

# PIZZA SALES

DATA ANALYSIS USING SQL

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# Introduction:

- IN TODAY'S COMPETITIVE FOOD INDUSTRY, DATA PLAYS A CRUCIAL ROLE IN UNDERSTANDING CUSTOMER BEHAVIOR, OPTIMIZING OPERATIONS, AND DRIVING SALES.
- FOR A PIZZA BUSINESS, ANALYZING SALES DATA CAN REVEAL KEY INSIGHTS INTO CUSTOMER PREFERENCES, ORDER TRENDS, AND OPERATIONAL EFFICIENCIES.

# Project Purpose:

THE AIM OF THIS PROJECT IS TO ANALYZE HISTORICAL PIZZA SALES DATA USING SQL TO PROVIDE ACTIONABLE INSIGHTS FOR THE BUSINESS. BY EXAMINING FACTORS SUCH AS POPULAR PIZZA TYPES, SALES PATTERNS, AND CUSTOMER ORDERING HABITS, THE BUSINESS CAN MAKE DATA-DRIVEN DECISIONS TO ENHANCE MARKETING STRATEGIES, IMPROVE INVENTORY MANAGEMENT, AND INCREASE OVERALL PROFITABILITY.

# **Dataset Description**

### **Tables Overview:**

- Orders: Contains details of customer orders (order ID, order date, customer ID, etc.).
- Order\_Details: Information about pizzas in each order (order ID, pizza ID, quantity)
- Pizzas: Contains pizza details like pizza ID, size, and type.
- Pizza\_Types: Describes types of pizzas (pizza type, ingredients, category).

# Project Scope:

 The dataset contains information on pizza orders, order details, pizza types, and sizes. We will explore and analyze these data points to answer business questions and provide recommendations for optimizing sales performance.

### **SQL Queries**

# 1 Retrieve the total number of orders placed.

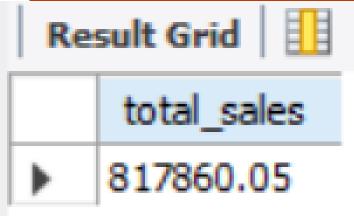
```
select * from orders;
select count(order_id) as total_orders from orders;
```

```
Result Grid

total_orders

≥ 21350
```

# 2 calculate the total revenue geneated from pizza sales.



# 3 Identify the highest-priced pizza.

```
pizza_types.name, pizzas.price

FROM

pizza_types

JOIN

pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id

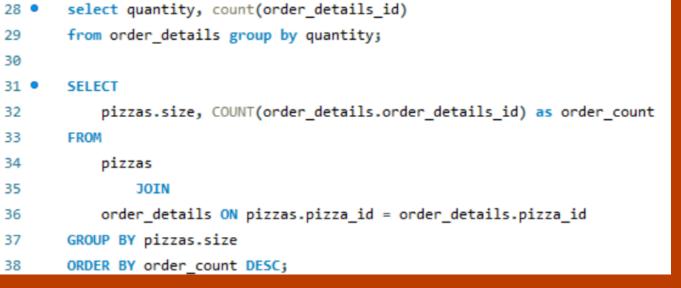
ORDER BY pizzas.price DESC

LIMIT 1;

Result Grid

The Greek Pizza 35.95
```

# 4 Identify the most common pizza size ordered.



	Re	sult Grid		<b>()</b> F	ilte
		size	order_	count	
	•	L	18526		
Н		M	15385		
Н		S	14137		
П		XL	544		
		XXL	28		

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

```
42 •
       SELECT
           pizza_types.name, SUM(order_details.quantity) AS quantity
43
                                                                         FROM
44
           pizza types
45
                                                                                                        quantity
                                                                             name
46
               JOIN
                                                                            The Classic Deluxe Pizza
                                                                                                       2453
47
           pizzas ON pizza types.pizza type id = pizzas.pizza type id
                                                                            The Barbecue Chicken Pizza
                                                                                                       2432
               JOIN
48
                                                                            The Hawaiian Pizza
                                                                                                       2422
           order details ON order details.pizza id = pizzas.pizza id
49
                                                                            The Pepperoni Pizza
                                                                                                       2418
       GROUP BY pizza types.name
50
                                                                            The Thai Chicken Pizza
                                                                                                       2371
       ORDER BY quantity DESC
51
52
       LIMIT 5;
```

# 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.

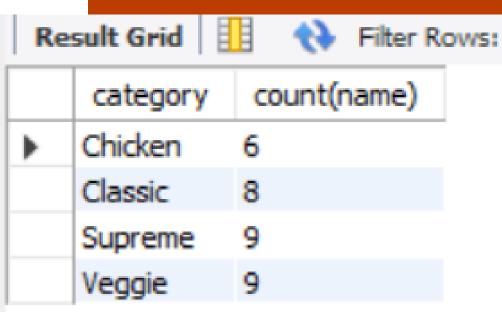
70 • select hour(order\_time), count(order\_id) as order\_count from orders
71 group by hour(order time);

Re	Result Grid		
	hour(order_time)	order_count	
•	11	1231	
	12	2520	
	13	2455	
	14	1472	
	15	1468	
	16	1920	
	17	2336	
	18	2399	

8 Join relevant table to find the category wise distribution of pizzas.

75 • select category, count(name) from pizza\_types

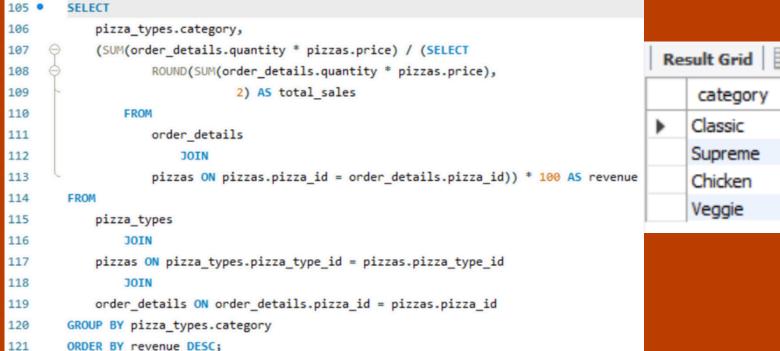
76 group by category;



# 9 Determine the top 3 most ordered pizza type based on revenuue.

```
92 •
        SELECT
93
            pizza types.name,
94
            sum(order details.quantity * pizzas.price) AS revenue
                                                                                Result Grid
                                                                                               Filter Rows:
95
        FROM
                                                                                    name
                                                                                                            revenue
96
            pizza_types
                                                                                   The Thai Chicken Pizza
                                                                                                           43434.25
97
                 JOIN
                                                                                   The Barbecue Chicken Pizza
                                                                                                           42768
98
            pizzas ON pizzas.pizza type id = pizza types.pizza type id
                                                                                   The California Chicken Pizza
                                                                                                           41409.5
99
                 JOIN
00
            order_details ON order_details.pizza_id = pizzas.pizza_id
            group by pizza types.name order by revenue desc limit 3;
01
```

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



Result Grid			
	category	revenue	
•	Classic	26.90596025566967	
	Supreme	25.45631126009862	
	Chicken	23.955137556847287	
	Veggie	23.682590927384577	

41409.5

# 11 analyze the cumulative revenue generated over time.

```
125 •
        select order date,
126
        sum(revenue) over(order by order date) as cum revenue
127
        from

⊖ (select orders.order date,
128
        sum(order_details.quantity * pizzas.price) as revenue
129
        from order details join pizzas
130
131
        on order details.pizza id = pizzas.pizza id
132
        join orders
        on orders.order id = order details.order id
133
        group by orders.order date) as sales;
134
```

Re	sult Grid	Filter Rows:
	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 type based on revenue for each pizza category.

```
137 •
        select name, revenue from
138
     ⊖ (select category, name, revenue,
        rank() over(partition by category order by revenue desc) as rn
139
140
        from
        (select pizza types.category, pizza types.name,
141
142
        sum((order details.quantity) * pizzas.price ) as revenue
        from pizza types join pizzas
143
        on pizza types.pizza type id = pizzas.pizza type id
144
        join order details
145
        on order details.pizza id = pizzas.pizza id
146
        group by pizza_types.category, pizza_types.name) as a) as b
147
148
        where rn <= 3;
```

	Re	sult Grid 🔢 🙌 Filter Row	/51
		name	revenue
١	•	The Thai Chicken Pizza	43434.25
١		The Barbecue Chicken Pizza	42768
ı		The California Chicken Pizza	41409.5
١		The Classic Deluxe Pizza	38180.5
١		The Hawaiian Pizza	32273.25
١		The Pepperoni Pizza	30161.75
١		The Spicy Italian Pizza	34831.25
١		The Italian Supreme Pizza	33476.75

#