Where Every Slice is a Taste of Perfection

WELCOME TO SQL PIZZA SALES PROJECT

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OVERVIEW

I am Shreyansh Mishra, and I have developed this Pizza Sales project using SQL. The project involves analyzing sales data through structured SQL queries to derive key business insights such as total revenue, sales trends, top-selling products, and customer preferences. It showcases the practical application of SQL in real-world data analysis and decision-making.

QUESTIONS :

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 perday.
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 pizzacategory.

1- Retrieve the total number of orders placed.

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

Result Grid

	total_orders
▶	21350

2-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

3- Identify the highest-priced pizza.

```sql
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 Rows:

	name	price
▶	The Greek Pizza	35.95

4- Identify the most common pizza size ordered.

```sql
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
LIMIT 1;
```

Result Grid | Filter Rows:

	size	order_count
▶	L	18526

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

```
SELECT
    pizza_types.name, SUM(order_details.quantity) AS total_pizz
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 total_pizz DESC
LIMIT 5;
```


Result Grid | Filter Rows:

name	total_pizz
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

6- Join the necessary tables to find the total quantityof each pizza category ordered.

```sql
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;
```

Result Grid | Filter R

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

7- Determine the distribution of orders by hour of theday.

```sql
SELECT
    HOUR(order_time) AS hour, COUNT(order_id) AS order_count
FROM
    orders
GROUP BY hour;
```

Result Grid | Filter

hour	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336
18	2399
19	2009

8- Join relevant tables to find the category-wisedistribution of pizzas.

```sql
SELECT
    category, COUNT(pizza_type_id) AS quantity
FROM
    pizza_types
GROUP BY category;
```

	category	quantity
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

9- Group the orders by date and calculate the averagenumber of pizzas ordered per day.

```sql
SELECT
    ROUND(AVG(quantity), 0) AS avg_pizza_ordered_perday
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;
```

10- Determine the top 3 most ordered pizza typesbased on revenue.

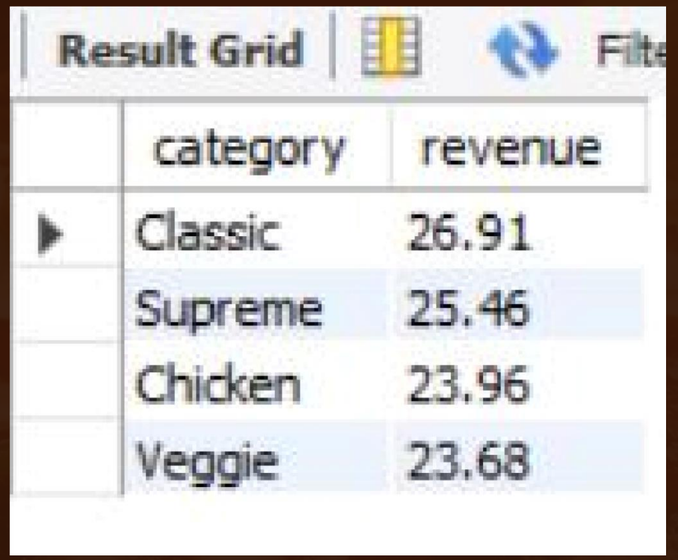
```sql
SELECT
    pizza_types.name,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_ID = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY 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

11- Calculate the percentage contribution of each pizzatype to total revenue.

```sql
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 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;
```



Result Grid | Filte

	category	revenue
▶	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68

12- Analyze the cumulative revenue generated overtime.

```sql
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 pizzas.pizza_id = order_details.pizza_ID
group by orders.order_date) as sales;
```

Result Grid | Filter Rows:

order_date	cum_revenue
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

13- Determine the top 3 most ordered pizza typesbased on revenue for each pizza category.

```sql
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;
```

Result Grid | Filter Rows:

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

CONCLUSION

This project presents an in-depth analytical exploration of Pizza Sales data, wherein I meticulously addressed a series of SQL queries through the adept utilization of advanced SQL functions. Employing sophisticated techniques such as data aggregation, conditional filtering, relational joins, and hierarchical sorting, the analysis extracts actionable business intelligence—encompassing revenue trajectories, high-performing product categories, and consumer behavior patterns. This work underscores the pragmatic application of SQL in strategic data interpretation and performance optimization.