PIZZA SALES ANALYSIS USING SQL

C O N T E N T

- - Retrieve the total number of orders placed.
- - Calculate total revenue from pizza sales.
- - Identify the highest-priced pizza.
- - Determine the most frequently ordered pizza size.
- - List the top five most ordered pizza types with quantities.
- - Join necessary tables to find the total quantity ordered per pizza category.
- - Analyze order distribution by hour.
- - Combine tables to determine category-wise pizza distribution.
- - Group orders by date and calculate the average daily pizzas ordered.
- - Identify the top three pizza types by revenue.
- - Calculate each pizza type's revenue contribution percentage.
- - Examine cumulative revenue over time.
-     - Identify the top three pizza types by revenue within each category..

INTRODUCTION

This presentation explores a comprehensive SQL-driven analysis of pizza sales, utilizing various metrics and database tables including Orders, Order_details, Pizza_type, and Pizzas. The goal is to uncover business insights such as sales performance, customer preferences, and product profitability, guiding data-driven decision-making for optimizing revenue and operational efficiency.

Total number of orders placed.

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

total_orders
▶ 21350

Result Grid

Total Revenue Generated

```sql
select
round(sum(order_details.quantity * pizzas.price)) as total_sales
from order_details join pizzas
on pizzas.pizza_id = order_details.pizza_id;
```

Result Grid

total_sales
▶ 817860

Highest-priced pizza

```sql
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

Result Grid | Filter Rows:

Most common pizza size ordered

```sql
select quantity, count(order_details_id)
from order_details group by quantity;


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

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

Top 5 most ordered pizza types (with quantities)

```sql
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 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

Total quantity ordered per pizza category

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

Result Grid | Filte

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

Order distribution by hour

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

HOUR(order_time)	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336

Category-wise pizza distribution

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

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

Average pizzas ordered per day

```sql
SELECT
    ROUND(AVG(quantity), 0) as avg_pizzas_per_day
FROM
    (SELECT
        orders.order_date, SUM(order_details.quantity) AS quantity
    FROM
        orders
```

avg_pizzas_per_day
138

Top 3 pizzas by revenue

```sql
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

Result Grid | Filter Rows:

% contribution of each pizza type to total revenue

```sql
SELECT
    pizza_types.category,
    ROUND(SUM(order_details.quantity * pizzas.price) / (SELECT
                    ROUND(SUM(order_details.quantity * pizzas.price)) AS total_sales
            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 order_details.pizza_id = pizzas.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

Result Grid | Filter

Cumulative revenue generated over time

```sql
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

Top 3 pizzas by revenue within each pizza category

```sql
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;
```

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

THANK YOU