







Laziz Pizza is a renowned pizzeria known for its delicious variety of pizzas.

This sales data analysis uncovers key insights like total orders, revenue, and popular pizza types, helping to understand customer preferences and business performance. By analyzing trends and contributions, it supports strategic decisions for growth.







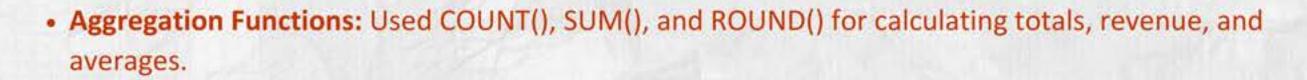
- Identify Popular Pizza: Highlight the most ordered pizza types and sizes to understand customer preferences.
- Order Trends: Examine the distribution of orders by time of day and across dates.
- Optimize Inventory and Strategy: Use insights to optimize inventory management and marketing strategies.
- Daily Sales Insights: Calculate the average number of pizzas sold per day to evaluate daily performance.
- Peak Ordering Times: Identify peak hours for orders to allocate resources effectively during highdemand periods.
- Revenue Growth Analysis: Track cumulative revenue trends over time for better forecasting.















- Window Functions: Utilized SUM() OVER() and RANK() OVER() for cumulative revenue and ranking within categories.
- Grouping and Subtotals: Used GROUP BY and WITH ROLLUP for summarizing data by category, size, or date.
- Conditional Logic: Leveraged CASE statements for categorizing shifts and other dynamic grouping.







# **BUSINESS PROBLEMS QUESTION**





- 1. Find out how many orders were placed overall.
- 2. Calculate the total income earned by pizza sales.
- 3. Determine which Top 5 pizzas has the highest price.
- 4. Determine the most common pizza size ordered.
- 5. List the Top 10 most popular pizza types, along with their quantities.
- 6. Find the total amount of each pizza ordered by joining the relevant tables.
- 7. Determine the order distribution by hour of the day.







# **BUSINESS PROBLEMS QUESTION**





8. Join relevant tables to determine the distribution of pizzas by category.

9. Sort the orders by date and get the average number of pizzas ordered per day.



10. Based on sales, identify the three most popular pizza varieties.

11. Determine the percentage contribution of each pizza type to overall revenue.

12. Analyze the overall revenue generated over time.

13. Determine the top three pizza kinds ordered by revenue in each pizza category.



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```
-- Total Number of Order Places

SELECT

COUNT(Order_id) AS 'TOTAL ORDERS'

FROM

orders
```

```
TOTAL ORDERS

≥ 21350
```

```
-- Total Revenue From Pizza Sales

SELECT

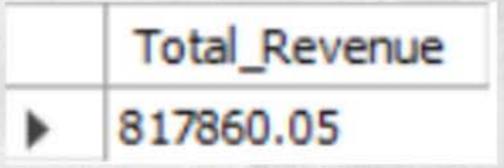
ROUND(SUM((quantity * price)), 2) AS 'Total_Revenue'

FROM

order_details

INNER JOIN

pizzas ON order_details.pizza_id = pizzas.pizza_id
```



```
SELECT
name, price
FROM
pizzas
JOIN
pizza_types ON pizzas.pizza_type_id = pizzas.pizza_type_id
ORDER BY (pizzas.price) DESC
LIMIT 5
```

name	price
The Greek Pizza	35.95
The Italian Capocollo Pizza	35.95
The Green Garden Pizza	35.95
The Prosciutto and Arugula Pizza	35.95
The Calabrese Pizza	35.95

-- Most Common Pizza Size Ordered

Select size, count(quantity)as Total\_Quantity from order\_details
join pizzas on
order\_details.pizza\_id = pizzas.pizza\_id
group by size

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

```
-- Top 10 Ordered Pizza Type Along With their Quantities

select name, Sum(Quantity) As Total_Quantity

from

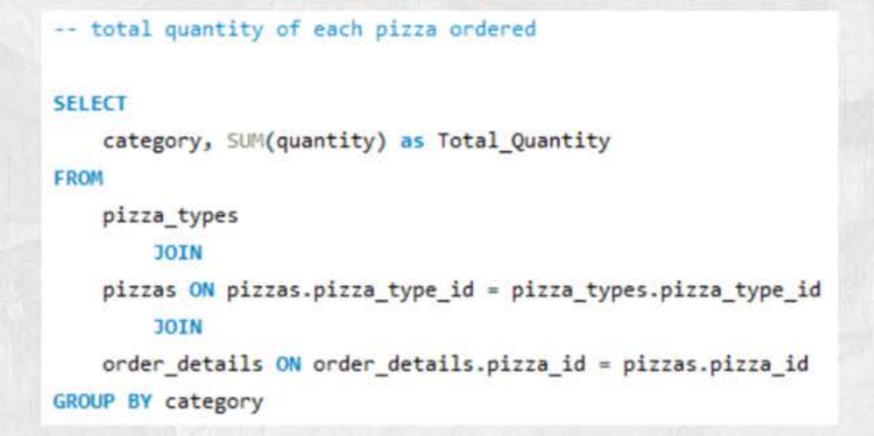
pizza_types join pizzas on pizza_types.pizza_type_id = pizzas.pizza_type_id

join order_details on order_details.pizza_id = pizzas.pizza_id

group by name order by Total_quantity desc

Limit 10
```

name	Total_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 California Chicken Pizza	2370
The Sicilian Pizza	1938
The Spicy Italian Pizza	1924
The Southwest Chicken Pizza	1917
The Big Meat Pizza	1914



category	Total_Quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

```
-- Distribution of orders by hour of the day

SELECT

COUNT(order_id) AS Order_Count,

CASE

WHEN HOUR(Time) < 12 THEN CONCAT(MOD(HOUR(Time), 12), 'AM')

ELSE CONCAT(MOD(HOUR(Time), 12), 'PM')

END AS hours_12

FROM

orders

GROUP BY

hours_12

ORDER BY

MIN(HOUR(Time))
```

```
Order_Count
              hours_12
              9 AM
              10 AM
              11 AM
1231
2520
              0 PM
2455
              1 PM
1472
              2 PM
              3 PM
1468
              4 PM
1920
2336
              5 PM
2399
              6 PM
2009
              7 PM
              8 PM
1642
1198
              9 PM
              10 PM
663
              11 PM
28
```

```
-- Catagories wise distribution of Pizza

SELECT
    category, COUNT(name)

FROM
    pizza_types

GROUP BY category
```

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

```
-- Top 5 Most ordered Pizzas Type based on Revenue

SELECT

name, SUM((price * quantity)) AS Revenue

FROM

order_details

JOIN

pizzas ON pizzas.pizza_id = order_details.pizza_id

JOIN

pizza_types ON pizzas.pizza_type_id = pizza_types.pizza_type_id

GROUP BY name

ORDER BY (Revenue) DESC

LIMIT 5
```

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 Spicy Italian Pizza	34831.25

```
-- Group the Orders by Date and calculate the
-- average number of pizzas order per day

SELECT

ROUND(AVG(Tot_Quantity), 0) AS AVG_Order_Per_Day

FROM

(SELECT

date, SUM(quantity) AS Tot_Quantity

FROM

order_details

JOIN orders ON order_details.order_id = orders.order_id

GROUP BY date) AS AVG_Quantity
```

AVG\_Order\_Per\_Day

138

```
-- Percentages Contribution of each Pizza type to Total Sales
SELECT
   IFNULL(category, 'Total'),
   ROUND(((SUM((price * quantity)) / (SELECT
                   ROUND(SUM((quantity * price)), 2)
                FROM
                    order_details
                        INNER JOIN
                    pizzas ON order_details.pizza_id = pizzas.pizza_id)) * 100),
            2) AS '% of Category by Sales'
FROM
   order_details
        JOIN
   pizzas ON pizzas.pizza_id = order_details.pizza_id
        JOIN
   pizza_types ON pizzas.pizza_type_id = pizza_types.pizza_type_id
GROUP BY category WITH ROLLUP
```

IFNULL(category, 'Total')	% of Category by Sales
Chicken	23.96
Classic	26.91
Supreme	25.46
Veggie	23.68
Total	100

```
-- analyze Cumulative revenue generated over Time
select date, Total_Revenue, Round(sum(Total_Revenue) over (order by date),2) as Running_Revenue
From
(select date, round(Sum((quantity*price)),2) as Total_Revenue
from
orders join order_details on order_details.order_id = orders.order_id
join pizzas on order_details.pizza_id = pizzas.pizza_id
group by orders.date) as Total_Sales
```

date	Total_Revenue	Running_Revenue
2015-01-01	2713.85	2713.85
2015-01-02	2731.9	5445.75
2015-01-03	2662.4	8108.15
2015-01-04	1755.45	9863.6
2015-01-05	2065.95	11929.55
2015-01-06	2428.95	14358.5
2015-01-07	2202.2	16560.7
2015-01-08	2838.35	19399.05
2015-01-09	2127.35	21526.4
2015-01-10	2463.95	23990,35
2015-01-11	1872.3	25862.65
2015-01-12	1919.05	27781.7
2015-01-13	2049.6	29831.3
2015-01-14	2527.4	32358.7
2015-01-15	1984.8	34343.5

```
-- Top 3 most ordered Pizza type based on Revenue for each Category
select name, category, Total_Revenue From
(Select
name,
category,
sum((quantity * price)) as Total_Revenue,
rank() over(partition by category order by sum((quantity * price))desc) As 'RANKKK'
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, pizza_types.name) As Rankk

name
```

where RANKKK <=3

name	category	Total_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
The Sicilian Pizza	Supreme	30940.5
The Four Cheese Pizza	Veggie	32265.70000000065
The Mexicana Pizza	Veggie	26780.75
The Five Cheese Pizza	Veggie	26066.5





Thank you for taking the time to explore this SQL query analysis!



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