

PIZZA SALES ANALYSIS USING SQL

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The background of the slide is a dark, textured surface. In the top-left corner, there is a whole red tomato, a yellow bell pepper, and a head of garlic. In the bottom-left corner, several slices of pizza are arranged, topped with various ingredients like olives, onions, and peppers. In the bottom-right corner, there are mushrooms and a yellow bell pepper. A white banner with a double-headed arrow shape is positioned in the upper-middle section, containing the word 'INTRODUCTION' in bold, black, uppercase letters.

INTRODUCTION

In this SQL Project, I have collected data regarding the sales of a pizza place and made a questionnaire where I can analyse the queries using SQL

Retrieve the total number of orders placed.

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

Result Grid	
	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
    JOIN
    pizzas ON pizzas.pizza_id = order_details.pizza_id;
```

Result Grid	
	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;
```

Result Grid			Filter Row
	name	price	
▶	The Greek Pizza	35.95	






Identify the most common pizza size ordered.

```
SELECT
  pizzas.size,
  COUNT(order_details.quantity) 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
LIMIT 1;
```

Result Grid			Filter
	size	order_count	
▶	L	18526	

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

```
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.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;
```




Result Grid			Filter Rows:
	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	



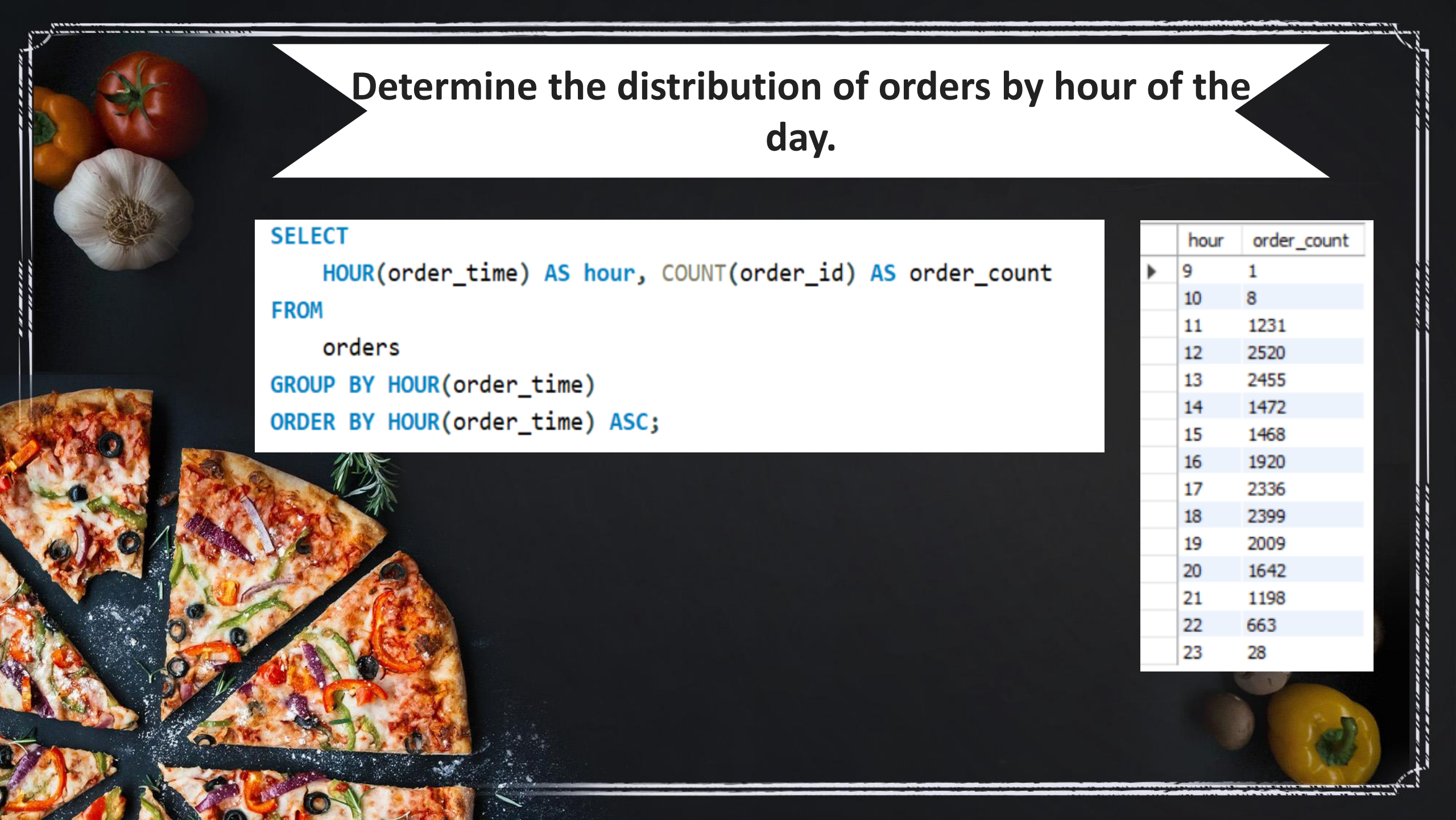
Join the necessary tables to find the total quantity of each pizza category ordered.

```
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS quantity
FROM
    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)
ORDER BY HOUR(order_time) ASC;
```

	hour	order_count
▶	9	1
	10	8
	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

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

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

Result Grid			Filter Row
	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 average_pizzas
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;
```

Result Grid	
	average_pizzas
▶	138

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;
```

Result Grid			Filter Rows:
	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..

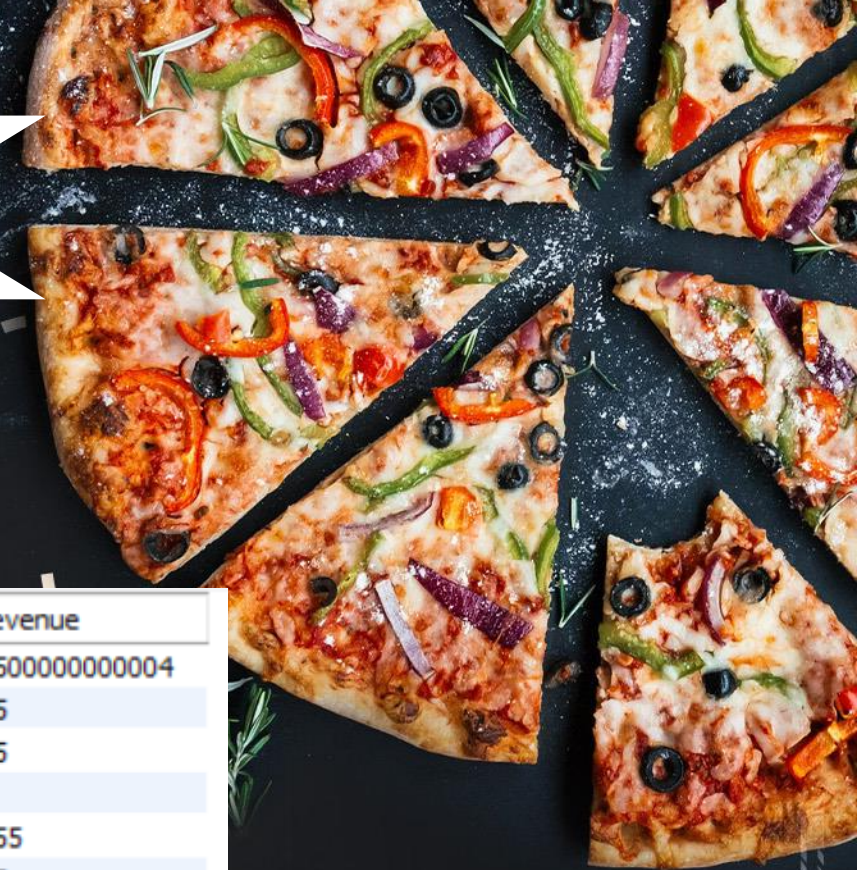
Result Grid		
	category	revenue
▶	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68

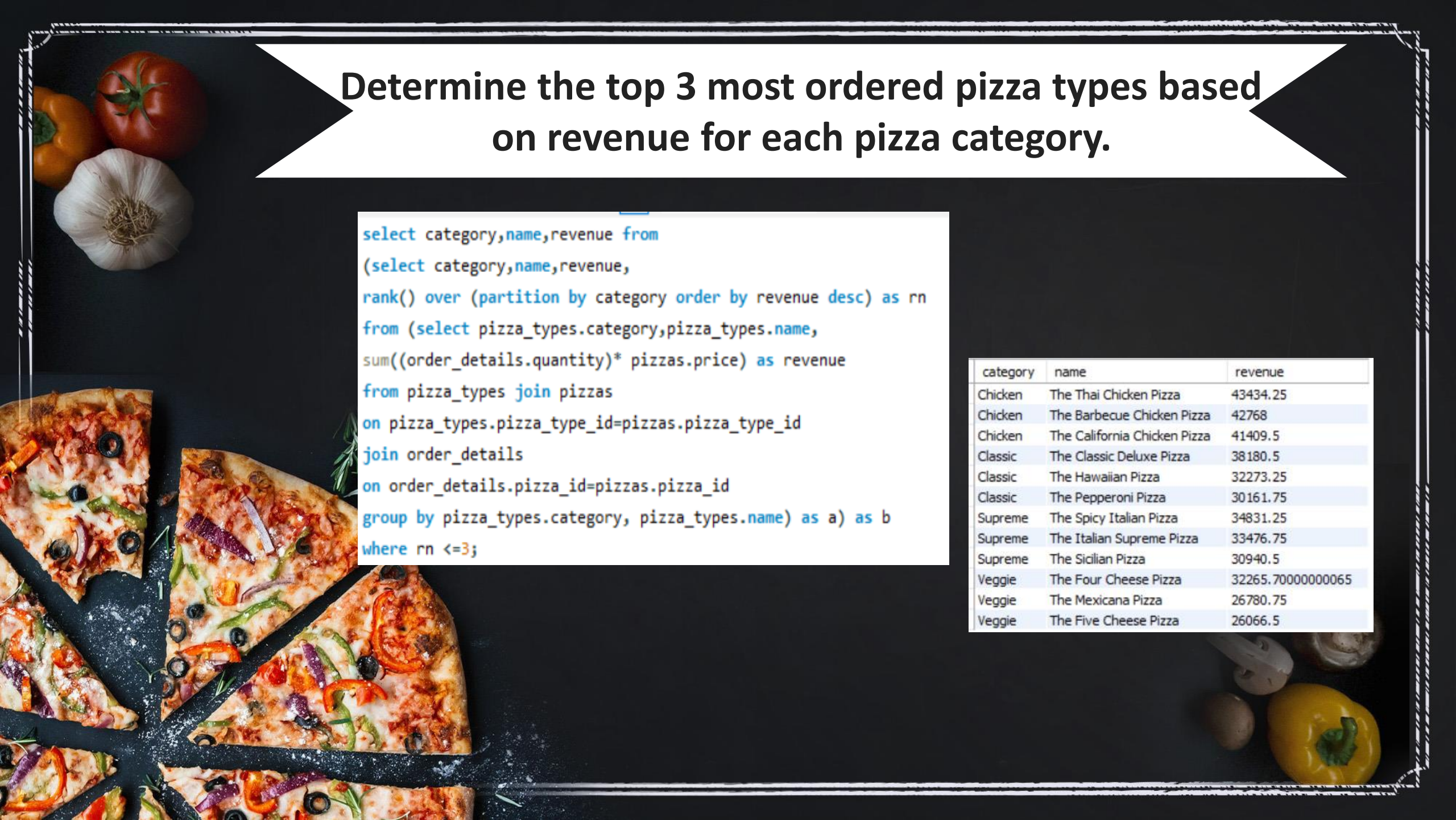
```
SELECT
    pizza_types.category,
    ROUND(SUM(order_details.quantity * pizzas.price) / (SELECT
        ROUND(SUM(order_details.quantity * pizzas.price),
            2) AS total_sales
        FROM
            order_details
            JOIN
                pizzas ON pizzas.pizza_id = order_details.pizza_id)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


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.pizza_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
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
2015-01-13	29831.300000000003
2015-01-14	32358.700000000004
2015-01-15	34343.50000000001
2015-01-16	36937.65000000001





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 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.pizza_id=pizzas.pizza_id
group by pizza_types.category, pizza_types.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	32265.700000000065
Veggie	The Mexicana Pizza	26780.75
Veggie	The Five Cheese Pizza	26066.5



THANK
YOU