SALES REPORT

On pizza sales using SQL

Ingoude Company

INTRODUCTION

In this project, we analyze pizza sales data to gain insights into sales trends, and inventory needs. By utilizing SQL for data extraction and analysis, we aim to optimize our sales strategy and improve overall business performance."

AGENDA

01 Retrieve the total number of order placed

02 Calculate the total revenue genrated FROM pizza sale

03 Identify the highest priced pizza

04 Identify the 2nd highest priced pizza

05 Identify the most common pizza size ordered

06 List the top 5 most ordered pizza type along with their quantity

07 Join the necessary table to find the total quantity of each pizza ordered

08 Determine the distribution of order by hour of the day

09 Join the relevent table to find the category wise distribustion of pizzas

10 Analyze the cumulative revenue genrated over time

AGENDA

11 Determin the top 3 most ordered pizza type based on revenue for each pizza category orders

13 Calculate the total sale for each pizza type

EXECUTIVE SUMMARY

- Welcome to the presentation on the analysis of pizza sales data. In this study, we aim to provide a comprehensive overview of the ordering patterns, revenue generation, and category distribution of pizzas. By examining various aspects of the sales data, we can uncover valuable insights that will help inform business strategies and decision-making..

OBJECTIVE

The primary objectives of this analysis are to gain insights into our pizza sales by:

1. **Evaluating Order Volume and Financial Performance:**
    - Retrieve the total number of orders placed to gauge business activity.
    - Calculate the total revenue generated from pizza sales.
2. **Analyzing Product Offerings and Customer Preferences:**
    - Identify the highest-priced pizza to understand premium offerings.
    - Determine the most common pizza size ordered to optimize inventory.
    - List the top 5 most ordered pizza types and their quantities.
3. **Assessing Category and Time-Based Patterns:**
    - Find the total quantity of each pizza category ordered.
    - Determine the distribution of orders by hour of the day.
    - Analyze the category-wise distribution of pizzas.

- **List the Top 5 Most Ordered Pizza Types Along with Their Quantities:**
- Recognize popular pizza types to focus on customer favorites and adjust supply accordingly.
- **Find the Total Quantity of Each Pizza Category Ordered:**
- Categorize the pizzas and determine the popularity of each category.
- **Determine the Distribution of Orders by Hour of the Day:**
- Analyze the time-based ordering patterns to optimize staffing and delivery operations.

Understanding Daily and Revenue-Based Trends:

- Group orders by date to calculate the average number of pizzas ordered per day.
- Identify the top 3 most ordered pizza types based on revenue.
- Calculate the percentage contribution of each pizza type to total revenue.
- Analyze the cumulative revenue generated over time.

Approach

To achieve these objectives, we employed SQL queries to analyze the data from various tables within our database. These tables include orders, order_details, pizzas, pizza_sizes, and categories. By leveraging SQL's powerful data manipulation capabilities, we extracted meaningful insights from the raw data, which are presented in the following sections of this presentation.

Significance

Understanding these key metrics will enable us to:

- Optimize our menu and pricing strategy.
- Improve customer satisfaction by focusing on popular items.
- Enhance operational efficiency by aligning resources with demand patterns.
- Drive revenue growth by identifying and promoting high-performing products.
  Let's dive into the detailed analysis and uncover the insights derived

PROBLEM STATMENT

Retrieve the total number of order placed

```sql
SELECT COUNT(order_id) AS total_order FROM orders;
```

total_number_of_order
21,350

Calculate the total revenue genrated FROM pizza sale

```sql
SELECT SUM(order_details.quantity*pizzas.price) AS total_revenue
FROM order_details
JOIN pizzas ON pizzas.pizza_id = order_details.pizza_id;
```

total_revenue
817,860.05

Identify the highest priced pizza

```
SELECT pizza_type.name_p, pizzas.price
FROM pizza_type
JOIN pizzas ON pizzas.pizza_type_id= pizza_type.pizza_type_id
ORDER BY price DESC
LIMIT 1;
```

name_p	price
The Greek Pizza	35.95

Identify the 2nd highest priced pizza

```sql
SELECT pizza_type.name_p, pizzas.price
FROM pizza_type
JOIN pizzas ON pizzas.pizza_type_id= pizza_type.pizza_type_id
ORDER BY price DESC
LIMIT 1,1;
```

name_p	price
The Greek Pizza	25.5

Identify the most common pizza size ordered

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

size	count_order
L	18,526
M	15,385
S	14,137
XL	544
XXL	28

List the top 5 most ordered pizza type along with their quantity

```sql
SELECT pizza_type.name_p, SUM(order_details.quantity) AS quantity
FROM pizza_type
JOIN pizzas ON pizza_type.pizza_type_id=pizzas.pizza_type_id
JOIN
order_details ON order_details.pizza_id=pizzas.pizza_id
GROUP BY pizza_type.name_p
ORDER BY quantity DESC
LIMIT 5;
```

name_p	quantity
The Classic Deluxe Pizza	2,453
The Barbecue Chicken Pizza	2,432
The Hawaiian Pizza	2,422
The Pepperoni Pizza	2,418
The Thai Chicken Pizza	2,371

Join the necessary table to find the total quantity of each pizza ordered

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

category	total_quantity
Classic	13,529
Veggie	11,649
Supreme	11,987
Chicken	11,050
Mushroom	1,359

Join the necessary table to find the total quantity of each pizza ordered

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

category	total_quantity
Classic	13,529
Veggie	11,649
Supreme	11,987
Chicken	11,050
Mushroom	1,359

Determine the distribution of order by hour of the day

```
SELECT hour(TIME_order) , count(order_id) AS Order_by_hour FROM orders
GROUP BY hour(TIME_order) ;
```

hour(TIME_order)	Order_by_hour
11	1,231
12	2,520
13	2,455
14	1,472
15	1,468
16	1,920
17	2,336
18	2,399
19	2,009

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

```sql
SELECT AVG(quantity)AS avg_pizza_ordered_per_day
FROM
(SELECT orders.date_o, SUM(order_details.quantity) AS quantity
FROM orders
JOIN order_details ON orders.order_id=order_details.order_id
GROUP BY orders.date_o) AS order_quantity;
```

avg_pizza_ordered_per_day
138.4749

Determine the top 3 most ordered pizza based on revenue

```sql
SELECT pizza_type.name_p, SUM(order_details.quantity*pizzas.price) AS revenue
FROM pizza_type
JOIN pizzas ON pizza_type.pizza_type_id=pizzas.pizza_type_id
JOIN order_details ON order_details.pizza_id=pizzas.pizza_id
GROUP BY pizza_type.name_p
ORDER BY revenue DESC
LIMIT 3;
```

name_p	revenue
The Thai Chicken Pizza	43,434.25
The Barbecue Chicken Pizza	42,768.0
The California Chicken Pizza	41,409.5

Calculate the percentage contribution of each pizza type to total revenue

```sql
SELECT pizza_type.category, (SUM(order_details.quantity*pizzas.price)/
(SELECT SUM(order_details.quantity*pizzas.price)
FROM order_details
JOIN pizzas ON pizzas.pizza_id = order_details.pizza_id))*100 AS  revenue
FROM pizza_type
JOIN pizzas ON pizza_type.pizza_type_id=pizzas.pizza_type_id
JOIN order_details ON order_details.pizza_id=pizzas.pizza_id
GROUP BY pizza_type.category
ORDER BY revenue DESC
LIMIT 3 ;
```

category	revenue
Supreme	25.4563112601
Classic	24.6030601446
Chicken	23.9551375568

Determine the top 3 most ordered pizza type based on revenue for each pizza category orders

```sql
SELECT pizza_type.category,name_p, SUM(order_details.quantity*pizzas.price) AS revenue
FROM pizza_type
JOIN pizzas ON pizza_type.pizza_type_id= pizzas.pizza_type_id
JOIN order_details ON order_details.pizza_id= pizzas.pizza_id
GROUP BY pizza_type.category, name_p
ORDER BY revenue DESC
LIMIT 3 ;
```

category	name_p	revenue
Chicken	The Thai Chicken Pizza	43,434.25
Chicken	The Barbecue Chicken Pizza	42,768.0
Chicken	The California Chicken Pizza	41,409.5

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THANK YOU