

Sales Analysis of Pizzeria: Unlocking Insights for Growth and Profitability

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**IN THIS PROJECT, I
HAVE UTILIZED SQL
QUERIES TO
ANALYZE PIZZA
SALES FOR PIZZARIA**



Retrieve the total number of orders placed

```
SELECT  
    COUNT(order_id) AS order_count  
FROM  
    orders
```

	order_count
▶	21350



Calculate the total revenue generated from pizza sales

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

	revenue
▶	817860.05



Identify the highest-priced pizza

```
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
    INNER 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



Identify the most common pizza size ordered

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

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



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
    INNER JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    INNER JOIN
    order_details ON pizzas.pizza_id = order_details.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



To find the total quantity of each pizza category ordered

```
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS quantity
FROM
    pizza_types
    INNER JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    INNER JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity DESC;
```

	category	quantity
►	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050



Determine the distribution of orders by hour of the day

```
SELECT
    HOUR(orders.time) AS hours,
    COUNT(orders.order_id) AS order_count
FROM
    orders
GROUP BY order_hour
```

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



find the category-wise distribution of pizzas.

```
SELECT
    category, COUNT(name) AS name_count
FROM
    pizza_types
GROUP BY category;
```

category	name_count
Chicken	6
Classic	8
Supreme	9
Veggie	9



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



```
SELECT
    ROUND(AVG(quantity), 0) AS avg_quantity
FROM
    (SELECT
        orders.date, SUM(order_details.quantity) AS quantity
    FROM
        orders
    INNER JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.date) AS order_quantity;
```

avg_quantity
138



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
    INNER JOIN
    pizzas p ON p.pizza_type_id = pt.pizza_type_id
    INNER JOIN
    order_details od ON od.pizza_id = p.pizza_id
GROUP BY pt.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



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) AS total_sales
    FROM
      order_details
    JOIN
      pizzas ON pizzas.pizza_id = order_details.pizza_id) * 100,
    2) AS revenue
FROM
  pizza_types
  INNER JOIN
  pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
  INNER 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



Analyze the cumulative revenue generated over time.

```
select date ,  
sum(revenue) over(order by date) as cum_revenue  
from  
(select orders.date ,sum(pizzas.price * order_details.quantity)  
as revenue from pizzas  
inner join order_details on  
pizzas.pizza_id=order_details.pizza_id  
inner join orders on  
order_details.order_id=orders.order_id  
group by orders.date order by orders.date) as sales
```

	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
	2015-01-09	21526.4
	2015-01-10	23990.350000000002
	2015-01-11	25862.65
	2015-01-12	27781.7
	2015-01-13	29831.300000000003
	2015-01-14	32358.700000000004
	2015-01-15	34343.500000000001
	2015-01-16	36937.650000000001
	2015-01-17	39001.750000000001
	2015-01-18	40978.600000000006
	2015-01-19	43365.750000000001
	2015-01-20	45763.650000000001
	2015-01-21	47804.200000000001
	2015-01-22	50300.900000000001



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

```
select category, name , revenue , rn
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(pizzas.price*order_details.quantity) as revenue
from pizzas
inner join pizza_types on
pizzas.pizza_type_id=pizza_types.pizza_type_id
inner join order_details on
pizzas.pizza_id=order_details.pizza_id
group by pizza_types.category, pizza_types.name) as a) as b
where RN <=3 ;
```

	category	name	revenue	rn
►	Chicken	The Thai Chicken Pizza	43434.25	1
	Chicken	The Barbecue Chicken Pizza	42768	2
	Chicken	The California Chicken Pizza	41409.5	3
	Classic	The Classic Deluxe Pizza	38180.5	1
	Classic	The Hawaiian Pizza	32273.25	2
	Classic	The Pepperoni Pizza	30161.75	3
	Supreme	The Spicy Italian Pizza	34831.25	1
	Supreme	The Italian Supreme Pizza	33476.75	2
	Supreme	The Sicilian Pizza	30940.5	3
	Veggie	The Four Cheese Pizza	32265.700000000065	1
	Veggie	The Mexicana Pizza	26780.75	2
	Veggie	The Five Cheese Pizza	26066.5	3



Conclusion

- **Strong Sales Performance:** The store is generating consistent revenue with a healthy volume of orders, indicating steady customer demand.
- **Top-Selling Pizzas Identified:** The five most ordered pizza types are driving a significant portion of sales, suggesting potential areas for promotional focus.
- **Medium Size Most Popular:** The most frequently ordered pizza size is medium, highlighting an opportunity to optimize pricing and promotions for this size.
- **Revenue Distribution by Pizza Type:** A few pizza types contribute disproportionately to total revenue, suggesting these should be prioritized for marketing and inventory management.
- **Peak Ordering Times Recognized:** Order activity peaks during specific hours, which can help the store improve staffing and targeted promotions to maximize sales during high-demand periods.

