PIZZA SALES

PROJECT

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PIZZA SALES ANALYSIS

This project performs data analysis on a pizza sales database. Using SQL queries, this analysis uncovers insights about revenue generation, ordering patterns, and customer preferences

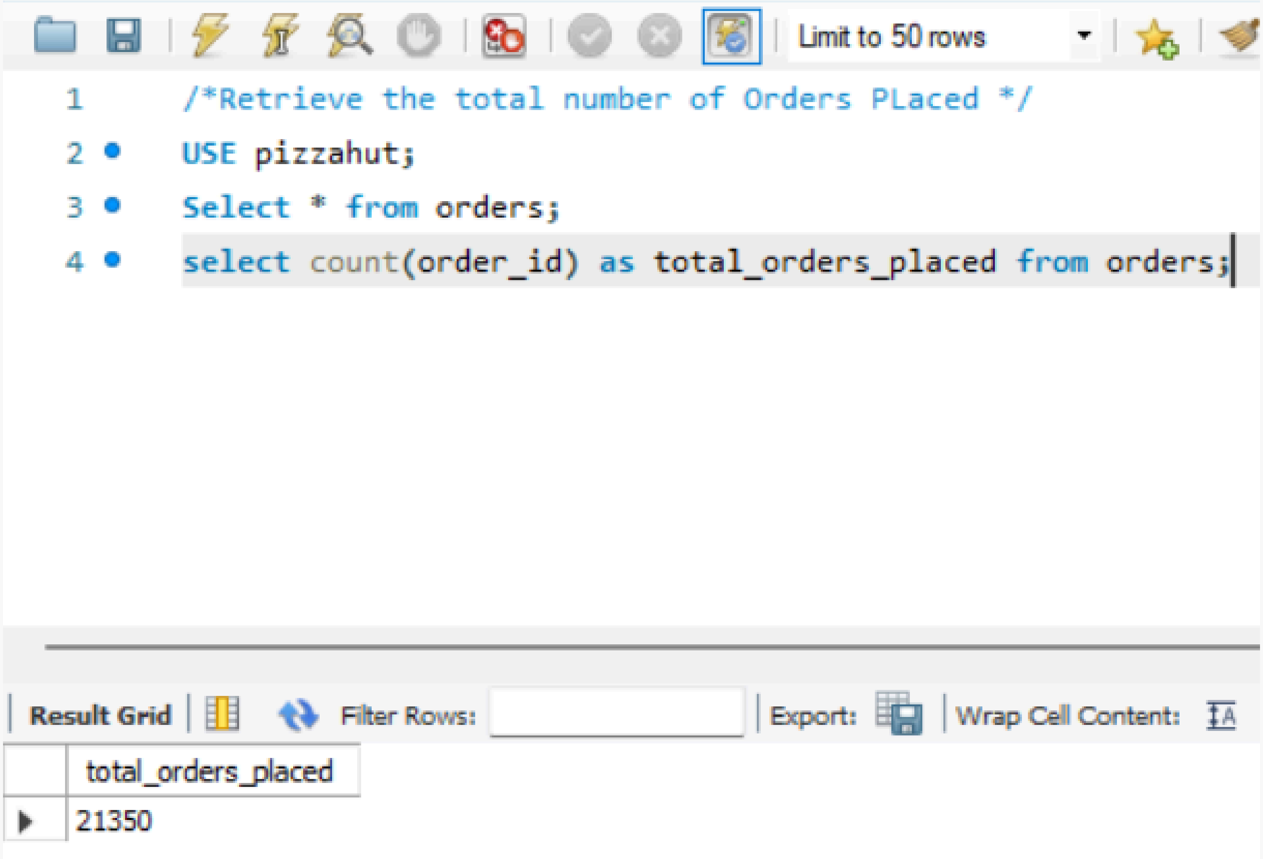
Database consists of the following Key Tables

- **orders: Contains details about each order, including order ID, date, and time.**
- **order_details: Contains the specific pizzas ordered, linked to orders via order ID.**
- **pizzas: Describes each pizza, including its name, size, and price.**
- **pizza_types: Contains categorical information about different pizza types, such as vegetarian, meat, etc.**

Key Business Questions Answered

- **Retrieve the total number of orders placed.**
- **Identify the Highest-priced pizza.**
- **The total quantity of each pizza category ordered**
- **Contribution of each Pizza Type to total revenue**
- **Top 3 most ordered pizzas from each category**
- **Top 3 most ordered pizza types based on revenue.**
- **Cumulative revenue generated overtime**

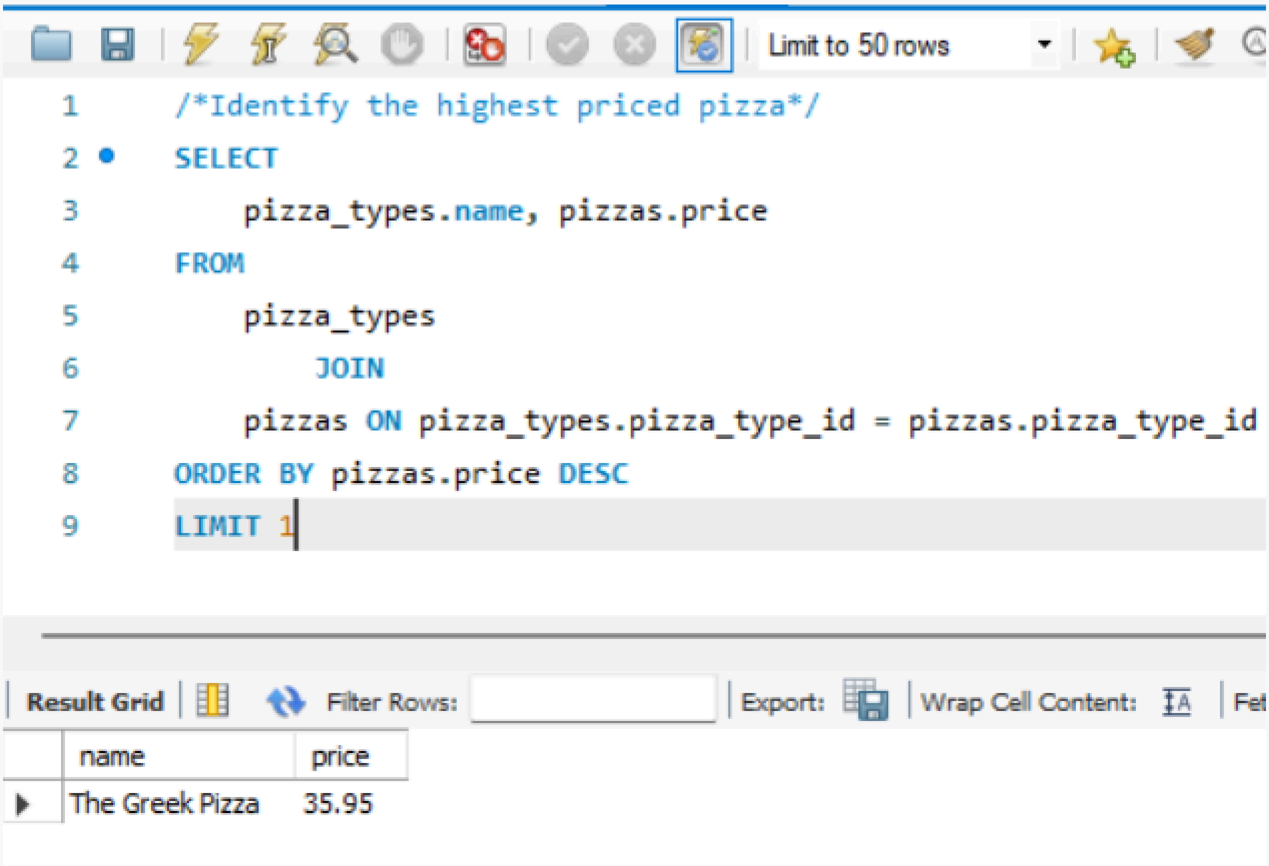
Total number of Orders Placed



```sql
/*Retrieve the total number of Orders PLaced */
USE pizzahut;
Select * from orders;
select count(order_id) as total_orders_placed from orders;
```

total_orders_placed
21350

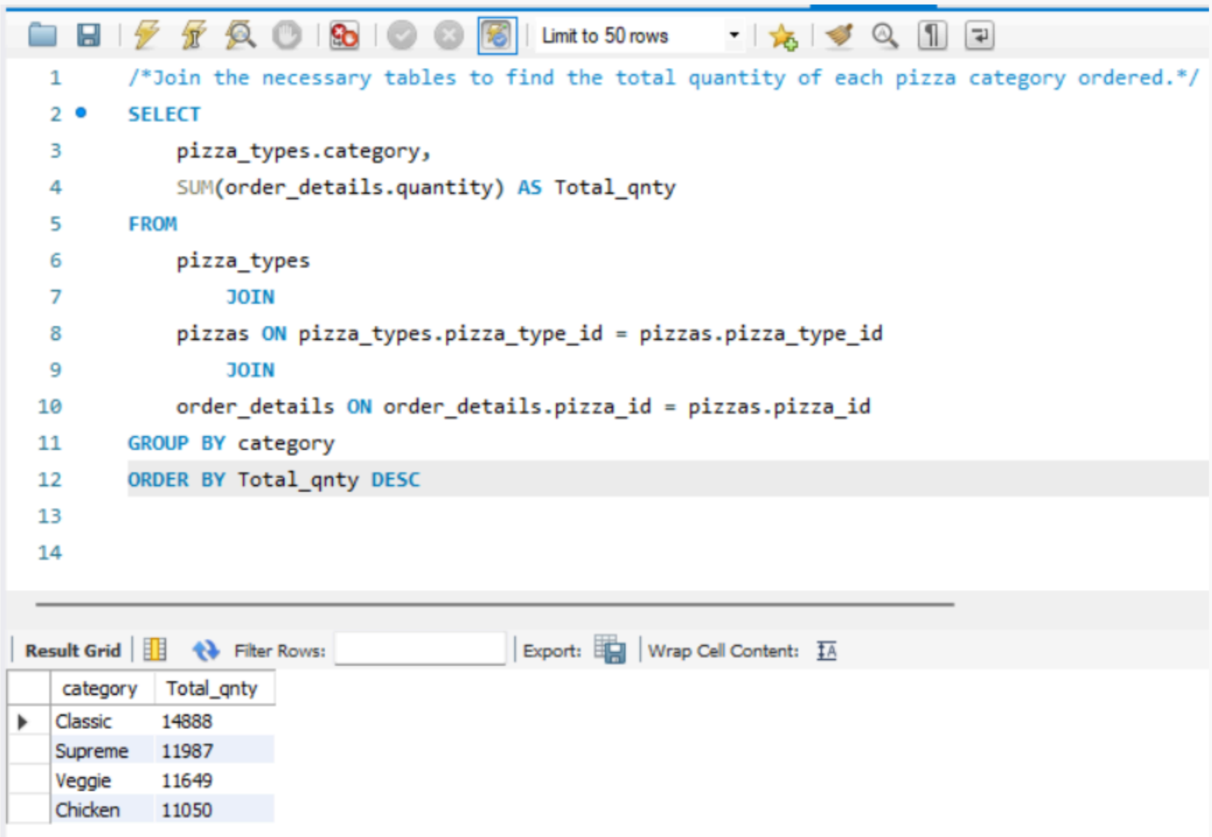
Identify the highest priced pizza



```sql
/*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

Total quantity of each pizza category ordered

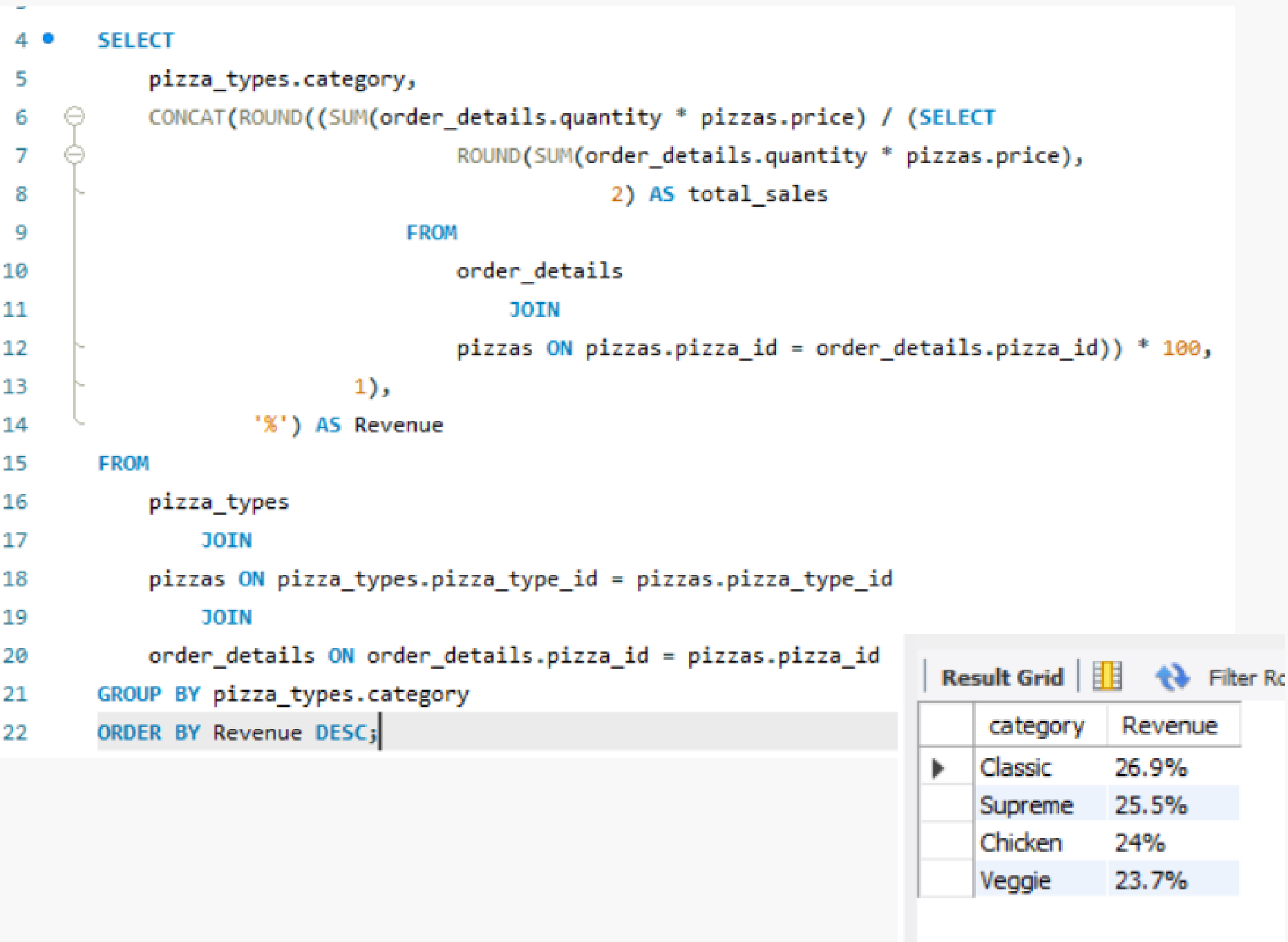


```sql
/*Join the necessary tables to find the total quantity of each pizza category ordered.*/
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS Total_qnty
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY category
ORDER BY Total_qnty DESC


```

category	Total_qnty
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

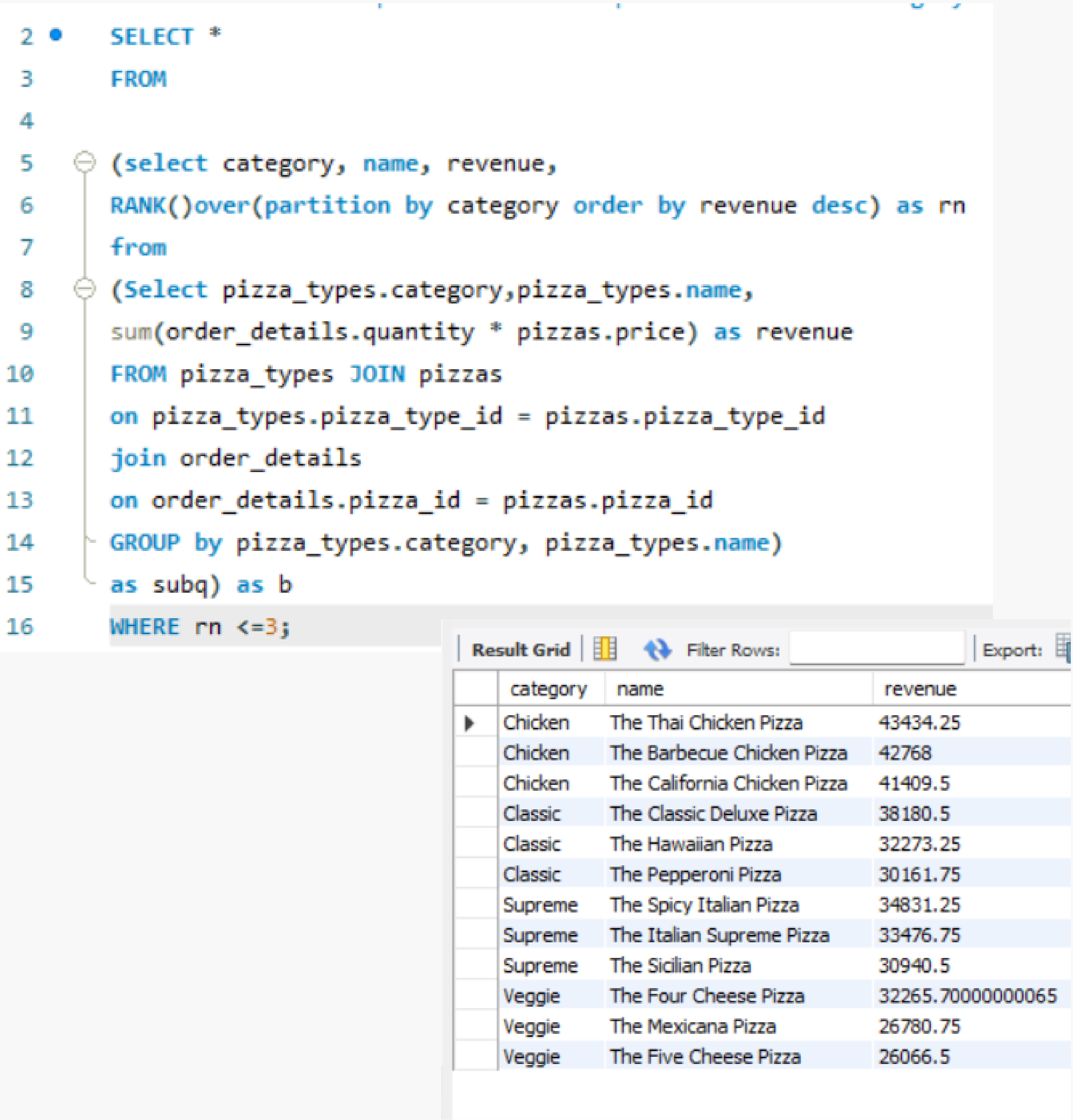
Percentage contribution of each pizza type to total revenue



```sql
SELECT
    pizza_types.category,
    CONCAT(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,
                    1),
            '%') 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
ORDER BY Revenue DESC;
```

category	Revenue
Classic	26.9%
Supreme	25.5%
Chicken	24%
Veggie	23.7%

Top 3 most ordered pizzas from each category

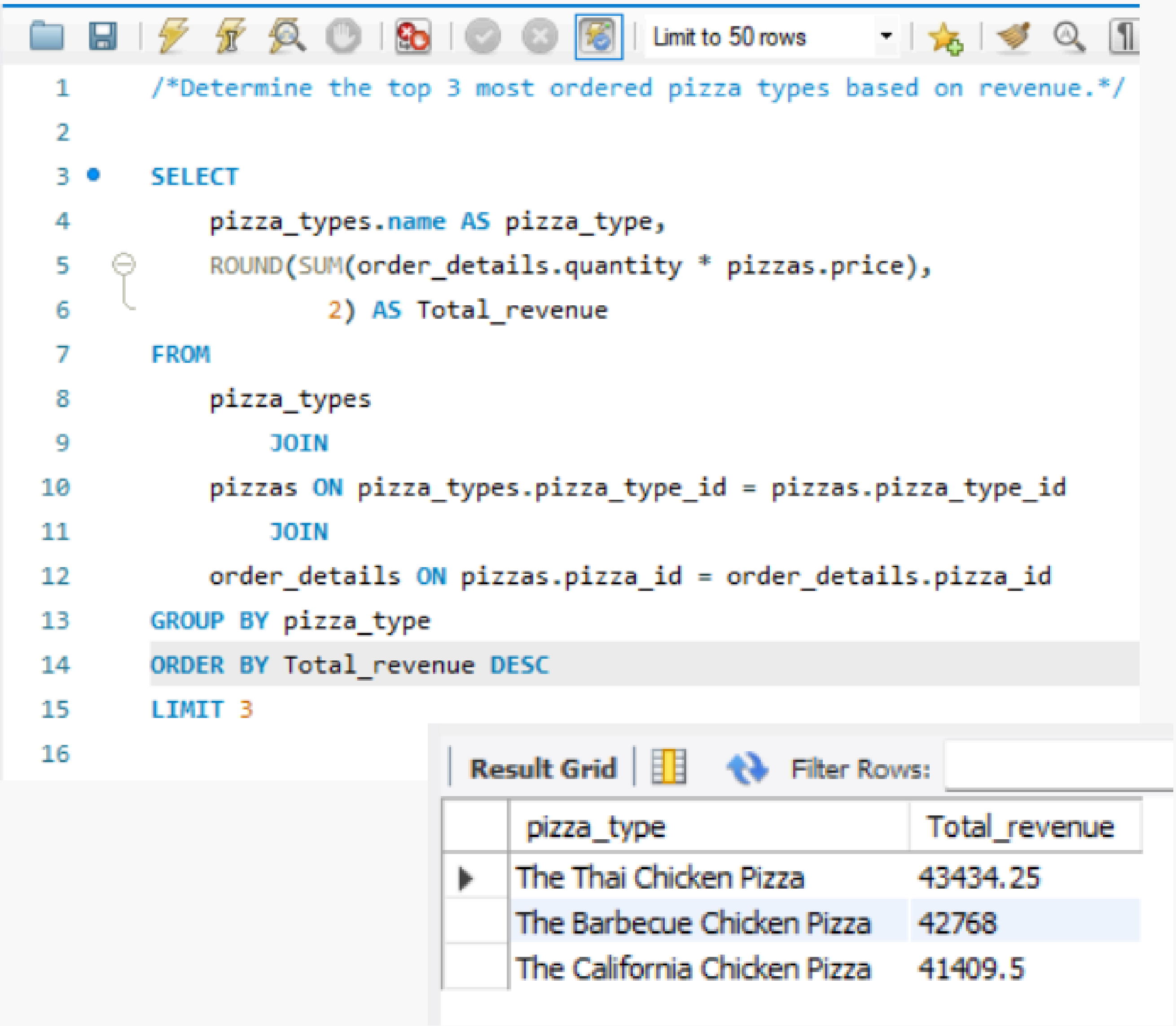


```sql
SELECT *
FROM

(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 subq) 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

Top 3 most ordered pizza types based on revenue.

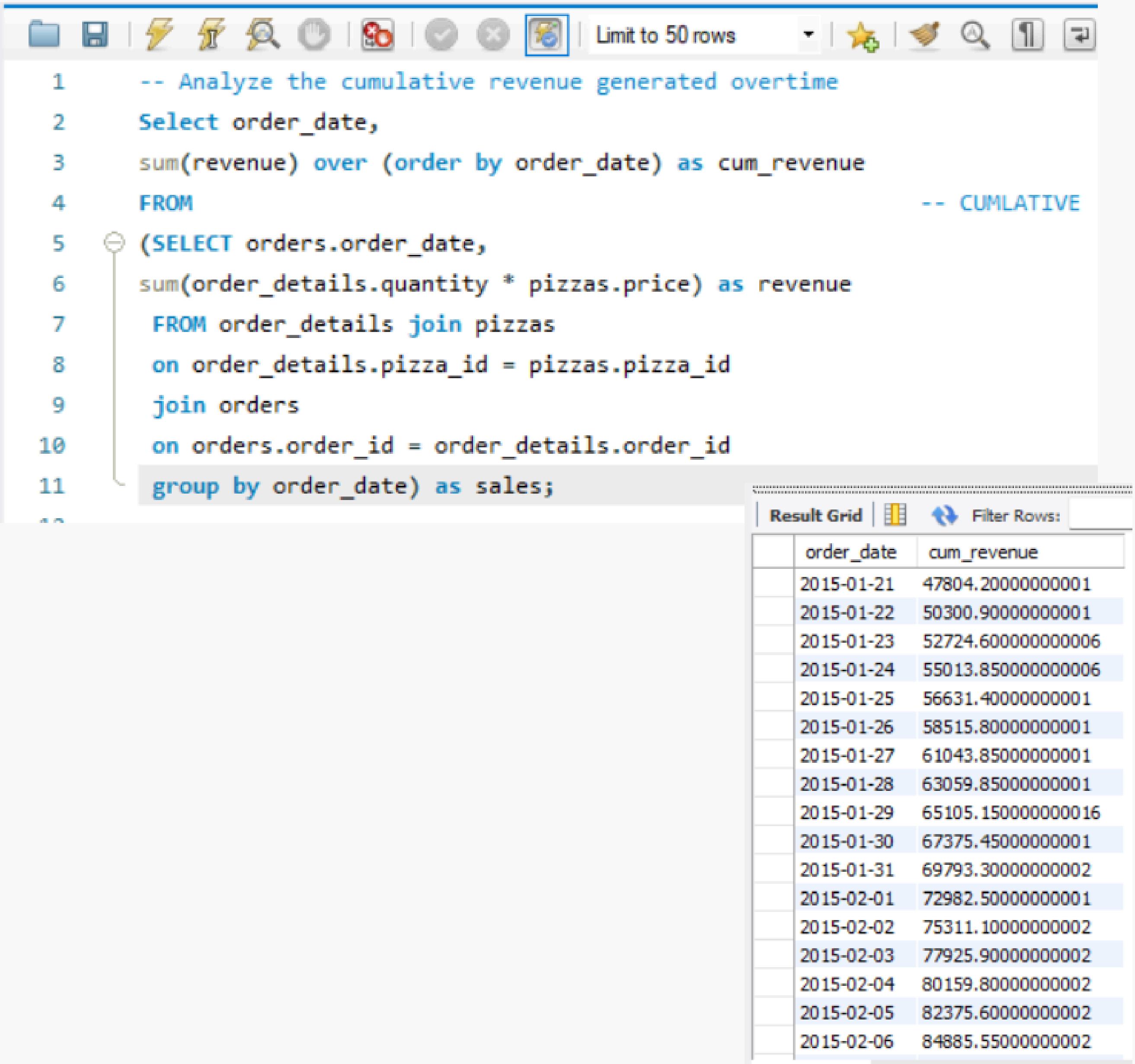


```
/*Determine the top 3 most ordered pizza types based on revenue.*/

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

pizza_type	Total_revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

Cumulative revenue generated overtime



```
-- Analyze the cumulative revenue generated overtime
Select order_date,
sum(revenue) over (order by order_date) as cum_revenue
FROM                                                        -- CUMLATIVE
(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 order_date) as sales;
```

order_date	cum_revenue
2015-01-21	47804.20000000001
2015-01-22	50300.90000000001
2015-01-23	52724.600000000006
2015-01-24	55013.850000000006
2015-01-25	56631.40000000001
2015-01-26	58515.80000000001
2015-01-27	61043.85000000001
2015-01-28	63059.85000000001
2015-01-29	65105.150000000016
2015-01-30	67375.45000000001
2015-01-31	69793.30000000002
2015-02-01	72982.50000000001
2015-02-02	75311.10000000002
2015-02-03	77925.90000000002
2015-02-04	80159.80000000002
2015-02-05	82375.60000000002
2015-02-06	84885.55000000002

KEY INSIGHTS ANALYSED

- **The top 3 pizza types based on revenue are Thai, Barbeque and California Chicken**
- **Identified the Total quantity of each pizza category ordered and ‘Classic’ pizza was the most ordered i.e.14888 times**
- **Customer preferences: Uncovered preferences for pizza sizes and categories (e.g., vegetarian vs. non-vegetarian).**