Pizza Sales database Analysis with SQL

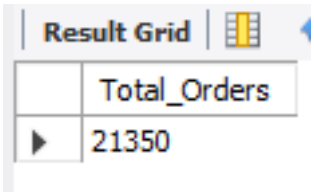
Here are the following questions to be solved for the analysis

1. Retrieve the total number of orders placed.
2. Calculate the total revenue generated from pizza sales.
3. Identify the highest-priced pizza.
4. Identify the most common pizza size ordered.
5. List the top 5 most ordered pizza types along with their quantities.
6. Join the necessary tables to find the total quantity of each pizza category ordered.
7. Determine the distribution of orders by hour of the day.
8. Join relevant tables to find the category-wise distribution of pizzas.
9. Group the orders by date and calculate the average number of pizzas ordered per day.
10. Determine the top 3 most ordered pizza types based on revenue.
11. Calculate the percentage contribution of each pizza type to total revenue.
12. Analyze the cumulative revenue generated over time.
13. Determine the top 3 most ordered pizza types based on revenue for each pizza category.

Here are the SQL queries and the sample answers:

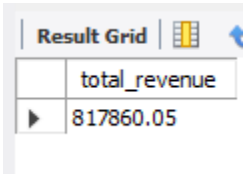
- 1. Retrieve the total number of orders placed

```
SELECT count(order_id) as Total_Orders
FROM orders;
```



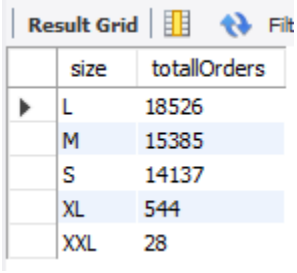
- 2. Calculate the total revenue generated from pizza sales.

```
select  round(sum(order_details.quantity * pizzas.price ),2) as total_revenue
from order_details
join pizzas on  order_details.pizza_id = pizzas.pizza_id ;
```



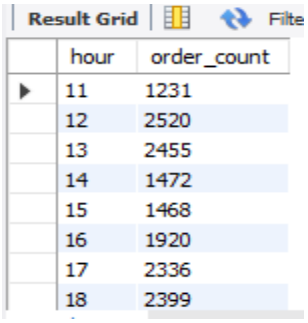
- 3. Identify the most common pizza size ordered

```
select pizzas.size, count(quantity) as totallOrders
from order_details
join pizzas on order_details.pizza_id = pizzas.pizza_id
group by pizzas.size
order by totallOrders desc;
```



- 4. Determine the distribution of orders by hour of the day.

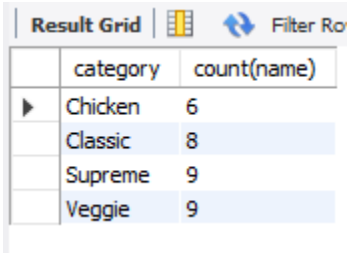
```
SELECT hour(order_time) as hour, count(order_id) as order_count
from orders
group by hour(order_time);
```



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

- 5. Find the category-wise distribution of pizzas.

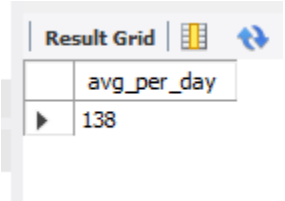
```
select category, count(name)
from pizza_types
group by category;
```



category	count(name)
Chicken	6
Classic	8
Supreme	9
Veggie	9

- 6. Group the orders by date and calculate the average number of pizzas ordered per day.

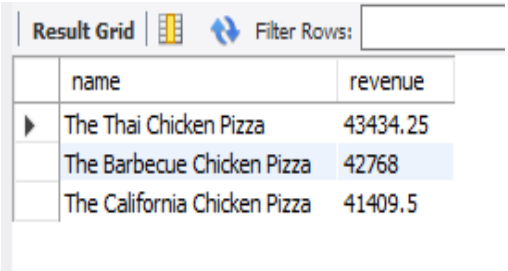
```
select round(avg(quantity),0) as avg_per_day from
(select orders.order_date, sum(order_details.quantity) as quantity
from orders
join order_details on orders.order_id = order_details.order_id
group by orders.order_date) as order_quantity;
```



avg_per_day
138

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

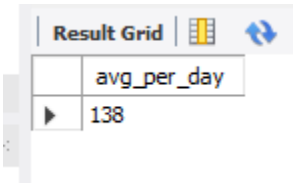
```
select  pizza_types.name, sum(order_details.quantity * pizzas.price) as revenue
from pizza_types
join pizzas on pizzas.pizza_type_id = pizza_types.pizza_type_id
join order_details on pizzas.pizza_id = order_details.pizza_id
group by pizza_types.name
order by revenue desc
limit 3;
```



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

- 8.Group the orders by date and calculate the average number of pizzas ordered per day.

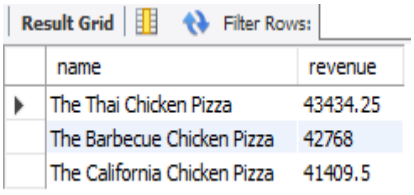
```
select round(avg(quantity),0) as avg_per_day from
(select orders.order_date, sum(order_details.quantity) as quantity
from orders
join order_details on orders.order_id = order_details.order_id
group by orders.order_date) as order_quantity;
```



avg_per_day
138

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

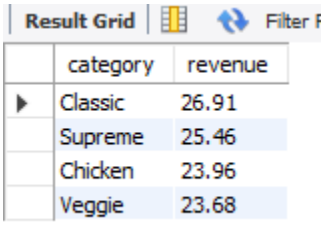
```
select  pizza_types.name, sum(order_details.quantity * pizzas.price) as revenue
from pizza_types
join pizzas on pizzas.pizza_type_id = pizza_types.pizza_type_id
join order_details on pizzas.pizza_id = order_details.pizza_id
group by pizza_types.name
order by revenue desc
limit 3;
```



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

10. Calculate the percentage contribution of each pizza type to total revenue.

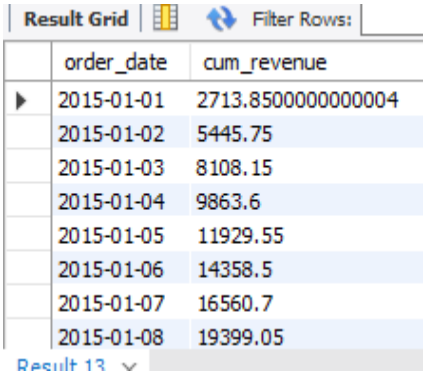
```
select  pizza_types.category, round((sum(order_details.quantity * pizzas.price) / (select
round(sum(order_details.quantity * pizzas.price ),2) as total_revenue
from order_details
join pizzas on  order_details.pizza_id = pizzas.pizza_id)*100),2) as revenue
from pizza_types
join pizzas on pizzas.pizza_type_id = pizza_types.pizza_type_id
join order_details on 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

- 11.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

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

```
select name,category, revenue
from
(select category, name, revenue,
rank() over(partition by category order by revenue desc) 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;
```

Result Grid | Filter Rows:

name	category	revenue
The Thai Chicken Pizza	Chicken	43434.25
The Barbecue Chicken Pizza	Chicken	42768
The California Chicken Pizza	Chicken	41409.5
The Classic Deluxe Pizza	Classic	38180.5
The Hawaiian Pizza	Classic	32273.25
The Pepperoni Pizza	Classic	30161.75
The Spicy Italian Pizza	Supreme	34831.25
The Italian Supreme Pizza	Supreme	33476.75

14. Identify the highest-priced pizza.

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

Result Grid | Filter Rows:

name	price
The Greek Pizza	35.95
The Greek Pizza	25.5
The Brie Carre Pizza	23.65
The Italian Vegetables Pizza	21
The Spinach Supreme Pizza	20.75