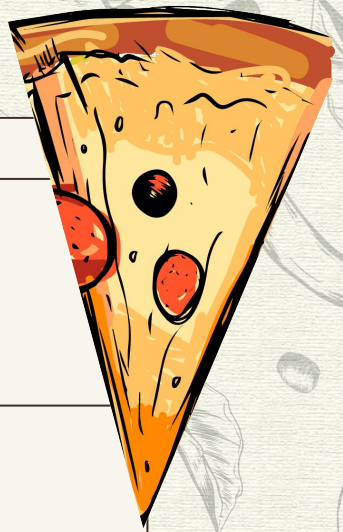
Project on Pizza Sales

USING SQL

– ANUSHKA RAUT



INTRODUCTION

This project is focused on SQL-based analysis of pizza sales data, exploring insights such as revenue distribution, popular pizza categories, and order details. It includes SQL queries that utilize joins, aggregations, and percentage calculations to extract useful information for decision-making in a pizza business.

DATASET OVERVIEW

Pizza sales dataset contains a year of sales data from a fictional pizza restaurant, featuring 48,620 records across 4 Tables. It includes details like order timestamps, item names, prices, and quantities. It useful for analyzing revenue, popular items, and sales trends.

Pizza Table

	pizza_id	pizza_type_id	size	price
1	bbq_ckn_s	bbq_ckn	S	12.75
2	bbq_ckn_m	bbq_ckn	M	16.75
3	bbq_ckn_l	bbq_ckn	L	20.75
4	cali_ckn_s	cali_ckn	S	12.75
5	cali_ckn_m	cali_ckn	M	16.75
6	cali_ckn_l	cali_ckn	L	20.75
7	ckn_alfredo_s	ckn_alfredo	S	12.75
8	ckn_alfredo_m	ckn_alfredo	M	16.75
9	ckn_alfredo_l	ckn_alfredo	L	20.75
10	ckn_pesto_s	ckn_pesto	S	12.75

Orders Table

	order_id	date	time
1	1	2015-01-01	11:38:36.0000000
2	2	2015-01-01	11:57:40.0000000
3	3	2015-01-01	12:12:28.0000000
4	4	2015-01-01	12:16:31.0000000
5	5	2015-01-01	12:21:30.0000000
6	6	2015-01-01	12:29:36.0000000
7	7	2015-01-01	12:50:37.0000000
8	8	2015-01-01	12:51:37.0000000
9	9	2015-01-01	12:52:01.0000000
10	10	2015-01-01	13:00:15.0000000

DATASET OVERVIEW

Pizza Types Table

	pizza_type_id	name	category	ingredients
1	bbq_ckn	The Barbecue Chicken Pizza	Chicken	Barbecued Chicken, Red Peppers, Green Peppers, To...
2	cali_ckn	The California Chicken Pizza	Chicken	Chicken, Artichoke, Spinach, Garlic, Jalapeno Peppers...
3	ckn_alfredo	The Chicken Alfredo Pizza	Chicken	Chicken, Red Onions, Red Peppers, Mushrooms, Asia...
4	ckn_pesto	The Chicken Pesto Pizza	Chicken	Chicken, Tomatoes, Red Peppers, Spinach, Garlic, Pe...
5	southw_ckn	The Southwest Chicken Pizza	Chicken	Chicken, Tomatoes, Red Peppers, Red Onions, Jalape...
6	thai_ckn	The Thai Chicken Pizza	Chicken	Chicken, Pineapple, Tomatoes, Red Peppers, Thai Sw...
7	big_meat	The Big Meat Pizza	Classic	Bacon, Pepperoni, Italian Sausage, Chorizo Sausage

Order Details Table

	order_details_id	order_id	pizza_id	quantity
1	1	1	hawaiian_m	1
2	2	2	classic_dlx_m	1
3	3	2	five_cheese_l	1
4	4	2	ital_supr_l	1
5	5	2	mexicana_m	1
6	6	2	thai_ckn_l	1
7	7	3	ital_supr_m	1
8	8	3	prsc_argla_l	1

Retrieve the total number of orders placed

```
select count(order_id) as Total_order from orders
```

	Total_order
1	36024

Calculate the total revenue generated from pizza sales.

```
select round(sum(order_details.quantity * pizza.price),0) as Total_Sales
from order_details
join pizza on order_details.pizza_id = pizza.pizza_id
```

Results | Messages

	Total_Sales
1	1635720

Identify the highest-priced pizza

```
select top 1 pizza.price ,pizza_types.name from pizza
join pizza_types on pizza.pizza_type_id = pizza_types.pizza_type_id
where price = (select max(price) as  highest_priced_pizza from pizza)
```

Results | Messages

	price	name
1	35.95	The Greek Pizza

Identify the most common pizza size ordered

```
select pizza.size,(count(order_details.quantity)) as Count_quantity from pizza
join order_details on pizza.pizza_id = order_details.pizza_id
group by pizza.size
order by pizza.size asc
```

Results | Messages

	size	Count_quantity
1	L	37052
2	M	30770
3	S	28274
4	XL	1088
5	XXL	56

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

```
select top 5 pizza_types.name , sum(order_details.quantity) AS Quantity from pizza_types
join pizza on pizza_types.pizza_type_id =pizza.pizza_type_id
join order_details on order_details.pizza_id = pizza.pizza_id
group by pizza_types.name
order by Quantity desc
```

Results | Messages

	name	Quantity
1	The Classic Deluxe Pizza	9812
2	The Barbecue Chicken Pizza	9728
3	The Hawaiian Pizza	9688
4	The Pepperoni Pizza	9672
5	The Thai Chicken Pizza	9484

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

```
select pizza_types.category , sum(order_details.quantity) as Total_Quantity
from pizza_types join pizza on pizza_types.pizza_type_id = pizza.pizza_type_id
join order_details on order_details.pizza_id=pizza.pizza_id
group by  pizza_types.category
```

Results | Messages

	category	Total_Quantity
1	Chicken	44200
2	Classic	59552
3	Supreme	47948
4	Veggie	46596

Determine the distribution of orders by hour of the day

```
select distinct(datepart(HOUR,time))as Hour ,count(order_id) as Order_count  from orders
group by datepart(HOUR,time)
order by hour asc
```

Results | Messages

	Hour	Order_count
1	9	1
2	10	14
3	11	2086
4	12	4223
5	13	4115
6	14	2532
7	15	2485
8	16	3246
9	17	3958
10	18	4051
11	19	3380
12	20	2756
13	21	2018
14	22	1111
15	23	48

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Find the category-wise distribution of pizzas

```
select category,count(name) as Count_pizza from pizza_types
group by category
```

Results | Messages

	category	Count_pizza
1	Chicken	12
2	Classic	16
3	Supreme	18
4	Veggie	18

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

```
select round(avg(Quantity),0) as AVG_pizza_perday from
(select orders.date,sum(order_details.quantity) as Quantity from orders
join order_details on order_details.order_id=orders.order_id
group by orders.date) as order_quantity
```

Results | Messages

	AVG_pizza_perday
1	233

Determine the top 3 most ordered pizza types based on revenue

```
select top 3 pizza_types.name,round(sum(order_details.quantity * pizza.price),0) as Total_Sales
from order_details join pizza
on order_details.pizza_id =pizza.pizza_id
join pizza_types on pizza_types.pizza_type_id = pizza.pizza_type_id
group by pizza_types.name
order by Total Sales desc
```

Results | Messages

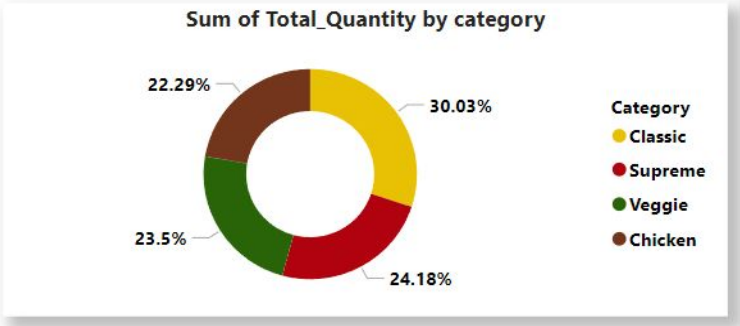
	name	Total_Sales
1	The Thai Chicken Pizza	173737
2	The Barbecue Chicken Pizza	171072
3	The California Chicken Pizza	165638

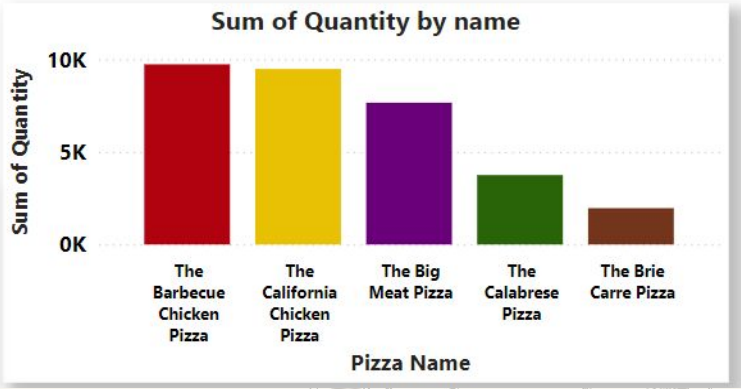
Pizza Sales Dashboard

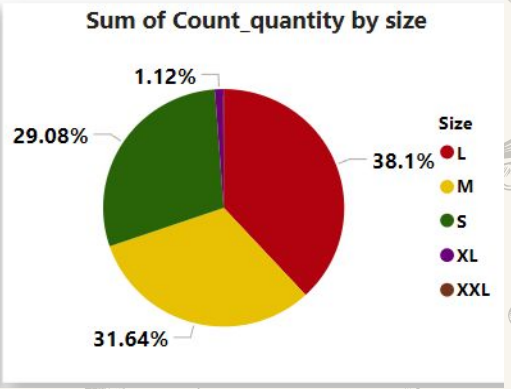
36K
Sum of Total_order

1.64M
Sum of Total_Sales

233.00
Sum of AVG_pizza_perday







Dashboard Insight

Overall Sales Summary:

- **Total Orders:** 36K pizzas were ordered, reflecting strong demand.
- **Total Sales:** Revenue reached 1.64 million, indicating a high level of business.
- **Average Daily Sales:** Approximately 233 pizzas are sold daily, showing consistent customer interest.

Category Insights:

- Classics lead with 30% of sales, followed by Supreme, Veggie, and Chicken.

Top Performing Pizzas:

- Barbecue Chicken and California Chicken are bestsellers, with Big Meat also popular.

Pizza Size Preferences:

- Large (38.1%) and Medium (31.6%) are preferred, with minimal demand for XL and XXL sizes.

THANK YOU