# DATA ANALYST PORTFOLIO PROJECT

**SQL + POWER BI**

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Intro

# Project Overview

Through this project we need to analyze key indicators for our pizza sales data to gain our insights into our business performance. Specially, I calculated the following metrices:

- Total Revenue
- Average Order Value
- Total Pizzas sold
- Total Orders
- Average Pizzas Per Order, etc.

I would also like to visualize our pizza sales data to gain insights & understand key trends such as daily trend, monthly trend, yearly trend with the help of bar graphs and charts and DAX Expressions.

# PART-1
# MYSQL SERVER

**IMPORTING THE DATA**


**CREATION OF DATABASE**

**WRITING SQL QUERIES**

**CREATING REPORT**

# PART-2
# POWER BI

**CONNECTING TO MYSQL SERVER**


**CLEANING OF DATA**

**DATA PROCESSING**


**DATA VISUALIZATION**

# SOFTWARE USED

**MS OFFICE/EXCEL**


**MYSQL WORKBENCH 8.0**

**POWER BI**

# QUERY-1

**Selecting all records from the particular table i.e pizza_sales**

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

| pizza_id | order_id | pizza_name_id | quantity | order_date | order_time | unit_price | total_price | pizza_ |
|---|---|---|---|---|---|---|---|---|
| 1 | 1 | hawaiian_m | 1 | 01-01-2015 | 11:38:36 | 13.25 | 13.25 | M |
| 2 | 2 | classic_dlx_m | 1 | 01-01-2015 | 11:57:40 | 16 | 16 | M |
| 3 | 2 | five_cheese_l | 1 | 01-01-2015 | 11:57:40 | 18.5 | 18.5 | L |
| 4 | 2 | ital_supr_l | 1 | 01-01-2015 | 11:57:40 | 20.75 | 20.75 | L |
| 5 | 2 | mexicana_m | 1 | 01-01-2015 | 11:57:40 | 16 | 16 | M |
| 6 | 2 | thai_ckn_l | 1 | 01-01-2015 | 11:57:40 | 20.75 | 20.75 | L |
| 7 | 3 | ital_supr_m | 1 | 01-01-2015 | 12:12:28 | 16.5 | 16.5 | M |
| 8 | 3 | prsc_argla_l | 1 | 01-01-2015 | 12:12:28 | 20.75 | 20.75 | L |
| 9 | 4 | ital_supr_m | 1 | 01-01-2015 | 12:16:31 | 16.5 | 16.5 | M |
| 10 | 5 | ital_supr_m | 1 | 01-01-2015 | 12:21:30 | 16.5 | 16.5 | M |
| 11 | 6 | bbq_ckn_s | 1 | 01-01-2015 | 12:29:36 | 12.75 | 12.75 | S |
| 12 | 6 | the_greek_s | 1 | 01-01-2015 | 12:29:36 | 12 | 12 | S |

**SYNTAX:**

```
use sales_pizza;
SELECT * FROM
pizza_orders;
```

# QUERY-2 (KPI's)

**Total Revenue- Sum of the total price of all orders**

| total_revenue |
| --- |
| 817860.05 |

**SYNTAX:**

```
SELECT SUM(total_price) AS total_revenue FROM pizza_orders;
```

# QUERY-3 (KPI's)

**Average Order value- The average amount spent per order, calculated by dividing the total revenue by total orders**

| | avg_order |
|---|---|
| ▶ | 38.307262 |

**SYNTAX:**

```
SELECT (SUM(total_price) / COUNT(DISTINCT order_id)) AS avg_order from pizza_orders;
```

# QUERY-4 (KPI's)

**Total Pizzas Sold- The sum of quantities of all pizzas sold**

| | total_pizza_sold |
|---|---|
| ▶ | 49574 |

**SYNTAX:**

```
SELECT SUM(quantity) AS Total_pizza_sold FROM
pizza_orders;
```

# QUERY-5 (KPI's)

**Average Pizzas Per Order- Calculated by dividing the total Number of pizzas sold by total number of orders**

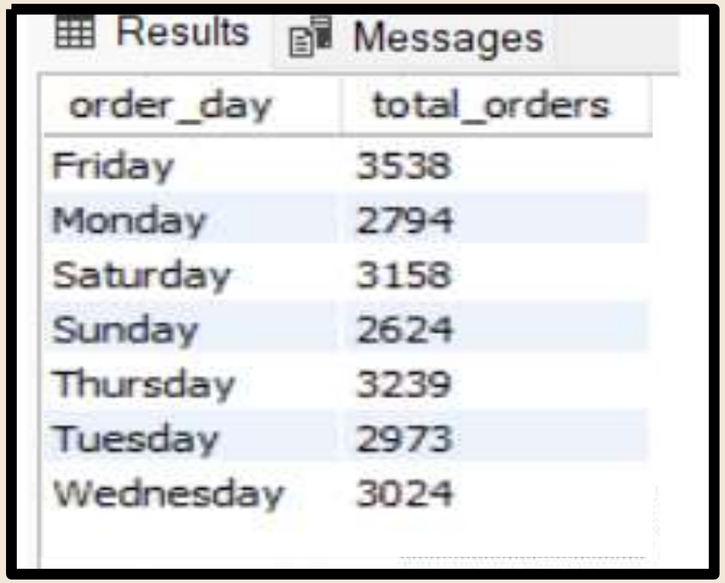
| | Avg_Pizzas_per_order |
|---|---|
| ▶ | 2.32 |

**SYNTAX:**

```
SELECT ROUND(SUM(quantity) / COUNT(DISTINCT order_id), 2) AS
Avg_Pizzas_per_order FROM pizza_orders;
```

# QUERY–6

**Daily Trend for Total Orders**



Results | Messages

| order_day | total_orders |
|---|---|
| Friday | 3538 |
| Monday | 2794 |
| Saturday | 3158 |
| Sunday | 2624 |
| Thursday | 3239 |
| Tuesday | 2973 |
| Wednesday | 3024 |

```
SELECT DAYNAME(order_date) AS order_day, COUNT(DISTINCT order_id) AS total_orders
FROM pizza_orders GROUP BY dayname(order_date);
```

# QUERY–7

## Monthly Trend for Total Orders

```
SELECT MONTHNAME(order_date) AS
Month_Name, COUNT(DISTINCT order_id) AS
Total_orders FROM pizza_orders GROUP BY
Month_Name;
```

| | 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 |

# QUERY–8

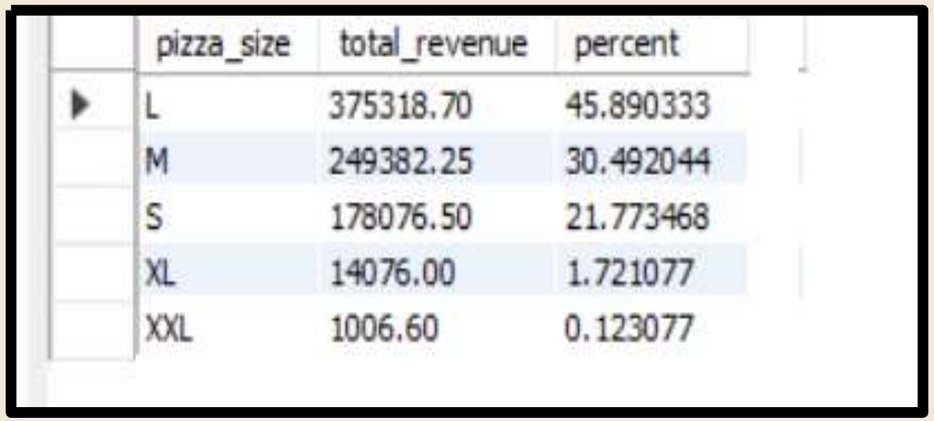
**% of Sales by Pizza Category**

| pizza_category | total_revenue | percent |
|---|---|---|
| Classic | 220053.10 | 26.905960 |
| Veggie | 193690.45 | 23.682591 |
| Supreme | 208197.00 | 25.456311 |
| Chicken | 195919.50 | 23.955138 |

```
SELECT pizza_category, SUM(total_price) AS total_revenue, (SUM(total_price) /
(SELECT SUM(total_price) FROM pizza_orders)) * 100 AS percent FROM
pizza_orders GROUP BY pizza_category;
```

# QUERY–9

**% of Sales by Pizza Size**



| pizza_size | total_revenue | percent |
|---|---|---|
| L | 375318.70 | 45.890333 |
| M | 249382.25 | 30.492044 |
| S | 178076.50 | 21.773468 |
| XL | 14076.00 | 1.721077 |
| XXL | 1006.60 | 0.123077 |

```
SELECT pizza_size, SUM(total_price) AS total_revenue,    (SUM(total_price) / (SELECT
SUM(total_price) FROM pizza_orders)) * 100 AS percent FROM  pizza_orders GROUP BY
pizza_size ORDER BY pizza_size;
```

# QUERY-10

**Total Pizzas Sold by Pizza Category**

Results | Messages

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

```
SELECT pizza_category, SUM(quantity) AS total_quantity_sold FROM
pizza_orders GROUP BY pizza_category;
```

# QUERY- 11

Top 5 Pizzas by Revenue


| | 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 |

```
SELECT pizza_name , SUM(total_price) AS Total_Revenue
FROM pizza_orders GROUP BY pizza_name ORDER BY
Total_Revenue DESC LIMIT 5 ;
```

# QUERY-12

Bottom 5 Pizzas by Revenue

| pizza_name | Total_Revenue |
|---|---|
| The Brie Carre Pizza | 11588.4998130798 |
| The Green Garden Pizza | 13955.75 |
| The Spinach Supreme Pizza | 15277.75 |
| The Mediterranean Pizza | 15360.5 |
| The Spinach Pesto Pizza | 15596 |

```
SELECT pizza_name , SUM(total_price) AS Total_Revenue
FROM pizza_orders GROUP BY pizza_name ORDER BY
Total_Revenue LIMIT 5 ;
```

# PART-2 (INSIGHTS)

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