

# PIZZA SALES ANALYSIS

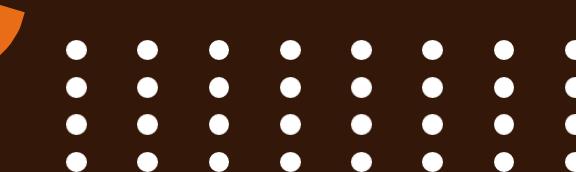


# ABOUT PIZZA ANALYSIS

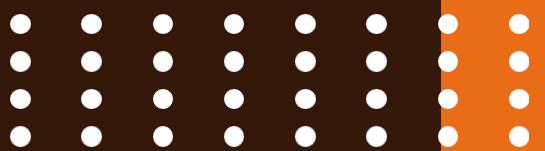


## Introduction

Hello I'm Rakesh Dolai.In this project, I conducted a comprehensive analysis of pizza sales data using MySQL to uncover key insights into customer preferences, top-performing categories, and overall revenue trends. By leveraging SQL queries, I explored patterns in order volume, sales distribution by category, and peak sales periods to support data-driven decision-making for menu optimization and marketing strategies.



# ABOUT TABLE



order_details_id	order_id	pizza_id	quantity
1	1	hawaiian_m	1
2	2	classic_dlx_m	1
3	2	five_cheese_l	1
4	2	ital_supr_l	1
5	2	mexicana_m	1
6	2	thai_ckn_l	1
7	3	ital_supr_m	1

Order Details

order_id	order_date	order_time
1	2015-01-01	11:38:36
2	2015-01-01	11:57:40
3	2015-01-01	12:12:28
4	2015-01-01	12:16:31
5	2015-01-01	12:21:30
6	2015-01-01	12:29:36

Order

pizza_id	pizza_type_id	size	price
bbq_dkn_s	bbq_ckn	S	12.75
bbq_dkn_m	bbq_ckn	M	16.75
bbq_dkn_l	bbq_ckn	L	20.75
cali_ckn_s	cali_ckn	S	12.75
cali_ckn_m	cali_ckn	M	16.75
cali_ckn_l	cali_ckn	L	20.75

Pizza

pizza_id	pizza_name	category	description
bbq_ckn	The Barbecue Chicken Pizza	Chicken	Barbecued Chicken, Red Peppers, Green Pepe..
cali_ckn	The California Chicken Pizza	Chicken	Chicken, Artichoke, Spinach, Garlic, Jalapeno P...
dkn_alfredo	The Chicken Alfredo Pizza	Chicken	Chicken, Red Onions, Red Peppers, Mushrooms..
dkn_pesto	The Chicken Pesto Pizza	Chicken	Chicken, Tomatoes, Red Peppers, Spinach, Garl..
southw_ckn	The Southwest Chicken Pizza	Chicken	Chicken, Tomatoes, Red Peppers, Red Onions, ..
thai_ckn	The Thai Chicken Pizza	Chicken	Chicken, Pineapple, Tomatoes, Red Peppers, T...
big_meat	The Big Meat Pizza	Classic	Bacon, Pepperoni, Italian Sausage, Chorizo Sau..
classic_dlx	The Classic Deluxe Pizza	Classic	Pepperoni, Mushrooms, Red Onions, Red Peppe..
hawaiian	The Hawaiian Pizza	Classic	Sliced Ham, Pineapple, Mozzarella Cheese
ital_cpclo	The Italian Capocollo Pizza	Classic	Capocollo, Red Peppers, Tomatoes, Goat Chee...
napolitana	The Napolitana Pizza	Classic	Tomatoes, Anchovies, Green Olives, Red Onion..
pep_msh_pep	The Pepperoni, Mushroom, ...	Classic	Pepperoni, Mushrooms, Green Peppers
pepperoni	The Pepperoni Pizza	Classic	Mozzarella Cheese, Pepperoni

Pizza Type

# BASIC

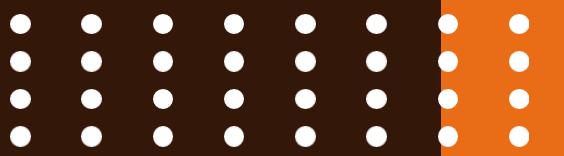


- 1. Retrieve the total number of orders placed.

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

	total_orders
▶	21350





- 2. Calculate the total revenue generated from pizza sales.

```
select
    round(sum(order_details.quantity * pizzas.price), 2) as total_revenue
from order_details join pizzas
on pizzas.pizza_id = order_details.pizza_id;
```

	total_revenue
▶	817860.05

### 3. Identify the highest-priced pizza.

```
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;
```

	name	price
▶	The Greek Pizza	35.95

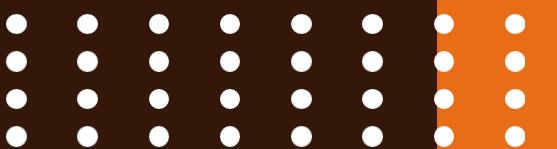


#### 4. Identify the most common pizza size ordered.

```
select pizzas.size, count(order_details.order_details_id) as order_size  
from pizzas join order_details  
on pizzas.pizza_id = order_details.pizza_id  
group by pizzas.size;
```

	size	order_size
▶	M	15385
	L	18526
	S	14137
	XL	544
	XXL	28

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



```
select pizza_types.name,  
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.name order by quantity desc limit 5;
```

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



# INTERMEDIATE



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

```
SELECT
    pizza_types.category cat,
    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 cat
ORDER BY quantity DESC;
```

	cat	quantity
▶	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050



## 2. Determine the distribution of orders by hour of the day.

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

	hour	order_count
	15	1468
	16	1920
	17	2336
	18	2399
	19	2009
	20	1642
	21	1198
	22	663

### 3. Join relevant tables to find the category- wise distribution of pizzas.

```
select category, count(name) from pizza_types  
group by category;
```

	category	count(name)
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

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

```
select round(avg(quantity),0) 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;
```

	round(avg(quantity),0)
▶	138

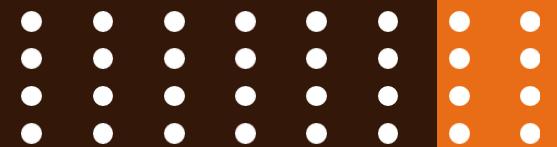
## 5. Determine the top 3 most ordered pizza types based on revenue.

```
select pizza_types.name,  
       sum(order_details.quantity * pizzas.price) as Revenue  
  from pizza_types join pizzas  
    on pizzas.pizza_type_id = pizza_types.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 ;
```

	name	Revenue
▶	The Thai Chicken Pizza	43434.25
	The Barbecue Chicken Pizza	42768
	The California Chicken Pizza	41409.5

# ADVANCED

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



```
SELECT
    pizza_types.category,
    ROUND(
        SUM(order_details.quantity * pizzas.price) / (
            SELECT
                ROUND(SUM(order_details.quantity * pizzas.price), 2)
            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 pizzas.pizza_id = order_details.pizza_id
GROUP BY
    pizza_types.category
ORDER BY
    revenue DESC;
```

	category	revenue
▶	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68



## 2. Analyze the cumulative revenue generated over time.

```
select order_date,  
       sum(revenue) over(order by order_date) as cum_venue  
  from  
(select orders.order_date,  
           sum(order_details.quantity * pizzas.price) as revenue  
      from order_details join pizzas  
        on order_details.pizza_id = pizzas.pizza_id  
     join orders  
        on orders.order_id = order_details.order_id  
   group by orders.order_date) as Sales;
```

	order_date	cum_venue
▶	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
	2015-01-09	21526.4
	2015-01-10	23990.35000000002
-----		
Result 8 ×		

### 3. Join relevant tables to find the category- wise distribution of pizzas.

```
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;
```

	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
	Veggie	The Four Cheese Pizza	32265.70000000065
	Veggie	The Mexicana Pizza	26780.75
	Veggie	The Five Cheese Pizza	26066.5

**THANK YOU  
FOR ATTENTION**