

# SQL Project

## On Pizza Sales Analysis

for Opening a new  
pizza store

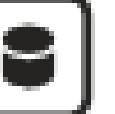
*Presented by Nishant kumar*



# Pizza Store Business Problem

Greetings,

This report aims to facilitate the establishment of a new pizza store and the subsequent business expansion.

 **order\_details**

$\Sigma$  order\_details\_id

$\Sigma$  order\_id

pizza\_id

$\Sigma$  quantity

[Collapse ^](#)

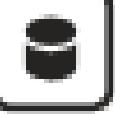
 **pizzas**

pizza\_id

pizza\_type\_id

$\Sigma$  price

size

 **orders**

 date

$\Sigma$  order\_id

time

 **pizza\_types**

category

ingredients

name

# Problems

**Q1.** Retrieve the total number of orders placed.

**Q2.** Calculate the total revenue generated from pizza sales.

**Q3.** Identify the highest-priced pizza.

**Q4.** Identify the most common pizza size ordered.

**Q5.** List the top 5 most ordered pizza types along with their quantities.

**Q6.** Join the necessary tables to find the total quantity of each pizza category ordered.

**Q7.** Determine the distribution of orders by hour of the day.

**Q8.** Join relevant tables to find the category-wise distribution of pizzas.

**Q9.** Group the orders by date and calculate the average number of pizzas ordered per day.

**Q10.** Determine the top 3 most ordered pizza types based on revenue.

**Q11.** Calculate the percentage contribution of each pizza type to total revenue.

**Q12.** Analyze the cumulative revenue generated over time.

**Q13.** Determine the top 3 most ordered pizza types based on revenue for each pizza category.

# Proposed solutions



## Limited Pizza Options:

Our primary objective is to concentrate on offering our most sought-after pizza variety initially.

## Supply Chain Management:

Efficiently managing resources in alignment with daily order fluctuations.

## Working Capital:

Ensuring the stability of working capital through daily revenue generation.

## Peak Engagement Hours:

Analyzing and charting the peak time frames for customer interactions.

# Q1. RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

```
SELECT  
    COUNT(order_id) AS Total_orders  
FROM  
    orders;
```

Result Grid	
	Total_orders
▶	21350

## Q2. CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.

```
SELECT  
    ROUND(SUM(o.quantity * p.price), 2) as Total_revenue  
FROM  
    order_details o  
    JOIN  
    pizzas p ON o.pizza_id = p.pizza_id;
```

Result Grid	
	Total_revenue
	817860.05

### Q3. IDENTIFY THE HIGHEST-PRICED PIZZA.

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

Result Grid | Filter Rows:

Highest_priced_pizza	price
The Greek Pizza	35.95

#### Q4. IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.

```
SELECT  
    p.size, COUNT(o.order_details_id) AS count  
FROM  
    order_details o  
        JOIN  
    pizzas p ON o.pizza_id = p.pizza_id  
GROUP BY p.size  
ORDER BY count DESC  
;
```

Result Grid |

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

## Q5. LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.

SELECT

pt.name AS Top\_5\_most\_ordered\_pizza, SUM(o.quantity) AS Total\_orders

FROM

order\_details o

JOIN

pizzas p ON o.pizza\_id = p.pizza\_id

JOIN

pizza\_types pt ON p.pizza\_type\_id = pt.pizza\_type\_id

GROUP BY pt.name

ORDER BY Total\_orders DESC

LIMIT 5

	Top_5_most_ordered_pizza	Total_orders
▶	The Classic Deluxe Pizza	2453
	The Barbecue Chicken Pizza	2432
	The Hawaiian Pizza	2422
	The Pepperoni Pizza	2418
	The Thai Chicken Pizza	2371

Q6. JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.

SELECT

```
pt.category, SUM(o.quantity) AS Total_qty  
FROM  
order_details o  
JOIN  
pizzas p ON o.pizza_id = p.pizza_id  
JOIN  
pizza_types pt ON p.pizza_type_id = pt.pizza_type_id
```

GROUP BY pt.category

ORDER BY qty DESC

j

category	qty
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

## Q7. DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.

```
SELECT  
    HOUR(order_time) AS Orders_HoursBasis ,COUNT(order_id) as Number_of_Orders  
FROM  
    orders  
GROUP BY Orders_HoursBasis  
ORDER BY Orders_HoursBasis ASC
```

	Orders_HoursBasis	Number_of_Orders
▶	9	1
	10	8
	11	1231
	12	2520
	13	2455
	14	1472
	15	1468
	16	1920

## Q8. JOIN RELEVANT TABLES TO FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS.

```
SELECT  
    category, COUNT(name) As Total_Numbers_of_Pizza  
FROM  
    pizza_types  
GROUP BY category;
```

Result Grid | Filter Rows:

	category	Total_Numbers_of_Pizza
▶	Chicken	6
▶	Classic	8
▶	Supreme	9
▶	Veggie	9

Q9.GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.

```
SELECT  
    ROUND(AVG(qty_perday), 0) AS Avg_Pizza_order_Perday  
FROM  
    (SELECT  
        o.order_date, SUM(od.quantity) AS qty_perday  
    FROM  
        orders o  
    JOIN order_details od ON o.order_id = od.order_id  
    GROUP BY o.order_date) AS tab;
```

Result Grid | Filter Row

	Avg_Pizza_order_Perday
→	138

Q10. DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.

```
SELECT
    pt.name as Top_3_ordered_pizza, SUM(od.quantity * p.price) AS revenue
FROM
    order_details od
        JOIN
    pizzas p ON od.pizza_id = p.pizza_id
        JOIN
    pizza_types pt ON p.pizza_type_id = pt.pizza_type_id
GROUP BY pt.name
ORDER BY revenue DESC
LIMIT 3;
```

	Top_3_ordered_pizza	revenue
▶	The Thai Chicken Pizza	43434.25
	The Barbecue Chicken Pizza	42768
	The California Chicken Pizza	41409.5

## QII. CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE.

```
with my_cte as(select sum(od.quantity*p.price) as revenue
  from order_details od join pizzas p on
od.pizza_id=p.pizza_id
)
select name as Pizza,
round((revenue_perpizza/(select revenue from my_cte)
)*100,2) as Percentage_contribution from
(select pt.name, sum(od.quantity*p.price) as revenue_perpizza
  from order_details od join pizzas p on od.pizza_id=p.pizza_id join
pizza_types pt on p.pizza_type_id=pt.pizza_type_id
group by pt.name) as tab order by Percentage_contribution desc
```

Pizza	Percentage
The Thai Chicken Pizza	5.31
The Barbecue Chicken Pizza	5.23
The California Chicken Pizza	5.06
The Classic Deluxe Pizza	4.67
The Spicy Italian Pizza	4.26
The Southwest Chicken Pizza	4.24
The Italian Supreme Pizza	4.09
The Hawaiian Pizza	3.95
The Four Cheese Pizza	3.95
The Sicilian Pizza	3.78
The Pepperoni Pizza	3.69
The Greek Pizza	3.48
The Mexicana Pizza	3.27
The Five Cheese Pizza	3.19
The Pepper Salami Pizza	3.12
The Italian Capocollo Pizza	3.07
The Vegetables + Vegetable...	2.98
The Prosciutto and Arugula ...	2.96
The Napolitana Pizza	2.95
The Spinach and Feta Pizza	2.85
The Big Meat Pizza	2.81
The Pepperoni, Mushroom, ...	2.3
The Chicken Alfredo Pizza	2.07
The Chicken Pesto Pizza	2.04

## Q12. ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.

```
+-----+  
| select order_date, Round(sum(revenue)  
| over(order by order_date),2) as cumulative_revenue from  
|  
| (select o.order_date,sum(od.quantity*p.price) as revenue  
| from orders o join order_details od on o.order_id=od.order_id  
| join pizzas p on od.pizza_id=p.pizza_id  
| group by o.order_date) as sales_perday;  
+-----+
```

order_date	cumulative_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
2015-01-11	25862.65
2015-01-12	27781.7
2015-01-13	29831.3
2015-01-14	32358.7
2015-01-15	34343.5
2015-01-16	36937.65
2015-01-17	39001.75
2015-01-18	40978.6
2015-01-19	43365.75
2015-01-20	45763.65
2015-01-21	47804.2
2015-01-22	50300.9
2015-01-23	52724.6
2015-01-24	55013.85

### Q13. DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.

```
with cte as(
    select name as Pizza,round(sales,2) as Sales, category, rank() over(partition by category
order by sales desc)
as Top_3_Pizza from

(select pt.category as category,pt.name,
pt.pizza_type_id,sum(od.quantity*p.price) as sales
from order_details od join pizzas p
on od.pizza_id=p.pizza_id
join pizza_types pt on
p.pizza_type_id=pt.pizza_type_id
group by pt.category,pt.name ) as tab)
```

Pizza	Sales	category	Top_3_Pizza
The Thai Chicken Pizza	43434.25	Chicken	1
The Barbecue Chicken Pizza	42768	Chicken	2
The California Chicken Pizza	41409.5	Chicken	3
The Classic Deluxe Pizza	38180.5	Classic	1
The Hawaiian Pizza	32273.25	Classic	2
The Pepperoni Pizza	30161.75	Classic	3
The Spicy Italian Pizza	34831.25	Supreme	1
The Italian Supreme Pizza	33476.75	Supreme	2
The Sicilian Pizza	30940.5	Supreme	3
The Four Cheese Pizza	32265.7	Veggie	1
The Mexicana Pizza	26780.75	Veggie	2
The Five Cheese Pizza	26066.5	Veggie	3



THANK YOU  
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