GITHUB-LINK

Data Analysis on Delicious Pizza Sales

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Project Components

1. Data Acquisition

The project begins with the acquisition of raw sales data. This data may include information such as customer orders, Order details, Pizza-types and transaction amounts. Data can be obtained from various sources, including databases, CSV files, or other data storage systems.

2. Data Transformation with SQL

SQL (Structured Query Language) is used to clean, filter, and transform the raw data into a format suitable for analysis. This may involve tasks such as joining tables, aggregating data, handling missing values, and creating new calculated fields.

3. Data Analysis

Various SQL queries are written to perform in-depth data analysis. This may include:

1. Analyzing sales trends over time.
2. Most common pizza ordered
3. Average number of pizzas ordered per day.

1. Retrieve the total number of orders placed

```
SELECT Count(order_id) as Total_Orders
FROM orders
```

Total_Orders
21350

2. Identify the most common pizza size ordered

```
SELECT
    size as Pizza_Size,
    COUNT(order_details_id) AS Ordered
FROM pizzas p
    JOIN
    order_details o ON p.pizza_id = o.pizza_id
    group by size
```

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

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

```
SELECT
    name AS Pizza, category as Category, SUM(o.quantity) as Total_Quantities
FROM pizza_types pt
    JOIN pizzas p on p.pizza_type_id = pt.pizza_type_id
        JOIN order_details o on o.pizza_id = p.pizza_id
GROUP BY name, category
LIMIT 5
```

Pizza	category	Total_Quantities
The Barbecue Chicken Pizza	Chicken	2432
The Big Meat Pizza	Classic	1914
The Brie Carre Pizza	Supreme	490
The Calabrese Pizza	Supreme	937
The California Chicken Pizza	Chicken	2370

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

```
SELECT
    name AS Pizza,sum(PRICE) as Revenue,count(order_details_id) as Total_Orders
FROM pizzas p
    JOIN order_details O on p.pizza_id = o.pizza_id
        JOIN pizza_types pt on p.pizza_type_id = pt.pizza_type_id
group by name
order by sum(PRICE) desc
LIMIT 3
```

Pizza	Revenue	Total_Orders
The Thai Chicken Pizza	42332.25	2315
The Barbecue Chicken Pizza	41683	2372
The California Chicken Pizza	40166.5	2302

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

```
SELECT
    name AS Pizza,sum(PRICE) as Revenue,count(order_details_id) as Total_Orders
FROM pizzas p
    JOIN order_details O on p.pizza_id = o.pizza_id
        JOIN pizza_types pt on p.pizza_type_id = pt.pizza_type_id
group by name
order by sum(PRICE) desc
LIMIT 3
```

Pizza	Revenue	Total_Orders
The Thai Chicken Pizza	42332.25	2315
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6. Calculate the percentage contribution of each pizza type to total revenue.

```
select
    Category,sum(price) as Total_revenue ,
    round(sum(price) * 100 /(select sum(price) from pizzas),2) as Percentage
from pizza_types pt
    JOIN pizzas P on pt.pizza_type_id = p.pizza_type_id
group by Category
```

category	Total_revenue	Percentage
Chicken	301.5	19.1
Classic	424.7	26.91
Supreme	419.65	26.59
Veggie	432.45	27.4

7. calculate the average number of pizzas ordered per day

```
SELECT
    ROUND(avg(Total_Orders),2) as Average_Order_per_day
    FROM
        (SELECT date, count(order_details_id) as Total_Orders FROM orders O
         JOIN order_details Od ON O.order_id = Od.order_id
group by date) A
```

Average_Order_per_day
135.81

Conclusion

Our analysis of pizza sales using SQL has provided actionable insights into our business performance and customer behavior. By leveraging these insights, we can optimize marketing strategies, improve menu offerings, and drive revenue growth. Moving forward, it's essential to maintain a data-driven approach to ensure continued success in the competitive pizza market.