

Pizza sales

Analyzing the pizza sales and getting useful insights from the data using MySQL

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This presentation provides insights derived from a detailed analysis of pizza sales data using SQL, focusing on sales performance.

1. Retrieve the total number of orders placed

```
SELECT  
    COUNT(order_details_id) AS total_number_of_orders  
FROM  
    order_details  
ORDER BY total_number_of_orders DESC  
LIMIT 1;
```

Result Grid	
	Filter Rows:
	total_number_of_orders
▶	48620

2. Calculate the total revenue generated from pizza sales

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

Result Grid	
	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;
```

Result Grid | Filter Rows:

	name	price
▶	The Greek Pizza	35.95

4. Identify the most common pizza size ordered

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

	size	quantity
▶	L	18526
	M	15385
	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 total  
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 total DESC  
LIMIT 5;
```

Result Grid | Filter Rows:

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

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

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

	category	quantity
▶	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050

7. Determine the distribution of orders by hour of the day

```
SELECT  
    HOUR(order_time) AS time, COUNT(order_id) AS total_orders  
FROM  
    orders  
GROUP BY time  
ORDER BY total_orders DESC;
```

	time	total_orders
▶	12	2520
	13	2455
	18	2399
	17	2336
	19	2009
	16	1920
	20	1642
	14	1472
	15	1468
	11	1231
	21	1198
	22	663
	23	28
	10	8
	9	1

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

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

Result Grid		
	category	total_count
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

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

```
SELECT  
    ROUND(AVG(total), 0) AS average_orders_per_day  
FROM  
    (SELECT  
        orders.order_date, SUM(order_details.quantity) AS total  
    FROM  
        orders  
    JOIN order_details ON order_details.order_id = orders.order_id  
    GROUP BY orders.order_date) AS order_quantity;
```

Result Grid	
	average_orders_per_day
▶	138

10. 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 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 revenue DESC
LIMIT 3;
```

Result Grid		Filter Rows:
	name	revenue
▶	The Thai Chicken Pizza	43434.25
	The Barbecue Chicken Pizza	42768
	The California Chicken Pizza	41409.5

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

```
SELECT
    pizza_types.category,
    (SUM(order_details.quantity * pizzas.price) / (SELECT
        ROUND(SUM(order_details.quantity * pizzas.price),
        2))
    FROM
        order_details
        JOIN
        pizzas ON order_details.pizza_id = pizzas.pizza_id)) * 100 AS revenue_percentage
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;
```

Result Grid		Filter Rows:
	category	revenue_percentage
▶	Classic	26.90596025566967
	Veggie	23.682590927384577
	Supreme	25.45631126009862
	Chicken	23.955137556847287

12. Analyze the cumulative revenue generated over time

```
select order_date,sum(revenue) over(order by order_date) as cum_revenue 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_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

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

```
select 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;
```

Result Grid		Filter Rows:	E
	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 Hawaiian Pizza	32273.25	
	The Pepperoni Pizza	30161.75	
	The Spicy Italian Pizza	34831.25	
	The Italian Supreme Pizza	33476.75	
	The Sicilian Pizza	30940.5	
	The Four Cheese Pizza	32265.70000000065	
	The Mexicana Pizza	26780.75	
	The Five Cheese Pizza	26066.5	

Thank You

Summary Statement:

This analysis has highlighted key insights to optimize sales strategies , enhance product offerings, and improve overall business performance.