Pizza Sales Performance Using SQL

JOINS, WINDOW FUNCTIONS, COMMON TABLE EXPRESSION, GROUP BY, HAVING

Dataset

- The dataset that I have worked on for this project is a random Pizza_hut sales.
- This dataset has four tables which are order_details, orders, pizza_types and pizza.
- I have imported these tables into MySQL database and then I have written multiple queries.
- I have utilized CTEs, subquery, WINDOW functions and other important SQL commands to filter, sort and summarize data.
- Created a database to store above tables
- create database pizzahut;

Key questions the project answers

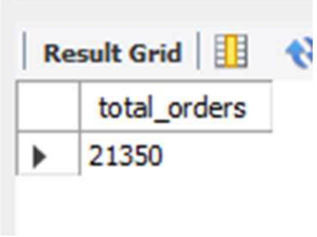
- Retrieve the total number of orders placed.
- Calculate the total revenue generated from pizza sales.
- Identify the highest-priced pizza.
- Identify the most common pizza size ordered.
- List the top 5 most ordered pizza types along with their quantities.
- Join the necessary tables to find the total quantity of each pizza category ordered.
- Determine the distribution of orders by hour of the day.
- Join relevant tables to find the category-wise distribution of pizzas.

Key questions the project answers

- Group the orders by date and calculate the average number of pizzas ordered per day.
- Determine the top 3 most ordered pizza types based on revenue.
- Calculate the percentage contribution of each pizza type to total revenue.
- Analyze the cumulative revenue generated over time.
- Determine the top 3 most ordered pizza types based on revenue for each pizza category.

Retrieve the total number of orders placed.

- select count(order_id) as total_orders
- from orders;



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total_orders
21350
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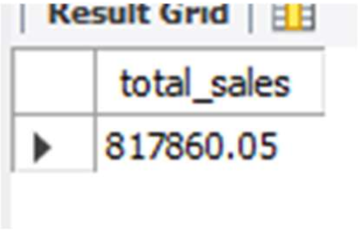
Calculate the total revenue generated from pizza sales.

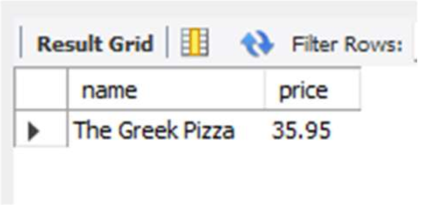
- Select
- round(sum(order_details.quantity*pizzas.price),2) as total_sales
- from
- order_details join pizzas
- on order_details.pizza_id=pizzas.pizza_id;



	total_sales
▶	817860.05

Identify the highest-priced pizza.

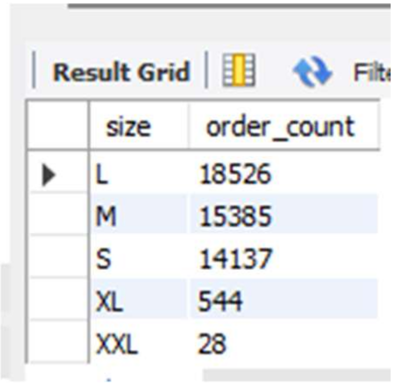
- select
- pizza_types.name, pizzas.price
- from pizza_types join pizzas
- on pizza_types.pizza_type_id=pizzas.pizza_type_id
- order by pizzas.price desc limit 1;



name	price
The Greek Pizza	35.95

Identify the most common pizza size ordered.

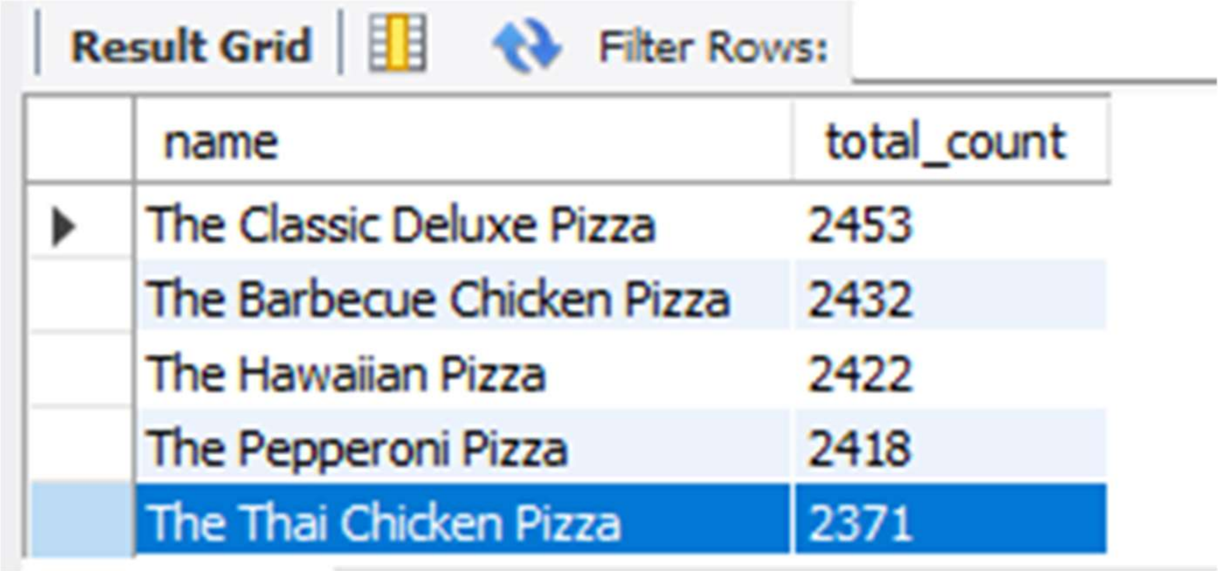
- Select
- pizzas.size, count(order_details.order_details_id) as order_count
- from pizzas join order_details
- on pizzas.pizza_id=order_details.pizza_id
- group by pizzas.size order by order_count desc;



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.

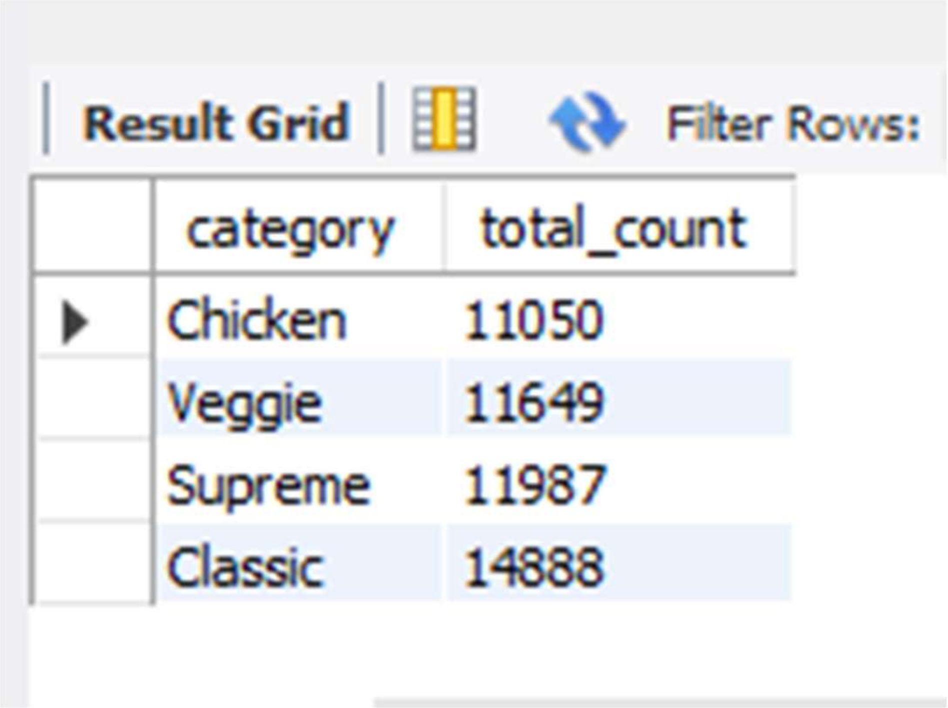
- select pizza_types.name, sum(order_details.quantity) as total_count
- from pizza_types join pizzas
- on pizza_types.pizza_type_id=pizzas.pizza_type_id
- join order_details
- on pizzas.pizza_id=order_details.pizza_id
- group by pizza_types.name order by total_count desc
- limit 5;



name	total_count
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.

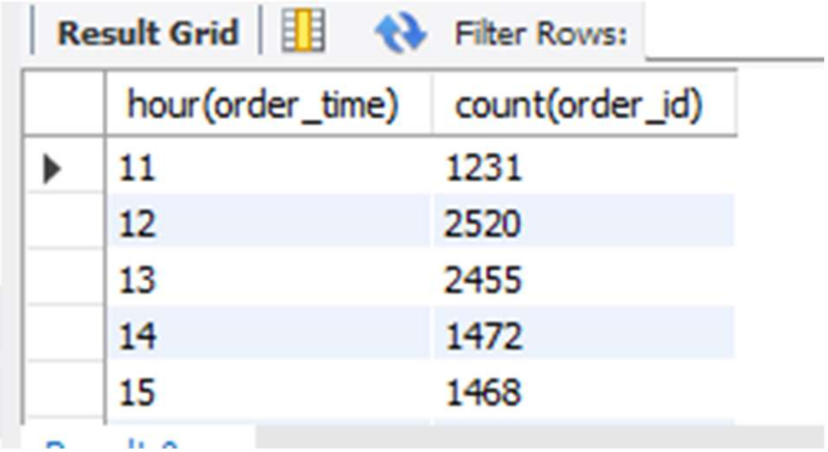
- select pizza_types.category, sum(order_details.quantity) as total_count
  from pizza_types join pizzas
- on pizza_types.pizza_type_id=pizzas.pizza_type_id
- join order_details
- on pizzas.pizza_id=order_details.pizza_id
- group by pizza_types.category order by total_count;



category	total_count
Chicken	11050
Veggie	11649
Supreme	11987
Classic	14888

Determine the distribution of orders by hour of the day.

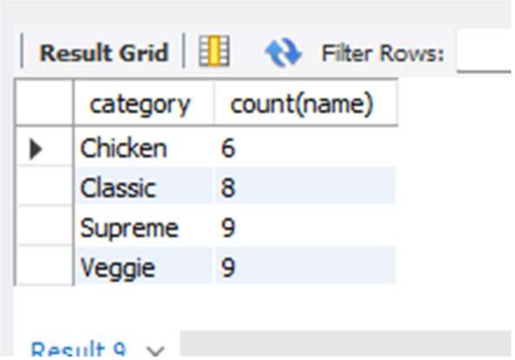
- select hour(order_time), count(order_id)
- from orders
- group by hour(order_time);



hour(order_time)	count(order_id)
11	1231
12	2520
13	2455
14	1472
15	1468

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

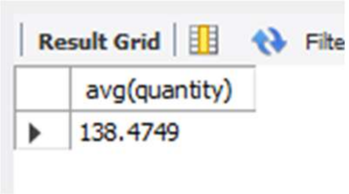
- select category, count(name)
- from pizza_types
- group by category;



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.

- 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;



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avg(quantity)
138.4749
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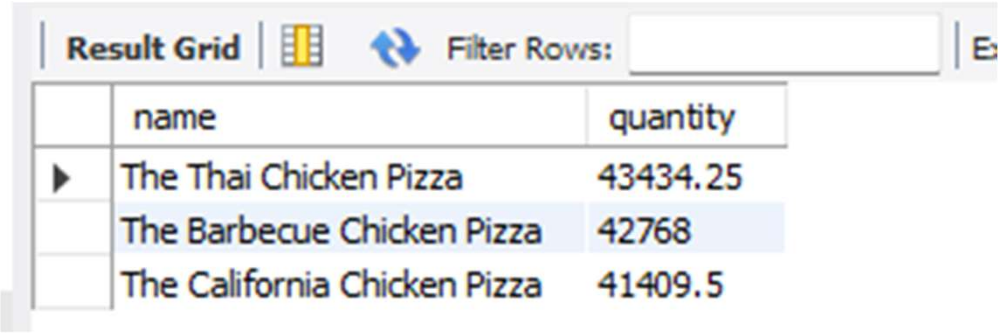
Determine the top 3 most ordered pizza types based on revenue.

- select pizza_types.name, sum(order_details.quantity*pizzas.price) 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 3;



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

Analyze the cumulative revenue generated over time.

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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 orders join order_details
on orders.order_id=order_details.order_id
join pizzas
on order_details.pizza_id=pizzas.pizza_id
group by orders.order_date) as sales;
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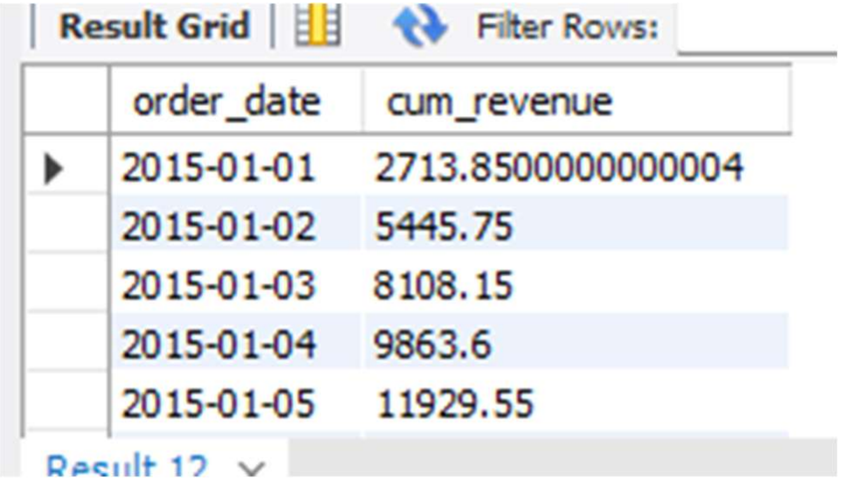
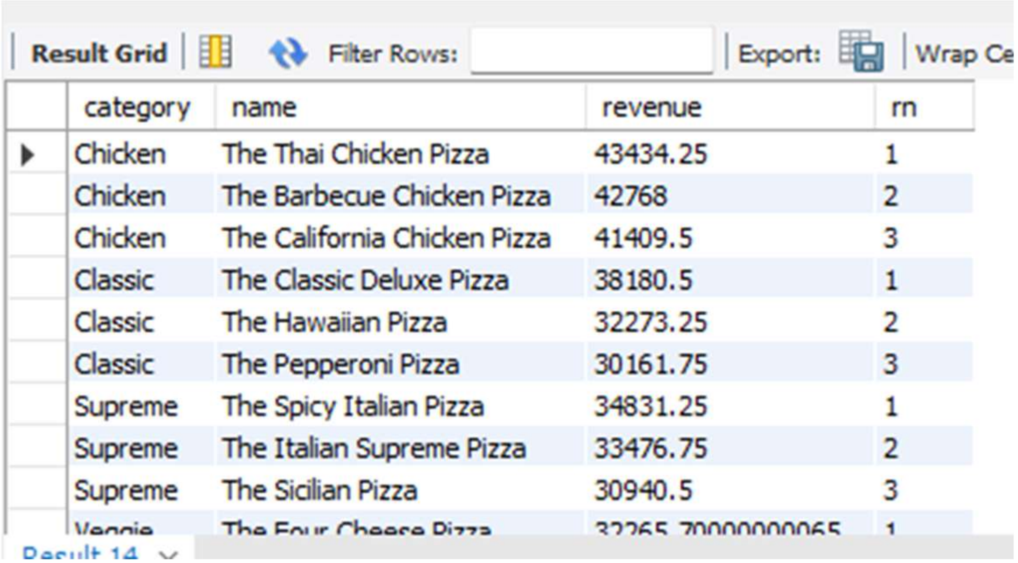


order_date	cum_revenue
2015-01-01	2713.8500000000004
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55

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

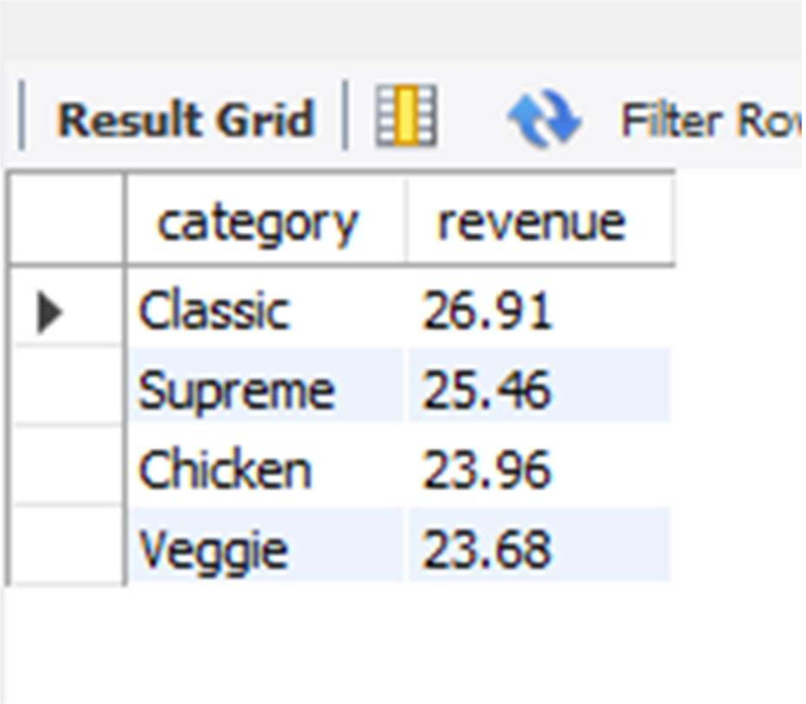
- select *from(select category, name, revenue,rank() over(partition by category order by revenue desc) as rn
- from(select pizza_types.category, pizza_types.name, sum(order_details.quantity*pizzas.price) as revenue
- from pizza_types join pizzas
- on pizza_types.pizza_type_id=pizzas.pizza_type_id
- join order_details
- on pizzas.pizza_id=order_details.pizza_id
- group by pizza_types.category, pizza_types.name) as a) as b
- where rn <=3;



category	name	revenue	rn
Chicken	The Thai Chicken Pizza	43434.25	1
Chicken	The Barbecue Chicken Pizza	42768	2
Chicken	The California Chicken Pizza	41409.5	3
Classic	The Classic Deluxe Pizza	38180.5	1
Classic	The Hawaiian Pizza	32273.25	2
Classic	The Pepperoni Pizza	30161.75	3
Supreme	The Spicy Italian Pizza	34831.25	1
Supreme	The Italian Supreme Pizza	33476.75	2
Supreme	The Sicilian Pizza	30940.5	3
Veggie	The Four Cheese Pizza	32265.70000000065	1

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_salesfrom order_details
- join pizzas
- on order_details.pizza_id=pizzas.pizza_id)*100,2) as revenuefrom 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_types.category order by revenue desc;



	category	revenue
▶	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68