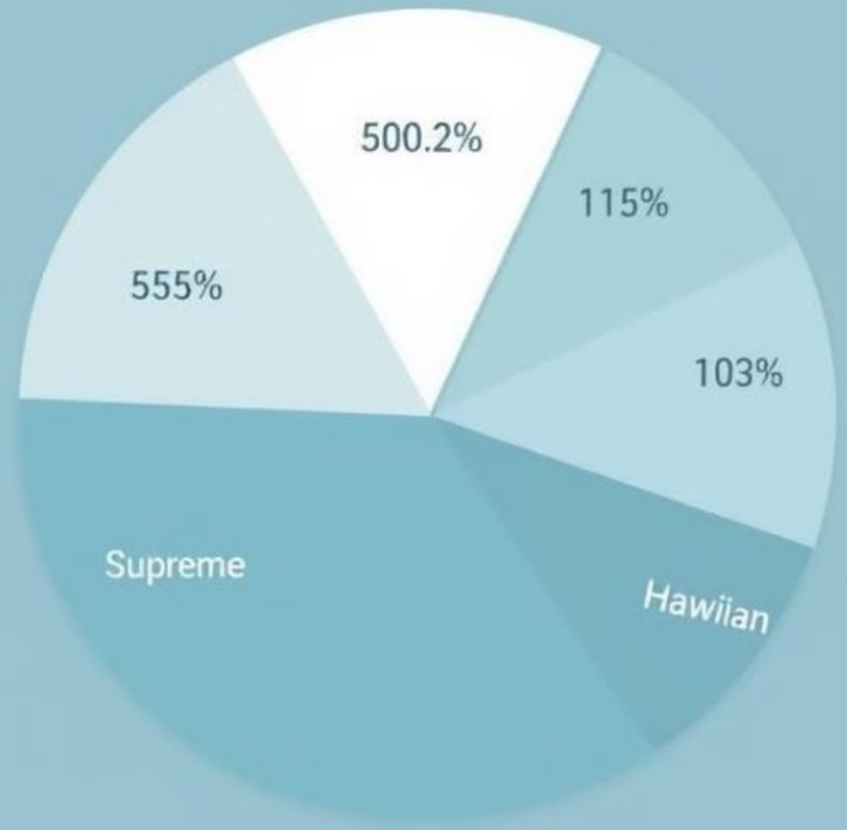
PIZZA SALES ANALYSIS
PEPPEPEONTA
VEGGIE
SALES ANALYSIS

Pizza Sales Analysis

This analysis examines pizza sales data to uncover key trends and insights, including top-selling pizza types, peak sales periods, and customer preferences. By understanding these factors, we aim to optimize menu offerings, improve inventory planning, and increase overall sales. This data-driven approach will help make strategic decisions to boost profitability and customer satisfaction.

T **by Tushar Pawar**



Seasonal Trends in Pizza Sales

1

Spring

Sales increase as weather improves and people gather outdoors.

2

Summer

Peak season with high demand due to warm weather and outdoor gatherings.

3

Autumn

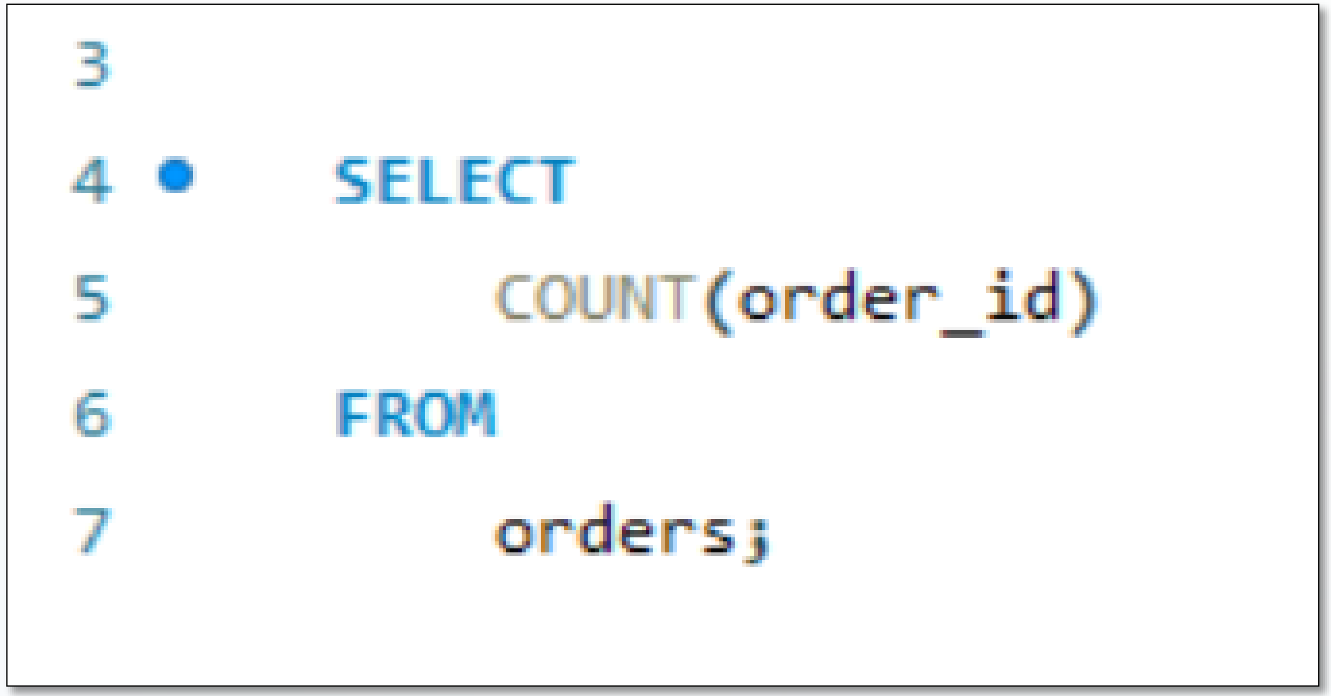
Sales decline slightly as weather cools down and people stay indoors more.

4

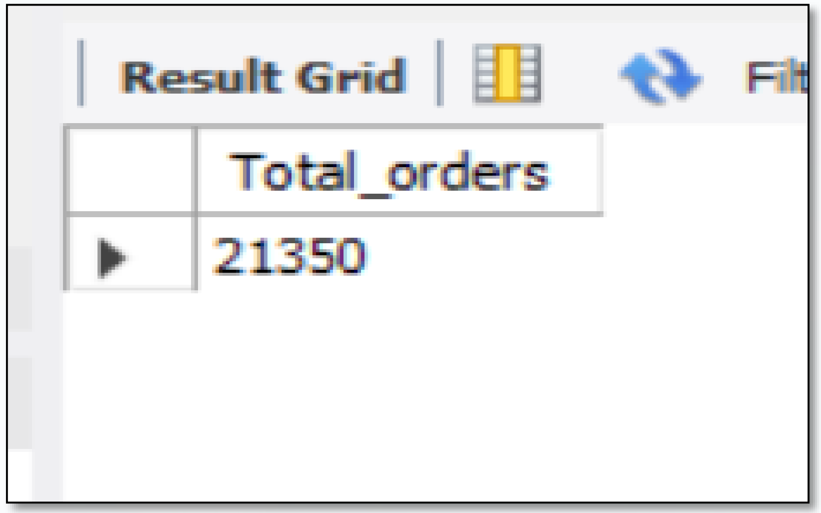
Winter

Sales remain steady with consistent demand despite colder weather.

Retrieve the total number of orders placed.

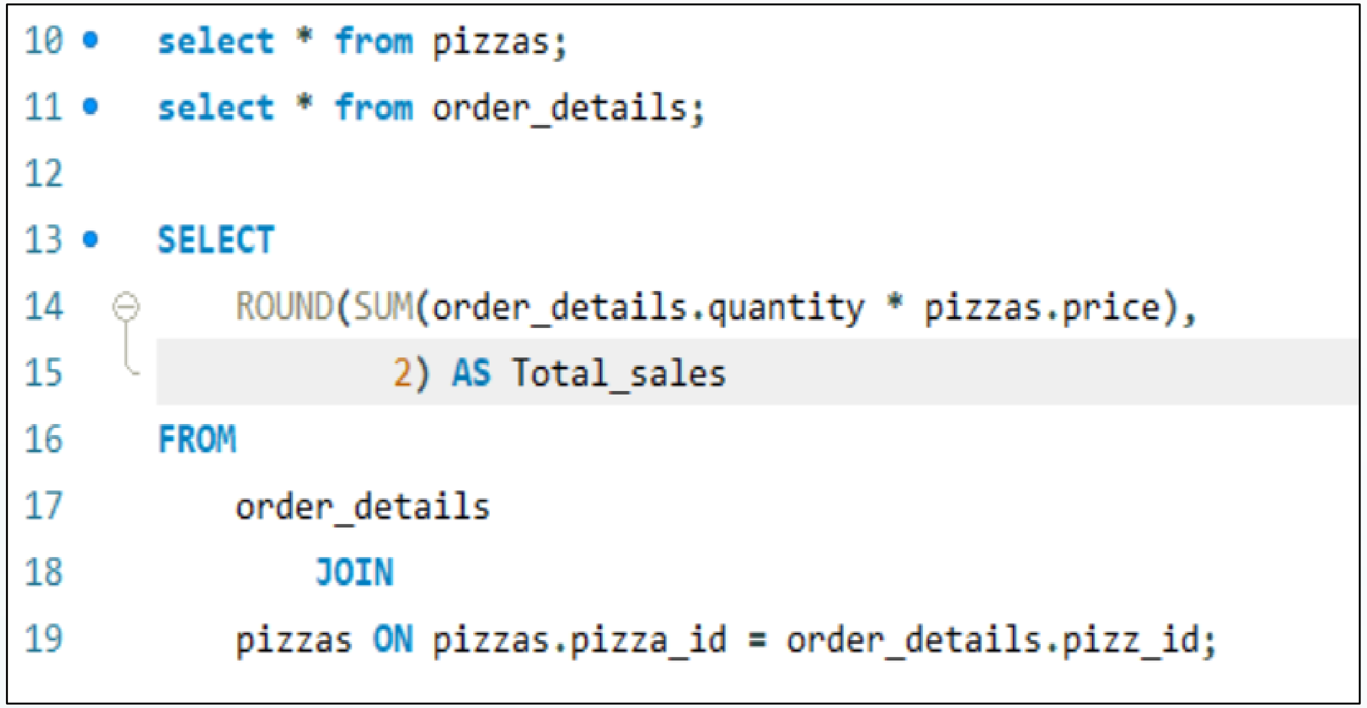


```
    SELECT
        COUNT(order_id)
    FROM
        orders;
```



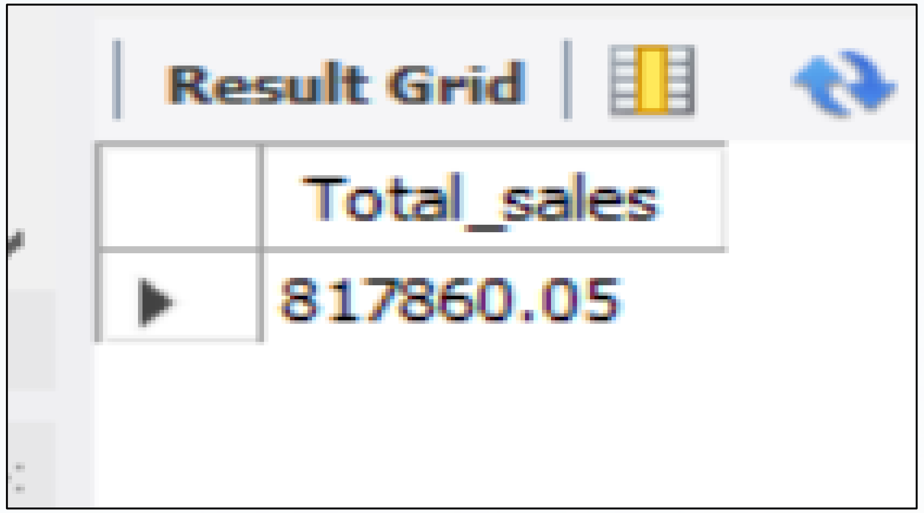
```
Total_orders
21350
```

Calculate the total revenue generated from pizza sales.



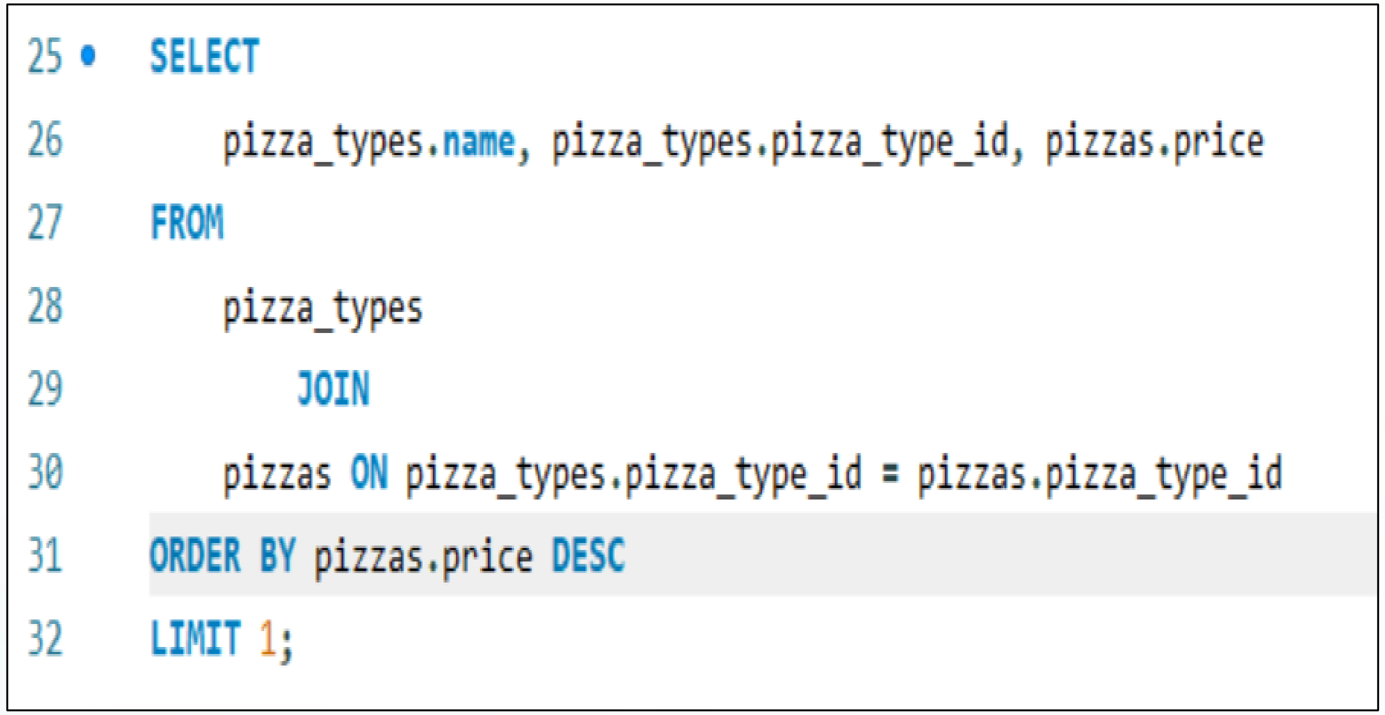
```
select * from pizzas;
select * from order_details;

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

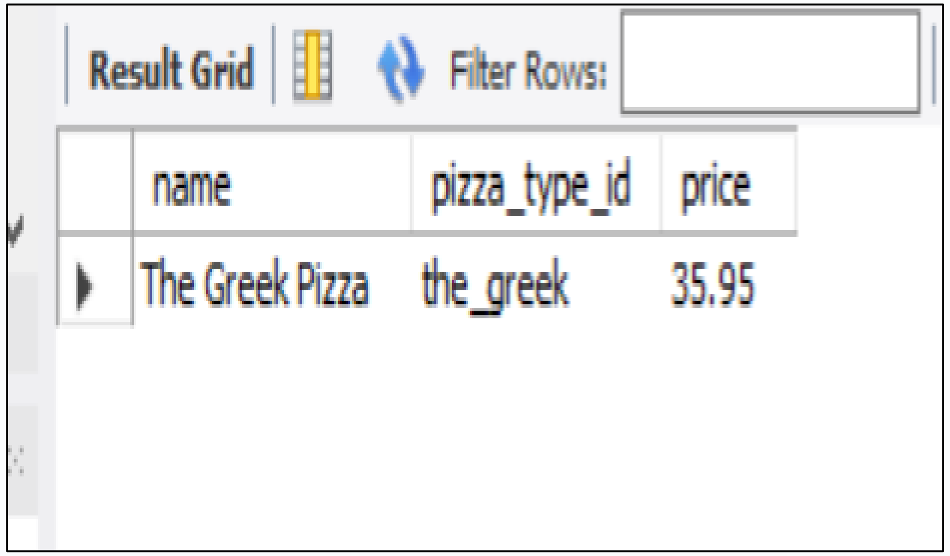


	Total_sales
▶	817860.05

Identify the highest-priced pizza.

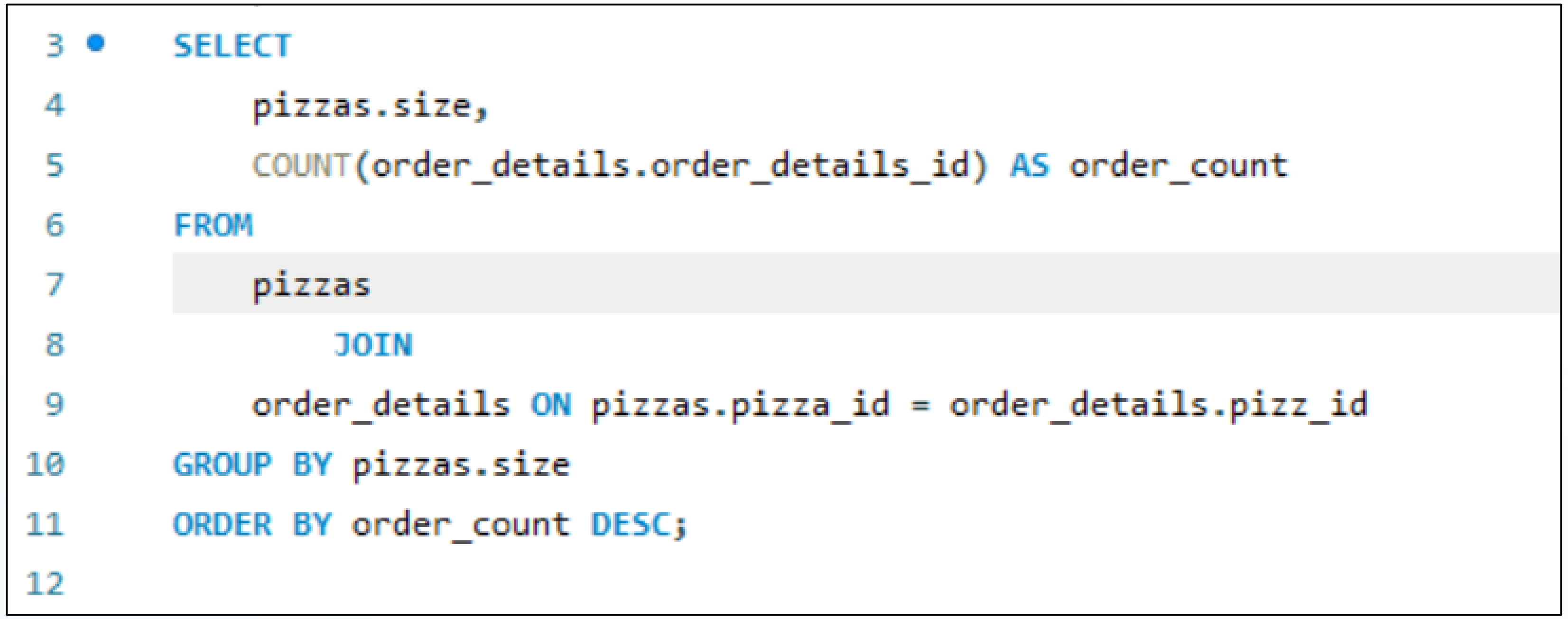


```sql
SELECT
    pizza_types.name, pizza_types.pizza_type_id, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1;
```

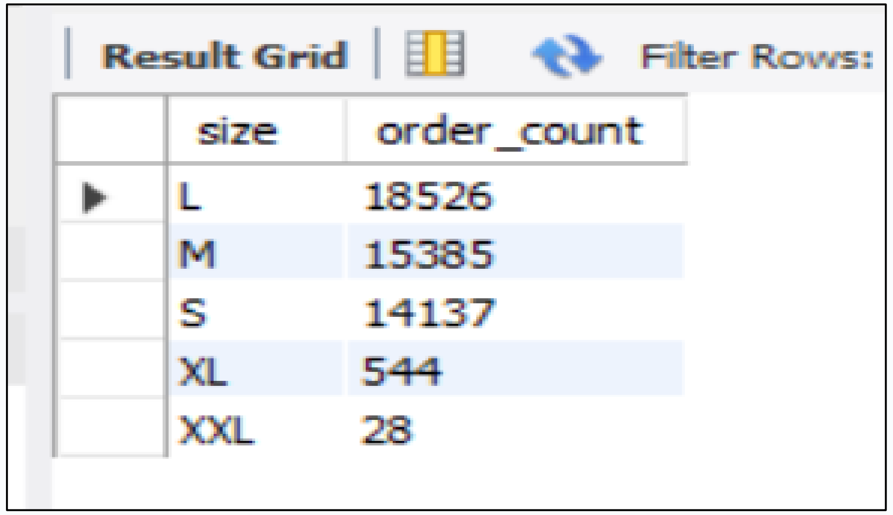


name	pizza_type_id	price
The Greek Pizza	the_greek	35.95

Identify the most common pizza size ordered.



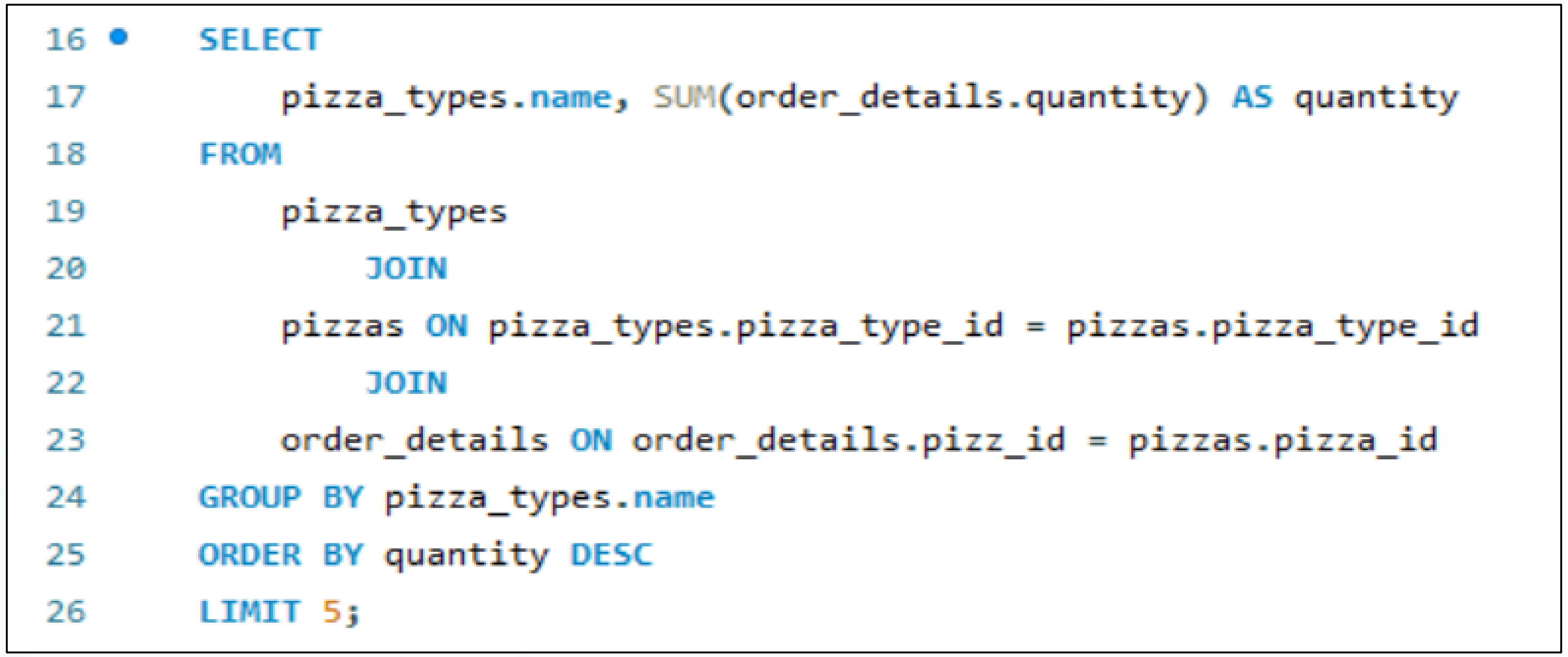
```
SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizz_id
GROUP BY pizzas.size
ORDER BY order_count DESC;
```



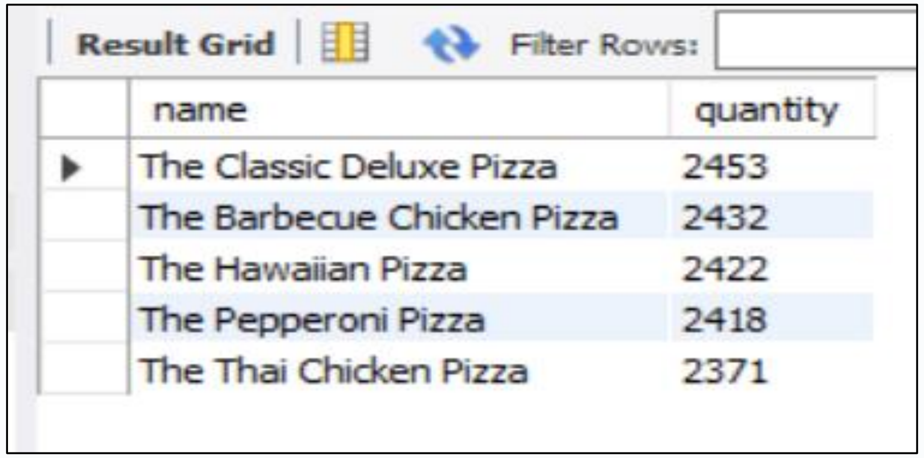
size	order_count
L	18526
M	15385
S	14137
XL	544
XXL	28

Made with Gamma

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

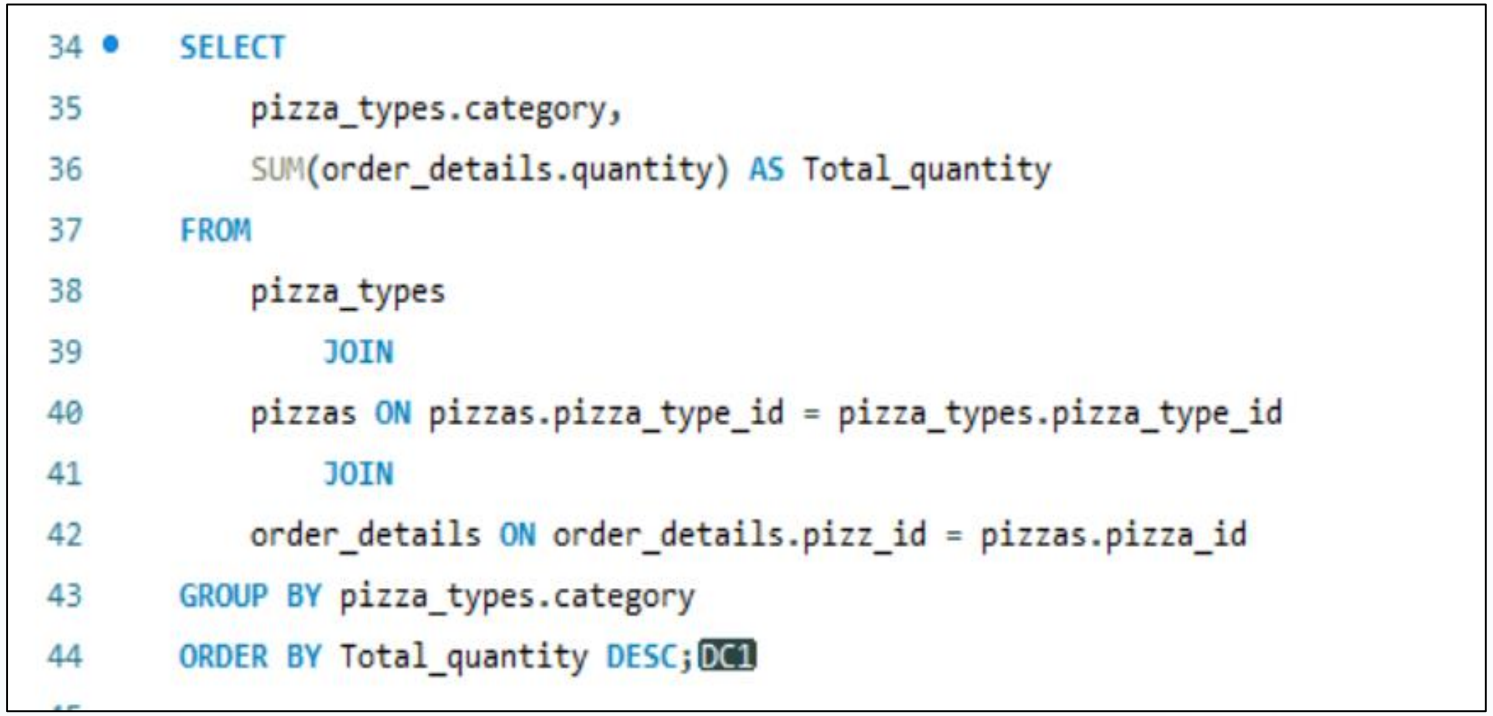


```sql
SELECT
    pizza_types.name, SUM(order_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizz_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT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

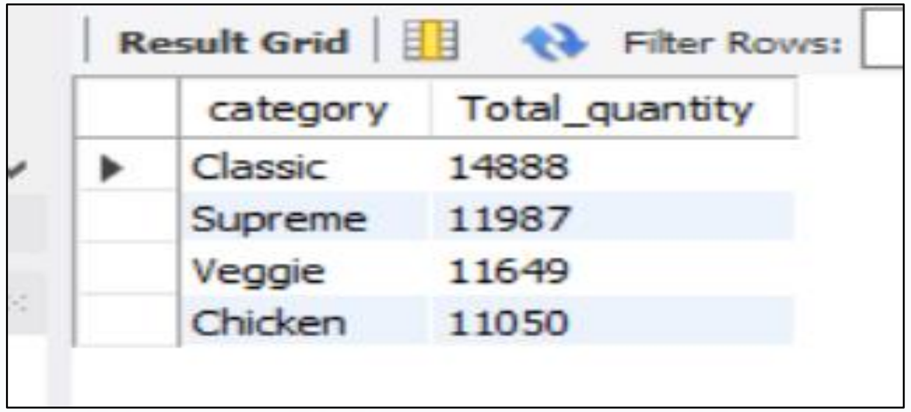


name	quantity
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

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

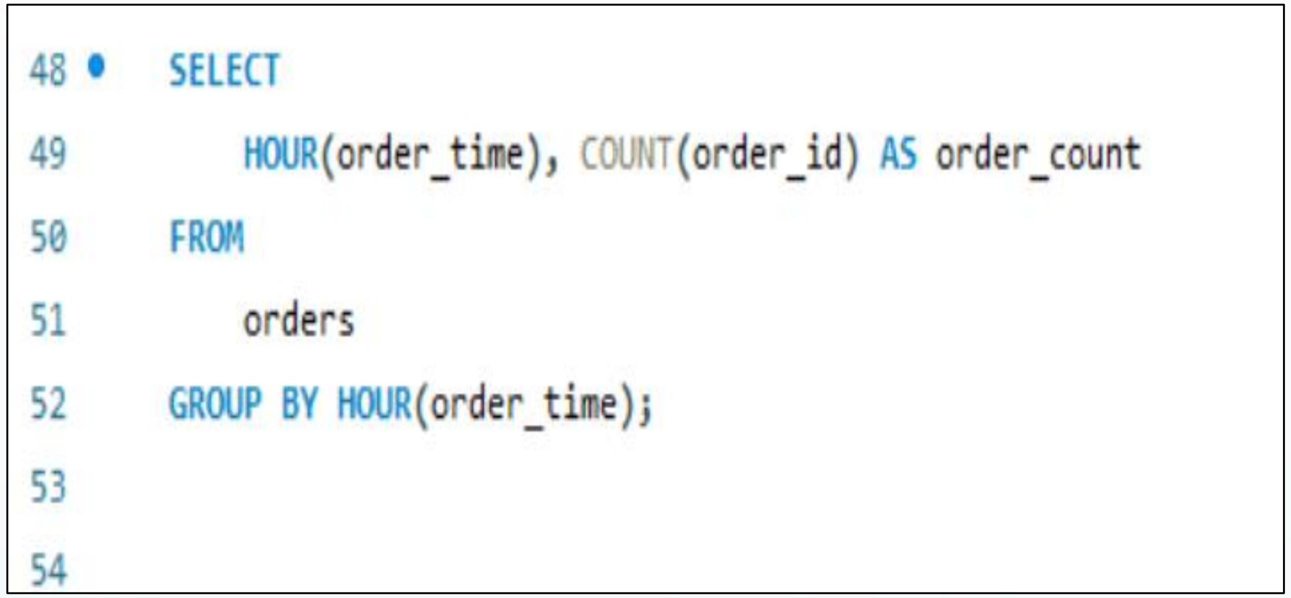


```sql
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS Total_quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON order_details.pizz_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY Total_quantity DESC;DC1
```

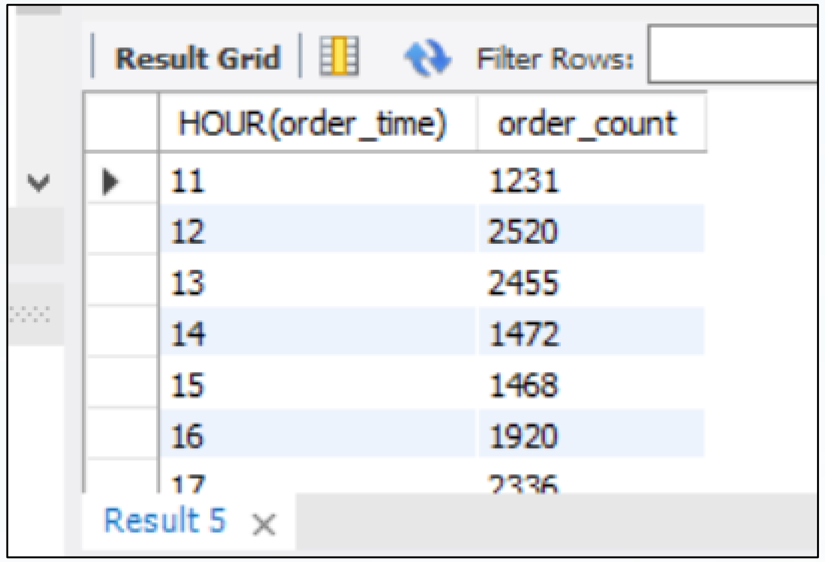


category	Total_quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

Determine the distribution of orders by hour of the day.

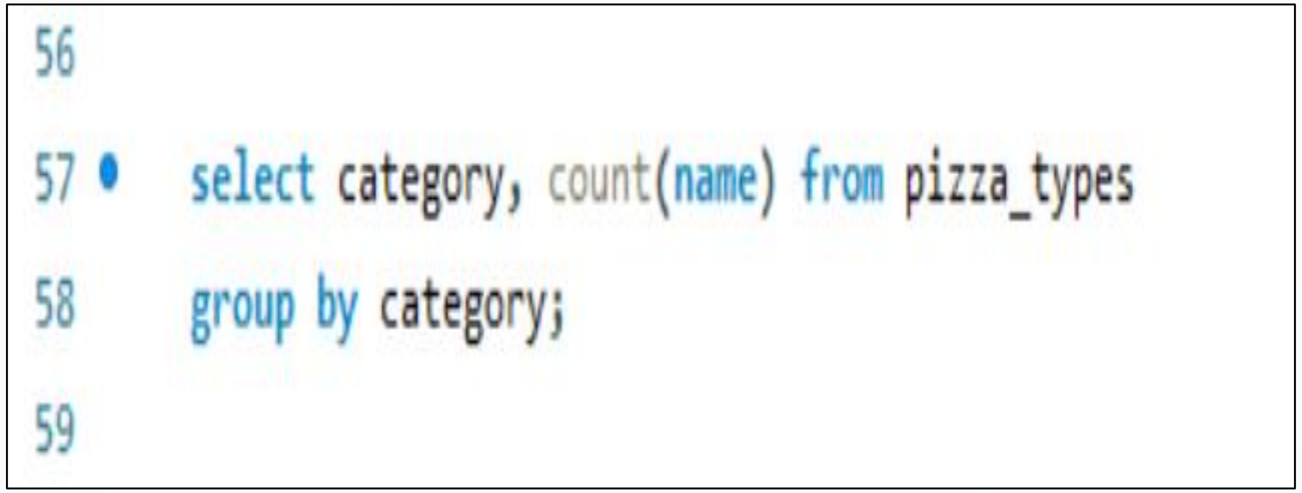


```sql
SELECT
    HOUR(order_time), COUNT(order_id) AS order_count
FROM
    orders
GROUP BY HOUR(order_time);
```

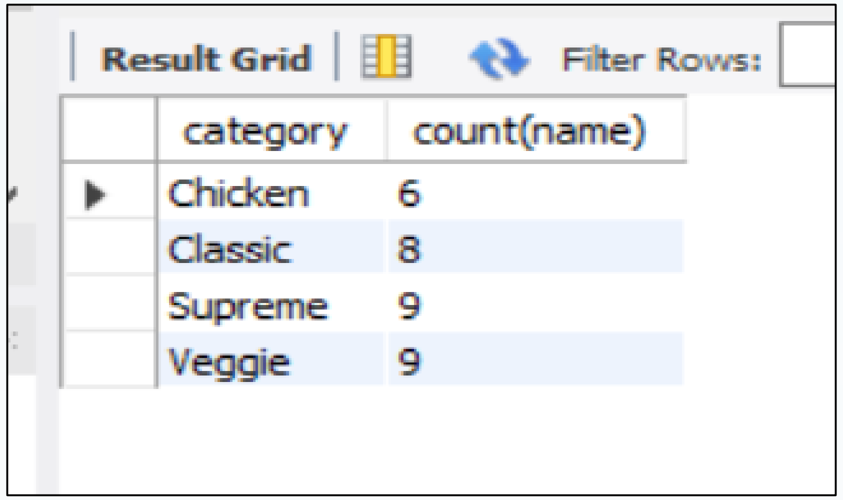


HOUR(order_time)	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336

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

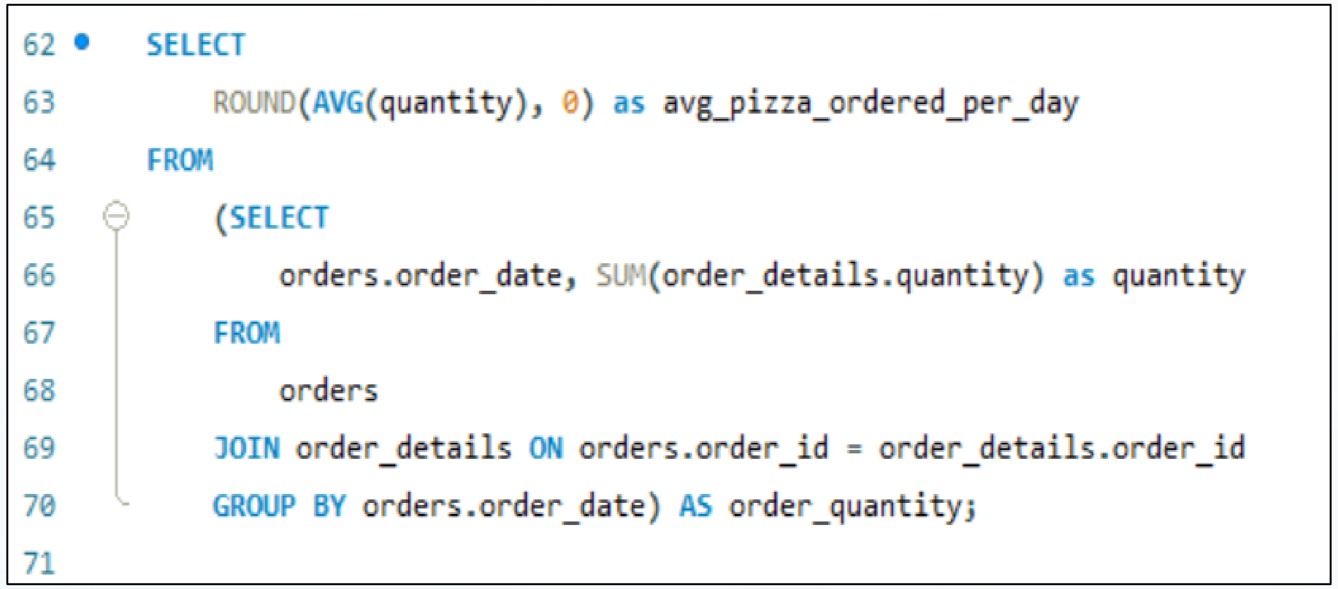


```sql
select category, count(name) from pizza_types
group by category;
```

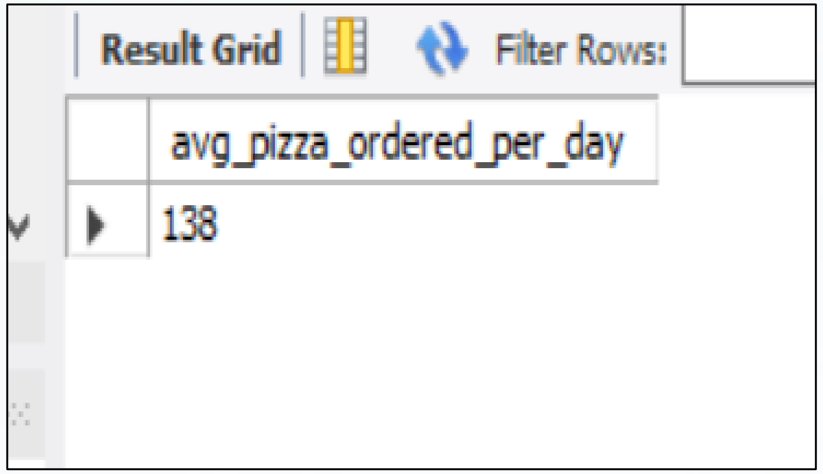


category	count(name)
Chicken	6
Classic	8
Supreme	9
Veggie	9

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

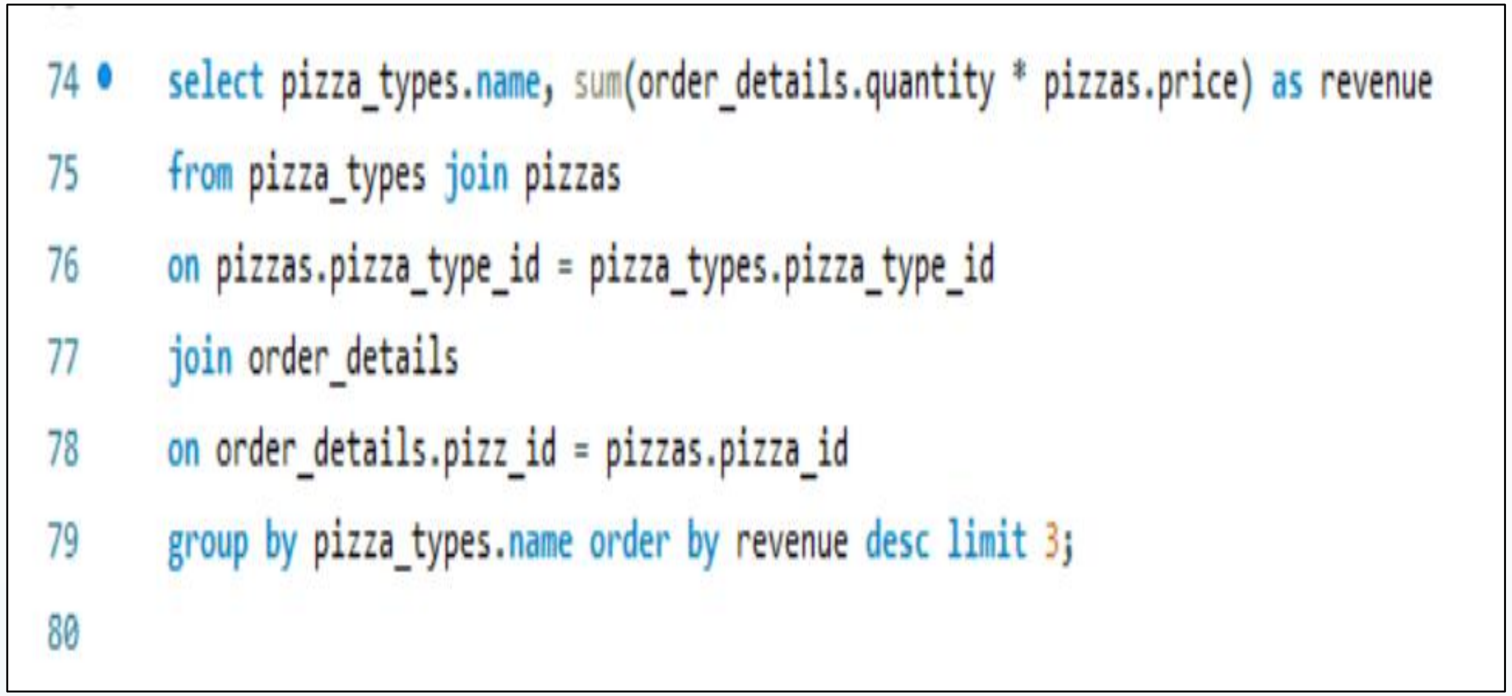


```sql
SELECT
    ROUND(AVG(quantity), 0) as avg_pizza_ordered_per_day
FROM
    (SELECT
        orders.order_date, SUM(order_details.quantity) as quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date) AS order_quantity;
```

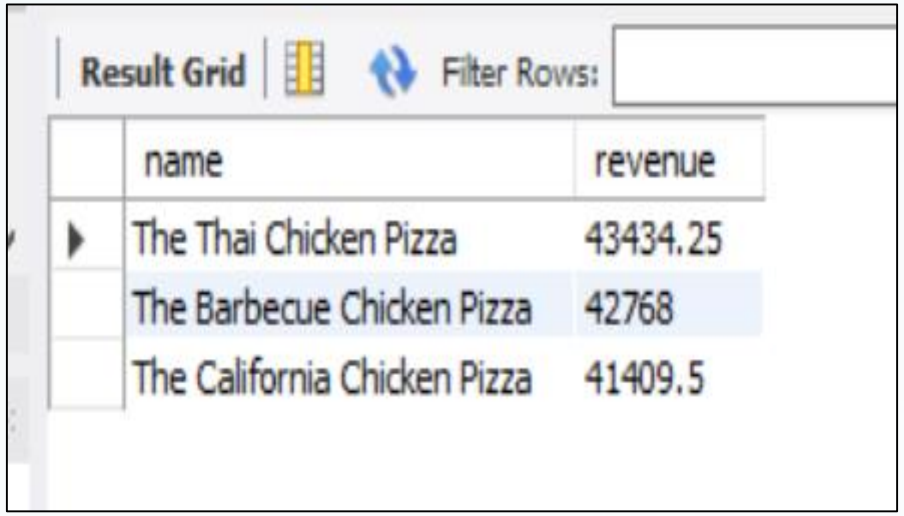


```
avg_pizza_ordered_per_day
138
```

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

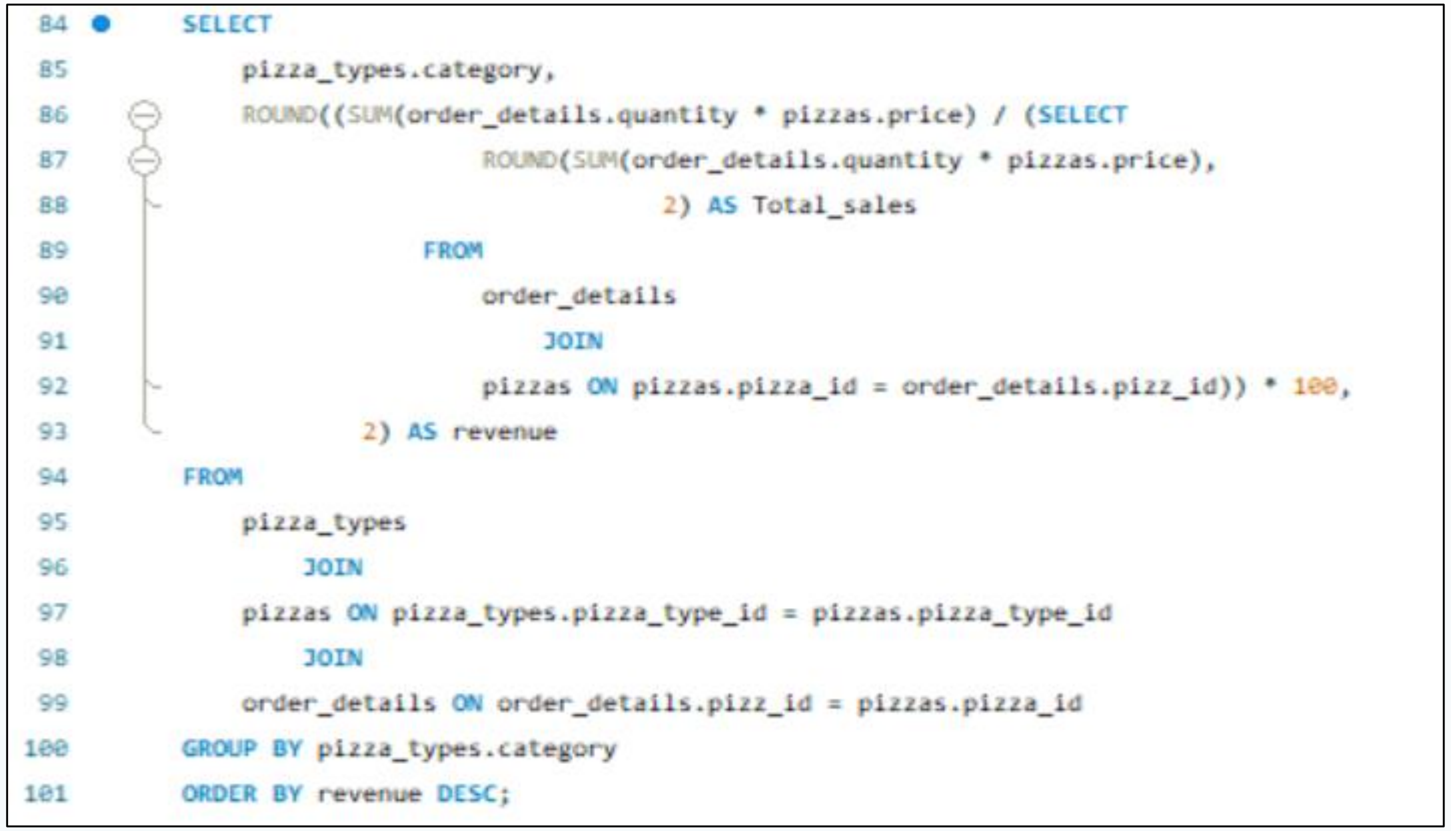


```sql
select pizza_types.name, sum(order_details.quantity * pizzas.price) as revenue
from pizza_types join pizzas
on pizzas.pizza_type_id = pizza_types.pizza_type_id
join order_details
on order_details.pizz_id = pizzas.pizza_id
group by pizza_types.name order by revenue desc limit 3;
```

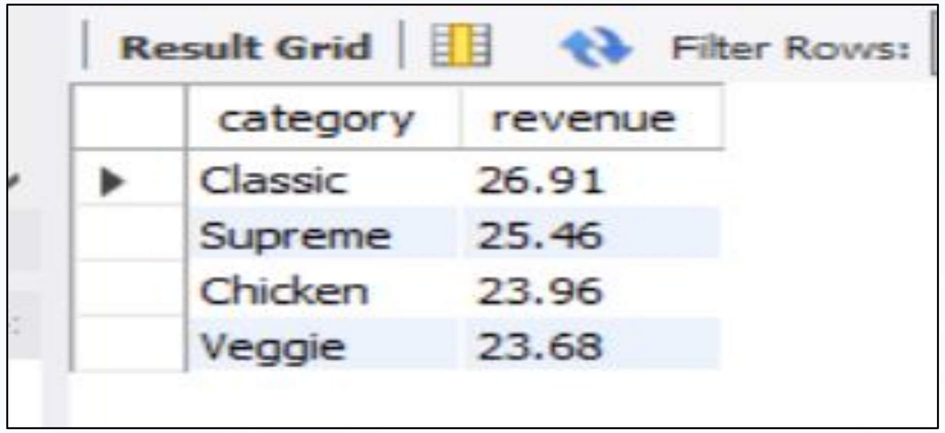


name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

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

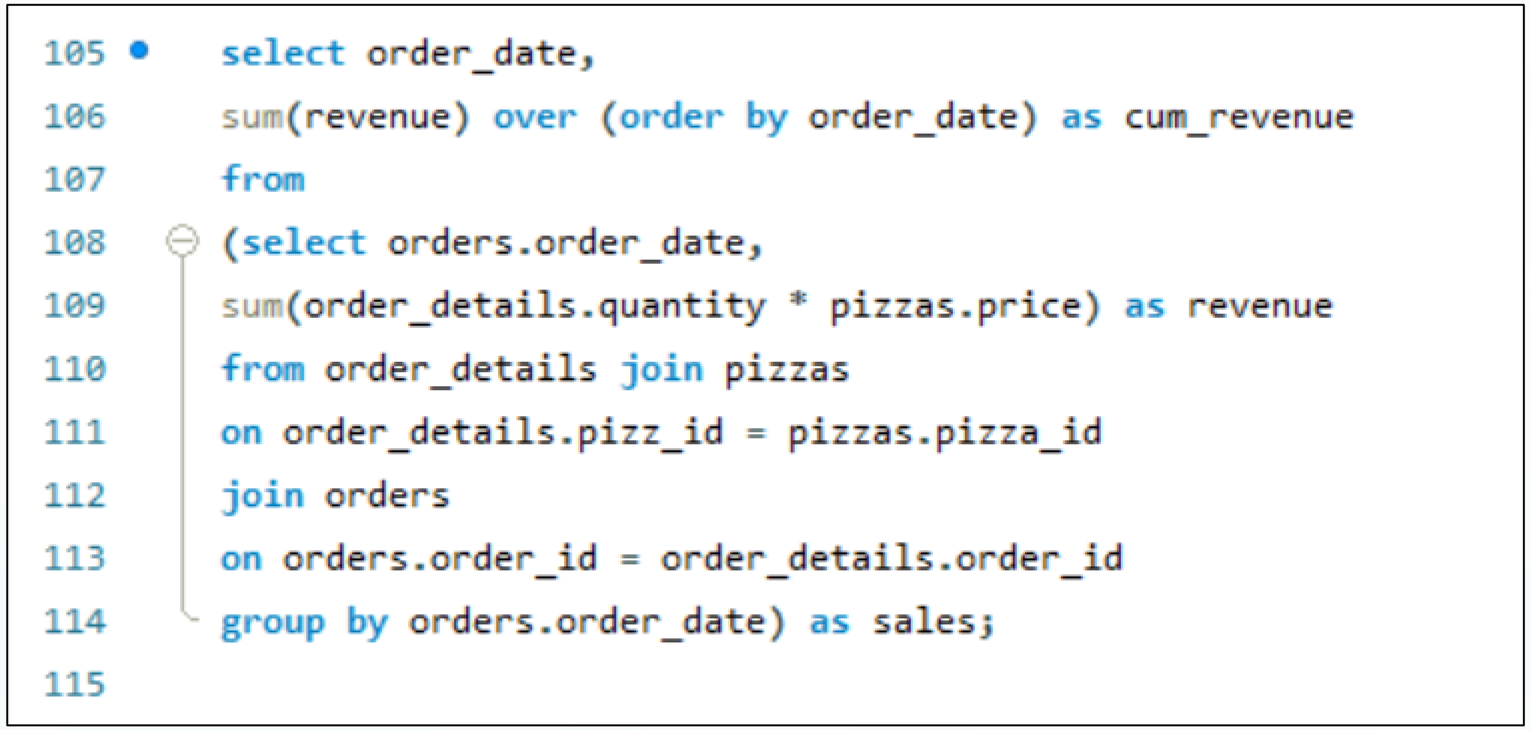


```
SELECT
    pizza_types.category,
    ROUND((SUM(order_details.quantity * pizzas.price) / (SELECT
                ROUND(SUM(order_details.quantity * pizzas.price),
                            2) AS Total_sales
            FROM
                order_details
                    JOIN
               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

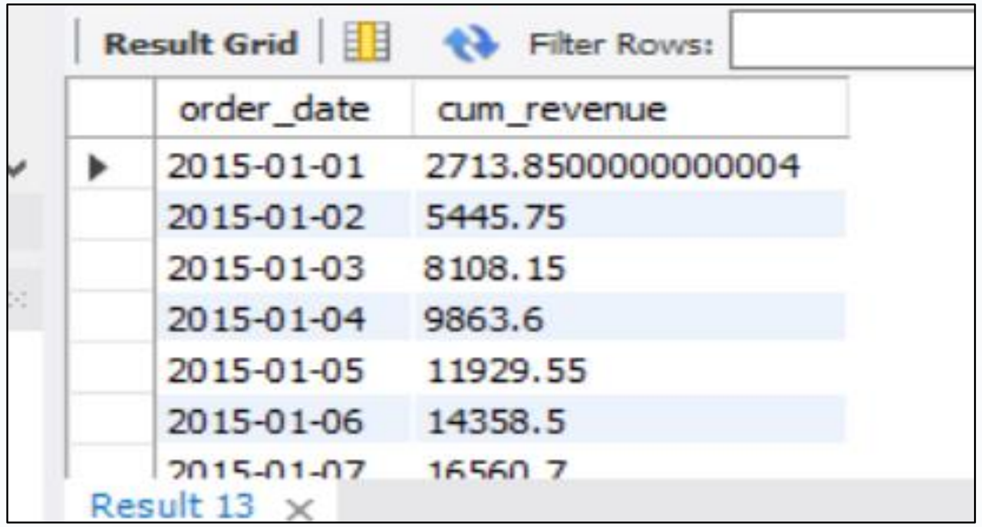


category	revenue
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

Analyze the cumulative revenue generated over time.

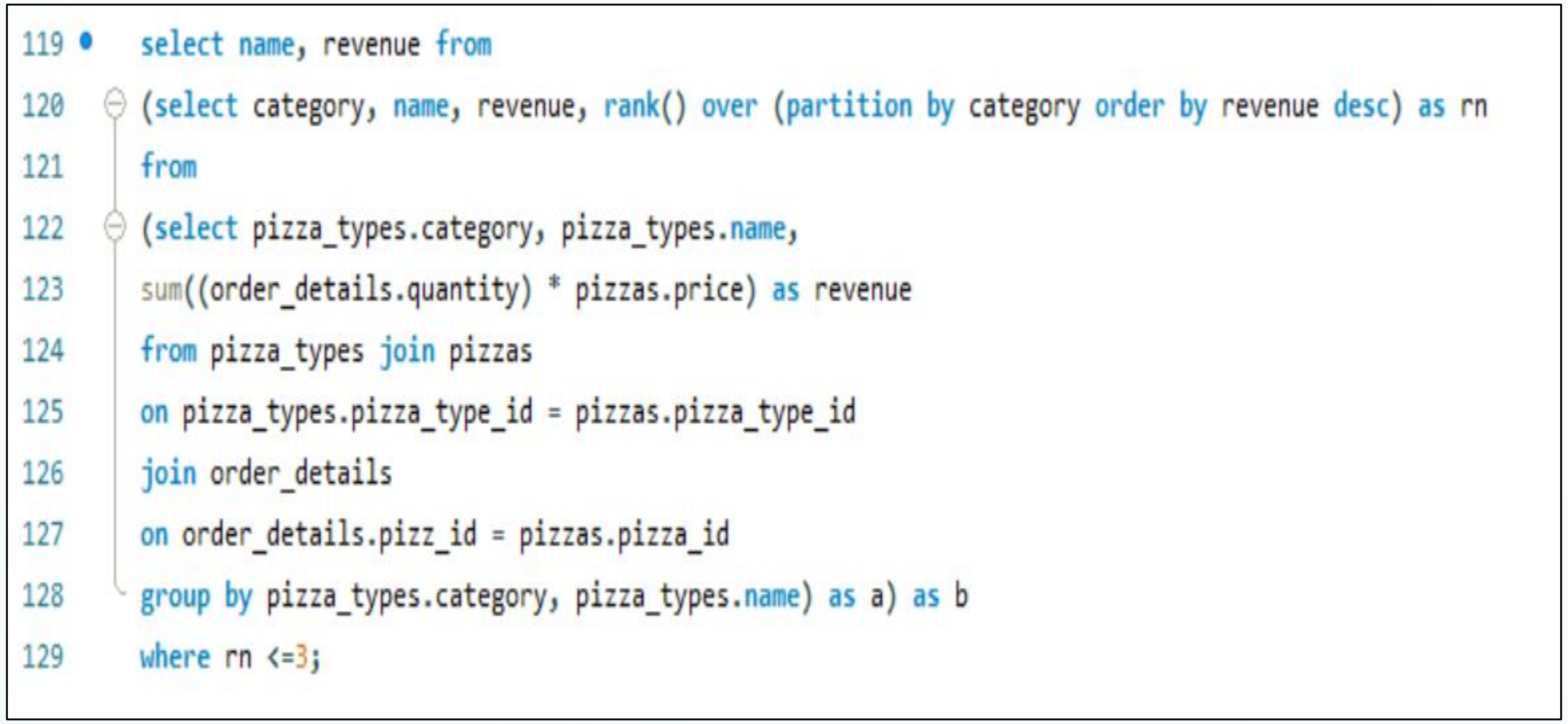


```
select order_date,
sum(revenue) over (order by order_date) as cum_revenue
from
(select orders.order_date,
sum(order_details.quantity * pizzas.price) as revenue
from order_details join pizzas
on order_details.pizz_id = pizzas.pizza_id
join orders
on orders.order_id = order_details.order_id
group by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

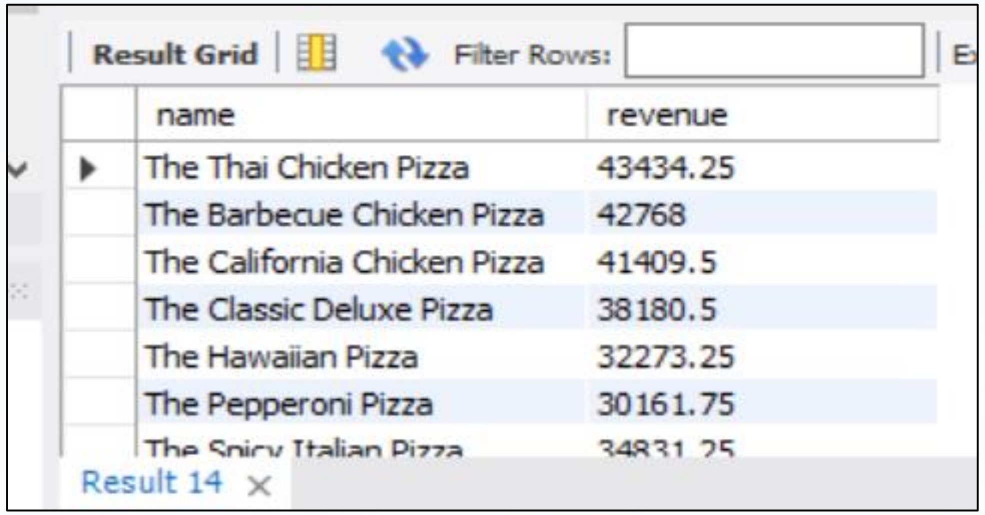


```
order_date   cum_revenue
2015-01-01   2713.8500000000004
2015-01-02   5445.75
2015-01-03   8108.15
2015-01-04   9863.6
2015-01-05   11929.55
2015-01-06   14358.5
2015-01-07   16560.7
```

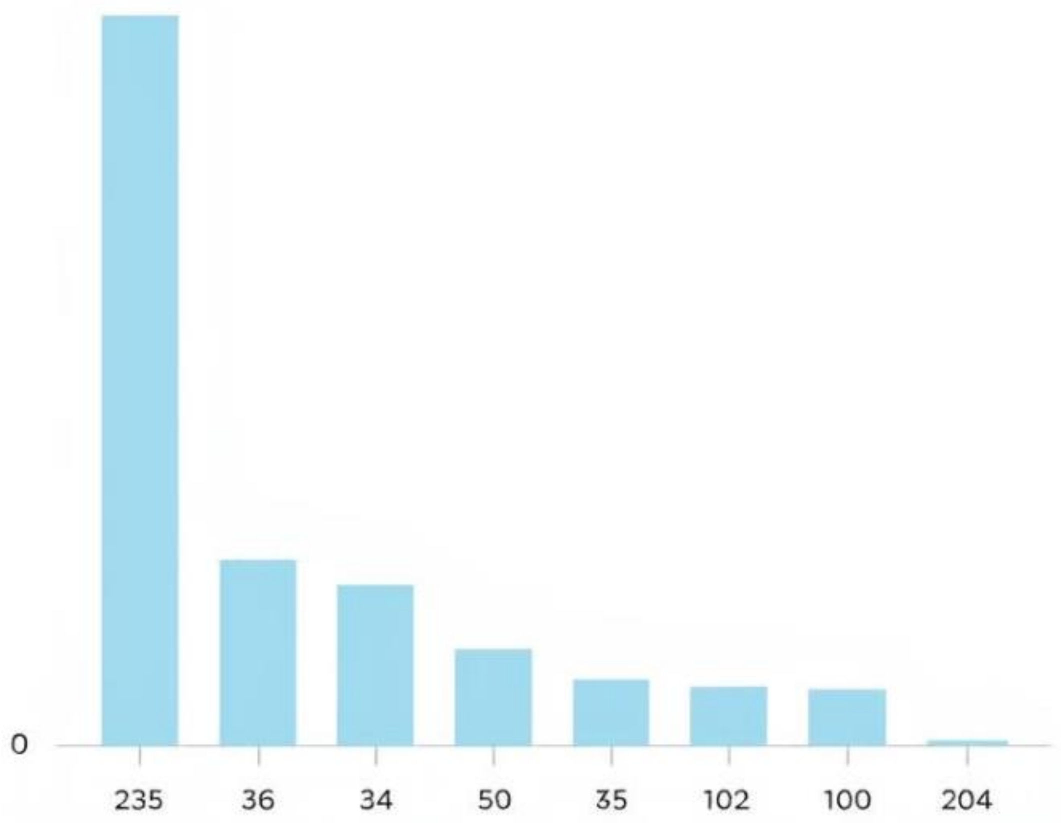
Determine the top 3 most ordered pizza types based on revenue for each pizza category.



```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.pizz_id = pizzas.pizza_id
group by pizza_types.category, pizza_types.name) as a) as b
where rn <=3;
```



name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5
The Classic Deluxe Pizza	38180.5
The Hawaiian Pizza	32273.25
The Pepperoni Pizza	30161.75
The Spicy Italian Pizza	34831.25



Customer Demographics and Preferences

Families

Large orders, often with multiple pizzas and sides.

Groups of Friends

Prefer variety, often ordering different pizzas to share.

Individuals

Smaller orders, often focused on specific toppings or specialty pizzas.

Profitability Analysis by Pizza Type

1

Cost of Ingredients

Variable cost that varies depending on the toppings used.

2

Labor Costs

Fixed cost for preparing and serving pizzas.

3

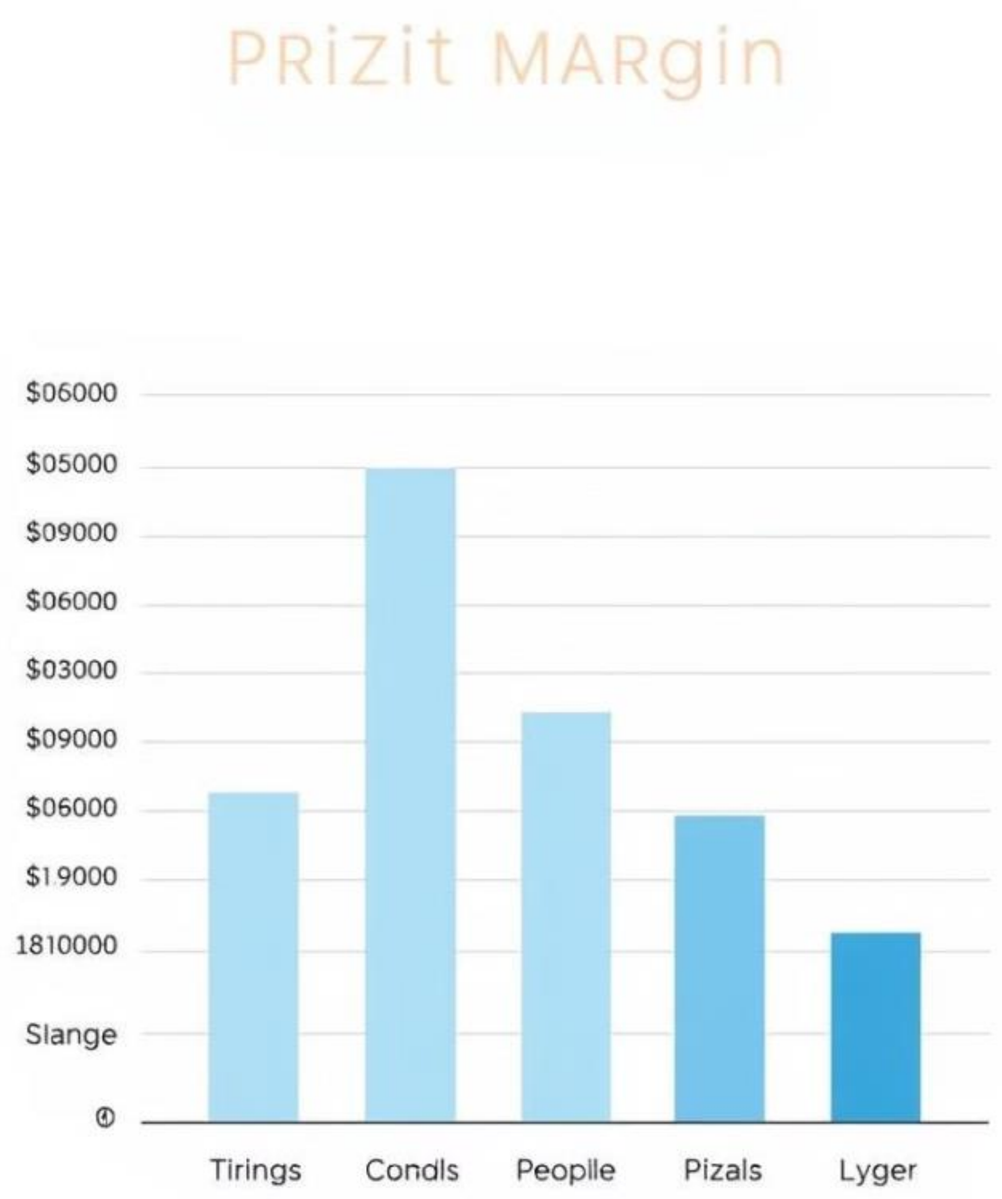
Overhead Costs

Fixed costs such as rent, utilities, and marketing.

4

Profit Margin

The difference between revenue and total costs.



Strategies for Improving Pizza Sales

Loyalty Programs

Reward frequent customers with discounts and exclusive offers.

Targeted Marketing Campaigns

Promote special offers to specific customer segments based on their preferences.

New Product Development

Introduce new pizza varieties to attract customers and increase sales.

Improved Customer Service

Provide exceptional customer service to encourage repeat business.