Hello

My name is Anzal Hussain Anzal, and I am currently pursuing a Bachelor's degree in Software Engineering. Alongside my academic studies, I am also focused on Machine Learning, Deep Learning, and Data Science, which I am learning through a six-month course offered by NUST under a program by the Government of Gilgit-Baltistan.

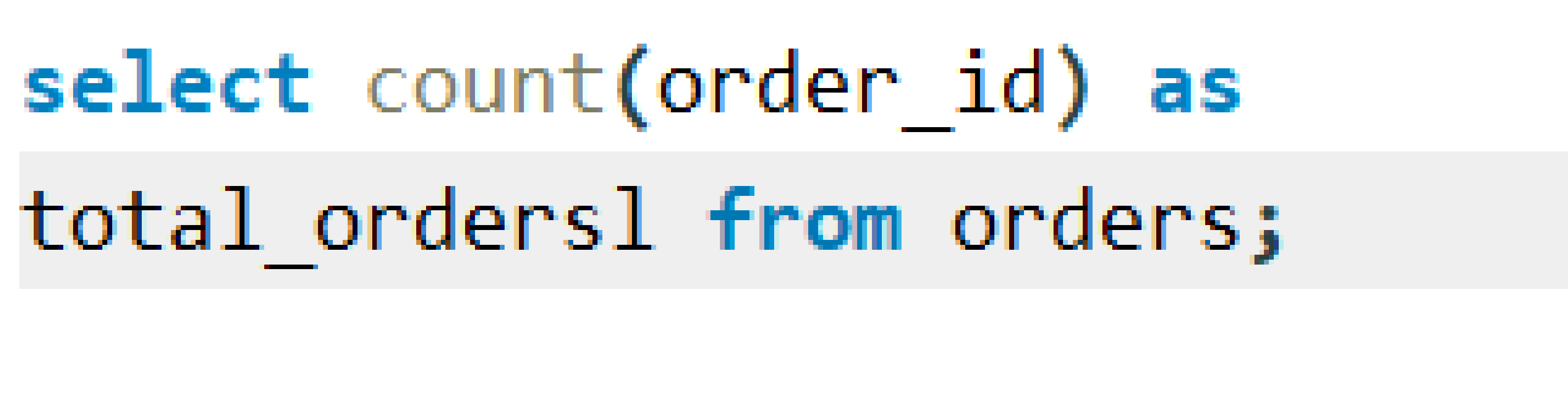
This project is a key part of my journey in data analysis, where I utilized MySQL to gain insights into business operations.

Through this project, I have applied my skills in SQL queries to analyze and interpret sales data, demonstrating my ability to work with real-world data and extract meaningful information for business decision-making

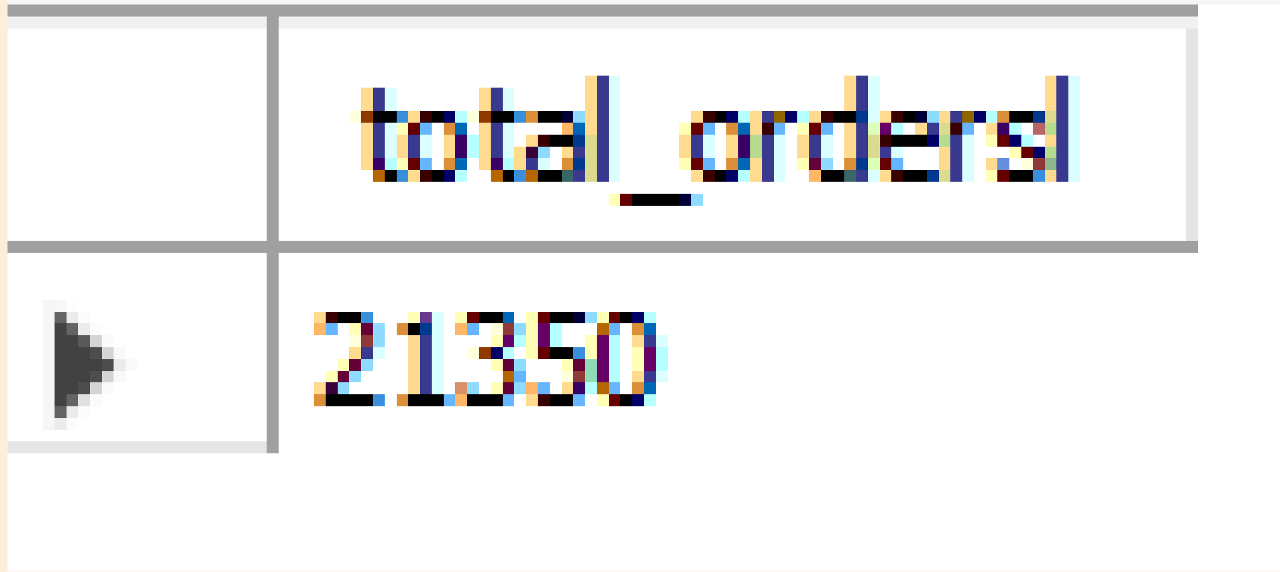
Pizza Hut Sales Analysis Project: SQL Queries for Business Insights

This project aims to analyze sales data from a hypothetical Pizza Hut database using SQL queries to derive valuable business insights. The project is divided into several key sections, each focusing on a different aspect of the pizza sales data. Using tables like orders, order_details, and others such as pizzas and pizza_types, the queries extract information that can help optimize operations, increase revenue, and better understand customer preferences.

Retrieve the total number of orders placed.

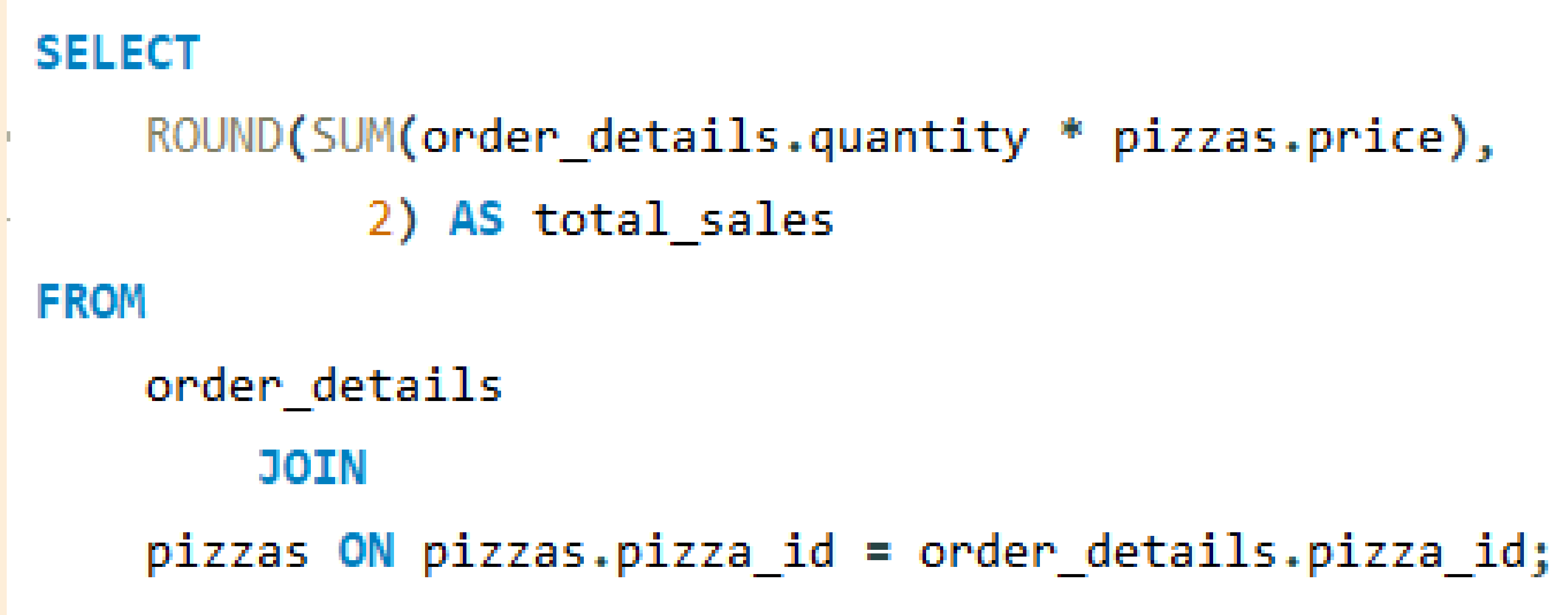


```
select count(order_id) as
total_ordersl from orders;
```

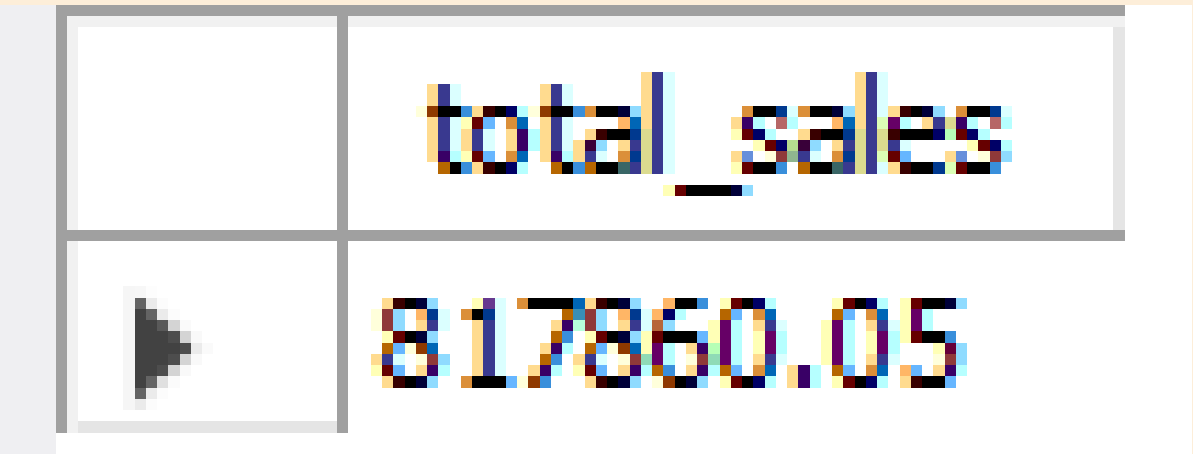


	total_ordersl
▶	21350

Calculate the total revenue generated from pizza sales

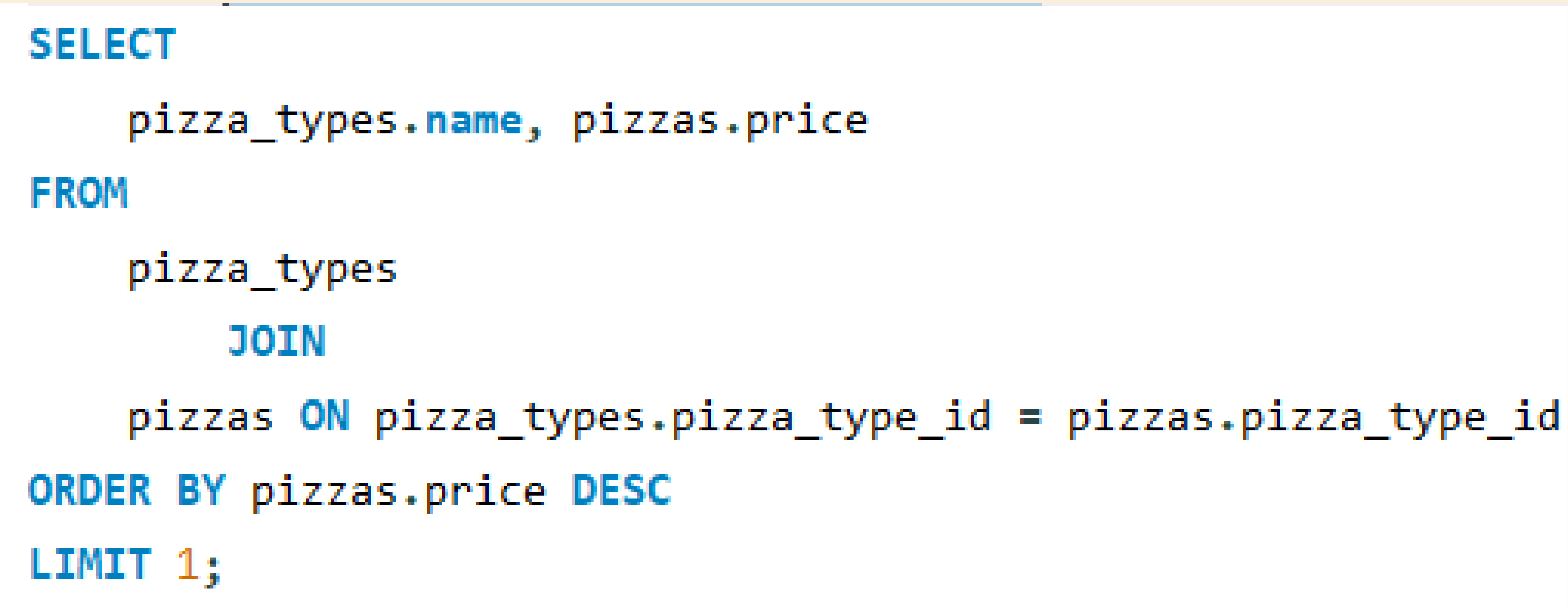


```
SELECT
    ROUND(SUM(order_details.quantity * pizzas.price),
            2) AS total_sales
FROM
    order_details
        JOIN
    pizzas ON pizzas.pizza_id = order_details.pizza_id;
```

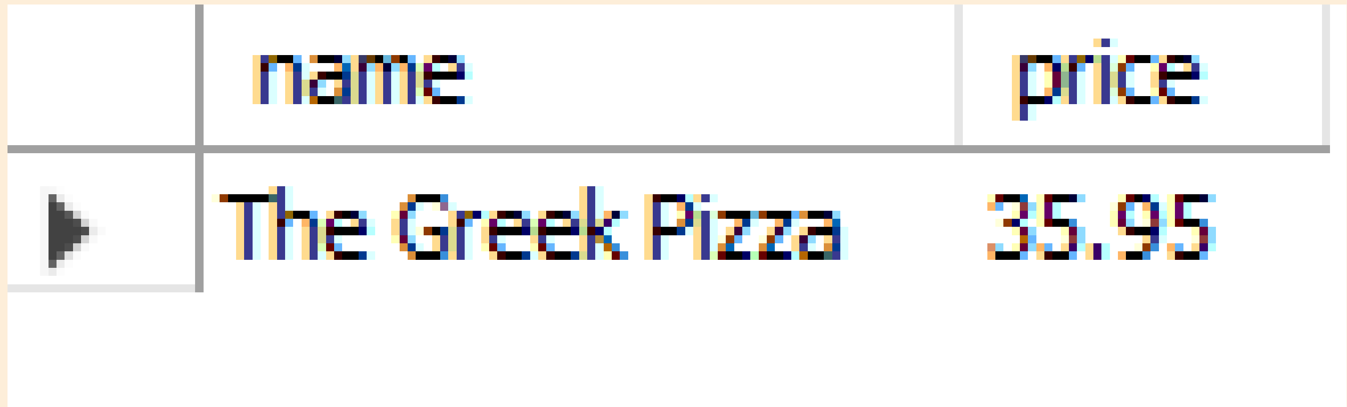


	total_sales
▶	817860.05

Identify the highest-priced pizza

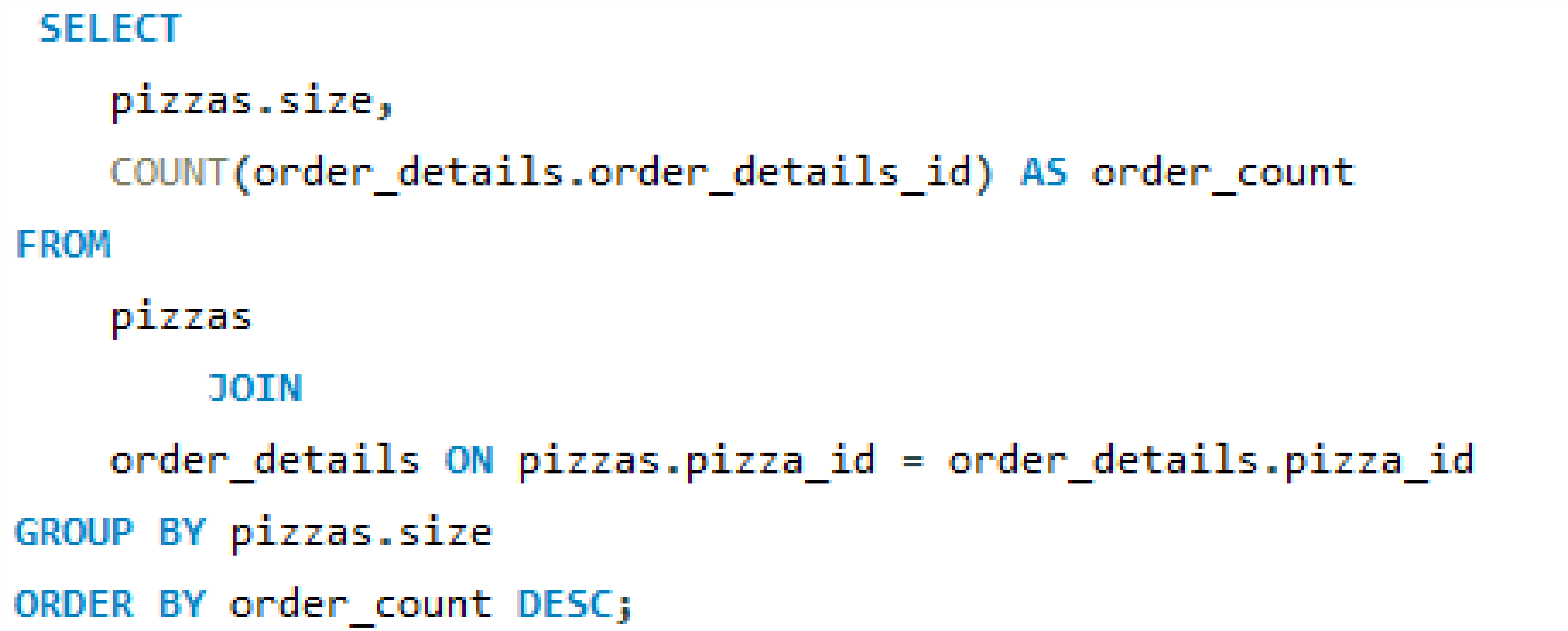


```
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1;
```

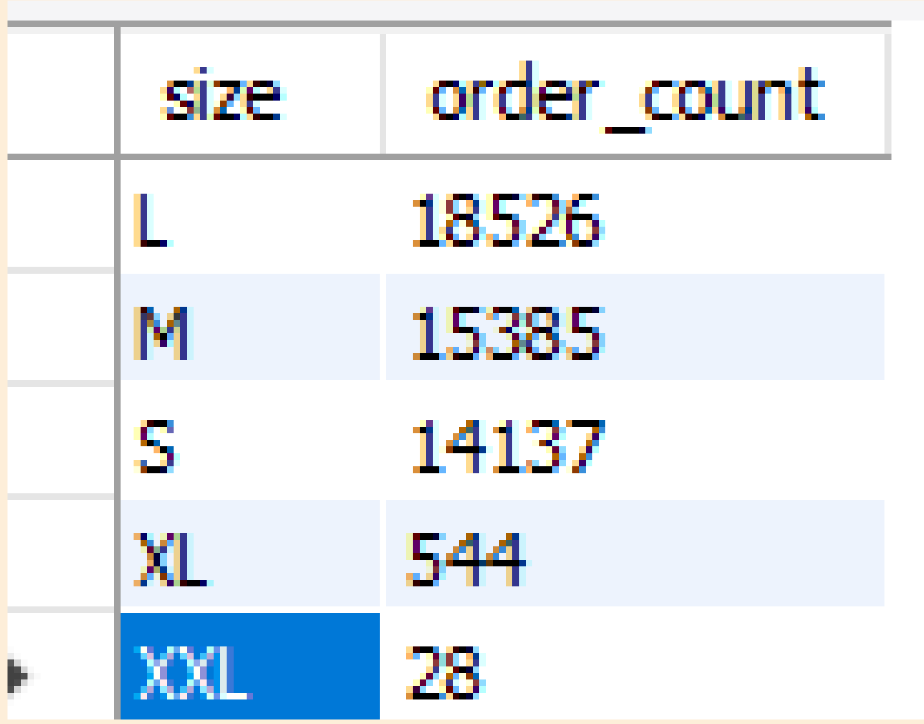


name	price
The Greek Pizza	35.95

Identify the most common pizza size ordered

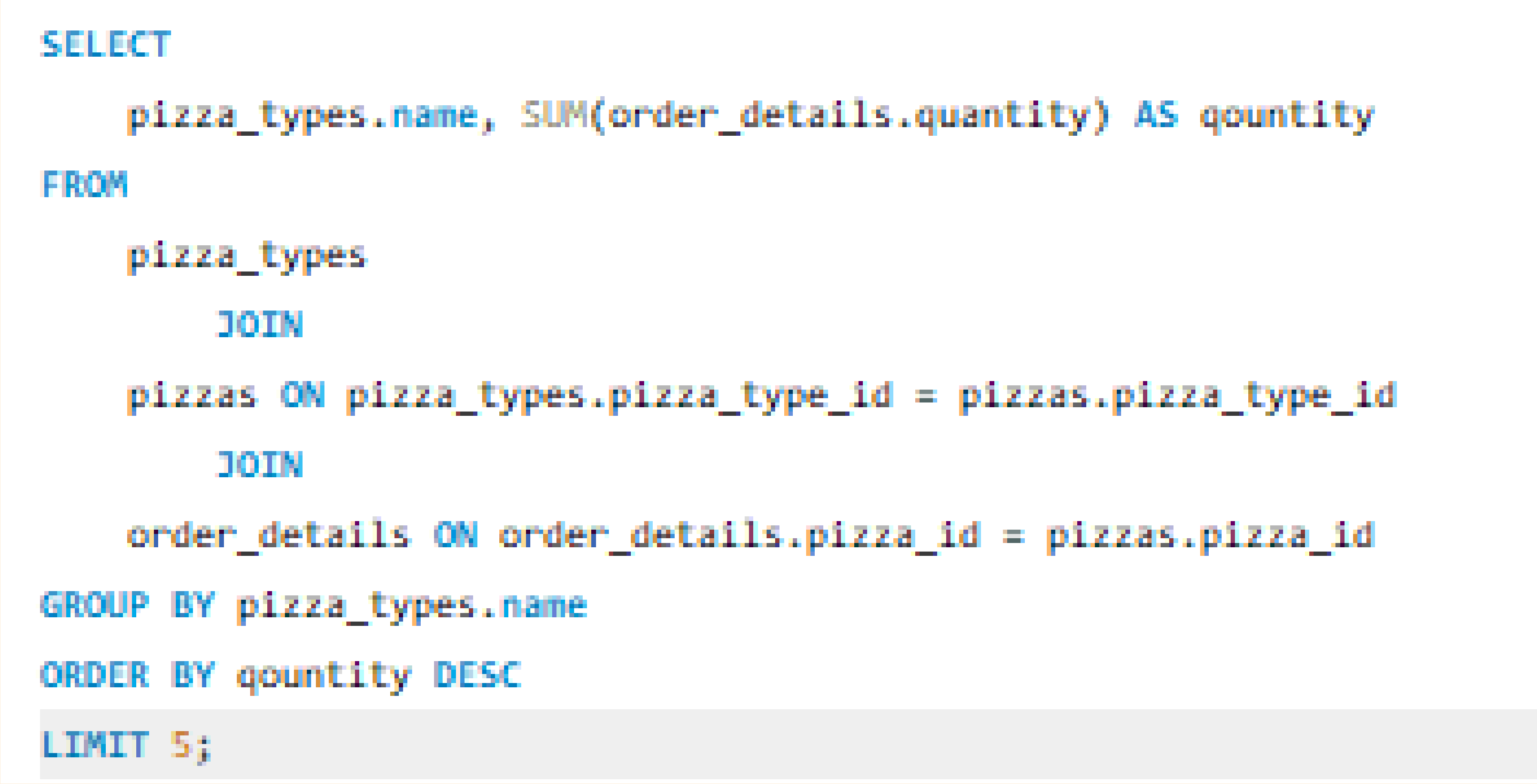


```
 SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC;
```

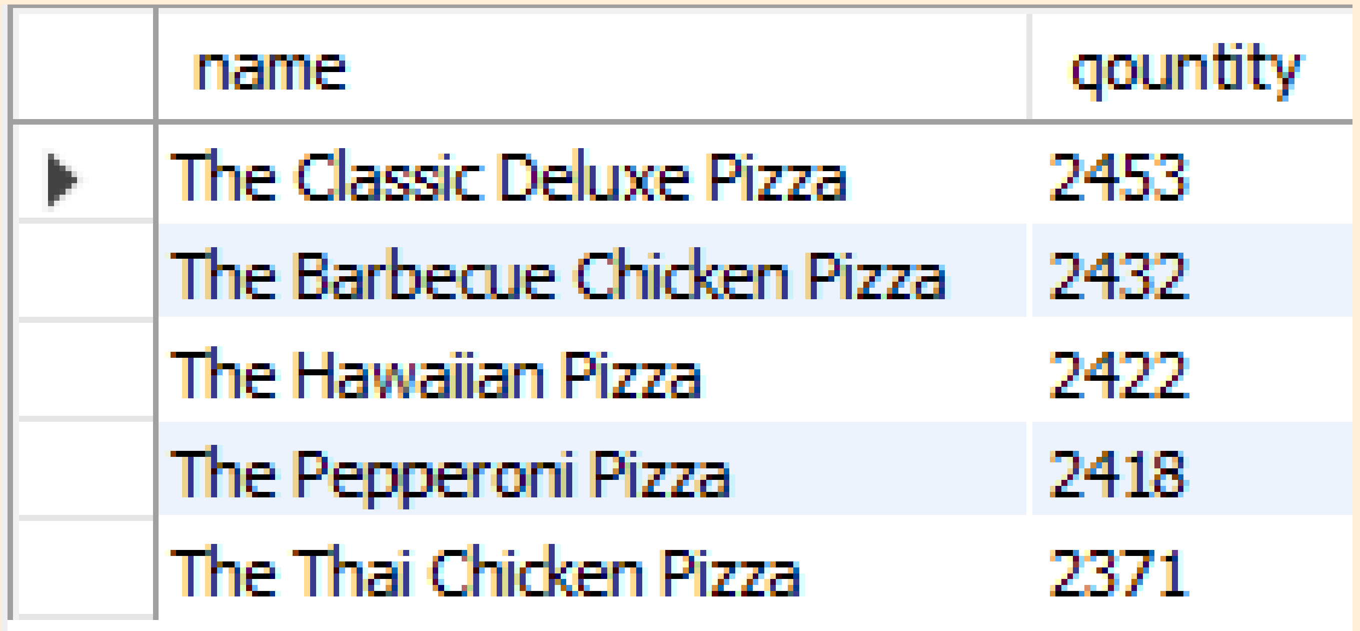


size	order_count
L	18526
M	15385
S	14137
XL	544
XXL	28

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

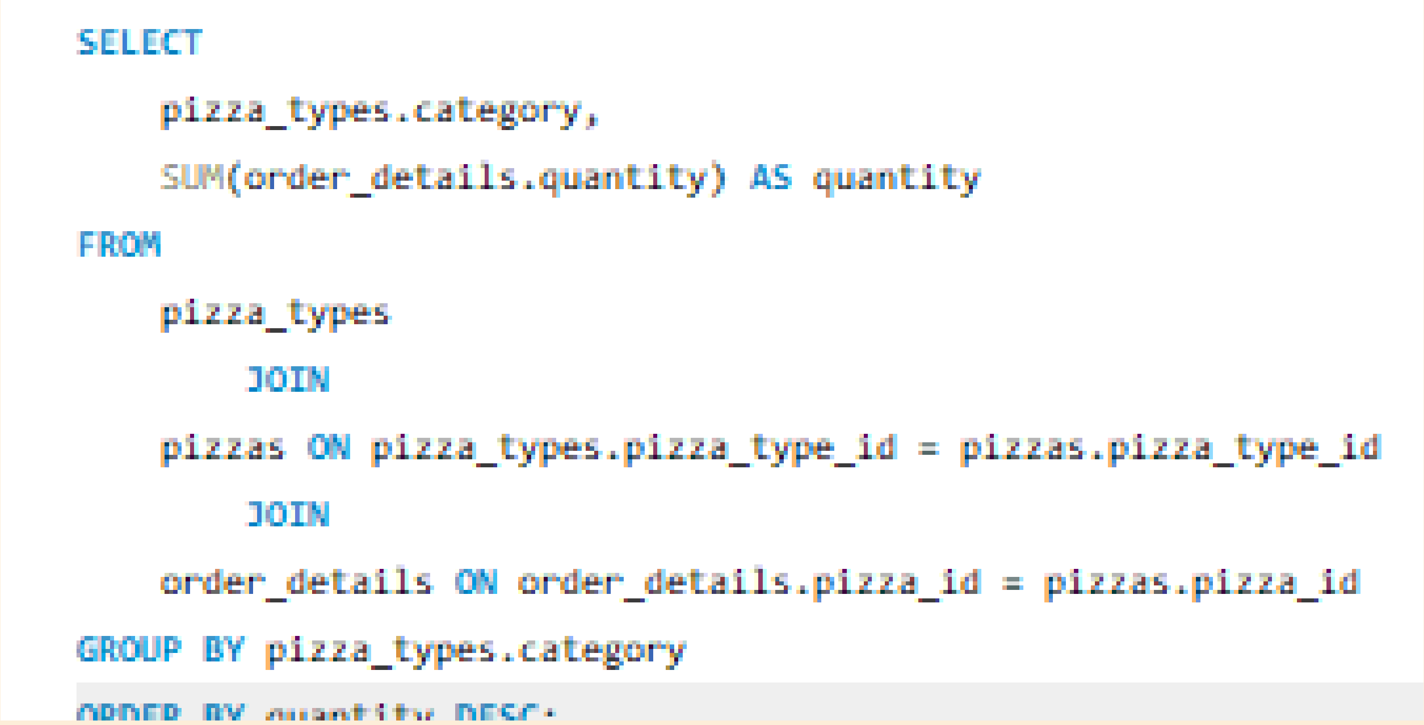


```
SELECT
    pizza_types.name, SUM(order_details.quantity) AS qountity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY qountity DESC
LIMIT 5;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

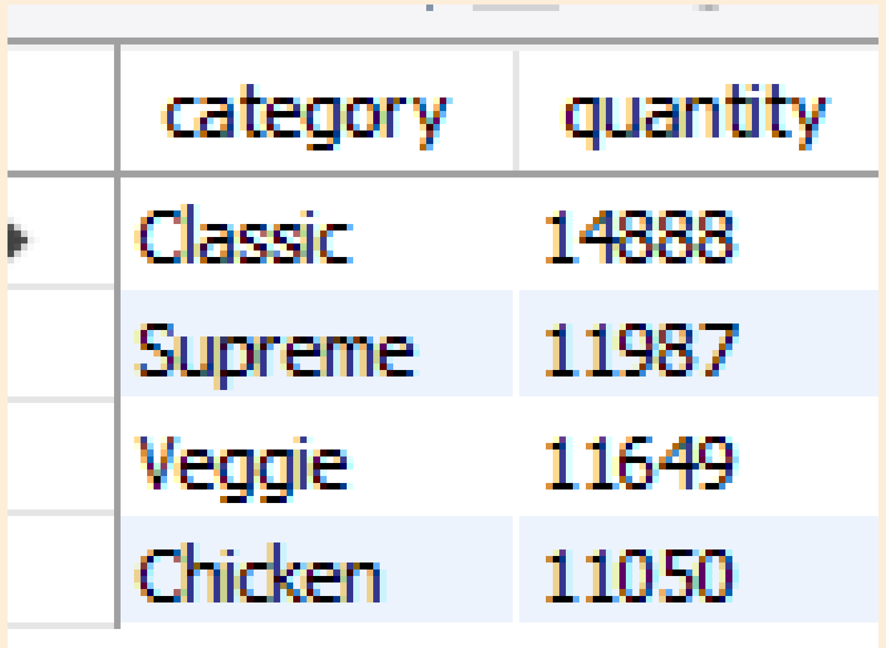


	name	qountity
▶	The Classic Deluxe Pizza	2453
	The Barbecue Chicken Pizza	2432
	The Hawaiian Pizza	2422
	The Pepperoni Pizza	2418
	The Thai Chicken Pizza	2371

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

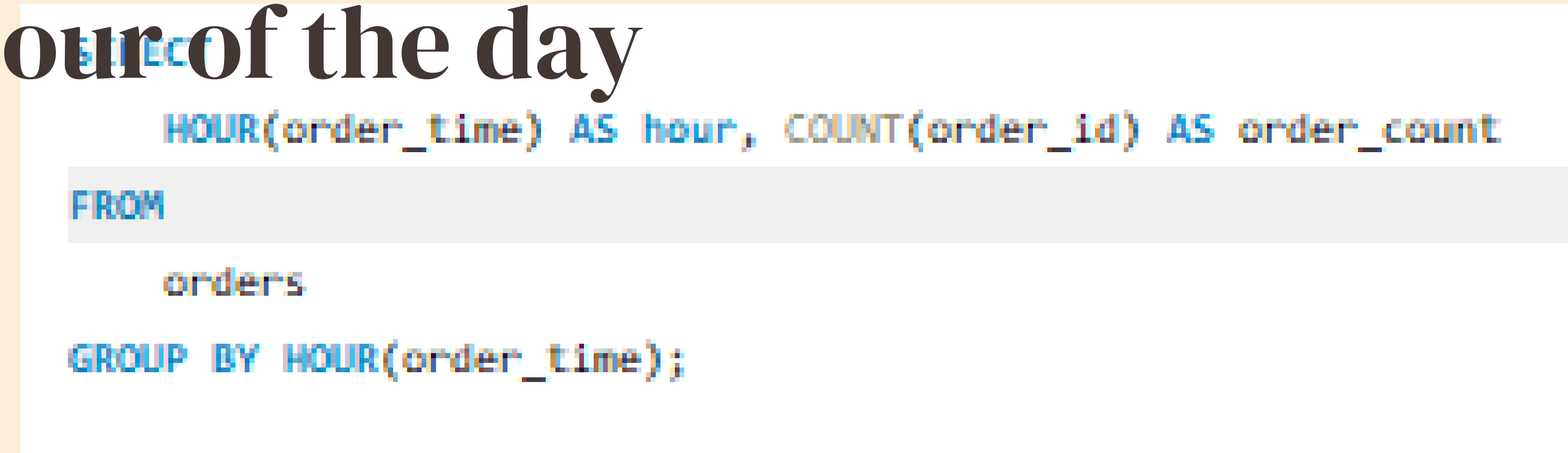


```
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity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

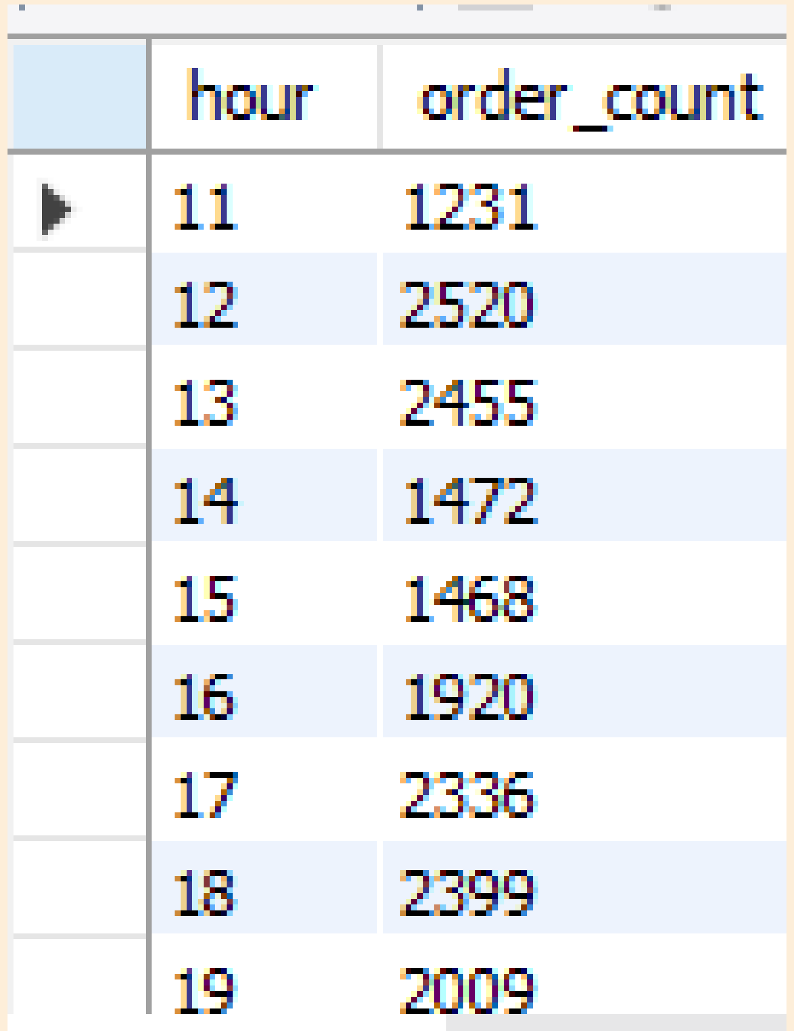


category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

Determine the distribution of orders by hour of the day

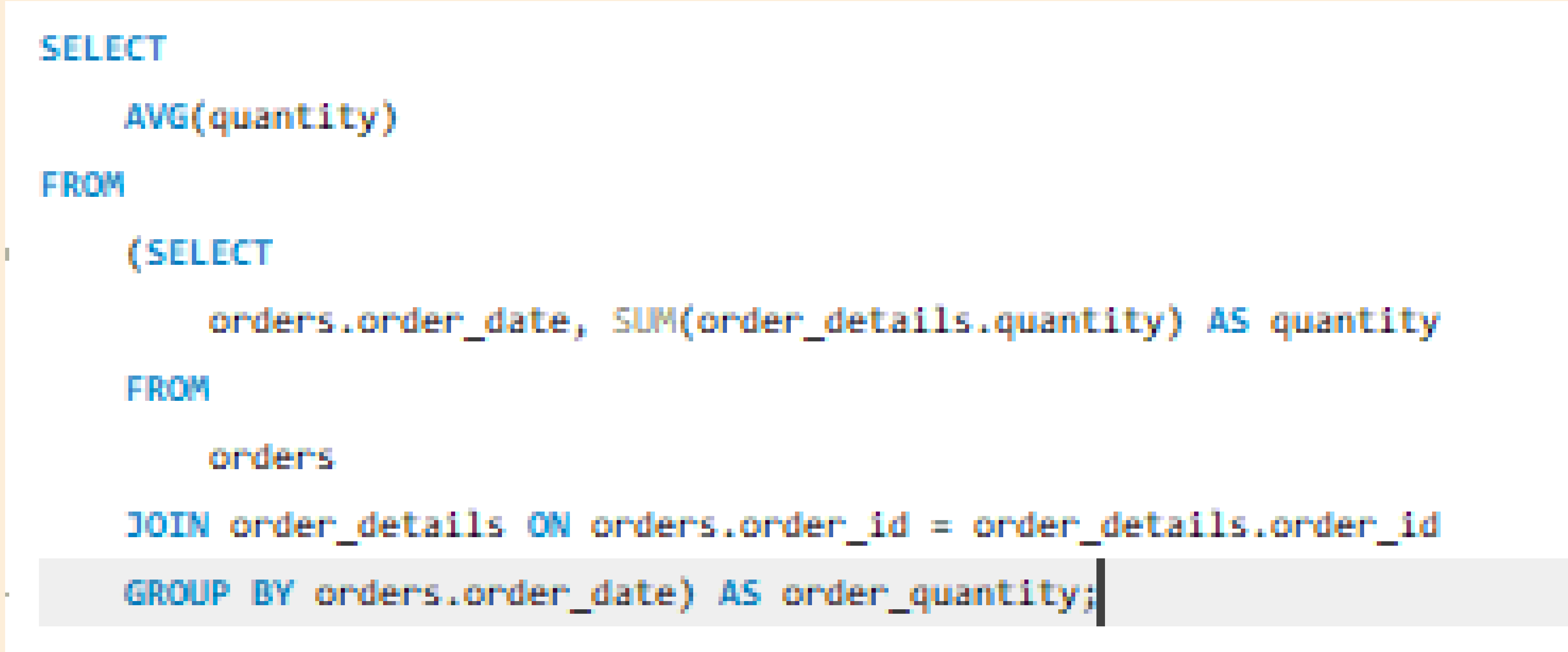


```
SELECT
    HOUR(order_time) AS hour, COUNT(order_id) AS order_count
FROM
    orders
GROUP BY HOUR(order_time);
```

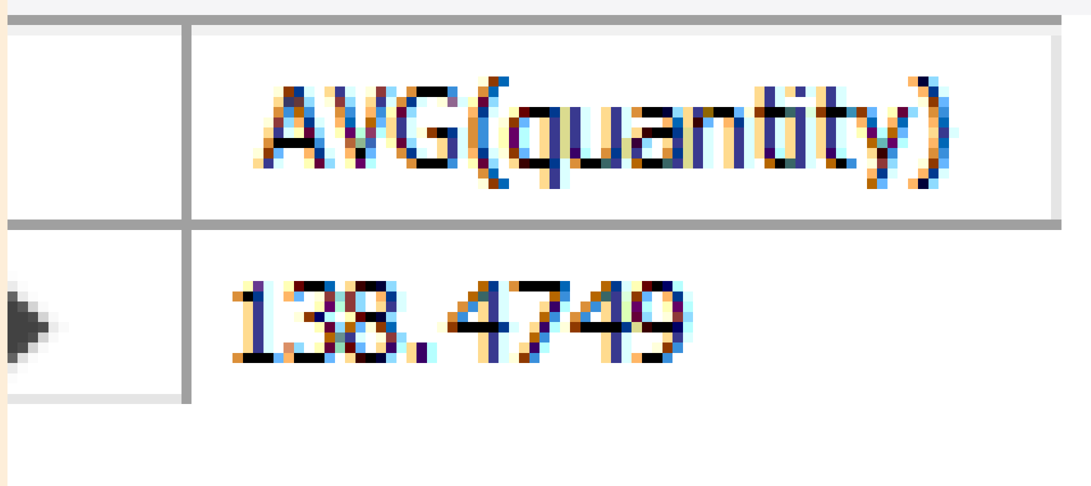


hour	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336
18	2399
19	2009

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

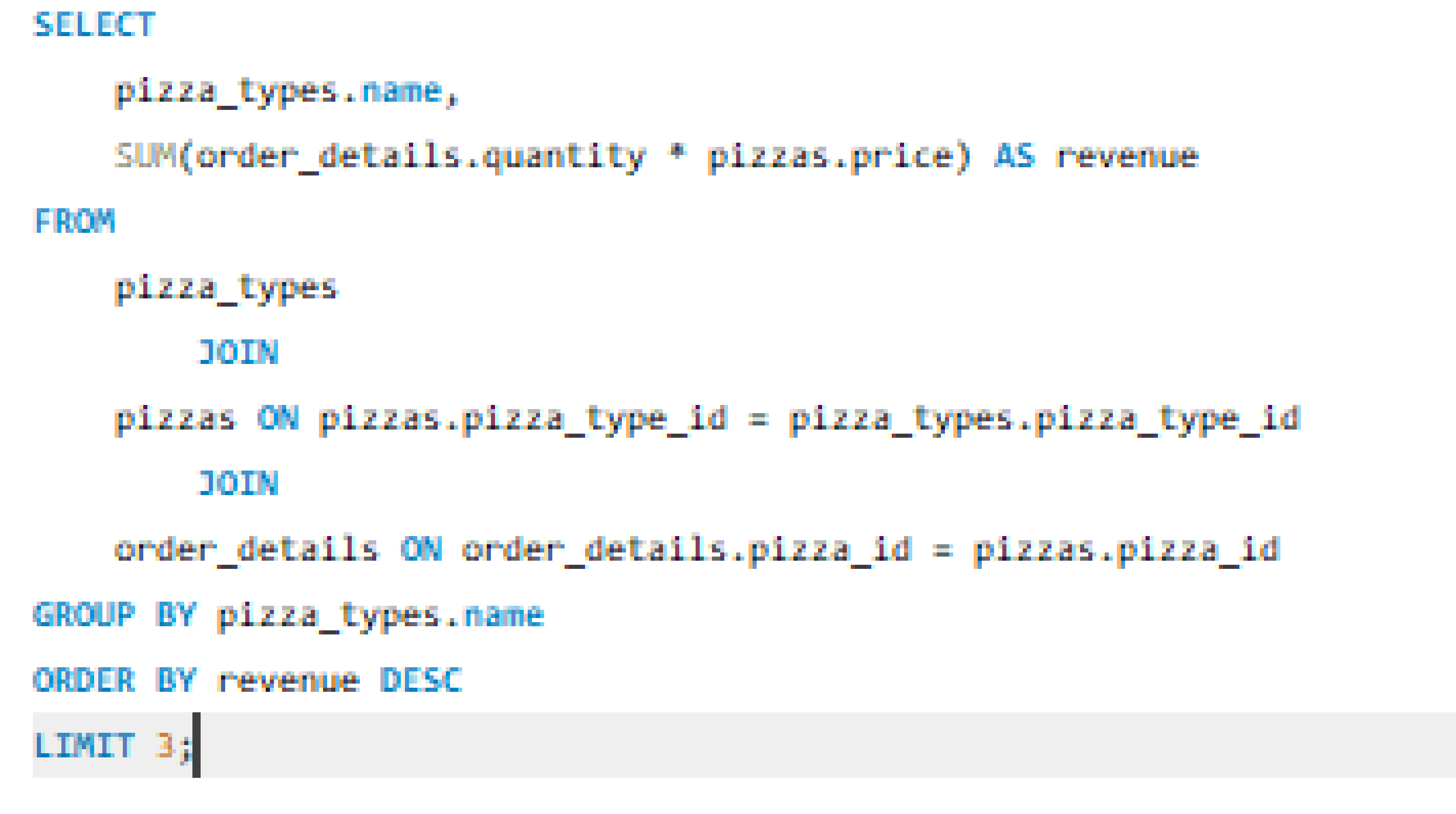


```sql
SELECT
    AVG(quantity)
FROM
    (SELECT
        orders.order_date, SUM(order_details.quantity) AS quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date) AS order_quantity;
```

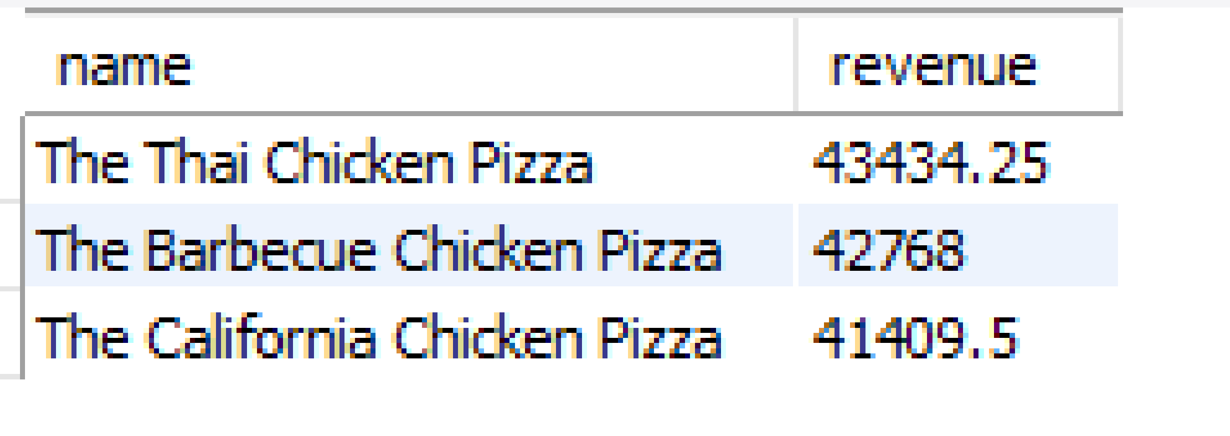


```
AVG(quantity)
138.4749
```

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

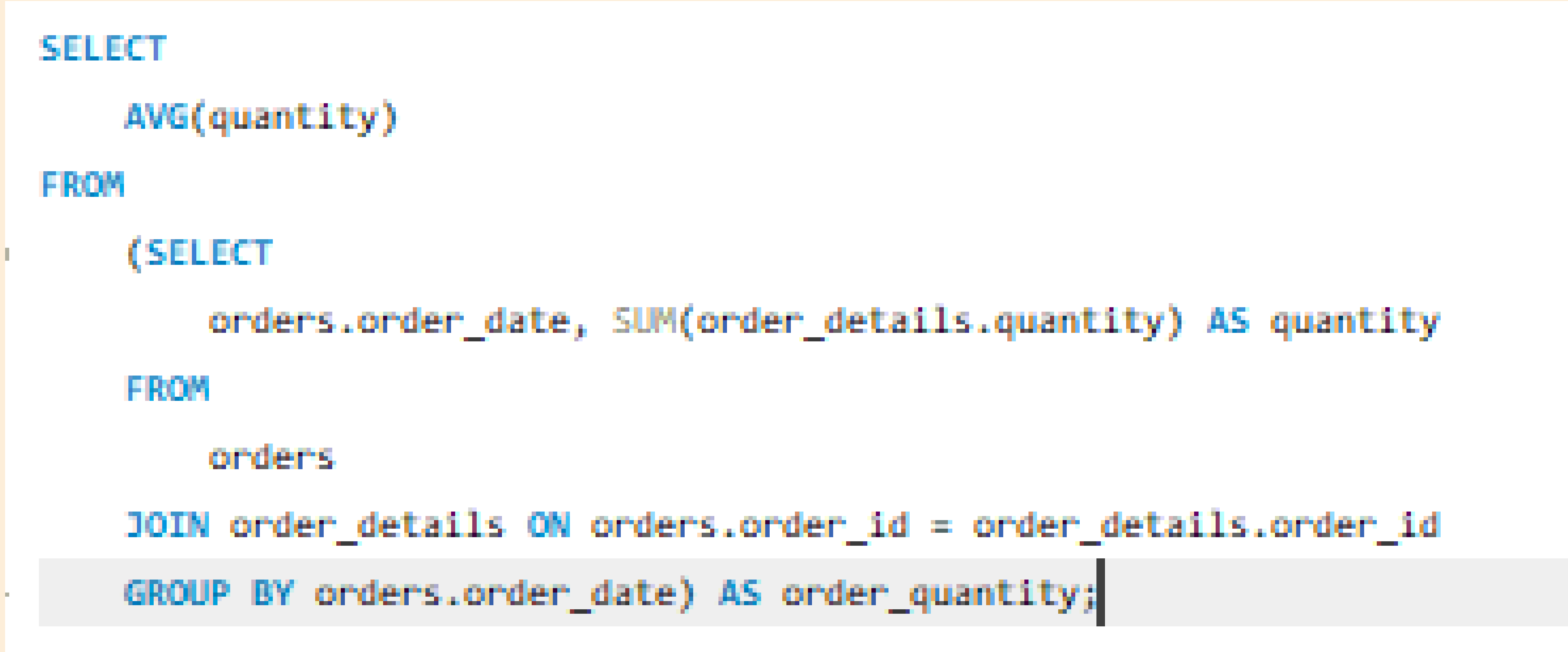


```
SELECT
    pizza_types.name,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY revenue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

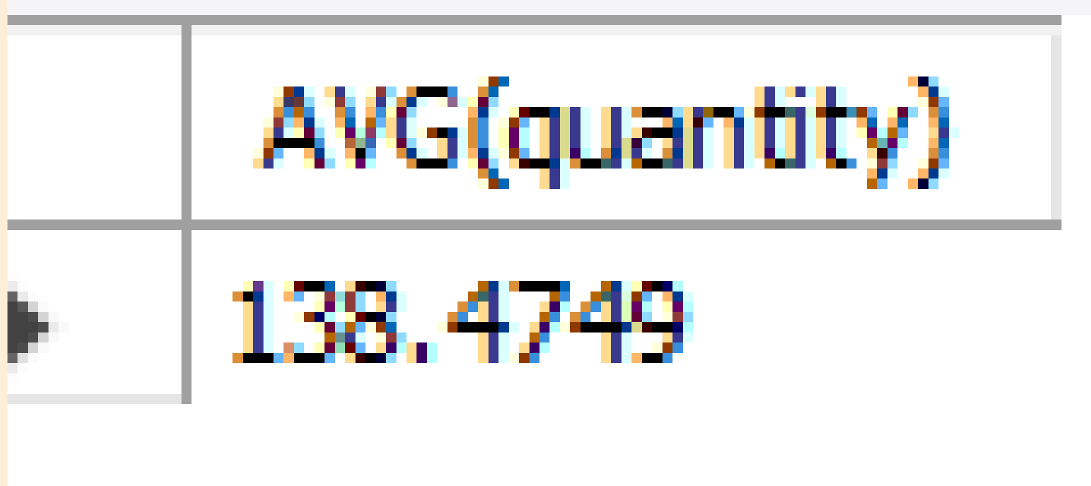


name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

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



```
SELECT
    AVG(quantity)
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(quantity)
▶	138.4749

Thank you