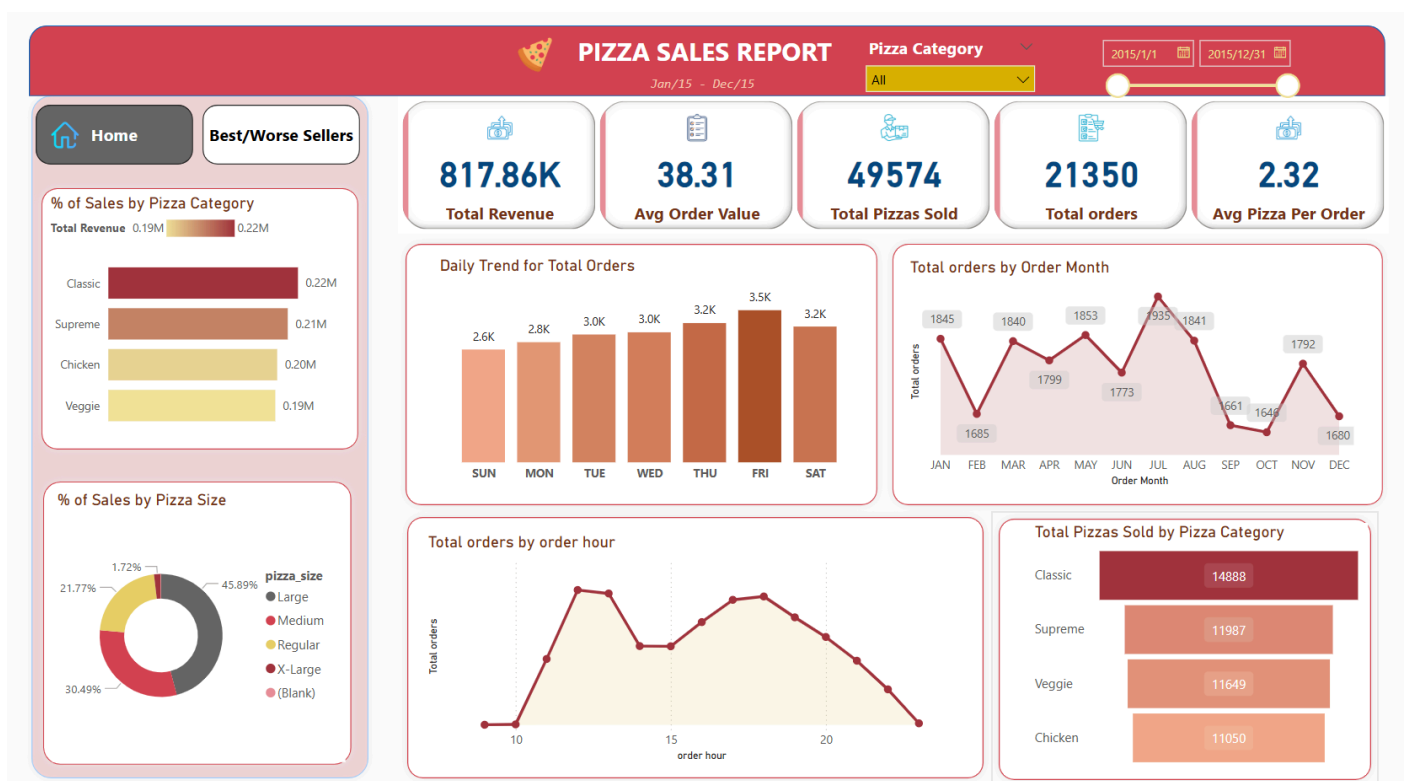
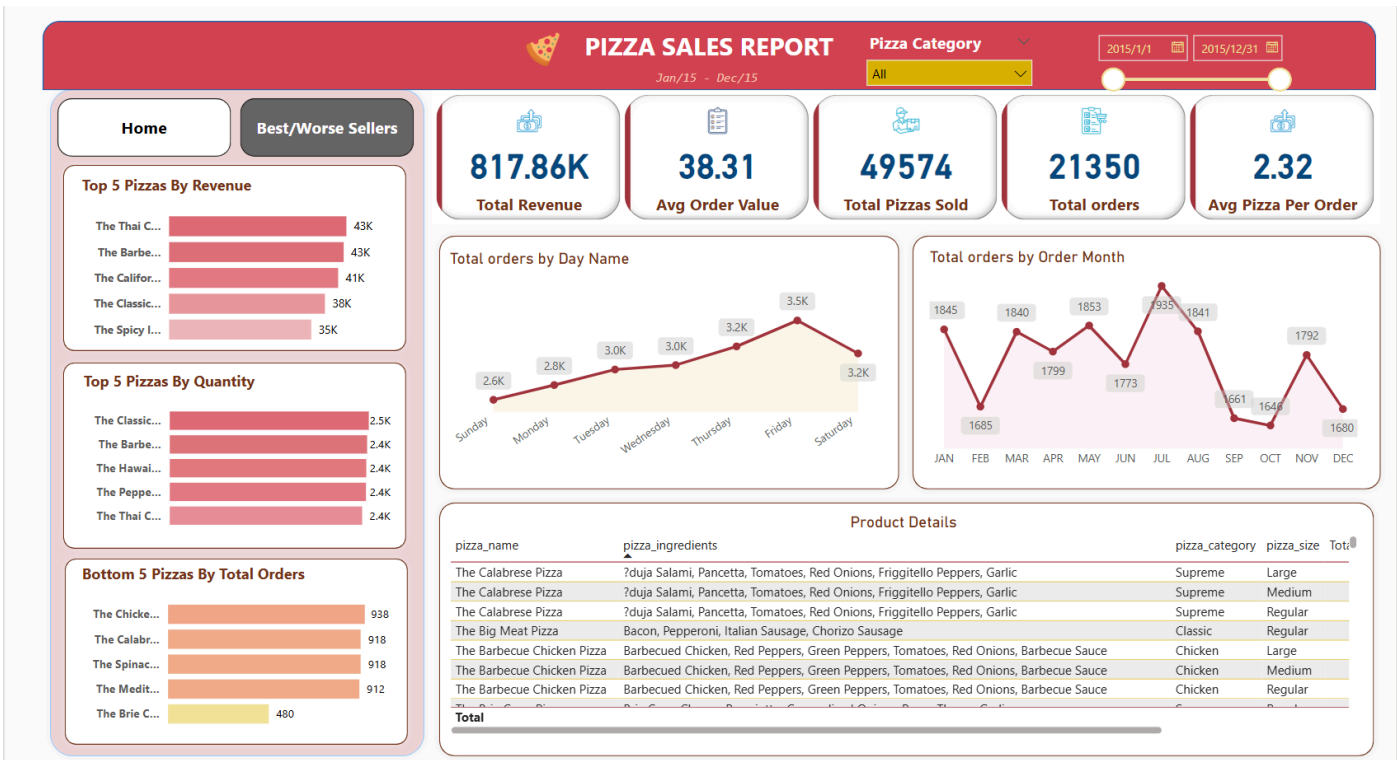
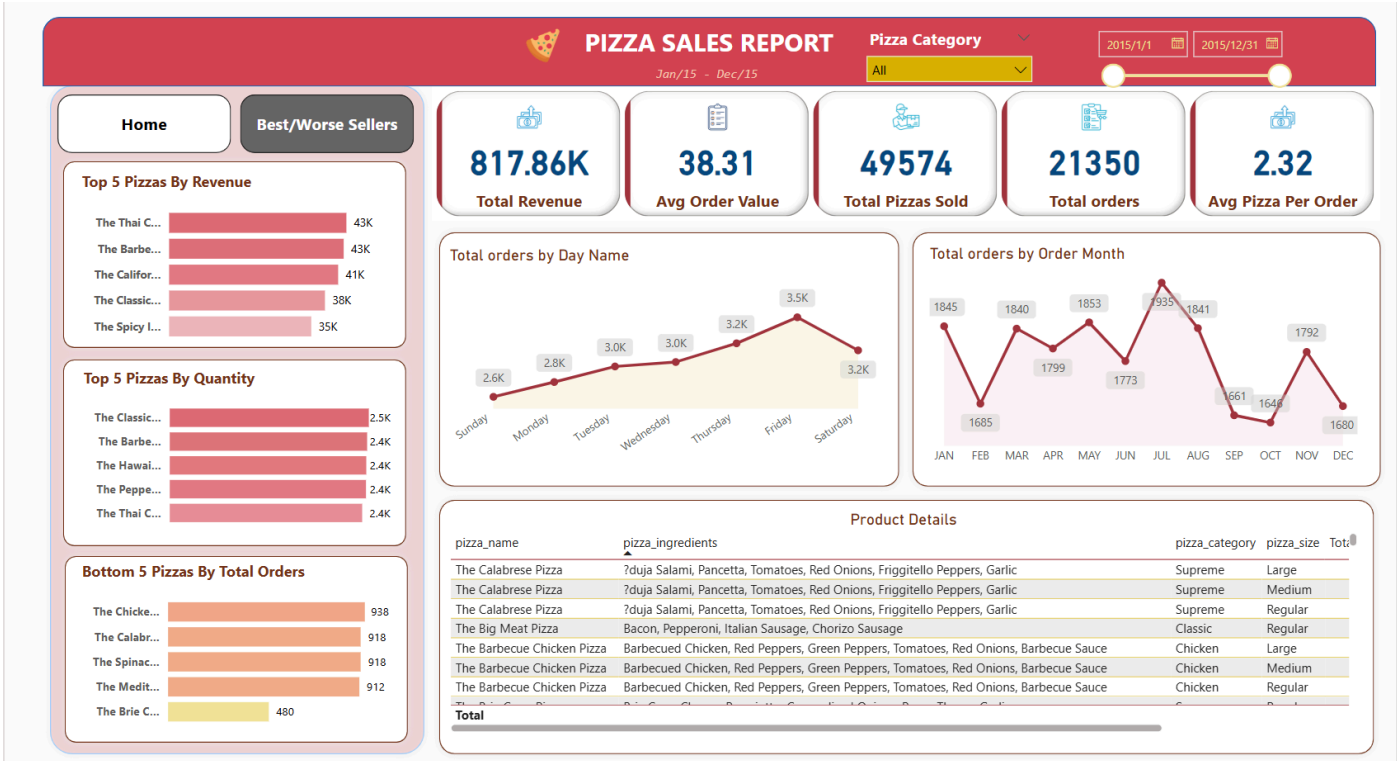




# (Clicked here for details) SQL+Power BI 🍕 Pizza Sales Performance Analysis Project

## Dashboard Overview





## Project Overview

The pizza chain has accumulated a large volume of sales data but lacks an efficient analytical system. This project uses SQL for backend data processing and Power BI to create a dynamic visual dashboard, enabling the management to uncover trends, customer preferences, and product performance for more data-driven decision-making.

## Project Objectives

- Improve sales data visualization and accessibility
- Analyze pizza product performance and customer preferences
- Deliver an interactive, real-time dashboard for business users
- Support optimization of product mix, pricing, and promotion strategies

## Key Business Questions

- Which pizzas are best/worst sellers?
- How does sales performance vary across pizza sizes and categories?
- What are the peak sales hours in a day?
- What are the daily sales and order volume trends?
- Which combinations contribute most to revenue?

## KPI Requirements

We need to analyze key indicators for our pizza sales data to gain insights into our business performance. Specifically, we want to calculate the following metrics:

1. **Total Revenue:** The sum of the total price of all pizza orders.
2. **Average Order Value:** The average amount spent per order, calculated by dividing the total revenue by the total number of orders.
3. **Total Pizzas Sold:** The sum of the quantities of all pizzas sold.
4. **Total Orders:** The total number of orders placed.
5. **Average Pizzas Per Order:** The average number of pizzas sold per order, calculated by dividing the total number of pizzas sold by the total number of orders.

## SQL Queries for KPIs



```
1 --1. Total Revenue
2 select
3 sum(total_price) AS Total_revenue
4 from [dbo].[pizza_sales]
```

Results Messages	
	Total_Revenue
1	817860.05083847



```

1 --2. Average Order Value
2 SELECT
3 sum(total_price)/COUNT(distinct order_id) AS Avg_order_Value
4 from [dbo].[pizza_sales]

```

Results Messages	
	Avg_order_Value
1	38.3072623343546



```

1 --3. Total Pizzas Sold
2 SELECT sum(quantity) AS Total_pizza_sold
3 FROM [dbo].[pizza_sales]

```

Results Messages	
	Total_pizza_sold
1	49574



```

1 --4. Total Orders
2 SELECT COUNT(DISTINCT order_id) AS Total_Orders
3 FROM [dbo].[pizza_sales]

```

Results Messages	
	Total_Orders
1	21350



```
1 --5. Average Pizzas Per Order
2
3 SELECT ROUND(CAST(SUM(quantity) AS float)/CAST(COUNT(DISTINCT order_id) AS float),2) AS
  Avg_Pizzas_per_order
4 FROM [dbo].[pizza_sales]
5
6
```



Results



Messages

	Avg_Pizzas_per_order
1	2.32

## SQL Queries for Daily and Monthly Trend



```
1 SELECT
2 order_date,COUNT(distinct order_id) AS total_orders
3 FROM
4 [dbo].[pizza_sales]
5 group by order_date
6 order by order_date
```

	order_date	total_orders
1	2015-01-01	69
2	2015-01-02	67
3	2015-01-03	66
4	2015-01-04	52
5	2015-01-05	54
6	2015-01-06	64
7	2015-01-07	58
8	2015-01-08	72
9	2015-01-09	62
10	2015-01-10	65
11	2015-01-11	52



```

1 -- b.Daily Trend for Total Orders
2 SELECT
3 DATENAME(DW, order_date) AS order_day,
4 COUNT(distinct order_id) AS total_orders
5 FROM [dbo].[pizza_sales]
6 group by DATENAME(DW, order_date)

```



Results



Messages

	order_day	total_orders
1	Saturday	3158
2	Wednesday	3024
3	Monday	2794
4	Sunday	2624
5	Friday	3538
6	Thursday	3239
7	Tuesday	2973

```

1 --C. Monthly Trend for Orders
2 select DATENAME(MONTH, order_date) as Month_Name, COUNT(DISTINCT order_id) as
   Total_Orders
3 from pizza_sales
4 GROUP BY DATENAME(MONTH, order_date)

```

	Month_Name	Total_Orders
1	February	1685
2	June	1773
3	August	1841
4	April	1799
5	May	1853
6	December	1680
7	January	1845
8	September	1661
9	October	1646
10	July	1935
11	November	1792
12	March	1840

## SQL Queries for % of Sales by Category and Size

```

1 --D. % of Sales by Pizza Category
2
3
4 with sales_by_category as(
5   select pizza_category, sum(total_price) as total_revenue
6   from pizza_sales
7   group by pizza_category
8 )
9 select
10  pizza_category,
11  total_revenue,
12  concat(round((total_revenue/sum(total_revenue) over ())*100,2),'%') as PCT
13 from sales_by_category

```

14 order by total\_revenue desc

15

16

100 %

Results Messages

	pizza_category	total_revenue	PCT
1	Classic	220053.100021362	26.91%
2	Supreme	208196.99981308	25.46%
3	Chicken	195919.5	23.96%
4	Veggie	193690.451004028	23.68%

solution 1

	pizza_category	total_revenue	PCT
1	Chicken	195919.50	23.96
2	Supreme	208197.00	25.46
3	Classic	220053.10	26.91
4	Veggie	193690.45	23.68

solution 2



```
1 --E. % of Sales by Pizza Size
2 --Solution 1
3 with sales_by_category as(
4   select pizza_size, sum(total_price) as total_revenue
5   from pizza_sales
6   group by pizza_size
7 )
8 select
9   pizza_size,
10  total_revenue,
11  concat(round((total_revenue/sum(total_revenue) over ())*100,2),'%') as PCT
12 from sales_by_category
13 order by total_revenue desc;
14
15 --Solution 2
16 SELECT pizza_size, CAST(SUM(total_price) AS DECIMAL(10,2)) as total_revenue,
17 CAST(SUM(total_price) * 100 / (SELECT SUM(total_price) from pizza_sales) AS DECIMAL(10,2)) AS
   PCT
18 FROM pizza_sales
19 GROUP BY pizza_size
20 ORDER BY pizza_size
21
```



Results Messages

	pizza_size	total_revenue	PCT
1	L	375318.701004028	45.89%
2	M	249382.25	30.49%
3	S	178076.49981308	21.77%
4	XL	14076	1.72%
5	XXL	1006.6000213623	0.12%

solution 1

	pizza_size	total_revenue	PCT
1	L	375318.70	45.89
2	M	249382.25	30.49
3	S	178076.50	21.77
4	XL	14076.00	1.72
5	XXL	1006.60	0.12

solution 2

▼

- 1 --F. Total Pizzas Sold by Pizza Category
- 2 `SELECT` pizza\_category, SUM(quantity) `as` Total\_Quantity\_Sold
- 3 `FROM` pizza\_sales
- 4 `GROUP BY` pizza\_category
- 5 `ORDER BY` Total\_Quantity\_Sold `DESC`

Results Messages

	pizza_category	Total_Quantity_Sold
1	Classic	14888
2	Supreme	11987
3	Veggie	11649
4	Chicken	11050

## SQL Queries for Top 5 and Bottom 5

▼

- 1 --G. Top 5 Pizzas by Revenue
- 2 `SELECT` Top 5 pizza\_name, SUM(total\_price) `AS` Total\_Revenue
- 3 `FROM` pizza\_sales
- 4 `GROUP BY` pizza\_name

5 ORDER BY Total\_Revenue DESC



Results



Messages

	pizza_name	Total_Revenue
1	The Thai Chicken Pizza	43434.25
2	The Barbecue Chicken Pizza	42768
3	The California Chicken Pizza	41409.5
4	The Classic Deluxe Pizza	38180.5
5	The Spicy Italian Pizza	34831.25



```
1 --H. Bottom 5 Pizzas by Revenue
2 SELECT Top 5 pizza_name, SUM(total_price) AS Total_Revenue
3 FROM pizza_sales
4 GROUP BY pizza_name
5 ORDER BY Total_Revenue
```

	pizza_name	Total_Revenue
1	The Brie Carre Pizza	11588.4998130798
2	The Green Garden Pizza	13955.75
3	The Spinach Supreme Pizza	15277.75
4	The Mediterranean Pizza	15360.5
5	The Spinach Pesto Pizza	15596



```
1 --I. Top 5 Pizzas by Quantity
2 SELECT Top 5 pizza_name, SUM(quantity) AS Total_Pizza_Sold
3 FROM pizza_sales
4 GROUP BY pizza_name
5 ORDER BY Total_Pizza_Sold DESC
6
```

	pizza_name	Total_Pizza_Sold
1	The Classic Deluxe Pizza	2453
2	The Barbecue Chicken Pizza	2432
3	The Hawaiian Pizza	2422
4	The Pepperoni Pizza	2418
5	The Thai Chicken Pizza	2371

1 --J. Bottom 5 Pizzas by Quantity  
2 SELECT Top 5 pizza\_name, SUM(quantity) AS Total\_Pizza\_Sold  
3 FROM pizza\_sales  
4 GROUP BY pizza\_name  
5 ORDER BY Total\_Pizza\_Sold

## Results Messages

	pizza_name	Total_Pizza_Sold
1	The Brie Carre Pizza	490
2	The Mediterranean Pizza	934
3	The Calabrese Pizza	937
4	The Spinach Supreme Pizza	950
5	The Soppresata Pizza	961

1 --K. Top 5 Pizzas by Total Orders  
2 SELECT Top 5 pizza\_name, COUNT(DISTINCT order\_id) AS Total\_Orders  
3 FROM pizza\_sales  
4 GROUP BY pizza\_name  
5 ORDER BY Total\_Orders DESC



Results



Messages

	pizza_name	Total_Orders
1	The Classic Deluxe Pizza	2329
2	The Hawaiian Pizza	2280
3	The Pepperoni Pizza	2278
4	The Barbecue Chicken Pizza	2273
5	The Thai Chicken Pizza	2225



```
1 --L. Borrom 5 Pizzas by Total Orders
2 SELECT Top 5 pizza_name, COUNT(DISTINCT order_id) AS Total_Orders
3 FROM pizza_sales
4 GROUP BY pizza_name
5 ORDER BY Total_Orders
```

	pizza_name	Total_Orders
1	The Brie Carre Pizza	480
2	The Mediterranean Pizza	912
3	The Spinach Supreme Pizza	918
4	The Calabrese Pizza	918
5	The Chicken Pesto Pizza	938