PIZZATIME- :)

SQL PIZZA SALES PROJECT

CREATED BY PRANAV PATIL.

PROJECT OVERVIEW

Dataset Used : Pizza Sales

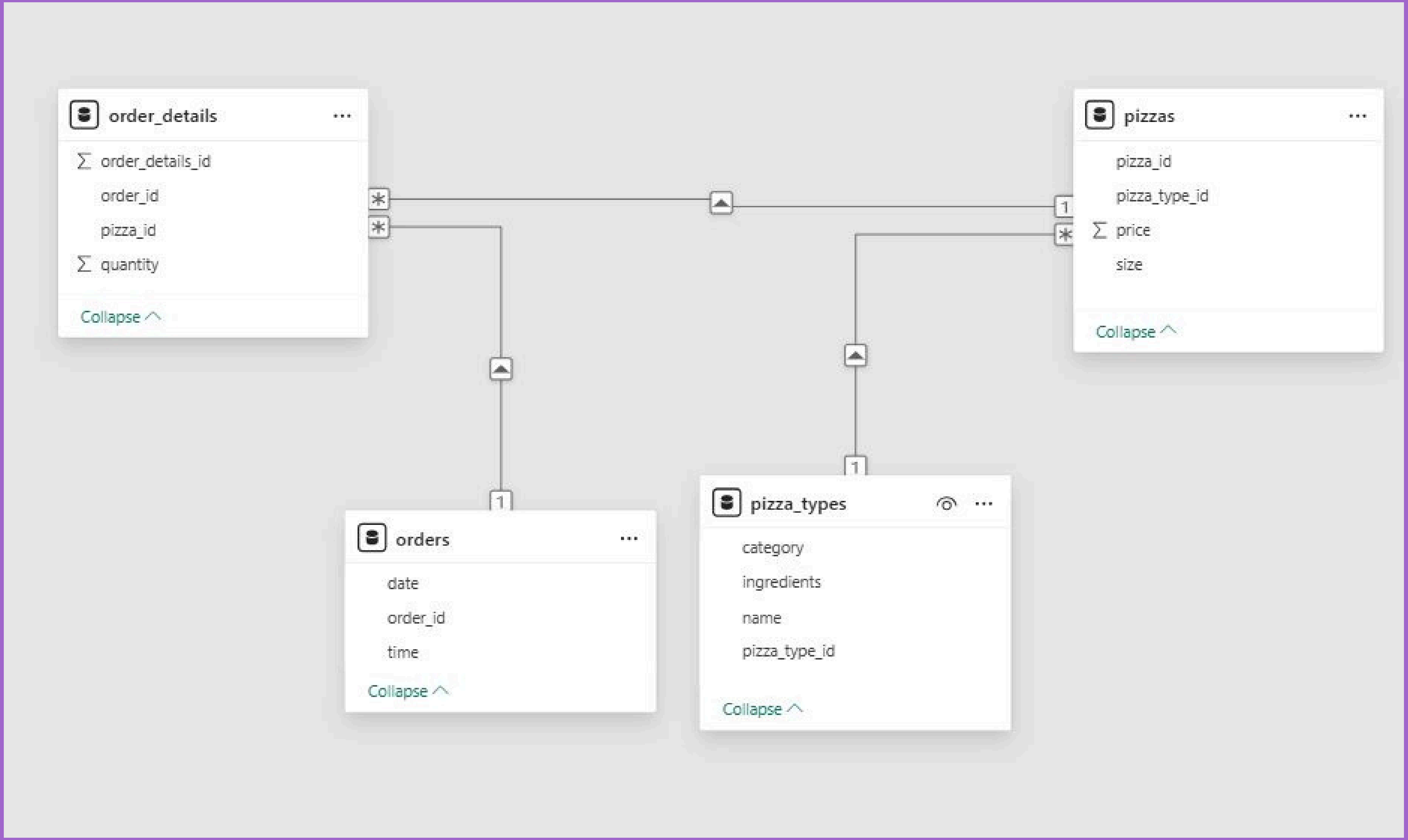
Tools : SQL (MySQL WORKBENCH 8.0)

Objective : To analyze pizza sales data and extract business insights using SQL queries.

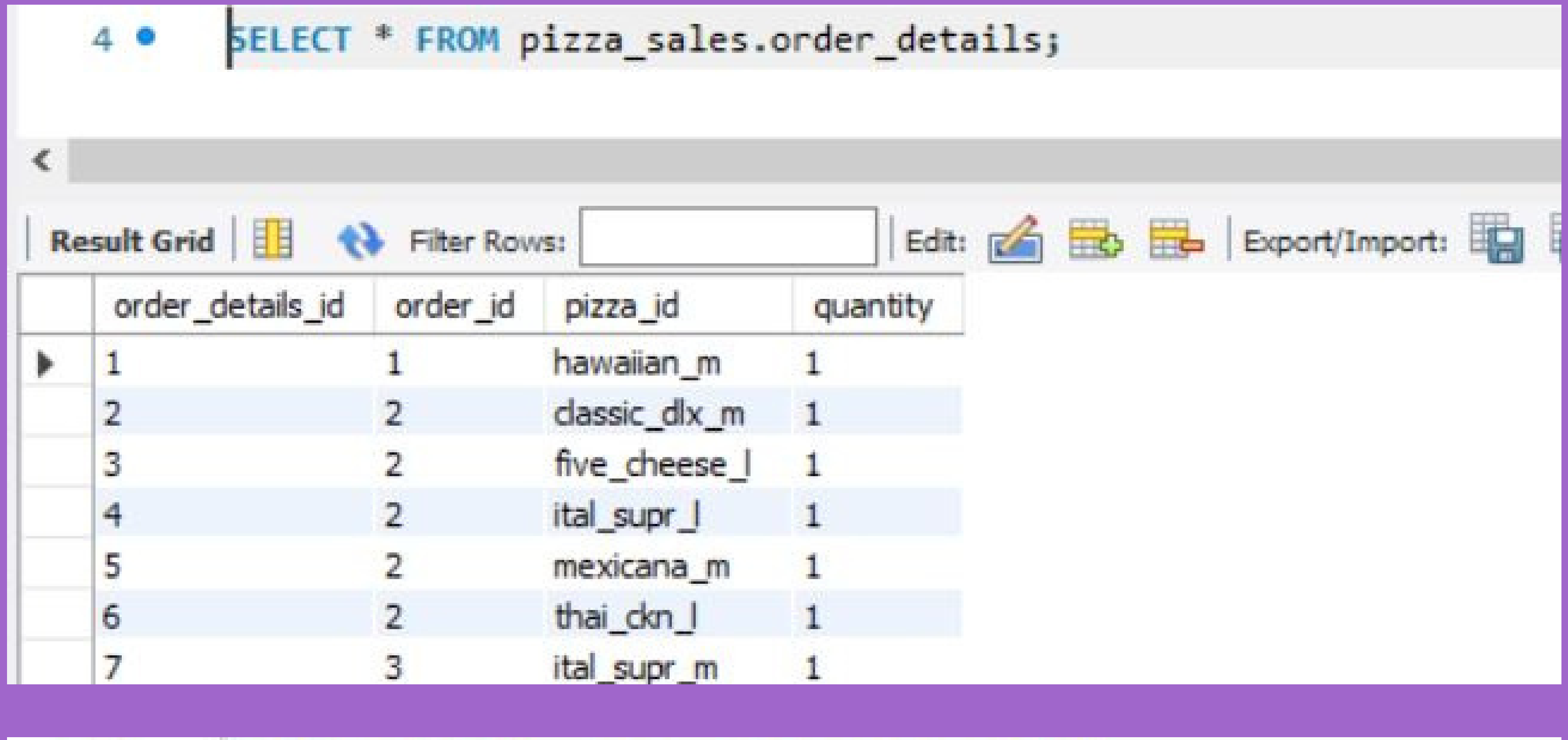
Key Focus Areas:

- Sales performance
- Customer behavior
- Peak order times
- Best and worst-selling pizzas
- Daily/Monthly revenue trends

Dataset Schema

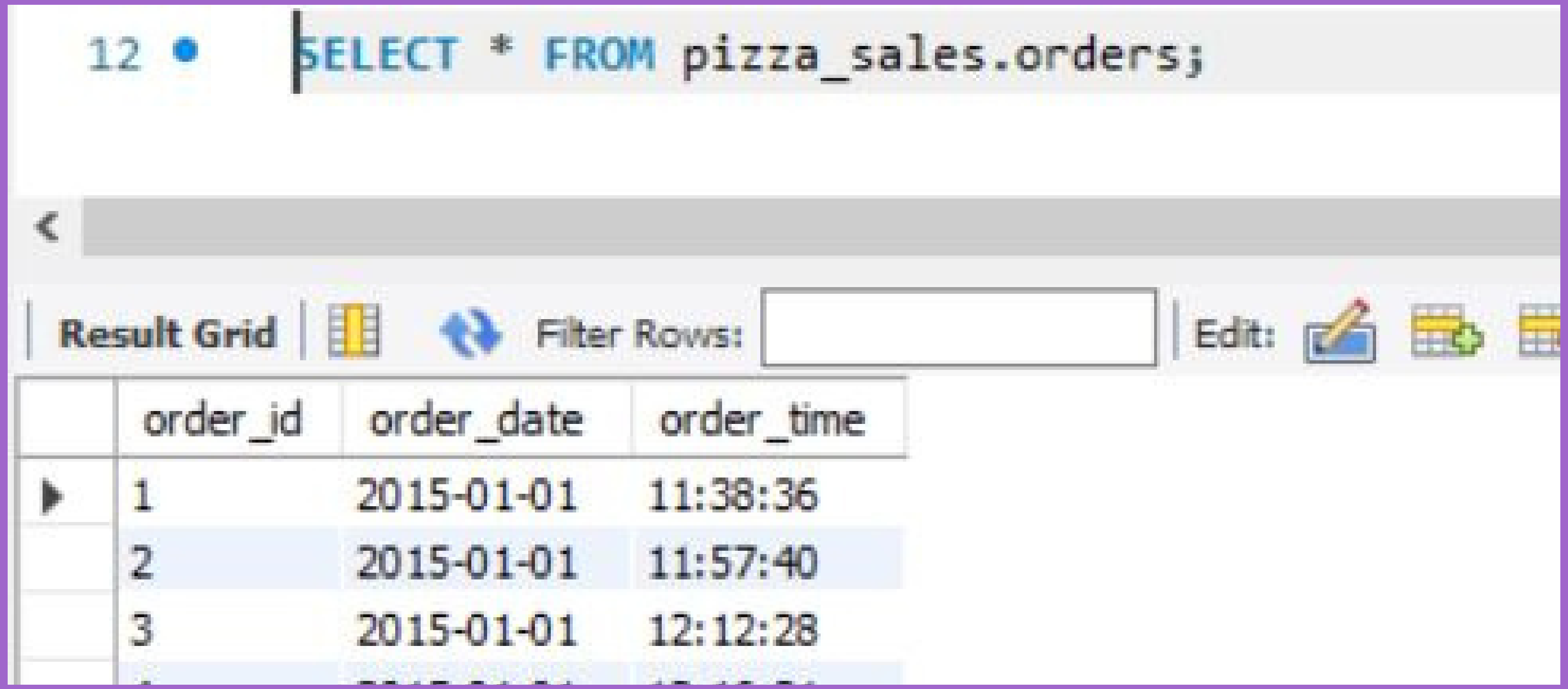


TABLES OVERVIEW



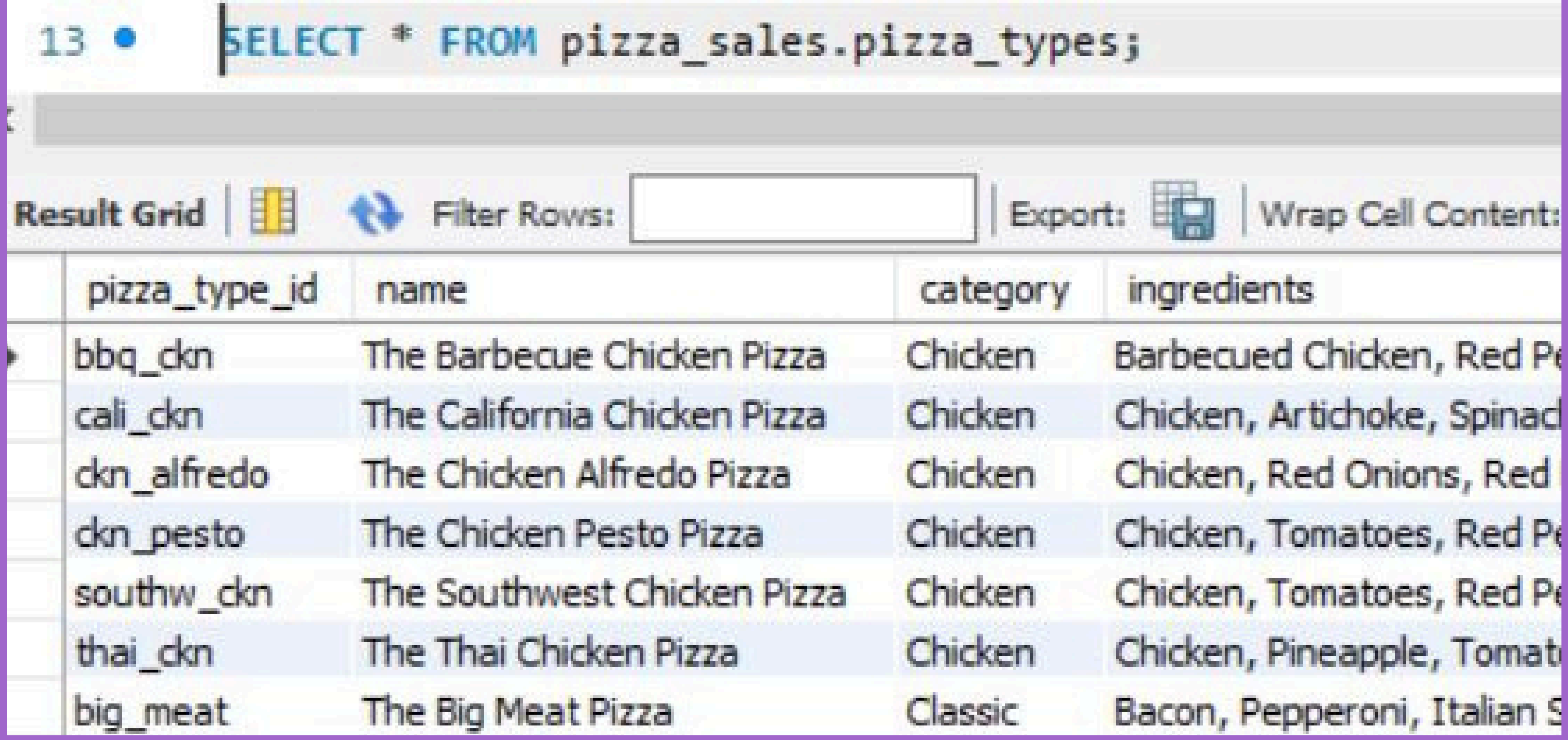
```sql
SELECT * FROM pizza_sales.order_details;
```

order_details_id	order_id	pizza_id	quantity
1	1	hawaiian_m	1
2	2	classic_dlx_m	1
3	2	five_cheese_l	1
4	2	ital_supr_l	1
5	2	mexicana_m	1
6	2	thai_ckn_l	1
7	3	ital_supr_m	1



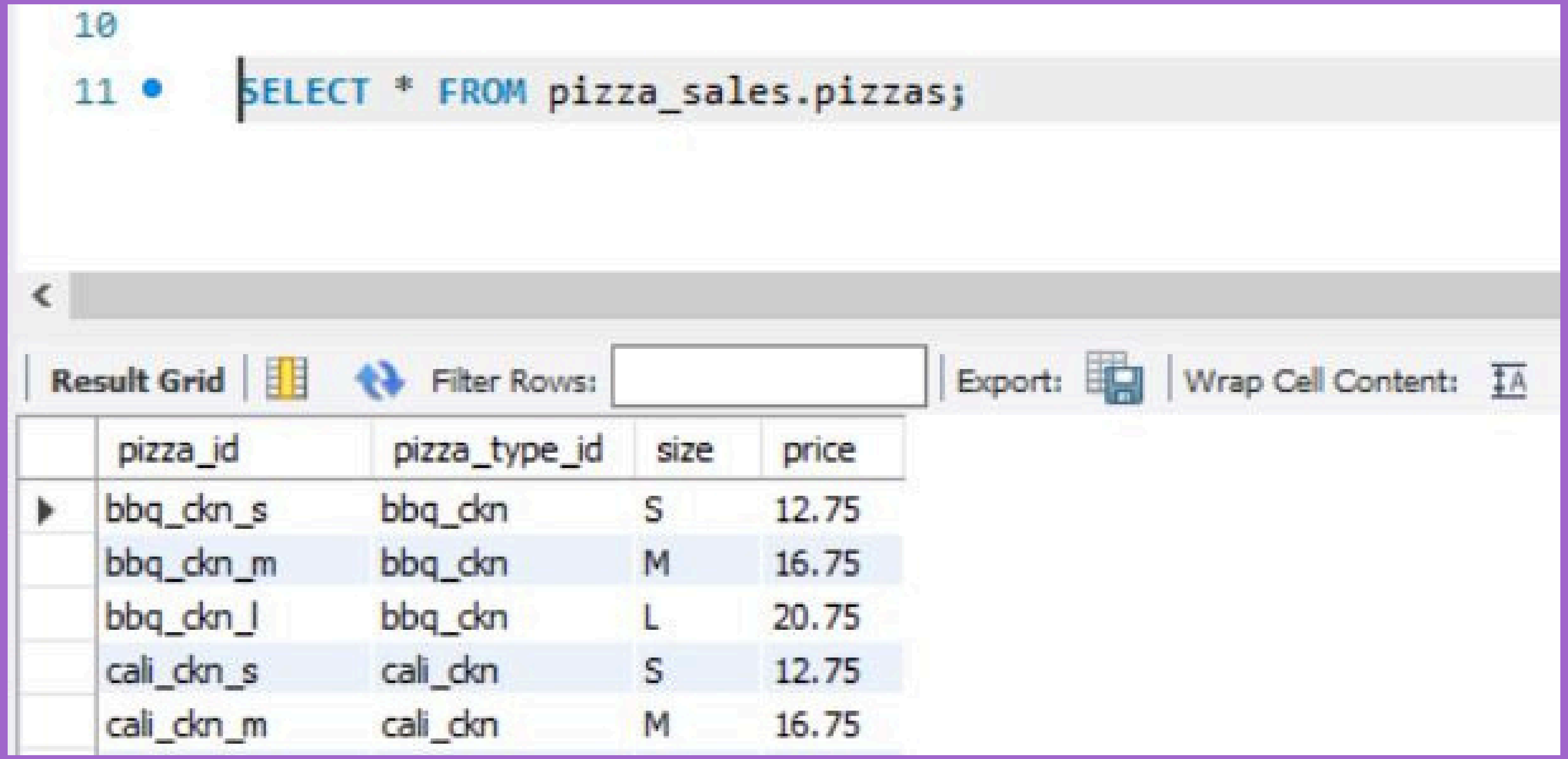
```sql
SELECT * FROM pizza_sales.orders;
```

order_id	order_date	order_time
1	2015-01-01	11:38:36
2	2015-01-01	11:57:40
3	2015-01-01	12:12:28



```sql
SELECT * FROM pizza_sales.pizza_types;
```

pizza_type_id	name	category	ingredients
bbq_ckn	The Barbecue Chicken Pizza	Chicken	Barbecued Chicken, Red Pe
cali_ckn	The California Chicken Pizza	Chicken	Chicken, Artichoke, Spinac
ckn_alfredo	The Chicken Alfredo Pizza	Chicken	Chicken, Red Onions, Red
ckn_pesto	The Chicken Pesto Pizza	Chicken	Chicken, Tomatoes, Red Pe
southw_ckn	The Southwest Chicken Pizza	Chicken	Chicken, Tomatoes, Red Pe
thai_ckn	The Thai Chicken Pizza	Chicken	Chicken, Pineapple, Tomat
big_meat	The Big Meat Pizza	Classic	Bacon, Pepperoni, Italian S



```sql
SELECT * FROM pizza_sales.pizzas;
```

pizza_id	pizza_type_id	size	price
bbq_ckn_s	bbq_ckn	S	12.75
bbq_ckn_m	bbq_ckn	M	16.75
bbq_ckn_l	bbq_ckn	L	20.75
cali_ckn_s	cali_ckn	S	12.75
cali_ckn_m	cali_ckn	M	16.75

Questions for extract business insights using SQL queries.

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.
-

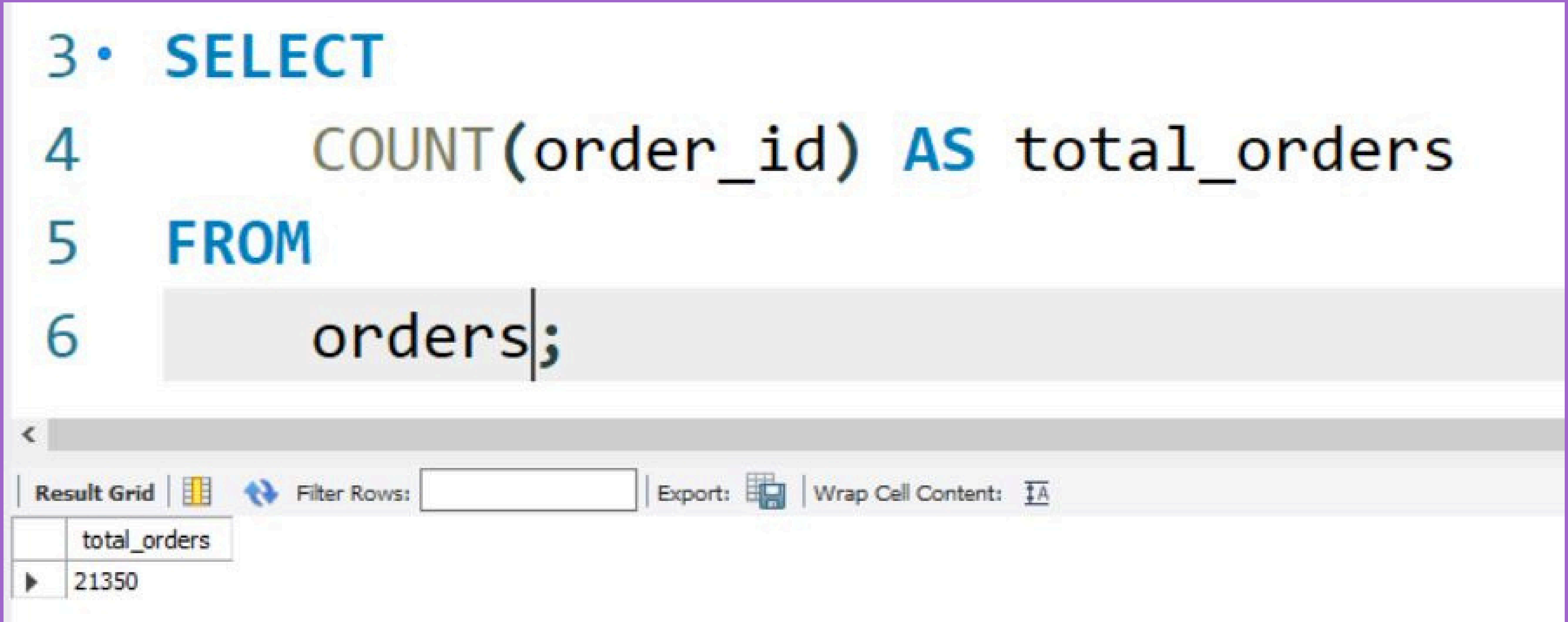
Intermediate:

- 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.

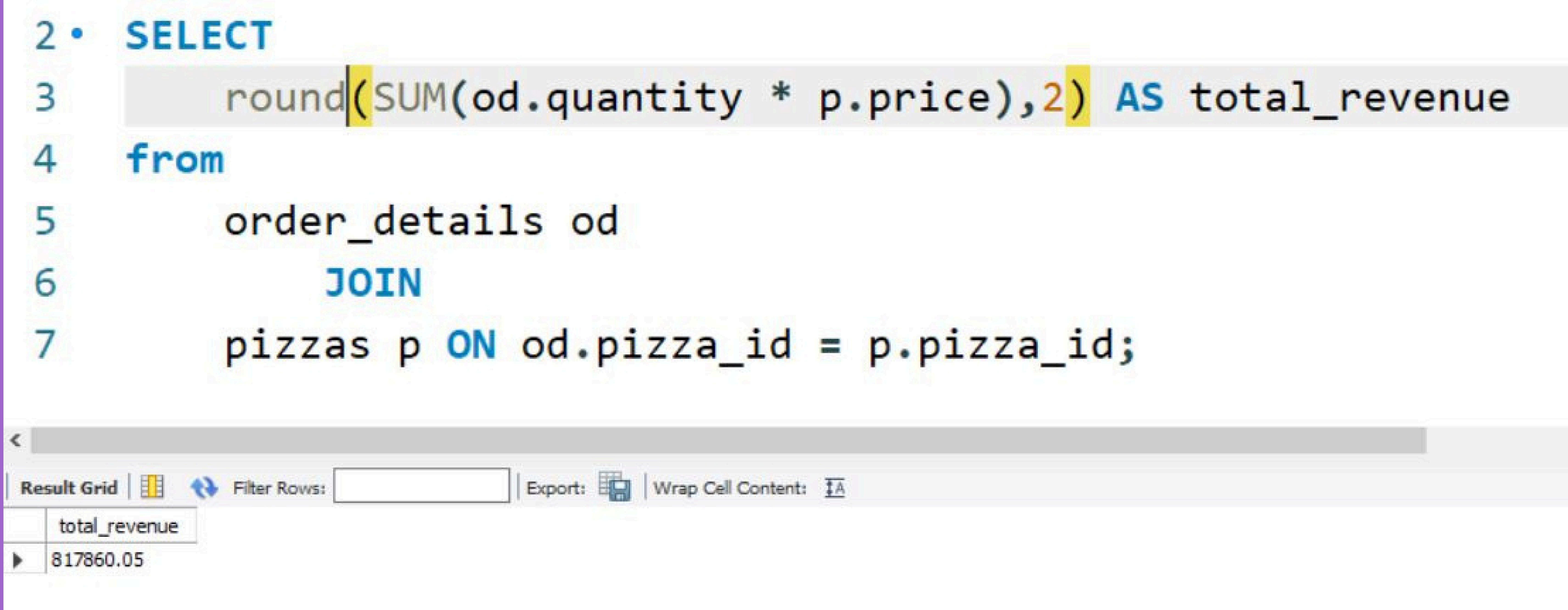
Q1.Retrieve the total number of orders placed.



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

```
total_orders
21350
```

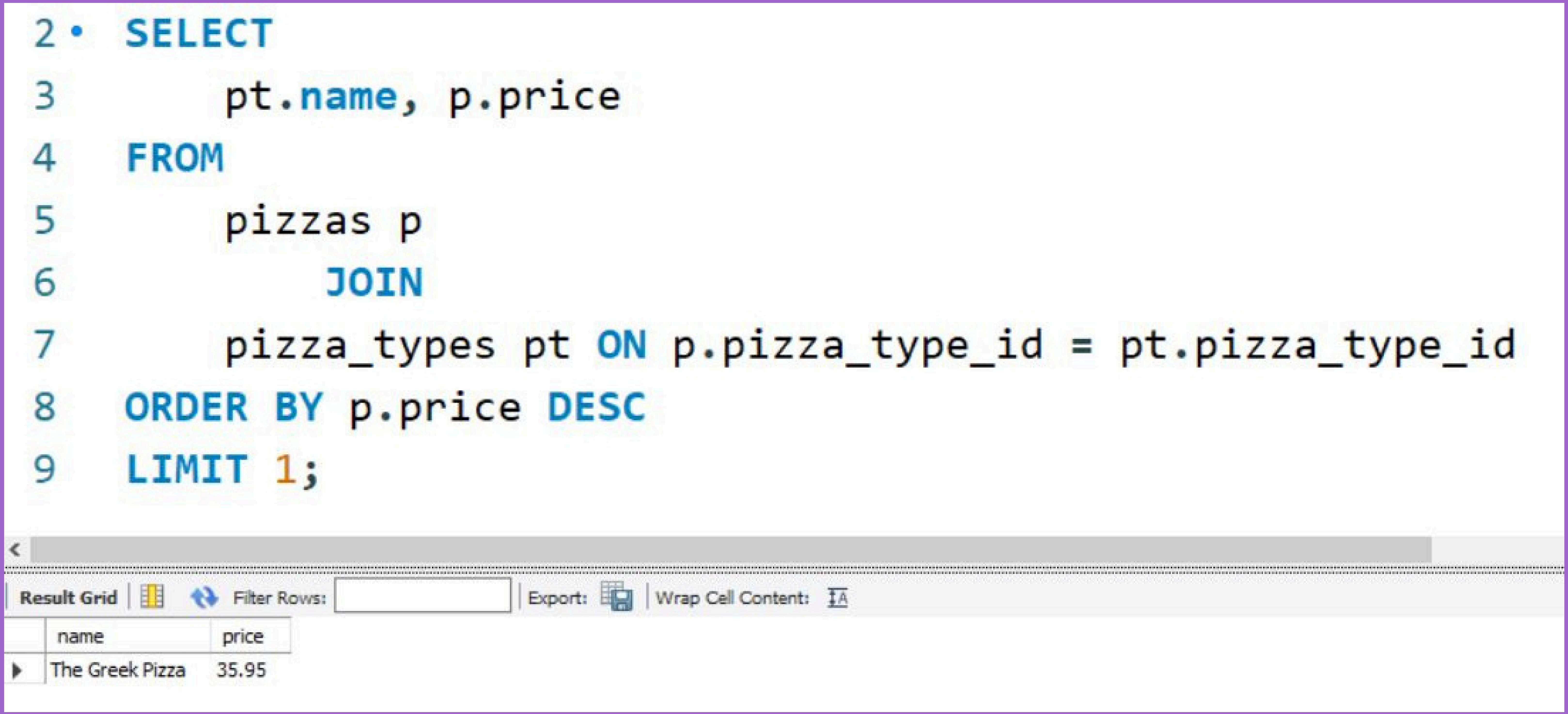
Q2.Calculate the total revenue generated from pizza sales.



```sql
SELECT
    round(SUM(od.quantity * p.price),2) AS total_revenue
from
    order_details od
        JOIN
    pizzas p ON od.pizza_id = p.pizza_id;
```

```
total_revenue
817860.05
```

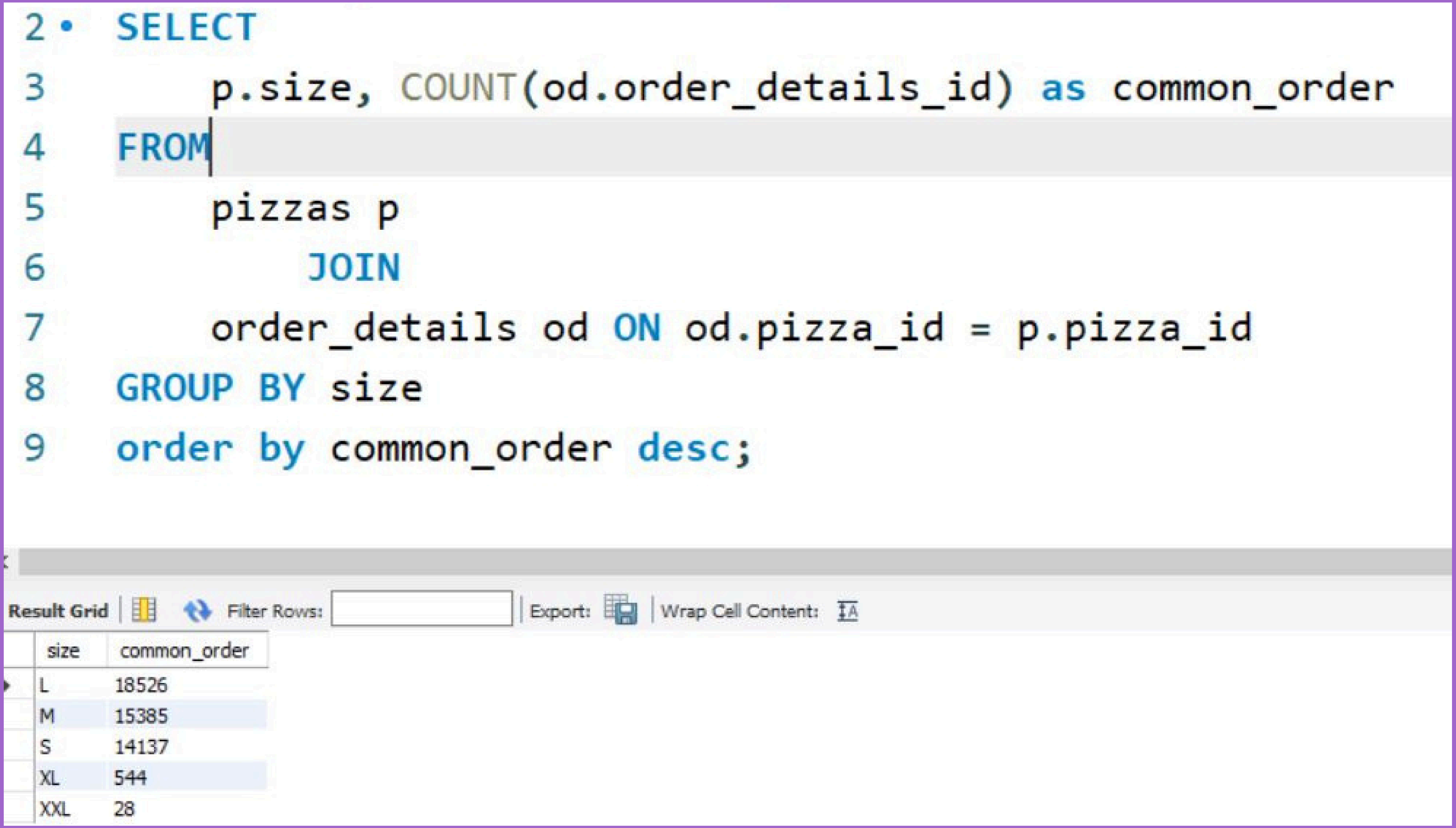
Q3.Identify the highest-priced pizza.



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

name	price
The Greek Pizza	35.95

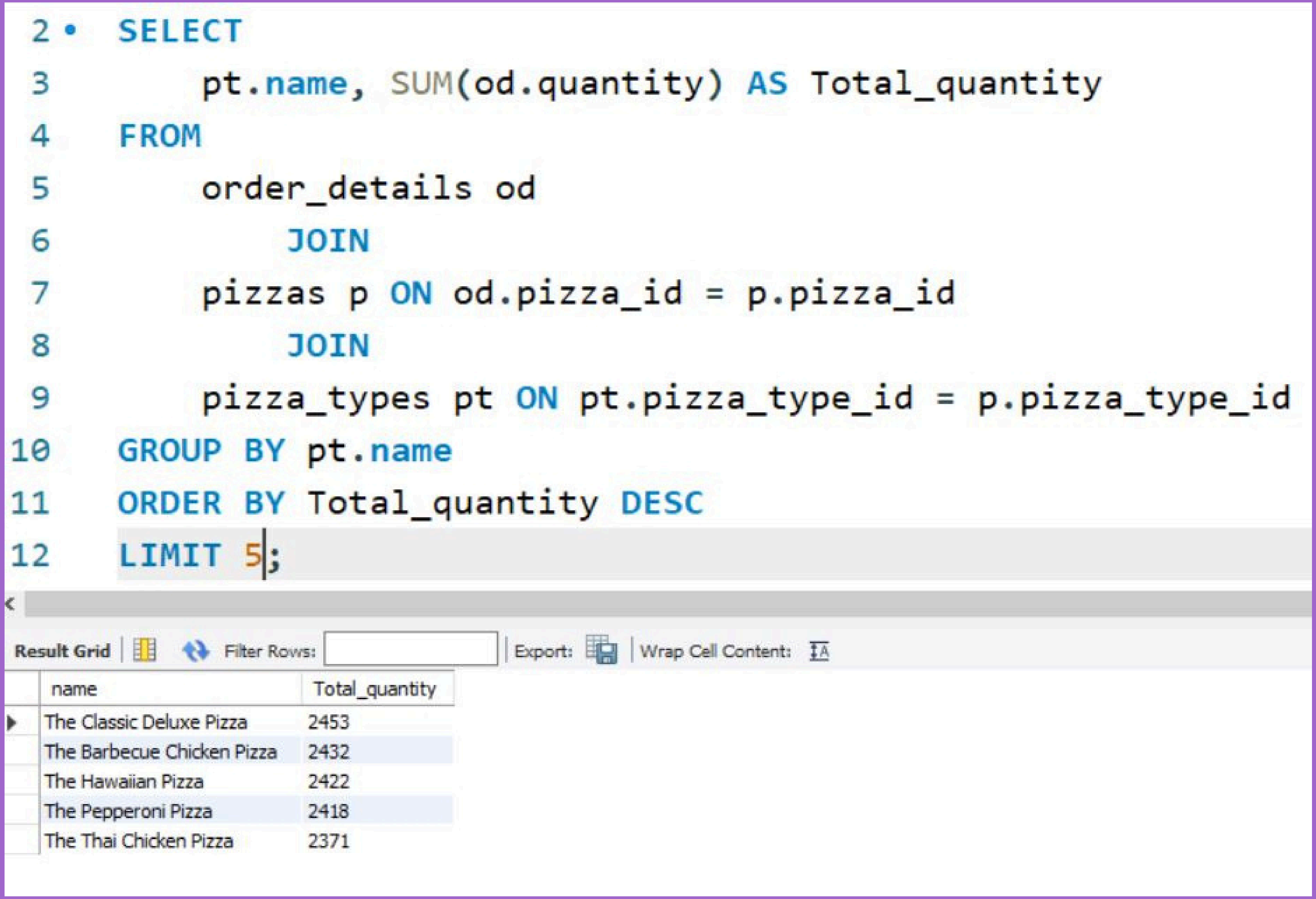
Q4.Identify the most common pizza size ordered.



```sql
SELECT
    p.size, COUNT(od.order_details_id) as common_order
FROM
    pizzas p
        JOIN
    order_details od ON od.pizza_id = p.pizza_id
GROUP BY size
order by common_order desc;
```

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

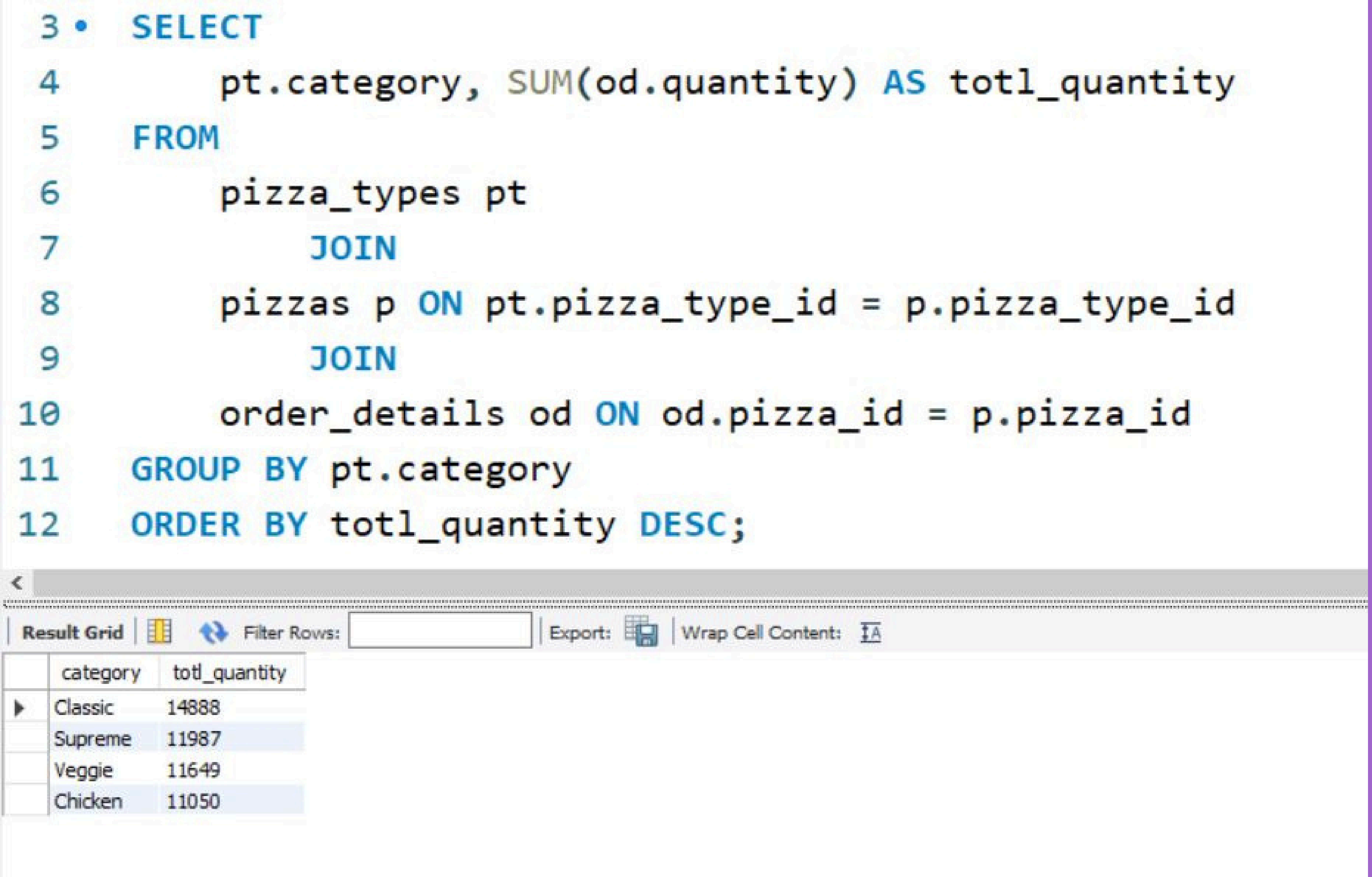
Q5.List the top 5 most ordered pizza types along with their quantities.



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

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

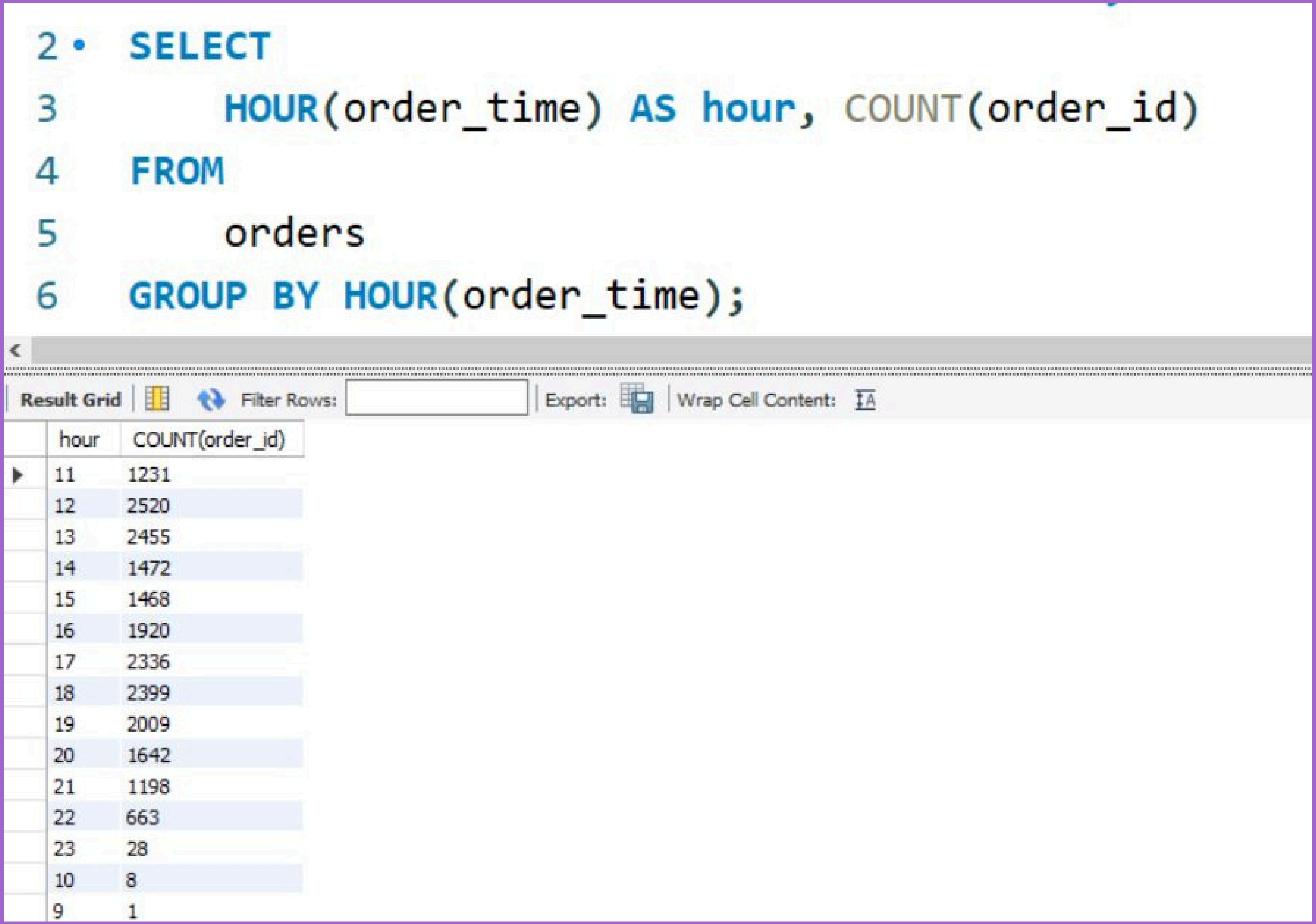
Q6. find the total quantity of each pizza category ordered.



```sql
SELECT
    pt.category, SUM(od.quantity) AS totl_quantity
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 totl_quantity DESC;
```

category	totl_quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

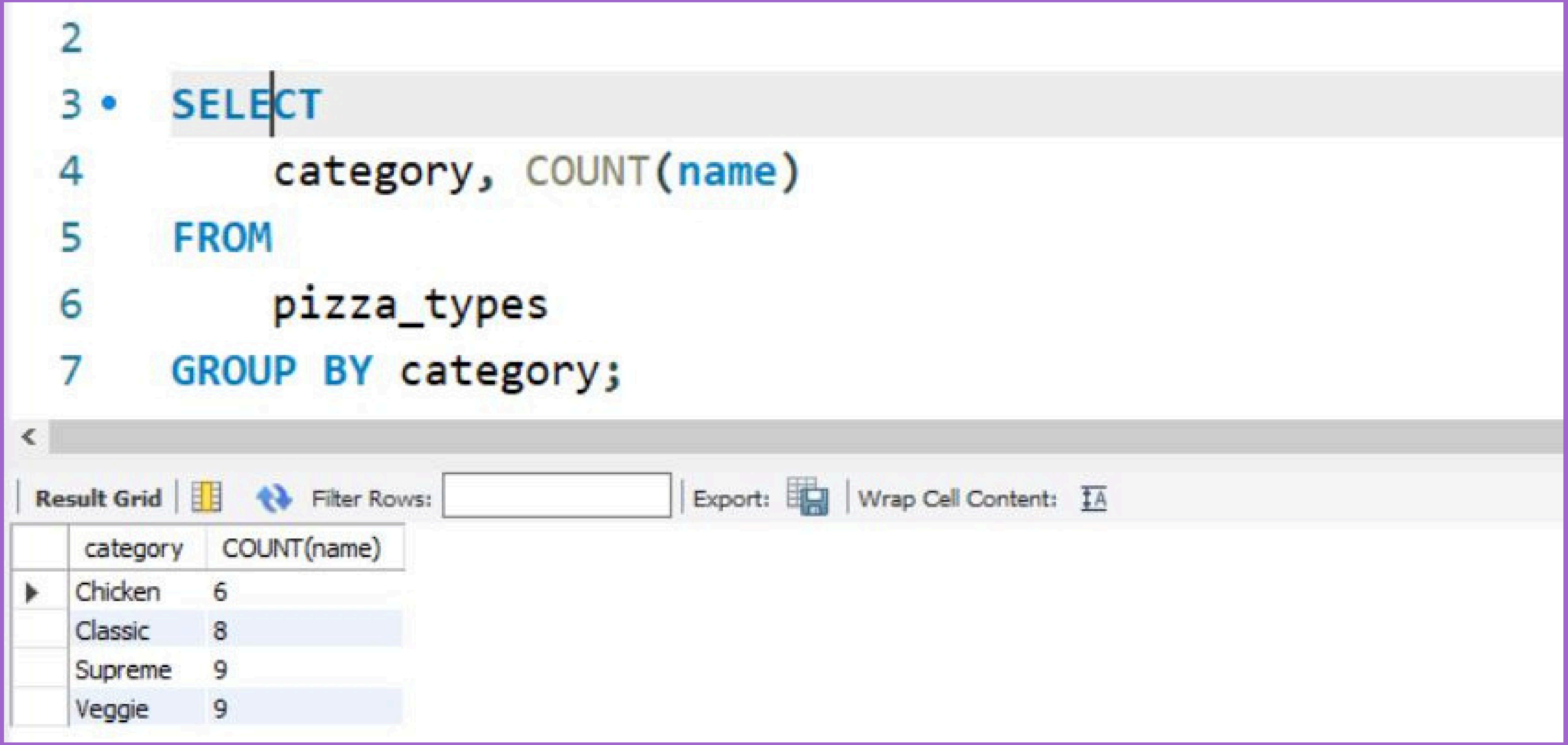
Q7.Determine the distribution of orders by hour of the day.



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

hour	COUNT(order_id)
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

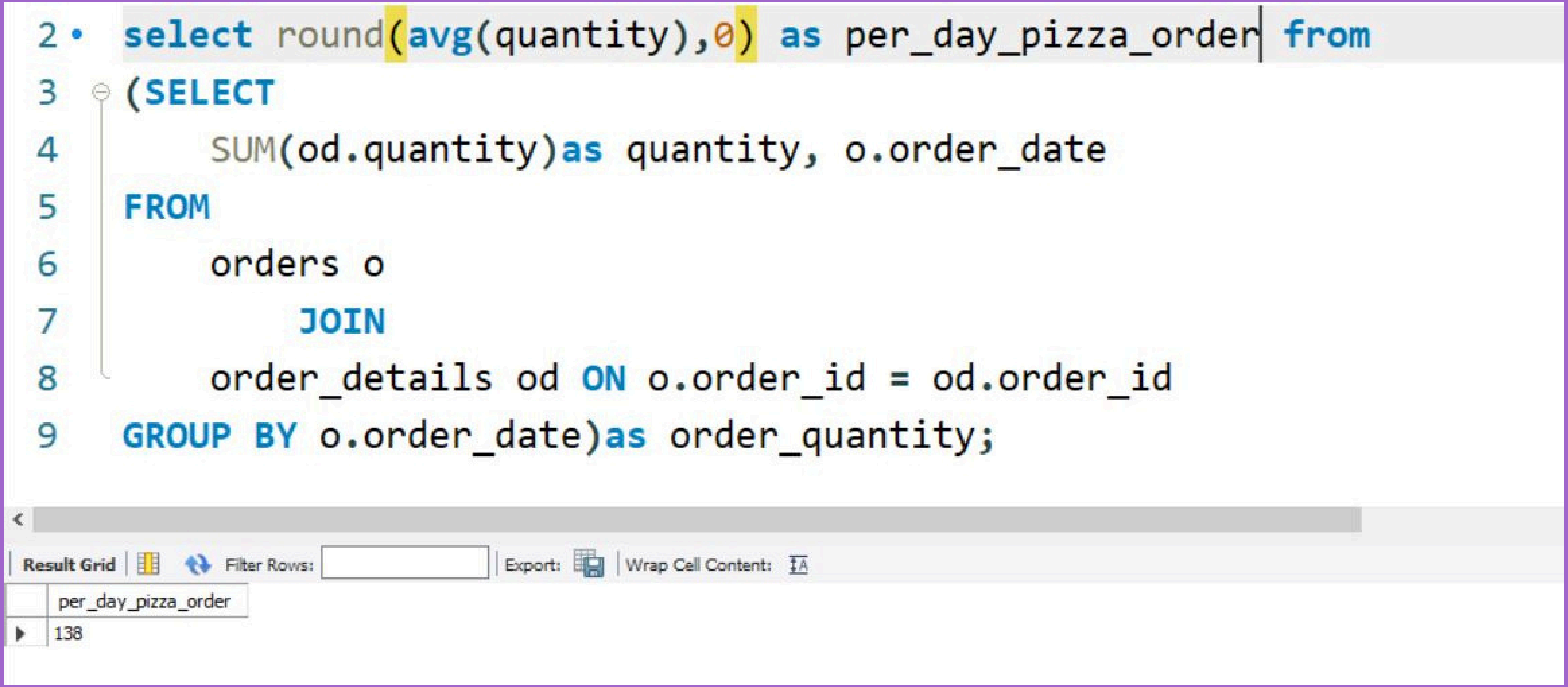
Q8. find the category-wise distribution of pizzas.



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

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

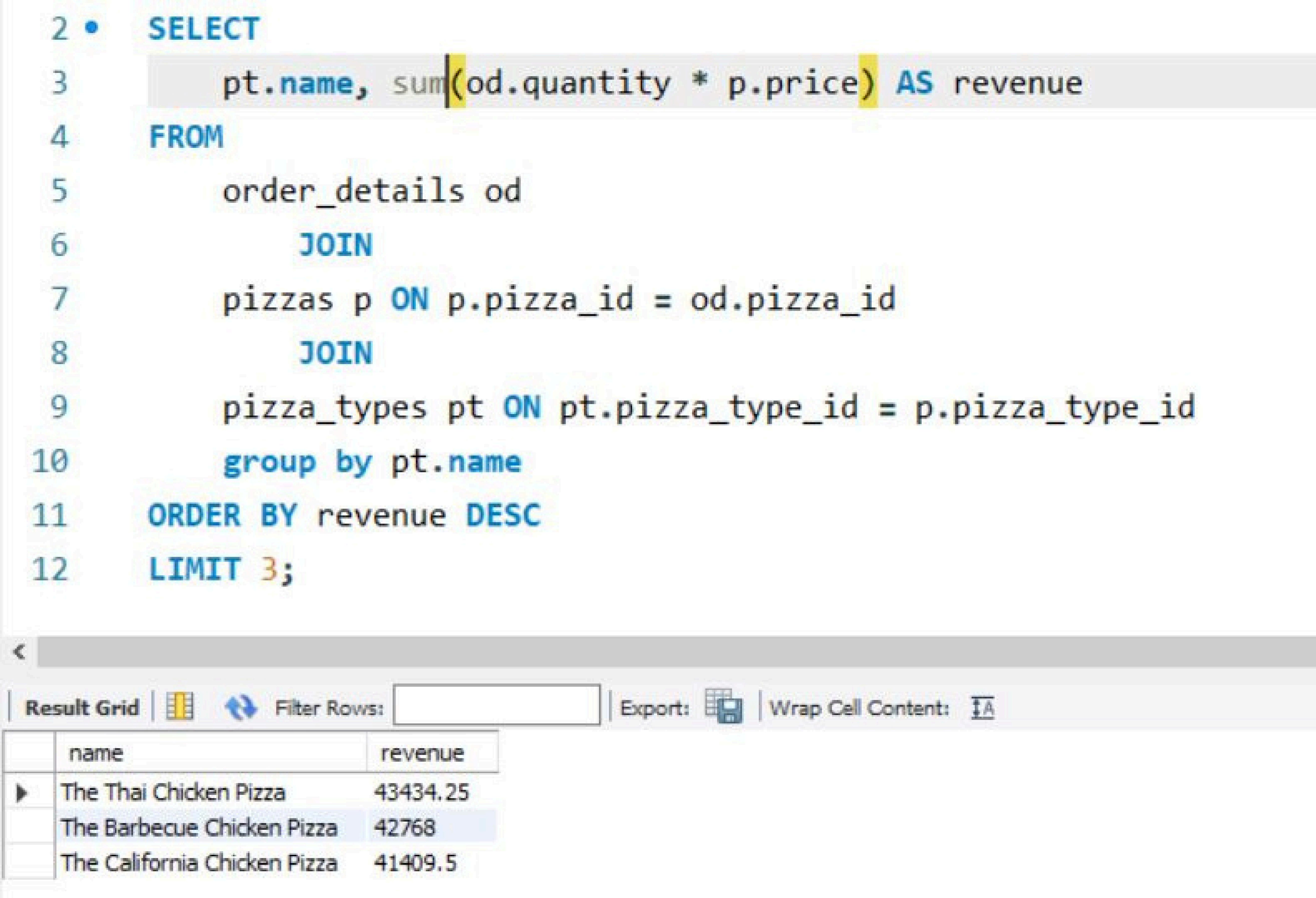
Q9.Group the orders by date and calculate the average number of pizzas ordered per day.



```
select round(avg(quantity),0) as per_day_pizza_order from
(SELECT
    SUM(od.quantity)as quantity, o.order_date
FROM
    orders o
        JOIN
    order_details od ON o.order_id = od.order_id
GROUP BY o.order_date)as order_quantity;
```

```
per_day_pizza_order
138
```

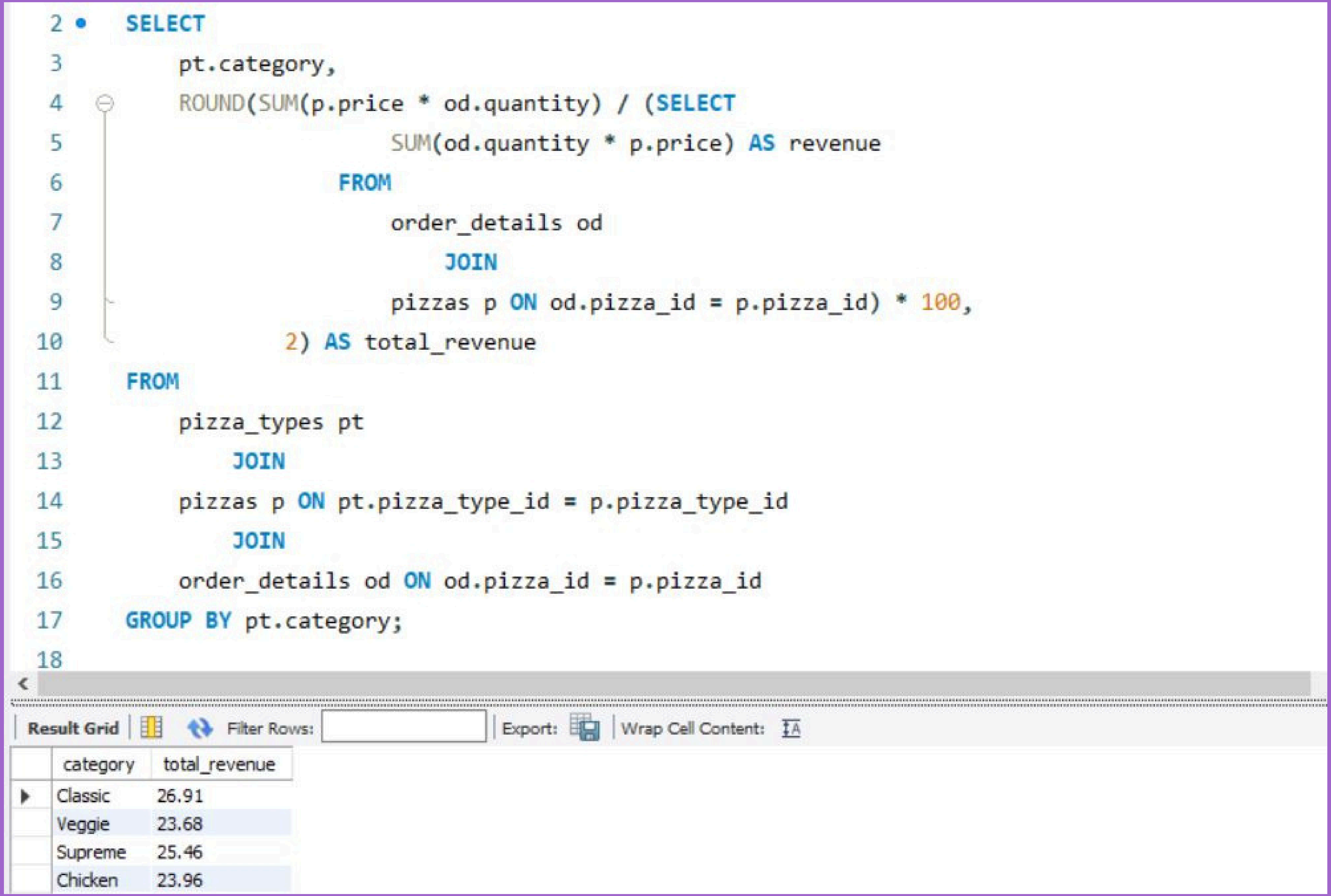
Q10.Determine the top 3 most ordered pizza types based on revenue.



```
SELECT
    pt.name, sum(od.quantity * p.price) AS revenue
FROM
    order_details od
        JOIN
    pizzas p ON p.pizza_id = od.pizza_id
        JOIN
    pizza_types pt ON pt.pizza_type_id = p.pizza_type_id
    group by pt.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

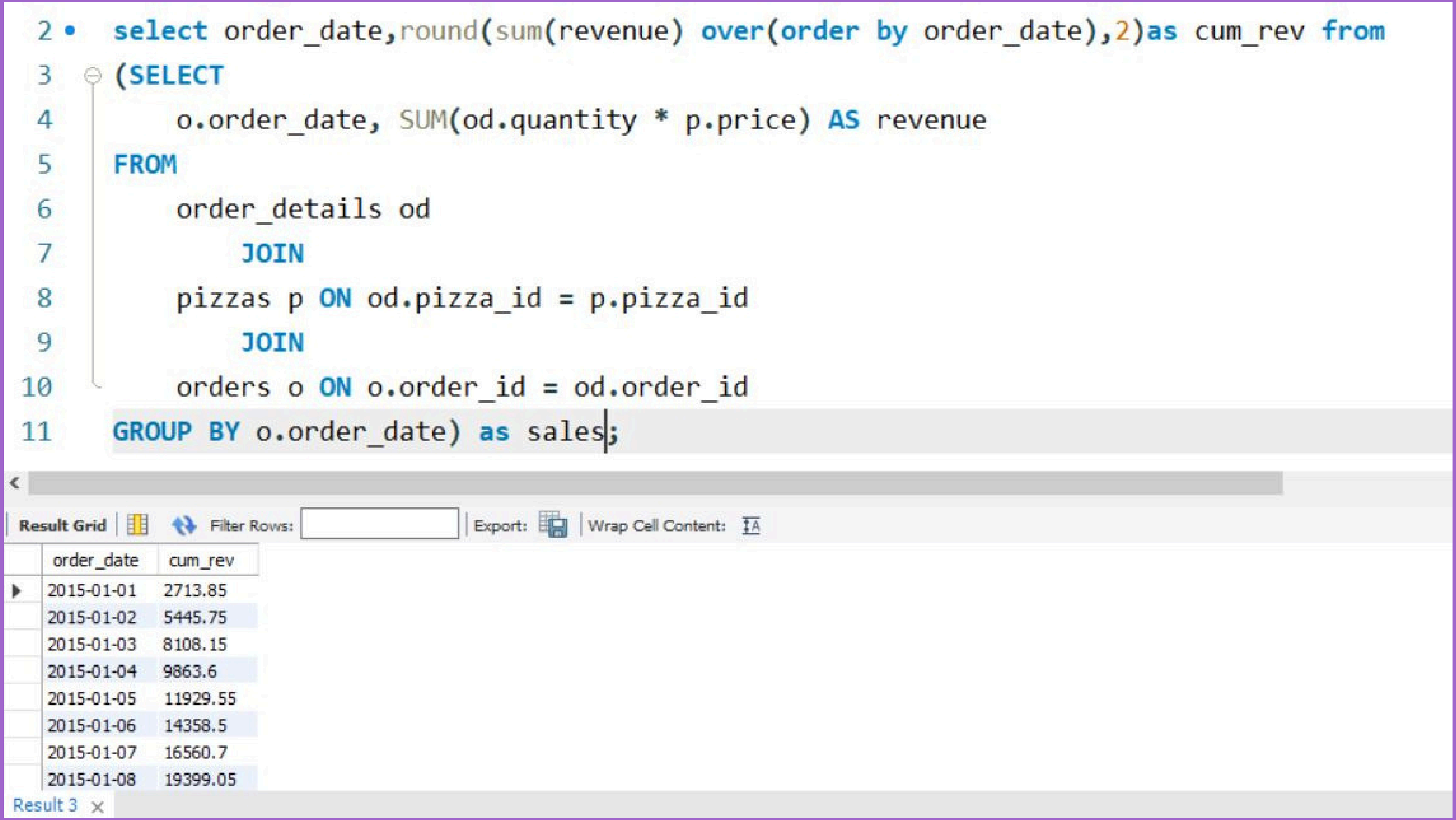
Q11.Calculate the percentage contribution of each pizza type to total revenue.



```
SELECT
  pt.category,
  ROUND(SUM(p.price * od.quantity) / (SELECT
          SUM(od.quantity * p.price) AS revenue
        FROM
          order_details od
            JOIN
          pizzas p ON od.pizza_id = p.pizza_id) * 100,
      2) AS total_revenue
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;
```

category	total_revenue
Classic	26.91
Veggie	23.68
Supreme	25.46
Chicken	23.96

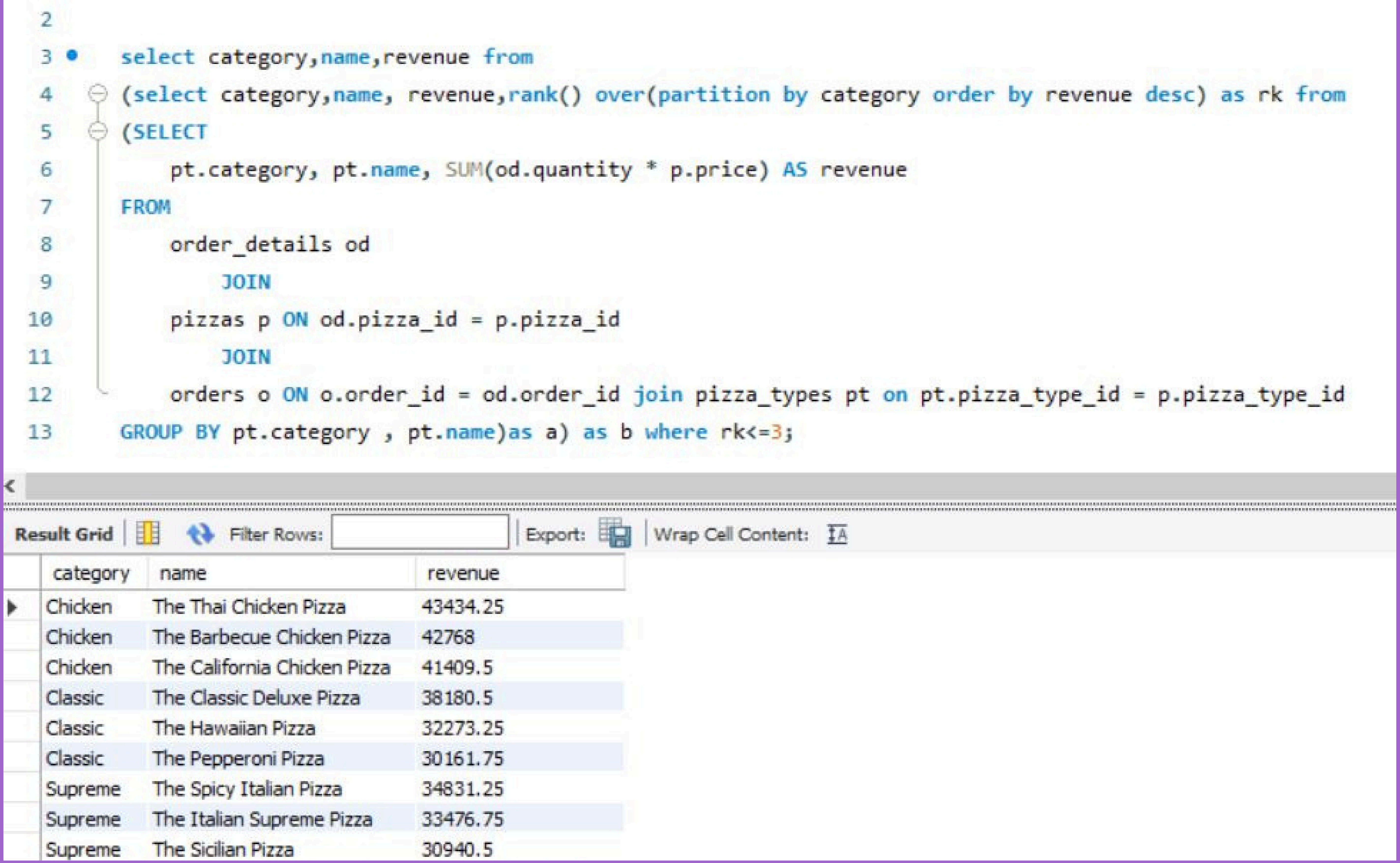
Q12.Analyze the cumulative revenue generated over time.



```sql
select order_date,round(sum(revenue) over(order by order_date),2)as cum_rev from
(SELECT
    o.order_date, SUM(od.quantity * p.price) AS revenue
FROM
    order_details od
        JOIN
    pizzas p ON od.pizza_id = p.pizza_id
        JOIN
    orders o ON o.order_id = od.order_id
GROUP BY o.order_date) as sales;
```

order_date	cum_rev
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

Q13.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 rk from
(SELECT
    pt.category, pt.name, SUM(od.quantity * p.price) AS revenue
FROM
    order_details od
        JOIN
    pizzas p ON od.pizza_id = p.pizza_id
        JOIN
    orders o ON o.order_id = od.order_id join pizza_types pt on pt.pizza_type_id = p.pizza_type_id
GROUP BY pt.category , pt.name)as a) as b where rk<=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

Key Insights

- Peak sales are during AFTENOON & EVENING.
- Most ordered pizza: The classic deulex pizza
- Least ordered pizza: The peperoni chiese pizza
- Highest revenue from Medium size pizzas.
- Average daily revenue: ₹2284.56

Conclusion/Business Impact

- These insights help improve inventory management.
- Marketing focus should be on best-selling pizza types.
- Peak hours analysis helps optimize staff scheduling.

THANK YOU