

Let's Solve
**SQL PROJECT
ON
PIZZA SALES
ANALYSIS**



by chef (analyst)

Saurabh Sharma



PROJECT OBJECTIVE

- Retrieve and summarize key metrics related to pizza orders and sales.
- Identify patterns and trends in pizza orders, such as the most common pizza sizes and types.
- Calculate financial metrics, including total revenue and the revenue contribution of different pizza types.

PROJECT CONTENT

- There are 4 tables in the data sets
`order_details`, `orders`, `pizzas`, `pizza_types`
- There are total 12 questions of basic, intermediate and advanced level
- For each question, the project follows a structured approach:
- Question, Solution Query and Output



ROUND 1

BASIC LEVEL



QUESTION 1

Retrieve the total number of orders placed.



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



Result Grid	
	total_orders
▶	21350

QUESTION 2

Calculate the total revenue generated from pizza sales.

```
SELECT  
    ROUND(SUM(od.quantity * p.price), 2) AS total_revenue  
FROM  
    order_details od  
    JOIN  
    pizzas p ON p.pizza_id = od.pizza_id ;
```



Result Grid	
	total_revenue
▶	323937.7

QUESTION 3

Identify the highest-priced pizza.



```
SELECT pt.name, p.price AS pizza_price  
FROM pizza_types pt  
JOIN pizzas p ON p.pizza_type_id = pt.pizza_type_id  
ORDER BY p.price DESC  
LIMIT 1;
```

Result Grid		Filter Rows:
	name	pizza_price
▶	The Greek Pizza	35.95



QUESTION 4

Identify the most common pizza size ordered.

```
SELECT  
    p.size, COUNT(od.order_details_id) AS order_count  
FROM  
    pizzas p  
        JOIN  
    order_details od ON od.pizza_id = p.pizza_id  
GROUP BY p.size  
ORDER BY order_count DESC  
LIMIT 1
```

	size	order_count
▶	L	7349



QUESTION 5

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

```
SELECT
    pt.name, SUM(od.quantity) AS qty
FROM
    pizza_types pt
        JOIN
    pizzas p ON p.pizza_type_id = pt.pizza_type_id
        JOIN
    order_details od ON od.pizza_id = p.pizza_id
GROUP BY pt.name
ORDER BY qty DESC
LIMIT 5
```

	name	qty
▶	The Barbecue Chicken Pizza	1007
	The Pepperoni Pizza	979
	The Hawaiian Pizza	962
	The Classic Deluxe Pizza	944
	The California Chicken Pizza	922



ROUND 2

INTERMEDIATE LEVEL



QUESTION 6

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

```
SELECT  
    pt.category, SUM(od.quantity) AS QTY  
FROM  
    pizza_types pt  
        JOIN  
    pizzas p ON p.pizza_type_id = pt.pizza_type_id  
        JOIN  
    order_details od ON od.pizza_id = p.pizza_id  
GROUP BY pt.category  
ORDER BY QTY DESC
```

	category	QTY
▶	Classic	5859
	Supreme	4731
	Veggie	4687
	Chicken	4358



QUESTION 7

Determine the distribution of orders by hour of the day.

```
SELECT  
    HOUR(order_time) AS hour_of_the_day,  
    COUNT(order_id) AS order_count  
FROM  
    orders  
GROUP BY HOUR(order_time)  
ORDER BY order_count DESC;
```

	hour_of_the_day	order_count
12	2520	
13	2455	
18	2399	
17	2336	
19	2009	
16	1920	
20	1642	
14	1472	
15	1468	
11	1231	
21	1198	
22	663	
23	28	
10	8	
9	1	



QUESTION 8

Find the category-wise distribution of pizzas.

```
SELECT category,  
       count(name) as count  
FROM pizza_types  
group by category;
```

Result Grid |

	category	count
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9



QUESTION 9

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

```
SELECT  
    DAY(o.order_date) AS day,  
    SUM(od.quantity) AS total_order  
FROM  
    orders o  
        JOIN  
    order_details od ON od.order_id = o.order_id  
GROUP BY DAY  
ORDER BY total_order;
```

	day	total_order
1	741	
2	751	
3	723	
4	702	
5	624	
6	749	
7	687	



QUESTION 10

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

```
SELECT pt.name, SUM(od.quantity * p.price) AS revenue
FROM pizza_types pt
    JOIN pizzas p ON p.pizza_type_id = pt.pizza_type_id
    JOIN order_details od ON od.pizza_id = p.pizza_id
GROUP BY pt.name
ORDER BY revenue DESC
LIMIT 3
```

	name	revenue
▶	The Barbecue Chicken Pizza	17775.25
	The Thai Chicken Pizza	16719.75
	The California Chicken Pizza	16175.5

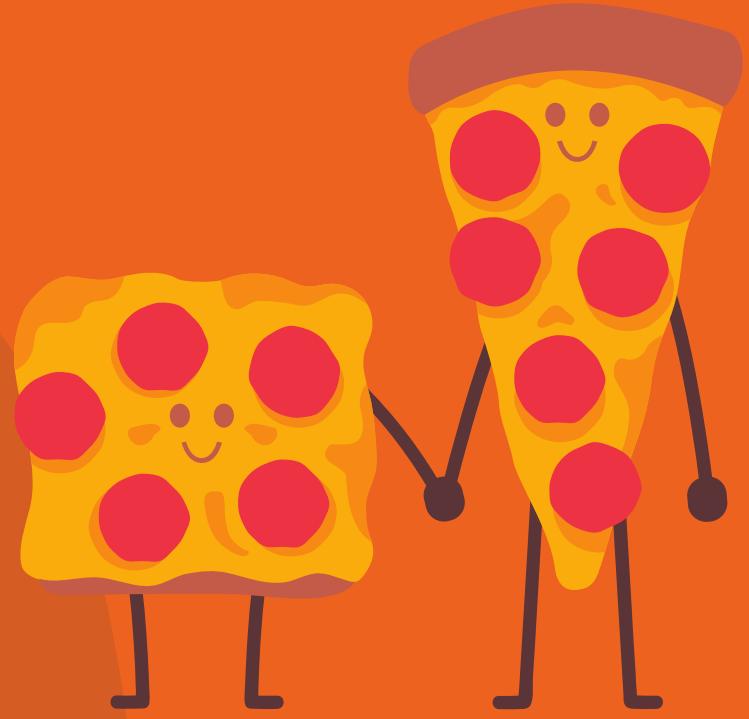


ROUND 3

ADVANCED LEVEL



sharmasaurabh.office@gmail.com



sharmasaurabh.office@gmail.com

QUESTION 11

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

```
SELECT
    pt.category,
    ROUND(SUM(od.quantity * p.price) / (SELECT
        ROUND(SUM(od.quantity * p.price), 2) AS total_revenue
    FROM
        order_details od
    JOIN
        pizzas p ON p.pizza_id = od.pizza_id) * 100,
    2) AS revenue
FROM
    pizza_types pt
    JOIN
        pizzas p ON p.pizza_type_id = pt.pizza_type_id
    JOIN
        order_details od ON od.pizza_id = p.pizza_id
GROUP BY pt.category
```

	category	revenue
▶	Classic	26.7
	Veggie	24.03
	Supreme	25.39
	Chicken	23.88

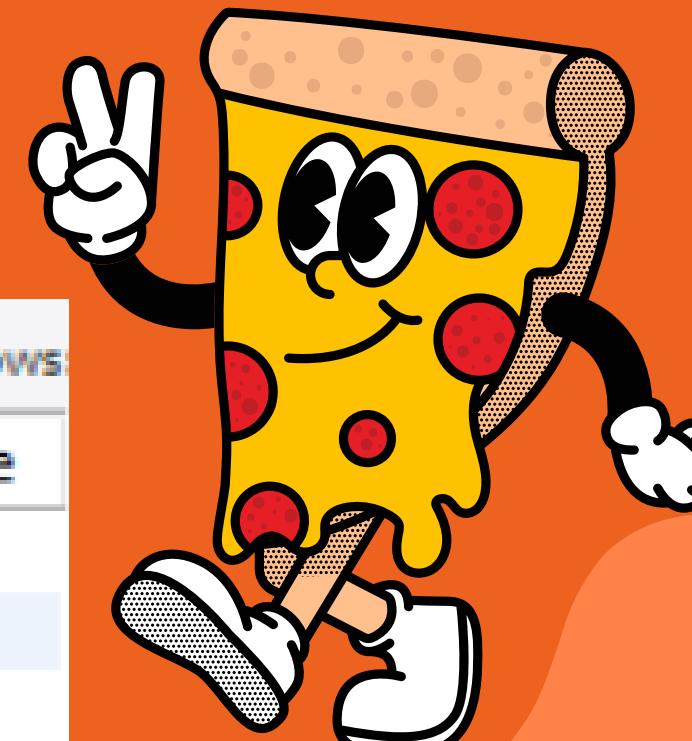


QUESTION 12

Analyze the cumulative revenue generated over time.

```
SELECT order_date,  
       ROUND(SUM(revenue) OVER(ORDER BY order_date), 2)  
     AS cum_revenue  
FROM (  
    SELECT o.order_date,  
           SUM(od.quantity * p.price) AS revenue  
      FROM order_details od  
     JOIN pizzas p ON p.pizza_id = od.pizza_id  
     JOIN orders o ON o.order_id = od.order_id  
    GROUP BY o.order_date  
) AS total_sales;
```

	order_date	cum_revenue
▶	2015-01-01	2713.85
	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	23990.35



QUESTION 13

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

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

name	revenue
The Barbecue Chicken Pizza	17775.25
The Thai Chicken Pizza	16719.75
The California Chicken Pizza	16175.5
The Classic Deluxe Pizza	14694.5
The Hawaiian Pizza	12737.5
The Pepperoni Pizza	12204.5
The Spicy Italian Pizza	13960.5
The Italian Supreme Pizza	13274.5
The Sicilian Pizza	12046.25



sharmasaurabh.office@gmail.com

THANK YOU FOR REVIEWING THIS PROJECT.

I HOPE THE INSIGHTS AND
ANALYSES PROVIDED ARE
VALUABLE. FOR FURTHER
INQUIRIES, COLLABORATIONS, OR
OPPORTUNITIES, PLEASE FEEL
FREE TO CONTACT ME.

email :

sharmasaurabh.office@gmail.com

