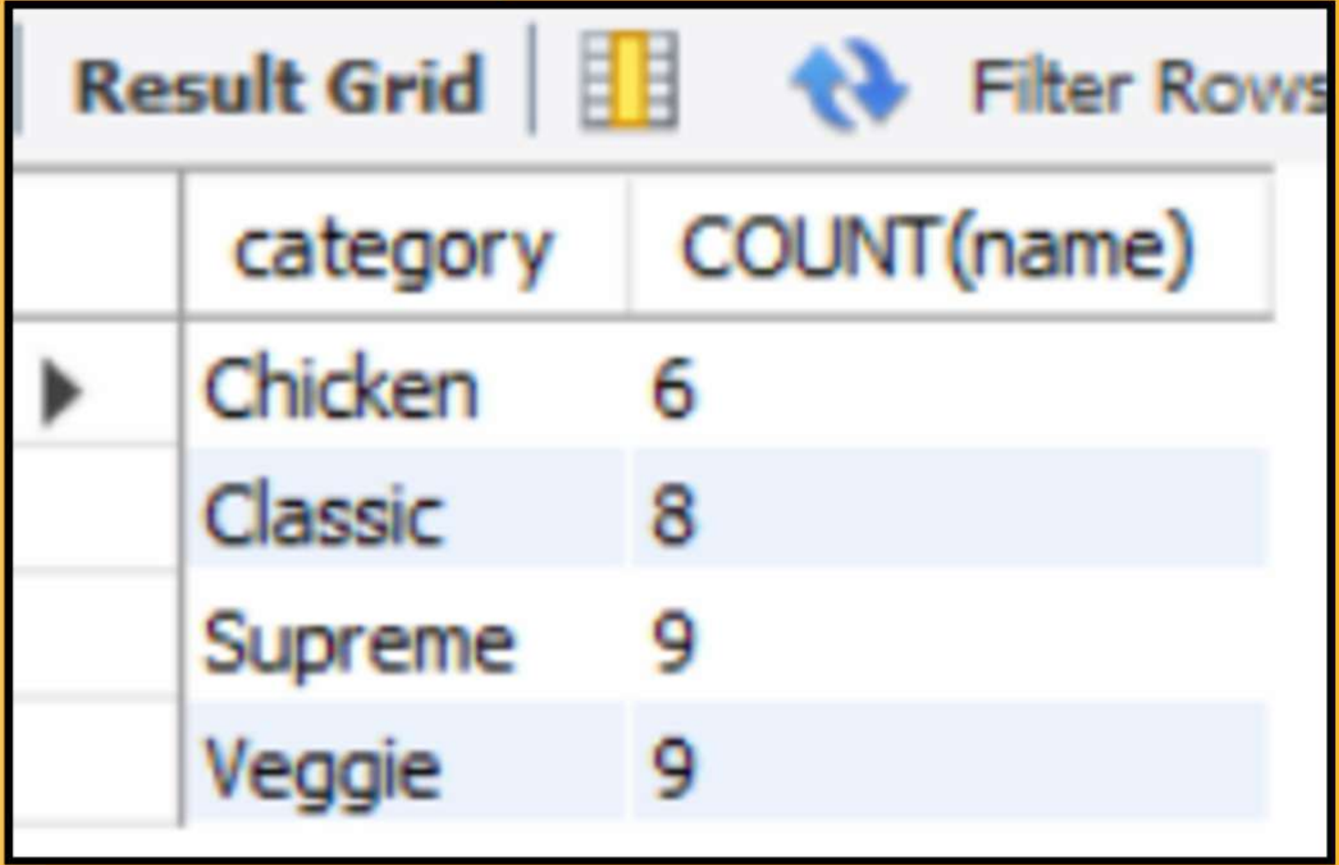


hour	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336
18	2399
19	2009
20	1642
21	1198
22	663
23	28
10	8
9	1

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

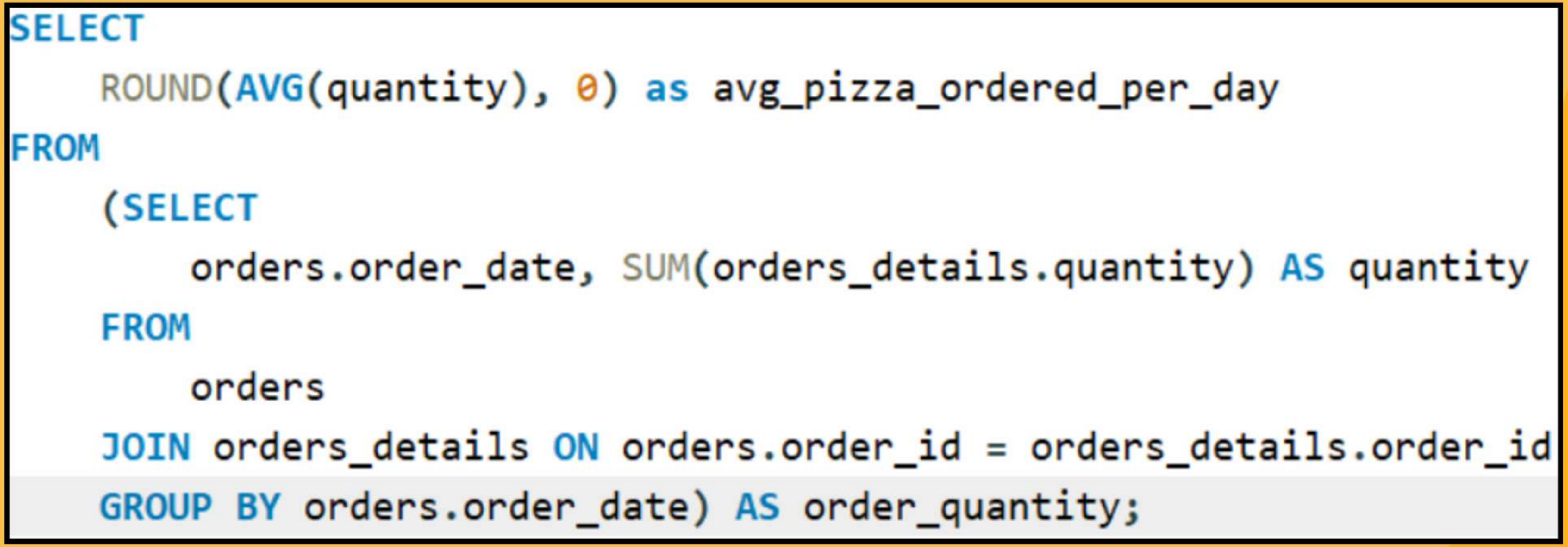


```
SELECT
    category, COUNT(name)
FROM
    pizza_types
GROUP BY category;
```

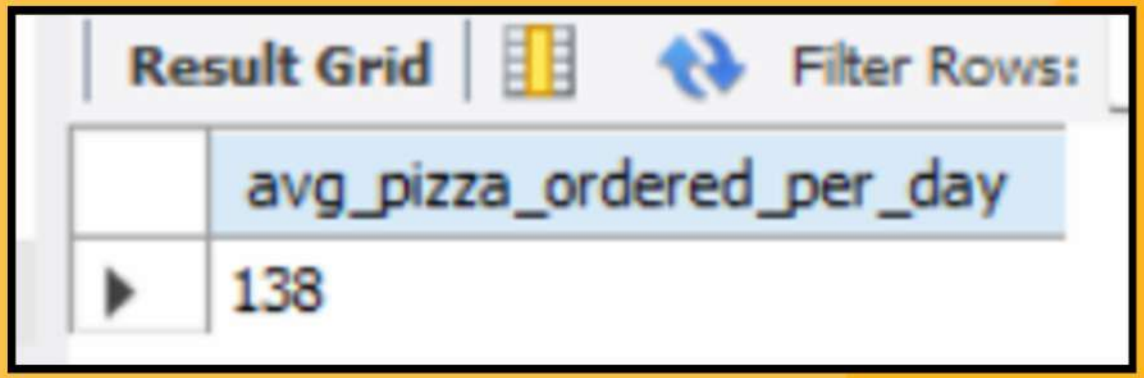


category	COUNT(name)
Chicken	6
Classic	8
Supreme	9
Veggie	9

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

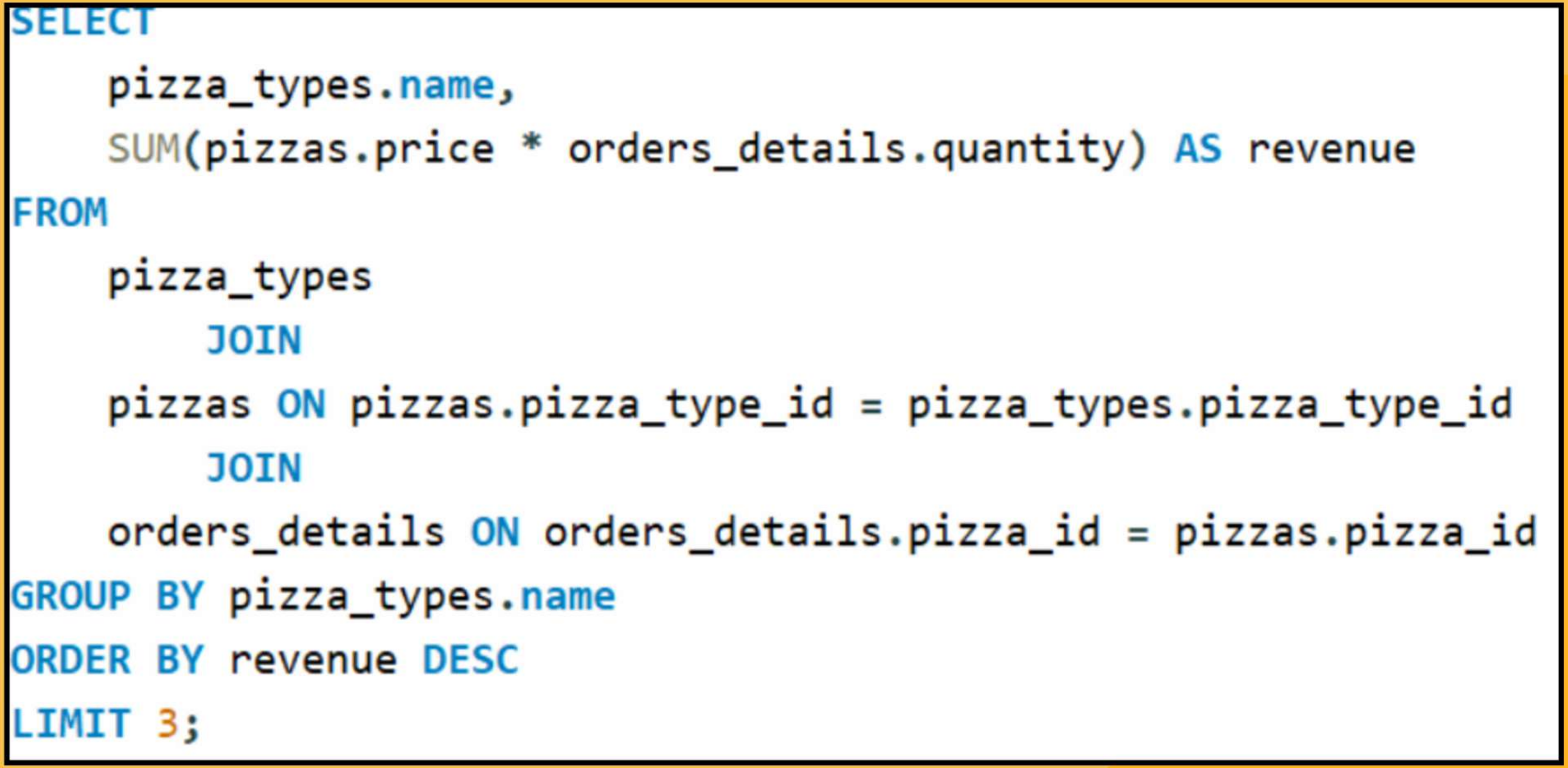


```
SELECT
    ROUND(AVG(quantity), 0) as avg_pizza_ordered_per_day
FROM
    (SELECT
        orders.order_date, SUM(orders_details.quantity) AS quantity
    FROM
        orders
    JOIN orders_details ON orders.order_id = orders_details.order_id
    GROUP BY orders.order_date) AS order_quantity;
```

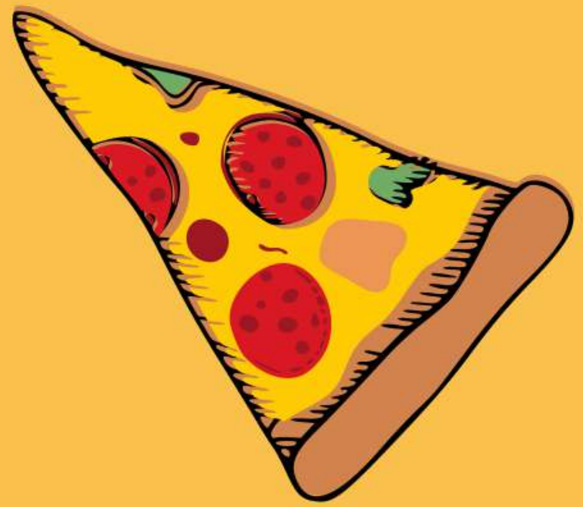


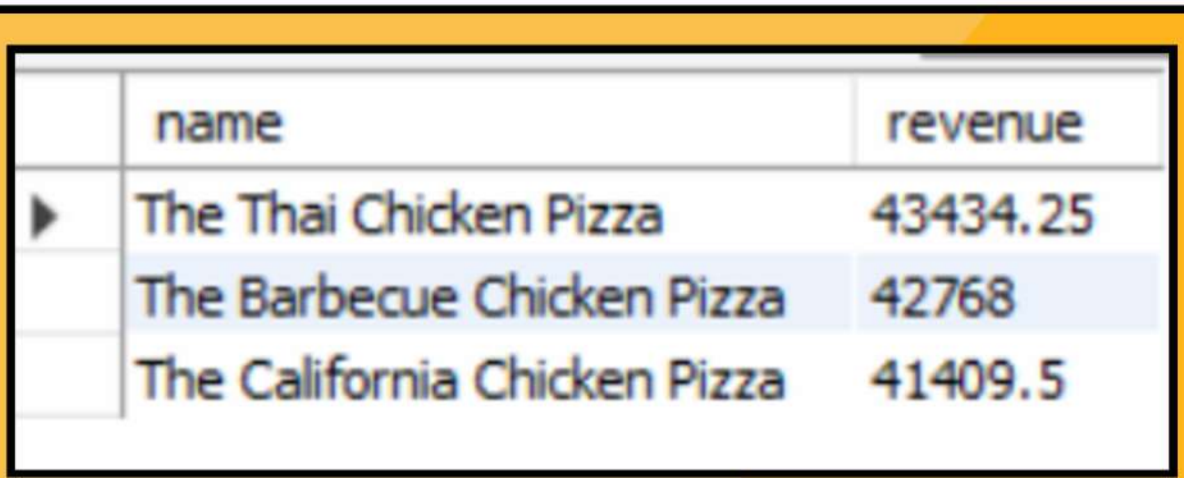
```
avg_pizza_ordered_per_day
138
```

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE



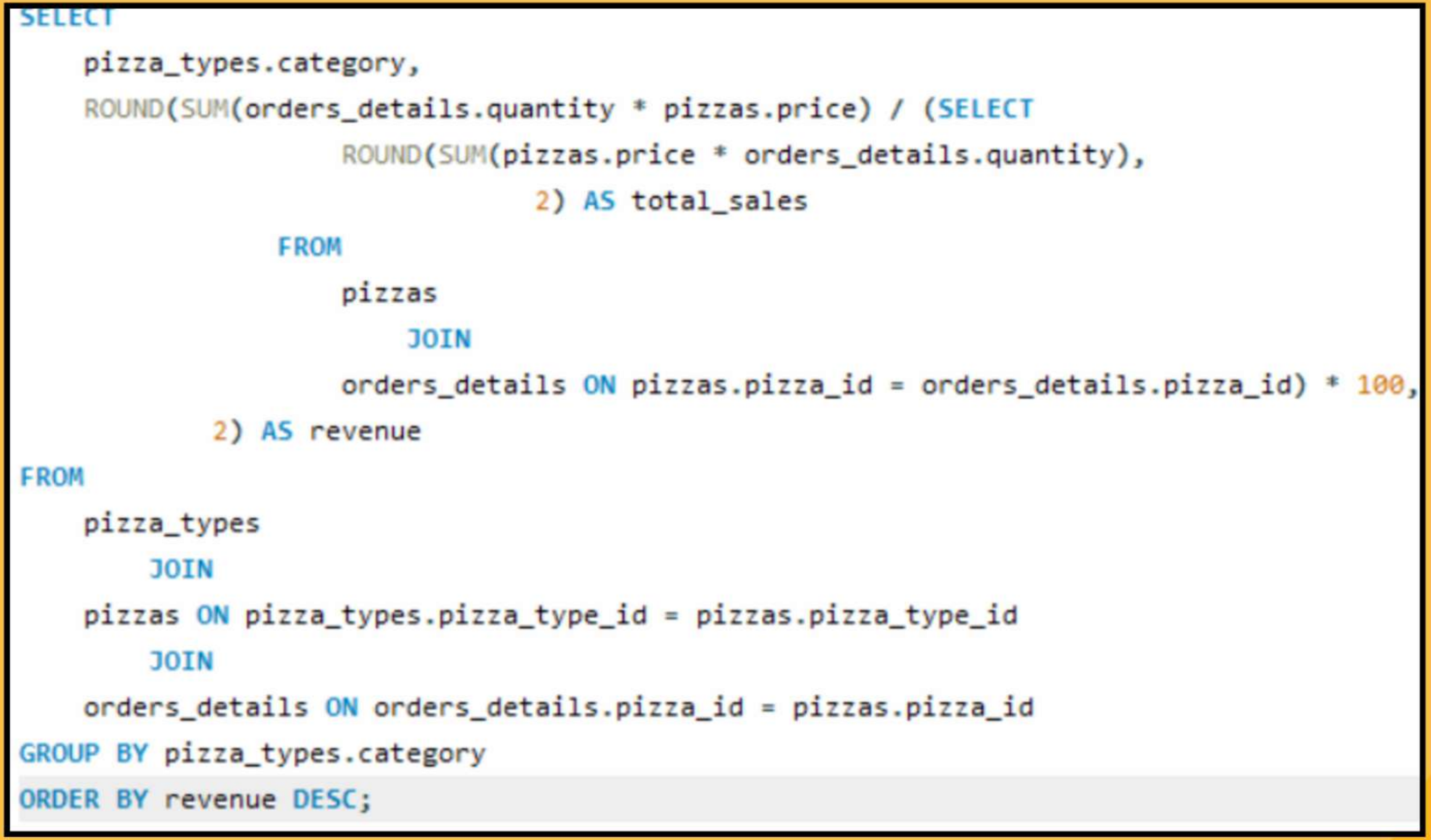
```
SELECT
    pizza_types.name,
    SUM(pizzas.price * orders_details.quantity) AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY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



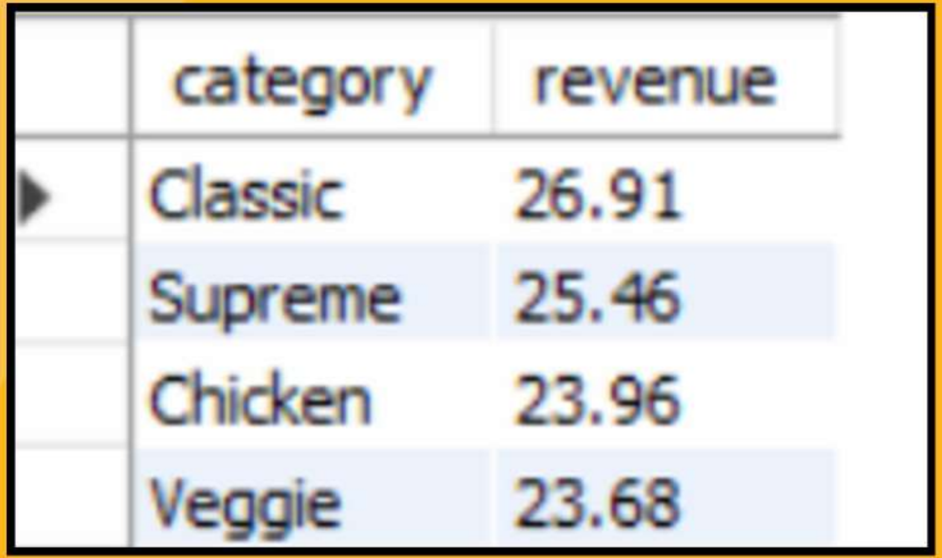


name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE

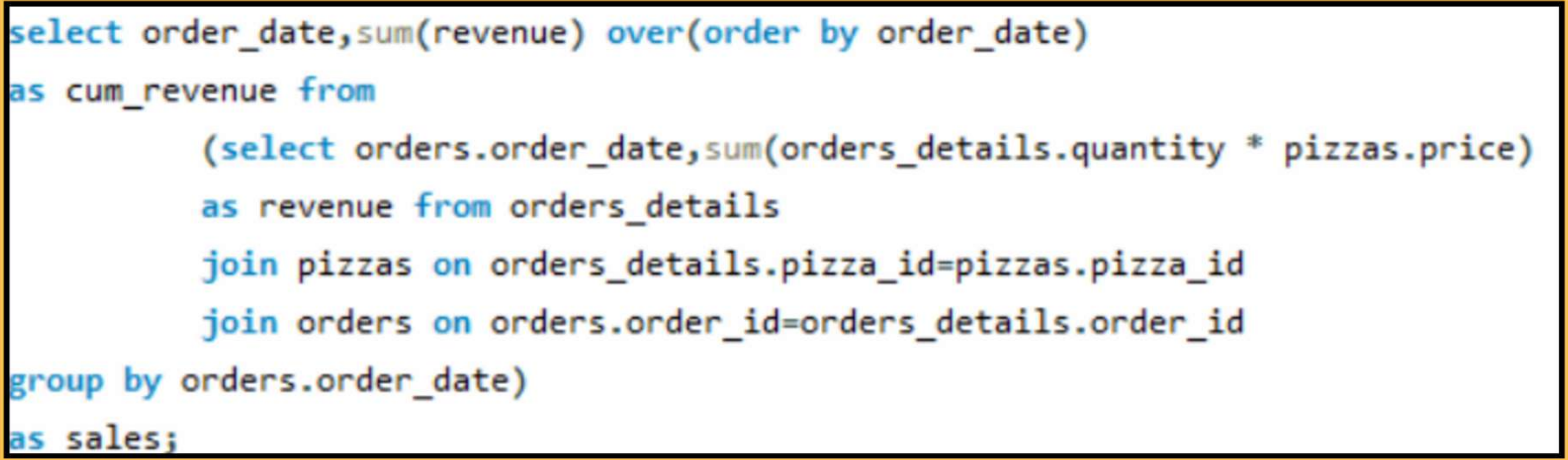


```
SELECT
    pizza_types.category,
    ROUND(SUM(orders_details.quantity * pizzas.price) / (SELECT
                ROUND(SUM(pizzas.price * orders_details.quantity),
                        2) AS total_sales
            FROM
                pizzas
                    JOIN
                orders_details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

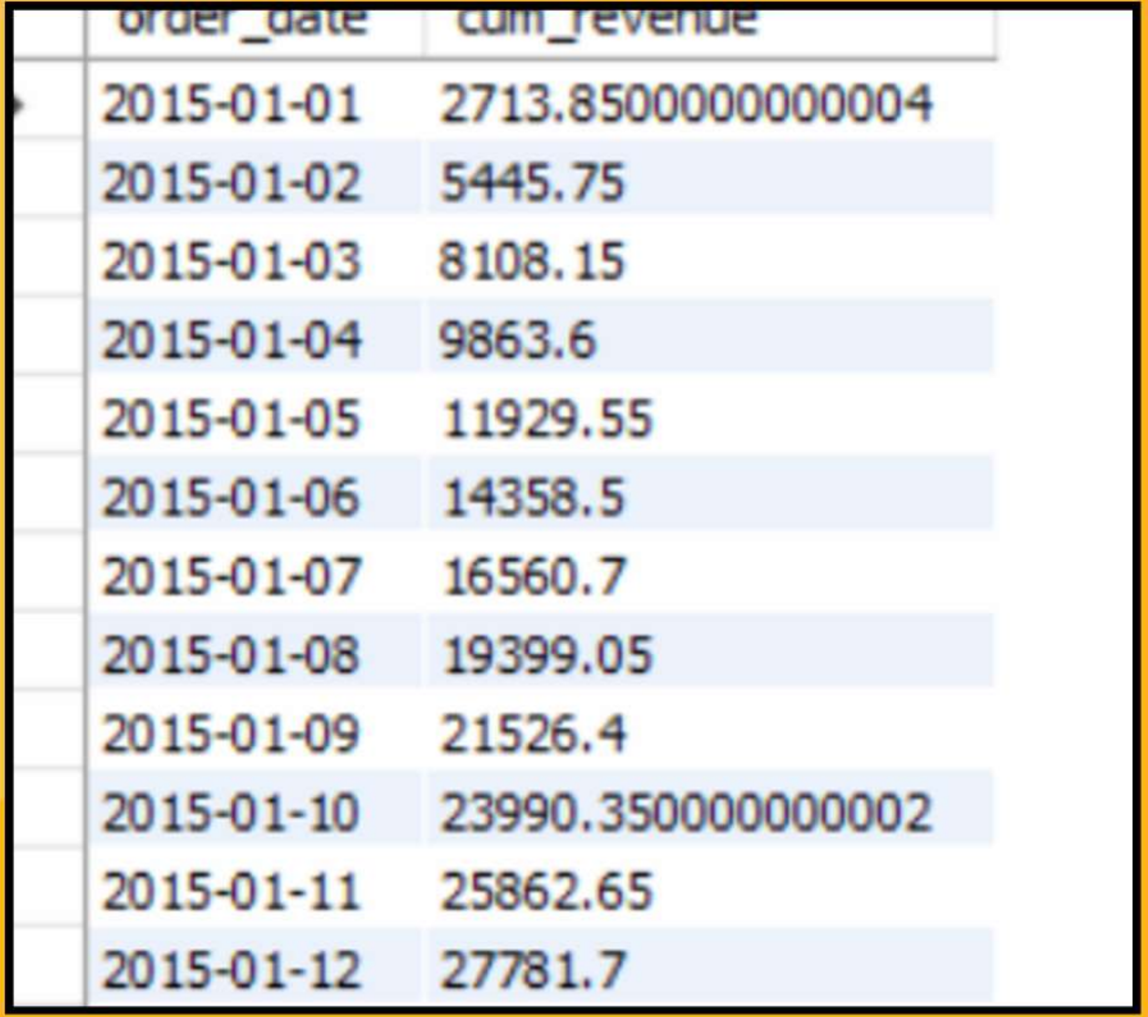


category	revenue
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME

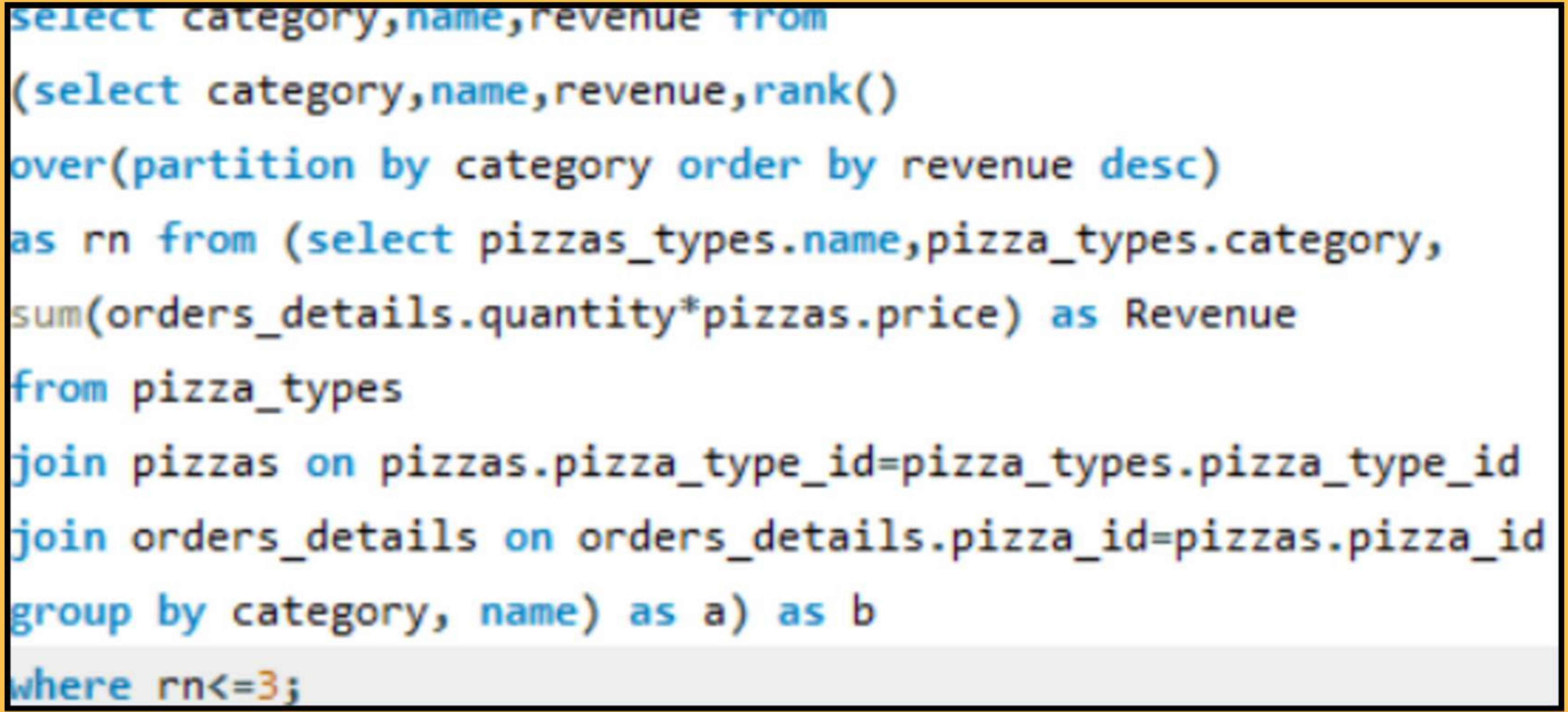


```
select order_date,sum(revenue) over(order by order_date)
as cum_revenue from
        (select orders.order_date,sum(orders_details.quantity * pizzas.price)
        as revenue from orders_details
        join pizzas on orders_details.pizza_id=pizzas.pizza_id
        join orders on orders.order_id=orders_details.order_id
group by orders.order_date)
as sales;
```

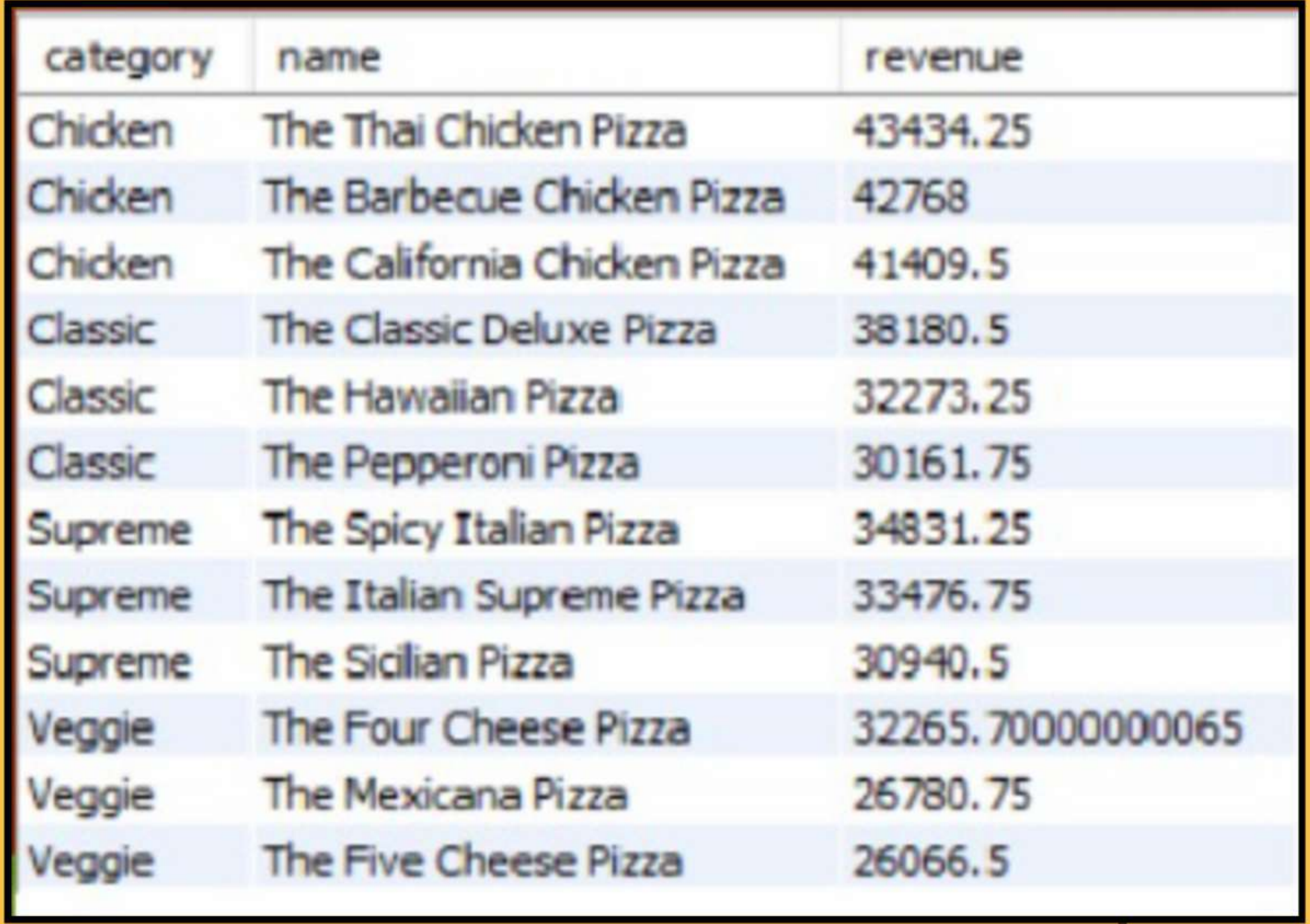


order_date	cum_revenue
2015-01-01	2713.8500000000004
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55
2015-01-06	14358.5
2015-01-07	16560.7
2015-01-08	19399.05
2015-01-09	21526.4
2015-01-10	23990.350000000002
2015-01-11	25862.65
2015-01-12	27781.7

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



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



category	name	revenue
Chicken	The Thai Chicken Pizza	43434.25
Chicken	The Barbecue Chicken Pizza	42768
Chicken	The California Chicken Pizza	41409.5
Classic	The Classic Deluxe Pizza	38180.5
Classic	The Hawaiian Pizza	32273.25
Classic	The Pepperoni Pizza	30161.75
Supreme	The Spicy Italian Pizza	34831.25
Supreme	The Italian Supreme Pizza	33476.75
Supreme	The Sicilian Pizza	30940.5
Veggie	The Four Cheese Pizza	32265.70000000065
Veggie	The Mexicana Pizza	26780.75
Veggie	The Five Cheese Pizza	26066.5

Thank You