

Pizza Sales Analysis Using SQL

- By *Khushi Tank*

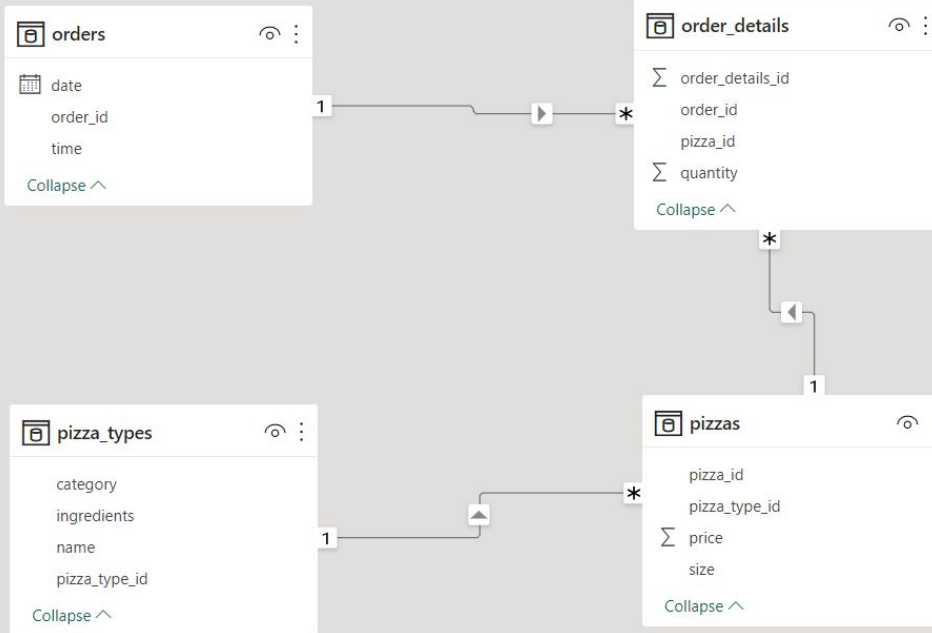


Objective

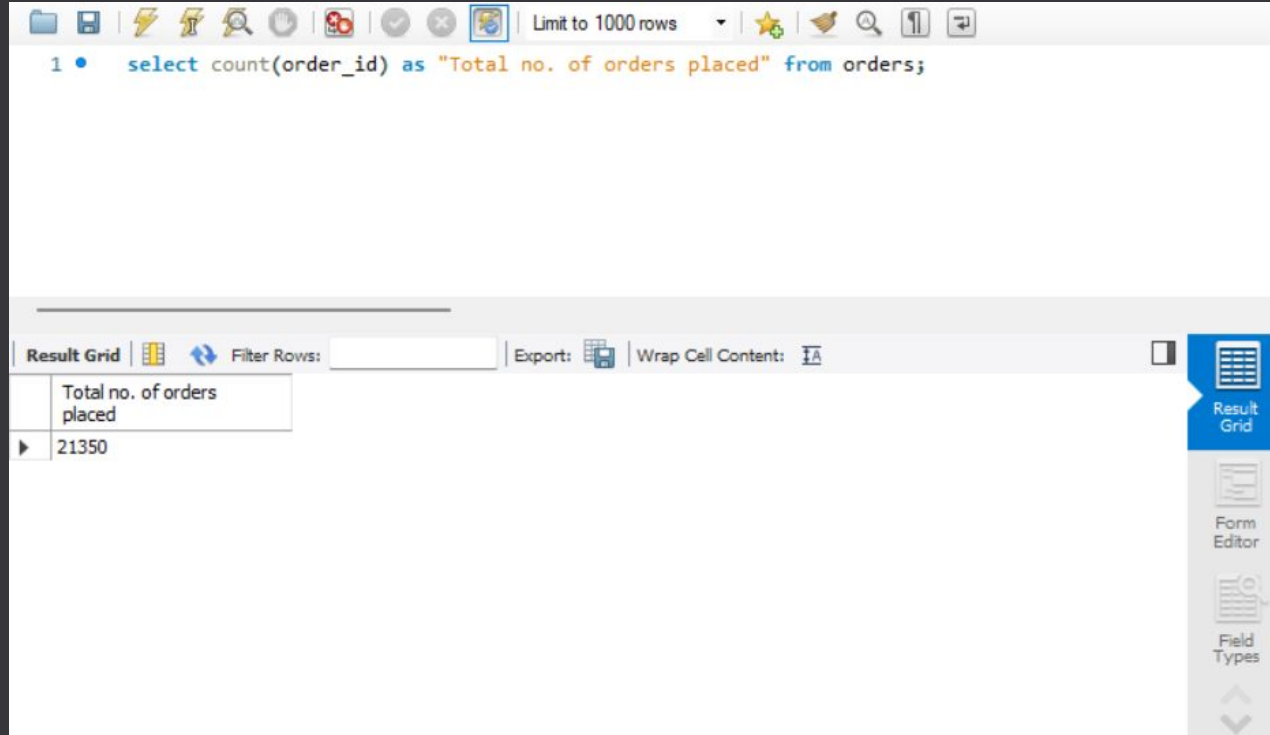
The aim of this project is to conduct a comprehensive analysis of pizza sales data to evaluate the overall performance of the restaurant. By examining sales trends and patterns, this analysis seeks to provide actionable insights that will inform strategic decision-making and enhance future planning. The ultimate goal is to optimize operational efficiency, improve customer satisfaction, and drive sustained business growth.



Model View



Q1. Retrieve the total no. of orders placed.



The screenshot shows a database query tool interface. At the top, there is a toolbar with various icons for file operations, execution, and viewing. Below the toolbar, a SQL query is entered in a text area:

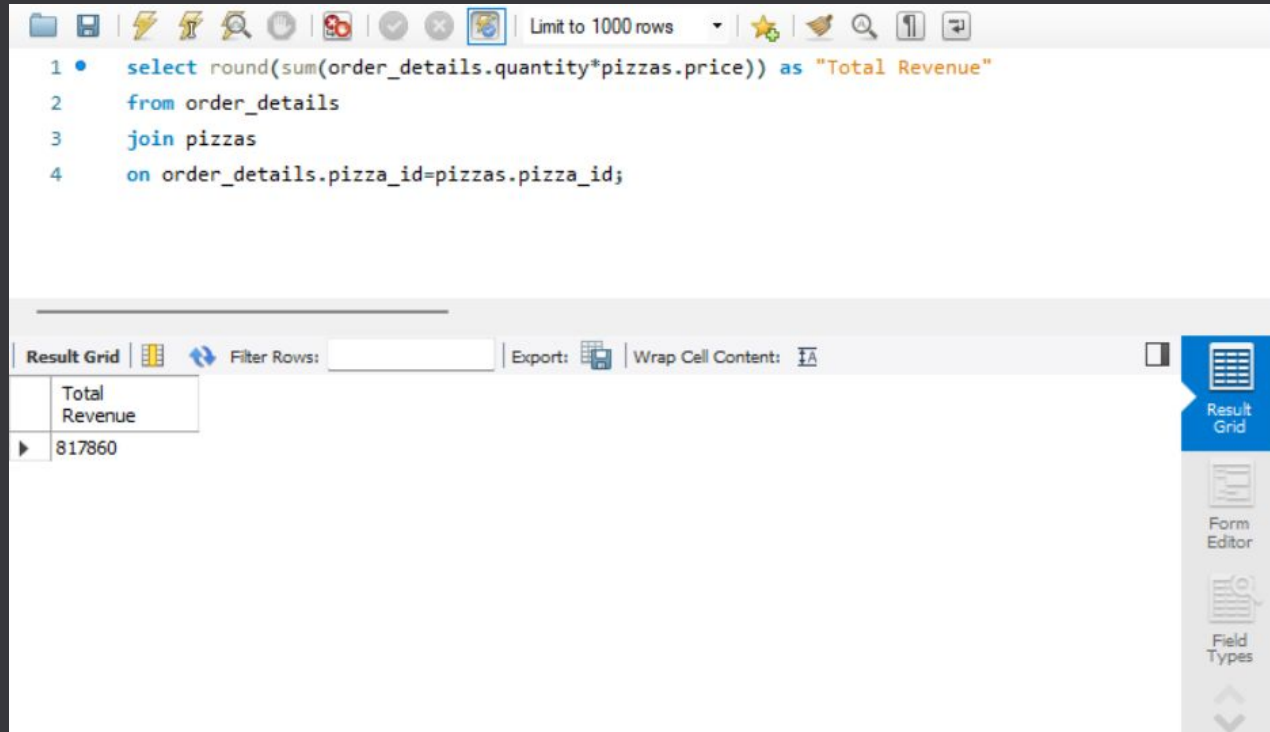
```
1 • select count(order_id) as "Total no. of orders placed" from orders;
```

Below the query area, there is a section for the results. It includes a "Result Grid" tab, a "Filter Rows" input field, and buttons for "Export" and "Wrap Cell Content". The "Result Grid" is active, displaying a single row of results:

Total no. of orders placed
21350

On the right side of the interface, there is a vertical toolbar with icons for "Result Grid", "Form Editor", and "Field Types".

Q2. Calculate total revenue generated from pizza sales.



The screenshot shows a SQL query editor with a toolbar at the top. The query is as follows:

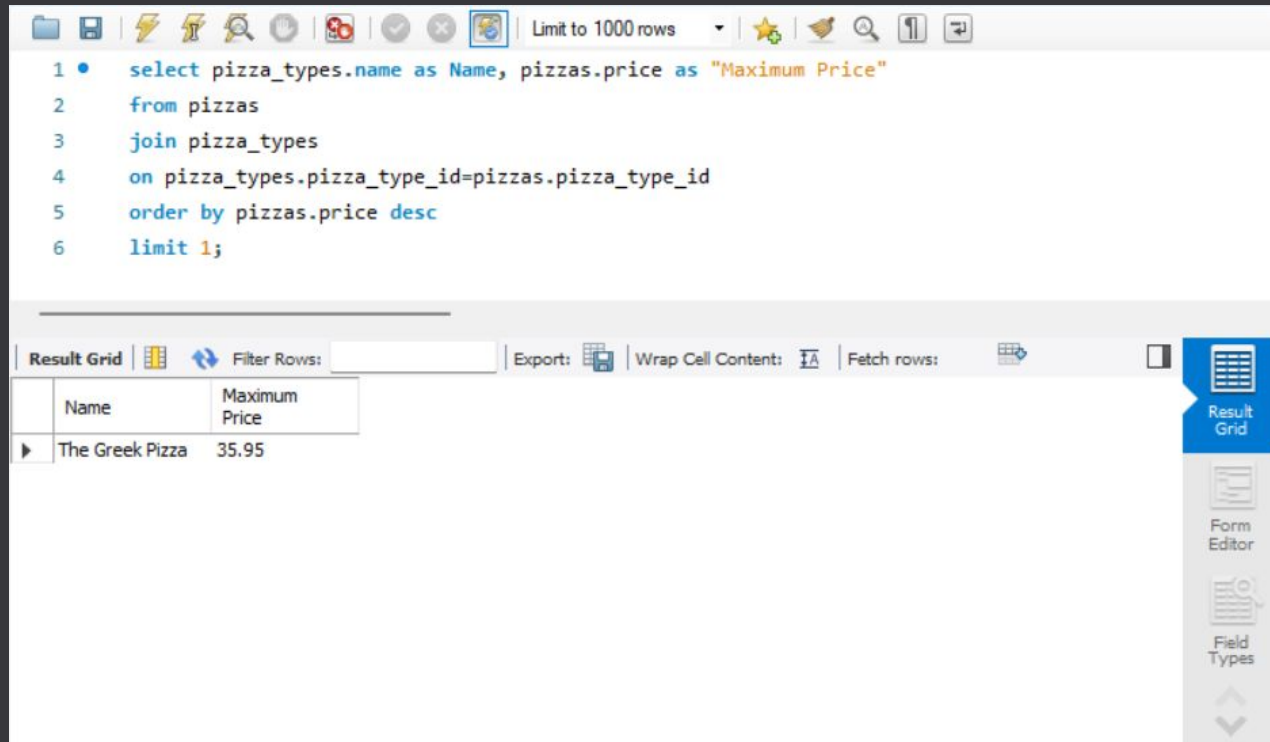
```
1 • select round(sum(order_details.quantity*pizzas.price)) as "Total Revenue"
2   from order_details
3  join pizzas
4 on order_details.pizza_id=pizzas.pizza_id;
```

Below the query editor, there is a "Result Grid" section. It includes a "Filter Rows:" input field, an "Exports:" button, and a "Wrap Cell Content:" checkbox. The result grid displays the following data:

Total Revenue
817860

On the right side of the interface, there are buttons for "Result Grid", "Form Editor", and "Field Types".

Q3. Identify highest prized pizza.



The screenshot shows a database query interface. The top toolbar includes icons for file operations, execution, and settings, along with a "Limit to 1000 rows" dropdown. The SQL query is as follows:

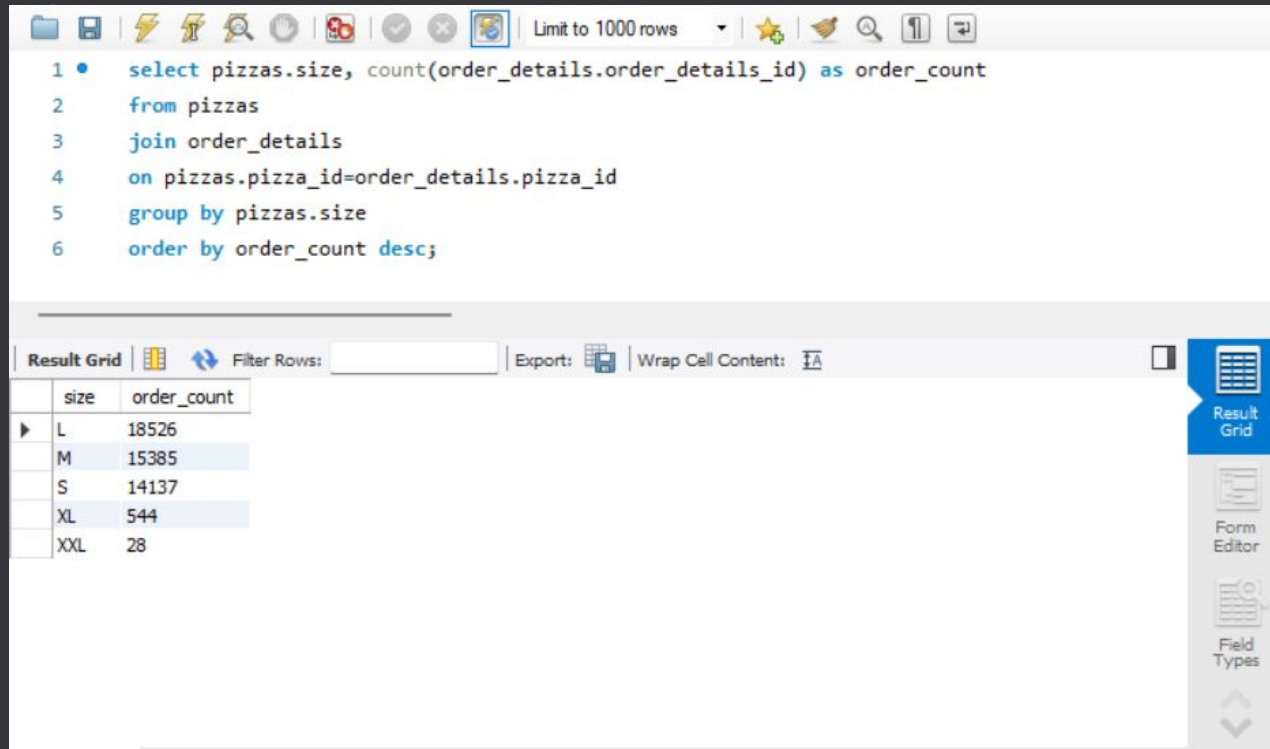
```
1 • select pizza_types.name as Name, pizzas.price as "Maximum Price"
2   from pizzas
3  join pizza_types
4 on pizza_types.pizza_type_id=pizzas.pizza_type_id
5  order by pizzas.price desc
6  limit 1;
```

Below the query editor, the "Result Grid" tab is active. It displays a table with the results of the query:

Name	Maximum Price
The Greek Pizza	35.95

On the right side of the interface, there are buttons for "Result Grid", "Form Editor", and "Field Types".

Q4. Identify most common pizza size ordered.



The screenshot displays a SQL query editor interface. The query is as follows:

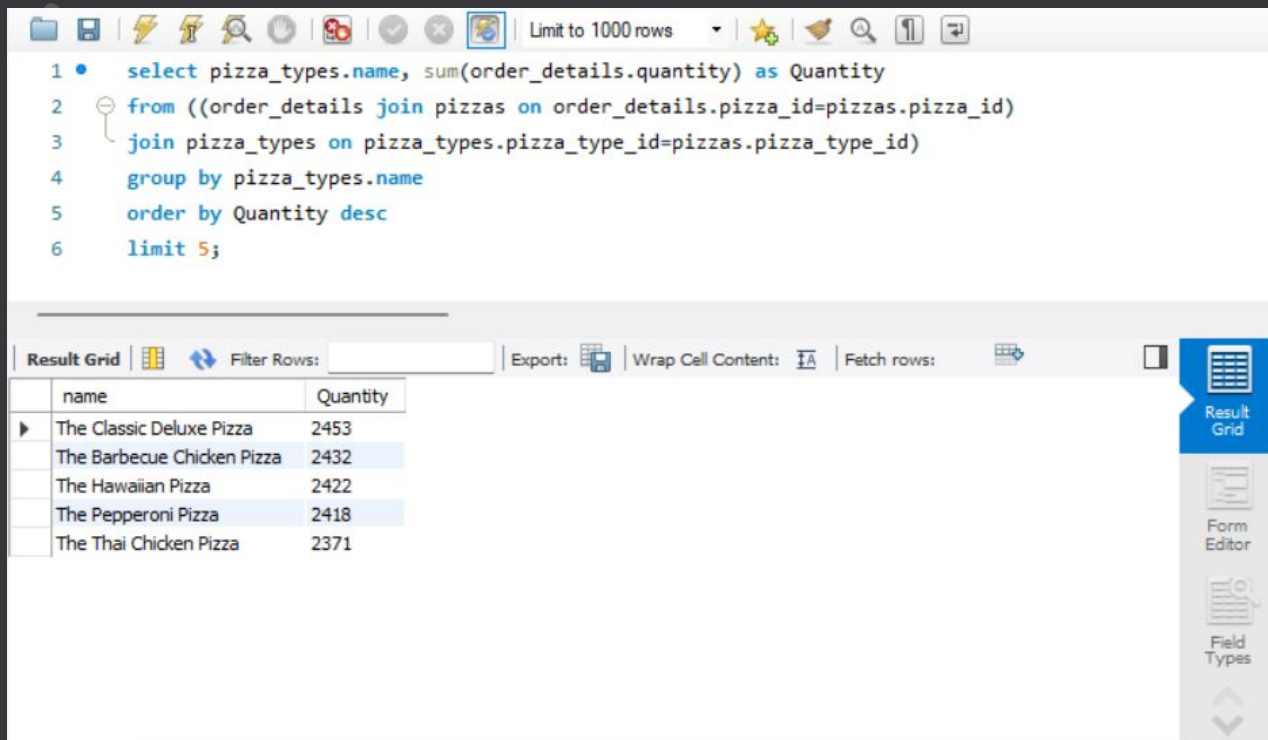
```
1 • select pizzas.size, count(order_details.order_details_id) as order_count
2   from pizzas
3  join order_details
4 on pizzas.pizza_id=order_details.pizza_id
5  group by pizzas.size
6  order by order_count desc;
```

Below the query, the 'Result Grid' is shown, displaying the results of the query. The grid has two columns: 'size' and 'order_count'. The results are sorted by 'order_count' in descending order.

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

The interface includes a toolbar at the top with various icons for file operations, a 'Limit to 1000 rows' dropdown, and a 'Result Grid' button on the right side. The 'Result Grid' button is currently selected, and the 'Form Editor' and 'Field Types' buttons are also visible.

Q5. List top 5 most ordered pizza types along their quantity.



The screenshot shows a database query editor with a SQL query and its results. The query is as follows:

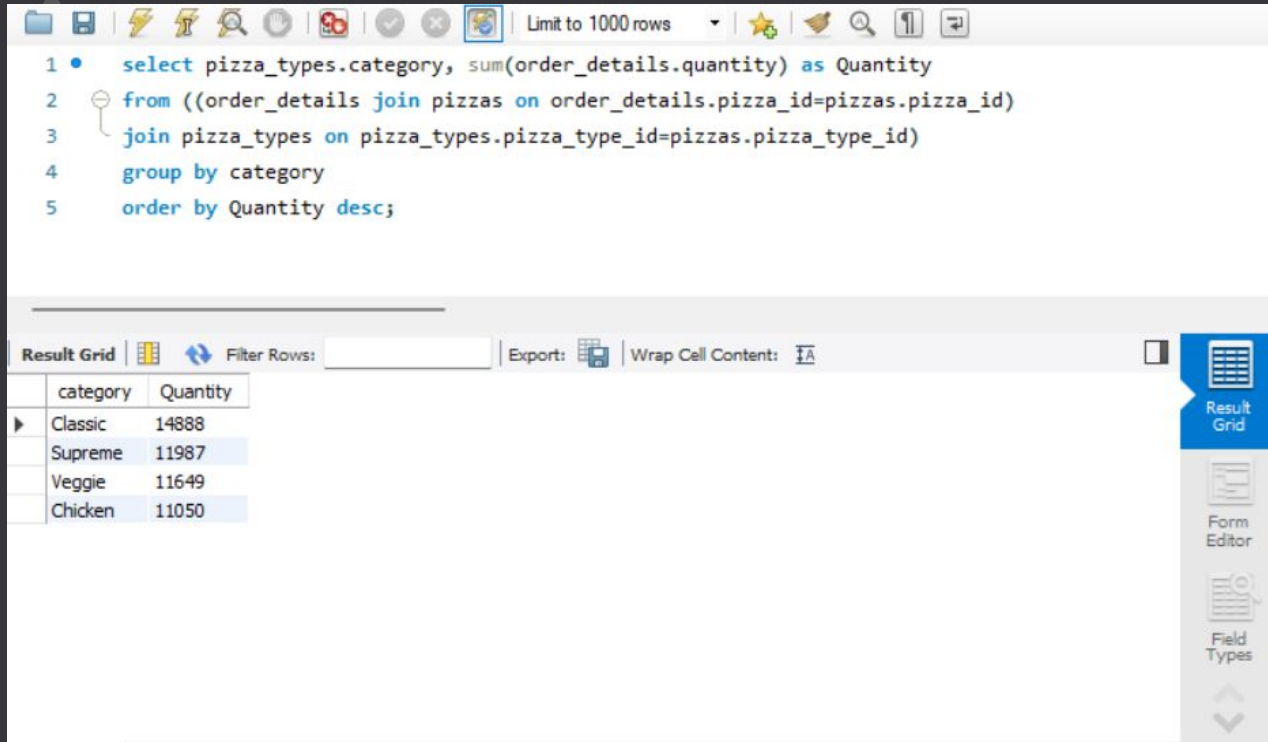
```
1 • select pizza_types.name, sum(order_details.quantity) as Quantity
2   from ((order_details join pizzas on order_details.pizza_id=pizzas.pizza_id)
3   join pizza_types on pizza_types.pizza_type_id=pizzas.pizza_type_id)
4   group by pizza_types.name
5   order by Quantity desc
6   limit 5;
```

The results are displayed in a table with the following data:

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

The interface includes a toolbar at the top with icons for file operations, a 'Limit to 1000 rows' dropdown, and a 'Result Grid' button. The bottom right sidebar contains buttons for 'Form Editor' and 'Field Types'.

Q6. Join necessary tables to find total quantity of each pizza category ordered.



The screenshot shows a database query editor interface. The top toolbar includes icons for file operations, execution, and a 'Limit to 1000 rows' dropdown. The SQL query is as follows:

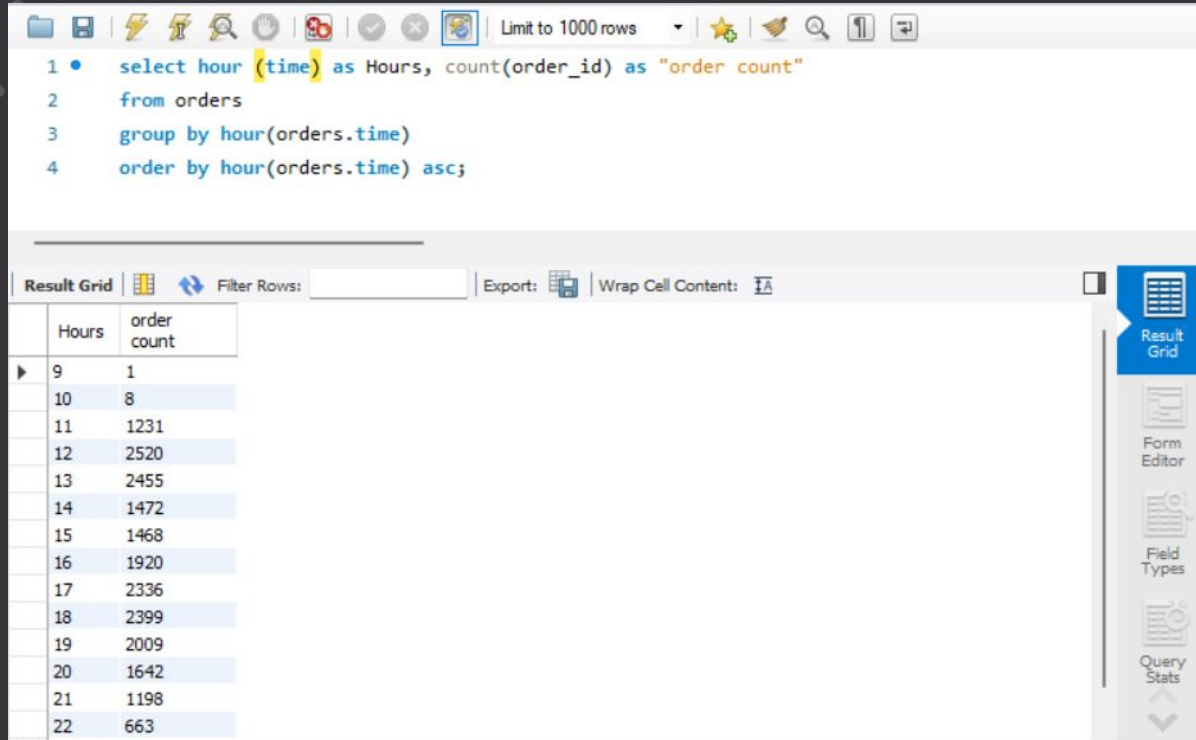
```
1 • select pizza_types.category, sum(order_details.quantity) as Quantity
2   from ((order_details join pizzas on order_details.pizza_id=pizzas.pizza_id)
3   join pizza_types on pizza_types.pizza_type_id=pizzas.pizza_type_id)
4   group by category
5   order by Quantity desc;
```

Below the query editor, the 'Result Grid' tab is active, displaying the following data:

category	Quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

On the right side of the interface, there is a vertical toolbar with icons for 'Result Grid', 'Form Editor', and 'Field Types'.

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



The screenshot displays a database query editor with a SQL query and its corresponding result grid. The query is as follows:

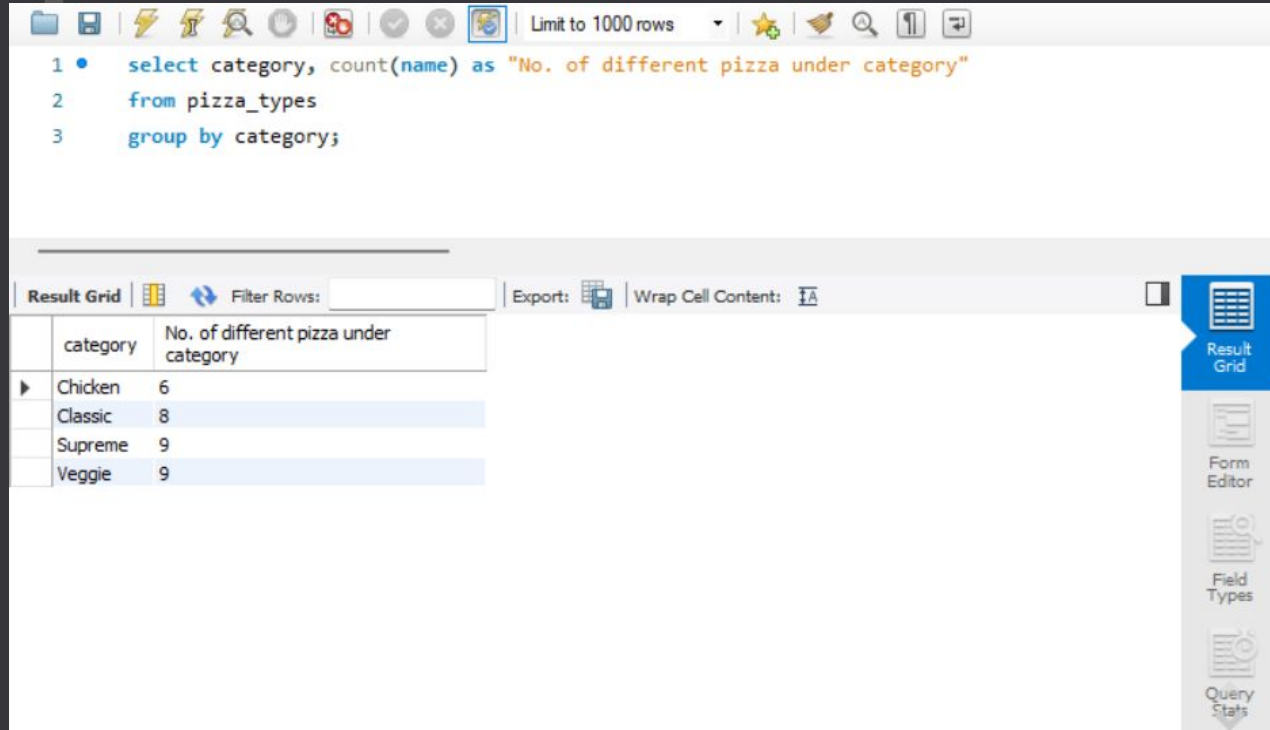
```
1 • select hour (time) as Hours, count(order_id) as "order count"
2   from orders
3   group by hour(orders.time)
4   order by hour(orders.time) asc;
```

The result grid shows the following data:

Hours	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

The interface includes a toolbar at the top with various icons and a 'Limit to 1000 rows' dropdown. The result grid has a 'Filter Rows' input field and an 'Export' button. On the right side, there is a vertical toolbar with buttons for 'Result Grid', 'Form Editor', 'Field Types', and 'Query Stats'.

Q8. Join relevant tables to find category wise distribution of pizza



The screenshot shows a database query editor interface. At the top, there is a toolbar with various icons and a dropdown menu set to "Limit to 1000 rows". Below the toolbar, a SQL query is entered in a text area:

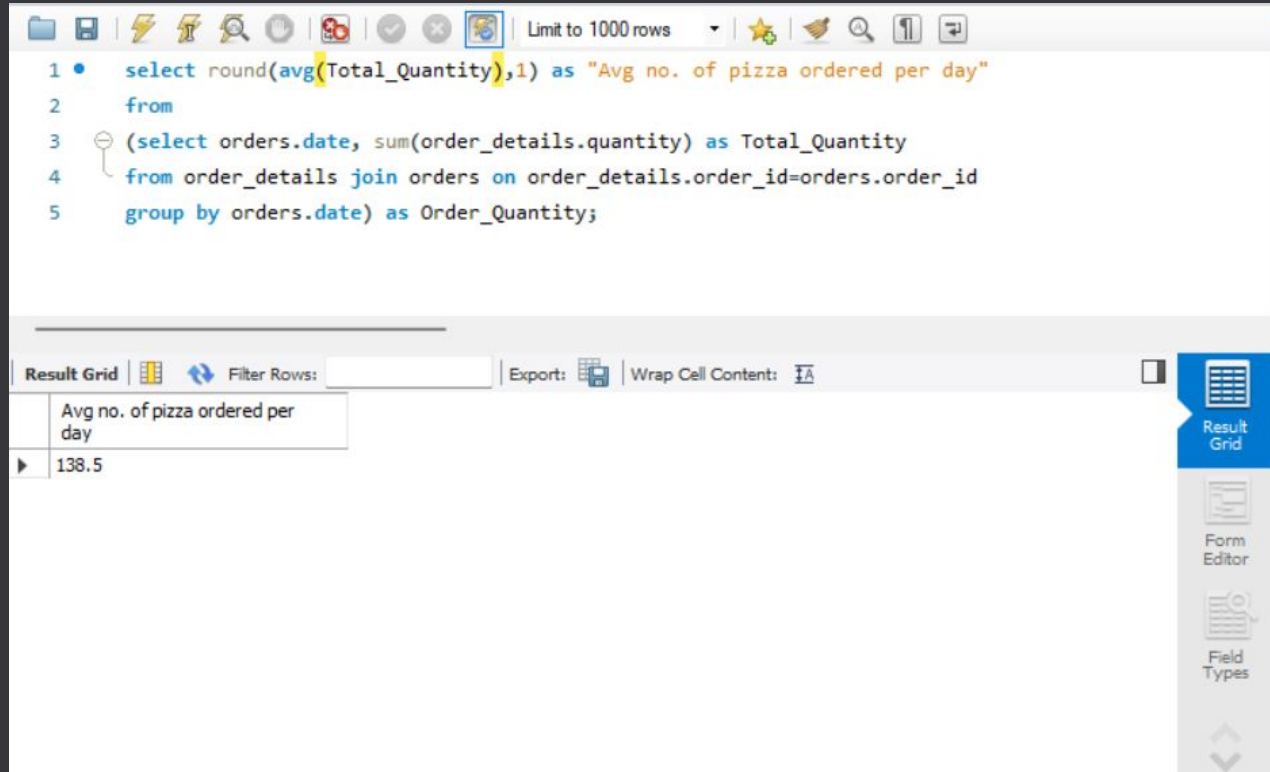
```
1 • select category, count(name) as "No. of different pizza under category"
2   from pizza_types
3  group by category;
```

Below the query editor, the "Result Grid" tab is active, displaying the results of the query. The results are shown in a table with two columns: "category" and "No. of different pizza under category". The table contains four rows of data:

category	No. of different pizza under category
Chicken	6
Classic	8
Supreme	9
Veggie	9

On the right side of the interface, there is a vertical toolbar with icons for "Result Grid", "Form Editor", "Field Types", and "Query Stats".

Q9. Group orders by date & calculate avg no. of pizza ordered per day.



The screenshot shows a SQL query editor with a toolbar at the top. The query is as follows:

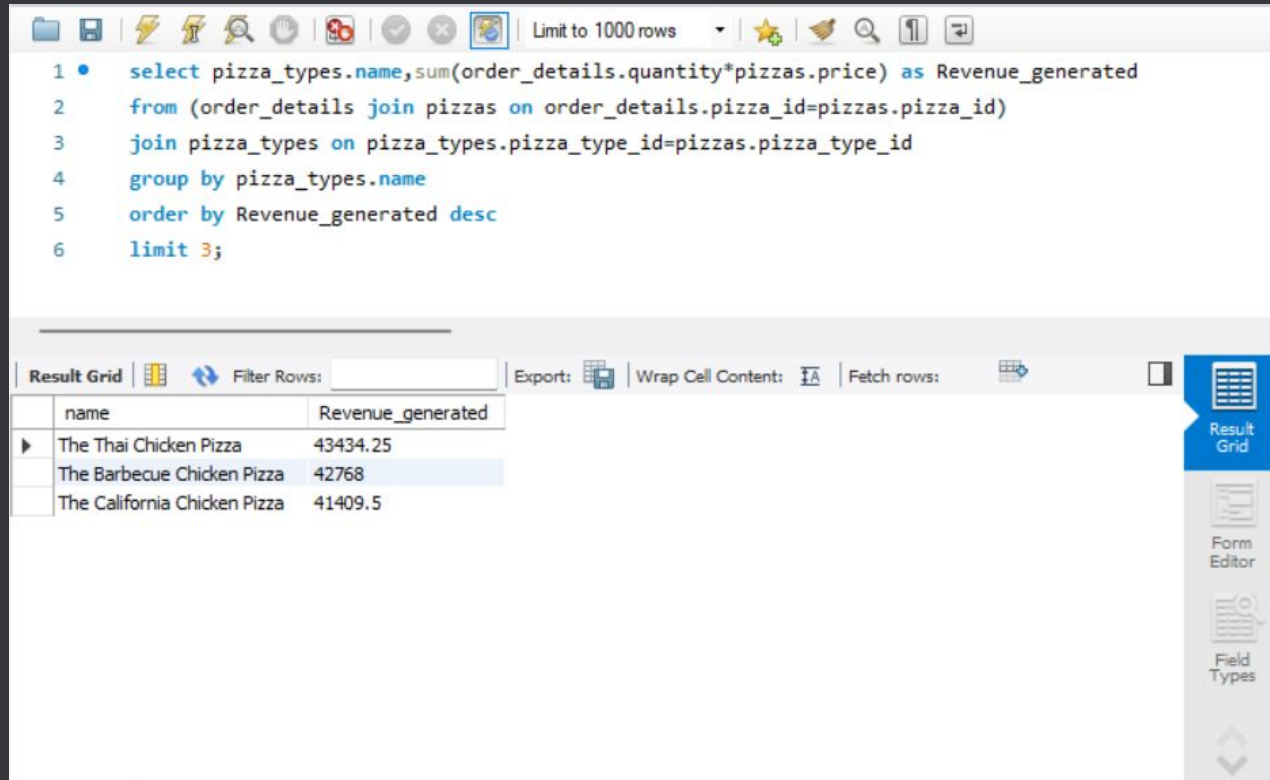
```
1 • select round(avg(Total_Quantity),1) as "Avg no. of pizza ordered per day"
2   from
3   (select orders.date, sum(order_details.quantity) as Total_Quantity
4    from order_details join orders on order_details.order_id=orders.order_id
5    group by orders.date) as Order_Quantity;
```

Below the query editor is a toolbar with options: "Result Grid" (selected), "Filter Rows:", "Export:", and "Wrap Cell Content:". Below this is a table with the following data:

Avg no. of pizza ordered per day
138.5

On the right side of the interface, there is a vertical toolbar with icons for "Result Grid" (selected), "Form Editor", and "Field Types".

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



The screenshot shows a database query editor with a SQL query to find the top 3 most ordered pizza types based on revenue. The query is as follows:

```
1 • select pizza_types.name, sum(order_details.quantity*pizzas.price) as Revenue_generated
2 from (order_details join pizzas on order_details.pizza_id=pizzas.pizza_id)
3 join pizza_types on pizza_types.pizza_type_id=pizzas.pizza_type_id
4 group by pizza_types.name
5 order by Revenue_generated desc
6 limit 3;
```

Below the query, the results are displayed in a table with the columns 'name' and 'Revenue_generated'.

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

The interface includes a toolbar at the top with various icons for file operations, a 'Limit to 1000 rows' dropdown, and a 'Result Grid' button. The bottom right corner features a sidebar with 'Form Editor' and 'Field Types' options.

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

```
1 • select pizza_types.name, sum(order_details.quantity*pizzas.price) as Revenue_generated
2   from (order_details join pizzas on order_details.pizza_id=pizzas.pizza_id)
3   join pizza_types on pizza_types.pizza_type_id=pizzas.pizza_type_id
4   group by pizza_types.name
5   order by Revenue_generated desc
6   limit 3;
```

Result Grid

Filter Rows:

Export: | Wrap Cell Content: | Fetch rows:

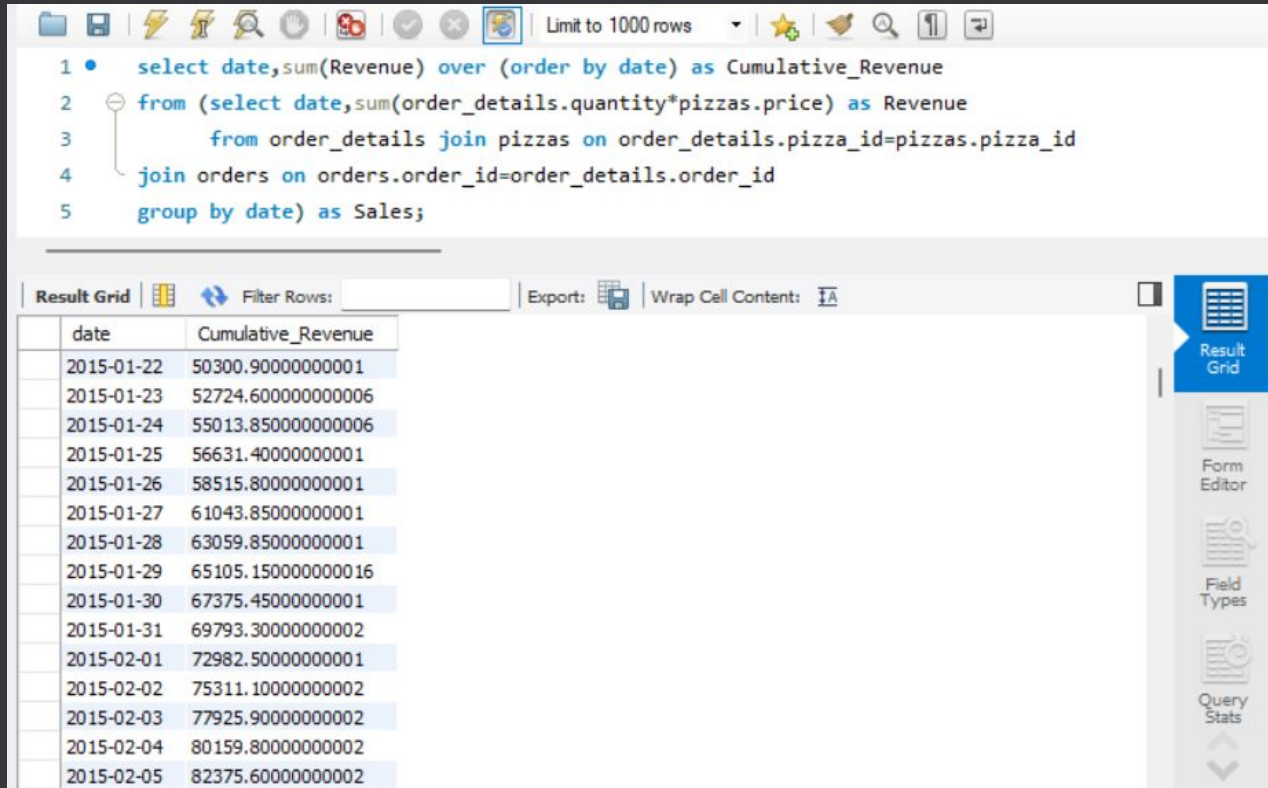
	name	Revenue_generated
▶	The Thai Chicken Pizza	43434.25
	The Barbecue Chicken Pizza	42768
	The California Chicken Pizza	41409.5

Result Grid

Form Editor

Field Types

Q12. Analyze the cumulative revenue generated over time.



The screenshot displays a database query editor interface. At the top, a toolbar includes icons for file operations, execution, and a 'Limit to 1000 rows' dropdown. The SQL query is as follows:

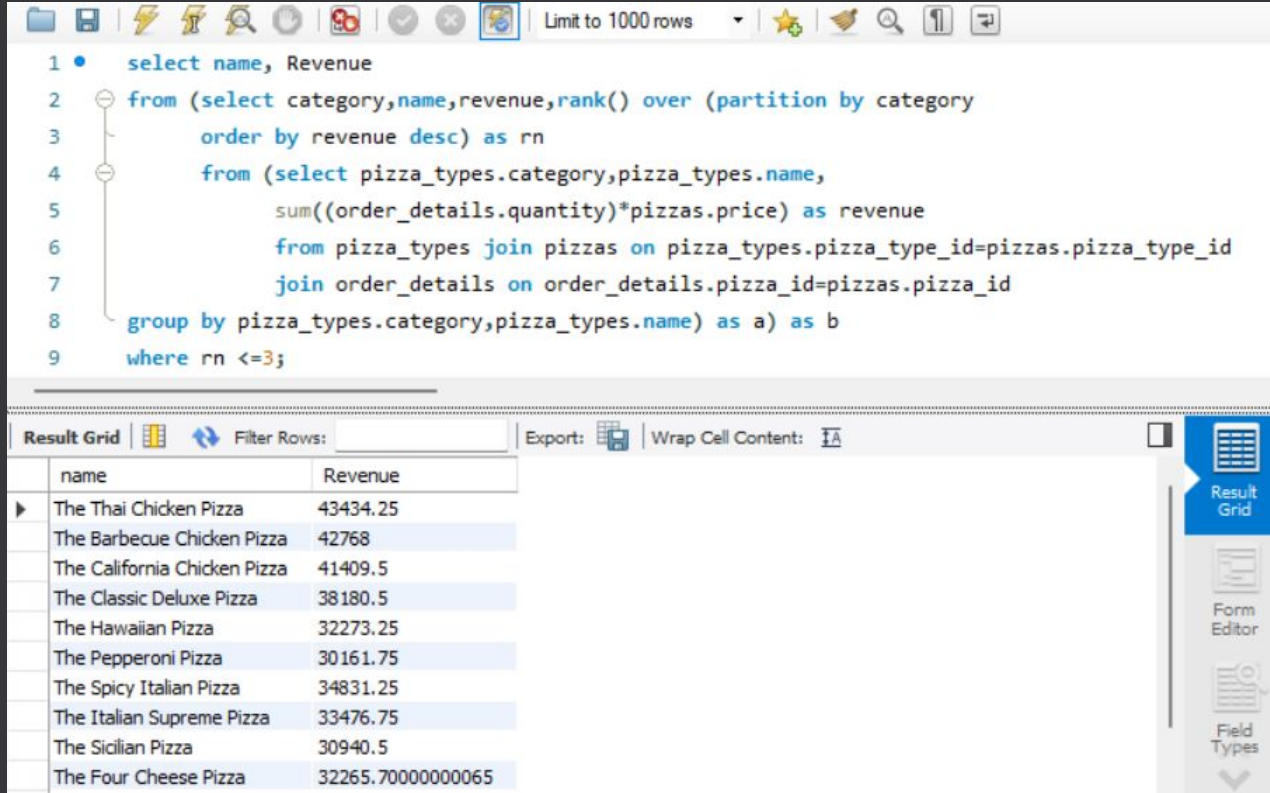
```
1 • select date, sum(Revenue) over (order by date) as Cumulative_Revenue
2   from (select date, sum(order_details.quantity*pizzas.price) as Revenue
3         from order_details join pizzas on order_details.pizza_id=pizzas.pizza_id
4         join orders on orders.order_id=order_details.order_id
5         group by date) as Sales;
```

Below the query editor, the 'Result Grid' tab is active, showing a table with two columns: 'date' and 'Cumulative_Revenue'. The table contains 16 rows of data, representing daily revenue from January 22, 2015, to February 5, 2015. The cumulative revenue values are displayed in scientific notation.

date	Cumulative_Revenue
2015-01-22	50300.900000000001
2015-01-23	52724.600000000006
2015-01-24	55013.850000000006
2015-01-25	56631.400000000001
2015-01-26	58515.800000000001
2015-01-27	61043.850000000001
2015-01-28	63059.850000000001
2015-01-29	65105.150000000006
2015-01-30	67375.450000000001
2015-01-31	69793.300000000002
2015-02-01	72982.500000000001
2015-02-02	75311.100000000002
2015-02-03	77925.900000000002
2015-02-04	80159.800000000002
2015-02-05	82375.600000000002

On the right side of the interface, a vertical toolbar contains icons for 'Result Grid', 'Form Editor', 'Field Types', and 'Query Stats'.

Q13. Determine the top 3 most ordered pizza types based on revenue for each pizza category.



The screenshot shows a SQL query editor with a toolbar at the top. The query is as follows:

```
1 • select name, Revenue
2   from (select category,name,revenue,rank() over (partition by category
3         order by revenue desc) as rn
4   from (select pizza_types.category,pizza_types.name,
5         sum((order_details.quantity)*pizzas.price) as revenue
6         from pizza_types join pizzas on pizza_types.pizza_type_id=pizzas.pizza_type_id
7         join order_details on order_details.pizza_id=pizzas.pizza_id
8   group by pizza_types.category,pizza_types.name) as a) as b
9  where rn <=3;
```

Below the query editor, the 'Result Grid' tab is active, displaying the following data:

	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
	The Italian Supreme Pizza	33476.75
	The Sicilian Pizza	30940.5
	The Four Cheese Pizza	32265.70000000065

On the right side of the interface, there is a vertical toolbar with icons for 'Result Grid', 'Form Editor', and 'Field Types'.

Thanks!

