

PIZZA SALES ANALYSIS USING MYSQL AND POWER BI

ANALYZE KEY INDICATORS
TO GAIN INSIGHTS INTO OUR
PIZZA BUSINESS
PERFORMANCE.



MySQL



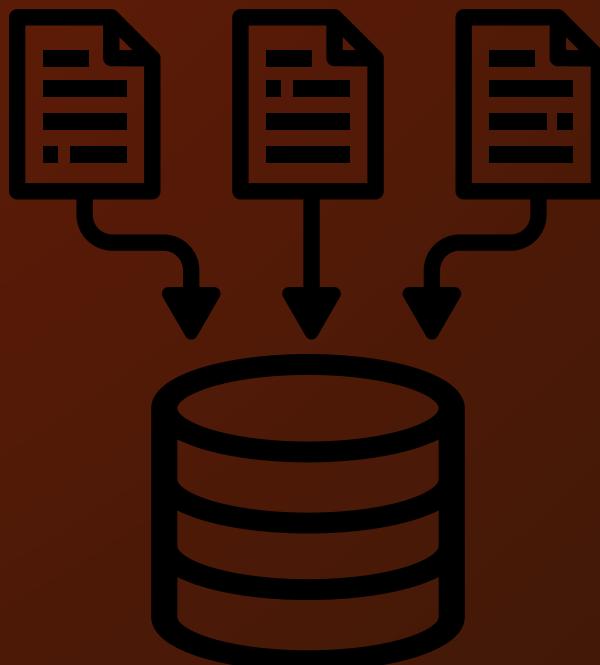
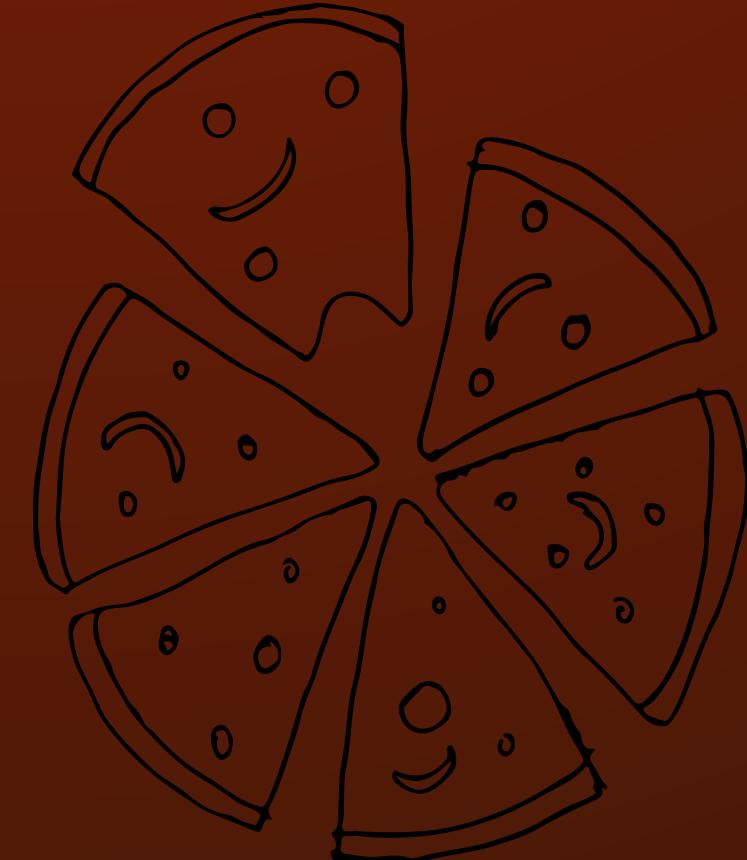
INTRODUCTION

ANALYZING PIZZA SALES USING SQL CAN PROVIDE VALUABLE INSIGHTS INTO CUSTOMER PREFERENCES, POPULAR ITEMS, SALES TRENDS OVER TIME, AND MORE. WHETHER YOU'RE WORKING WITH A SMALL PIZZERIA OR A CHAIN OF PIZZA RESTAURANTS, SQL CAN HELP YOU EXTRACT AND ANALYZE DATA FROM YOUR TRANSACTION RECORDS EFFICIENTLY.



PIZZAHUT DATABASE

- **PIZZAS** - PIZZA_ID, PIZZA_TYPE_ID, SIZE, PRICE
- **PIZZA TYPES** - PIZZA_TYPE_ID, NAME, CATEGORY, INGREDIENTS
- **ORDERS DETAILS** - ORDER_DETAILS_ID, ORDER_ID, PIZZA_ID, QUANTITY
- **ORDERS** - ORDER_ID, ORDER_DATE, ORDER_TIME



KPI'S REQUIREMENT

WE NEED TO ANALYZE KEY INDICATORS FOR OUR PIZZA SALES DATA TO GAIN INSIGHTS INTO OUR BUSINESS PERFORMANCE.

1. **TOTAL REVENUE:** THE SUM OF THE TOTAL PRICE OF ALL PIZZA ORDERS.
2. **AVERAGE ORDER VALUE:** THE AVG AMOUNT SPEND PER ORDER.
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 AVG NO. OF PIZZAS SOLD PER ORDER.



-- RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

```
SELECT COUNT(Order_ID) as Total_Orders FROM orders;
```

	Total_Orders
▶	21350



-- CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.

```
SELECT  
    ROUND(SUM((orders_details.quantity * pizzas.price)),  
          2) AS Total_Revenue  
FROM  
    orders_details  
    INNER JOIN  
    pizzas ON orders_details.Pizza_ID = pizzas.pizza_ID;
```



Result Grid	
	Total_Revenue
▶	817860.05

-- IDENTIFY THE HIGHEST-PRICED PIZZA.

```
SELECT MAX(price) as Highest_Priced_Pizza FROM pizzas;  
SELECT pizza_types.name, pizzas.price  
FROM pizza_types  
INNER JOIN pizzas  
ON pizza_types.pizza_type_Id = pizzas.pizza_type_ID  
ORDER BY pizzas.price DESC LIMIT 1;
```



	name	price
▶	The Greek Pizza	35.95

-- IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.

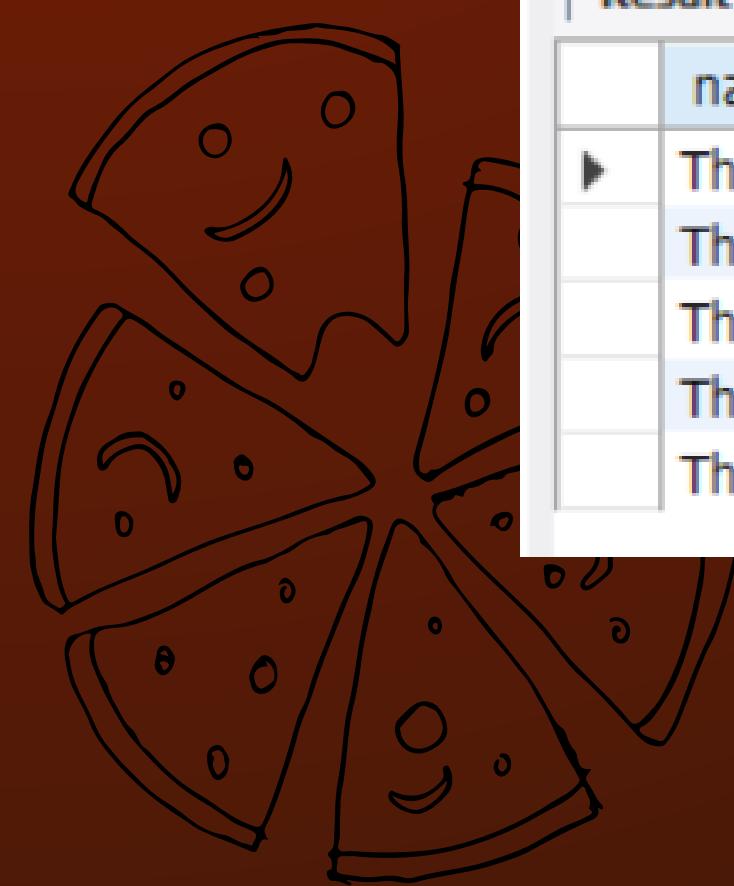
```
SELECT pizzas.size, COUNT(orders_details.order_details_ID) AS Order_Count
FROM pizzas
INNER JOIN orders_details
ON pizzas.pizza_ID = orders_details.pizza_ID
GROUP BY pizzas.size
ORDER BY Order_Count DESC ;
```



	size	Order_Count
▶	L	18526
	M	15385
	S	14137
	XL	544
	XXL	28

-- LIST THE TOP 5 MOST ORDERED PIZZA TYPES
ALONG WITH THEIR QUANTITIES.

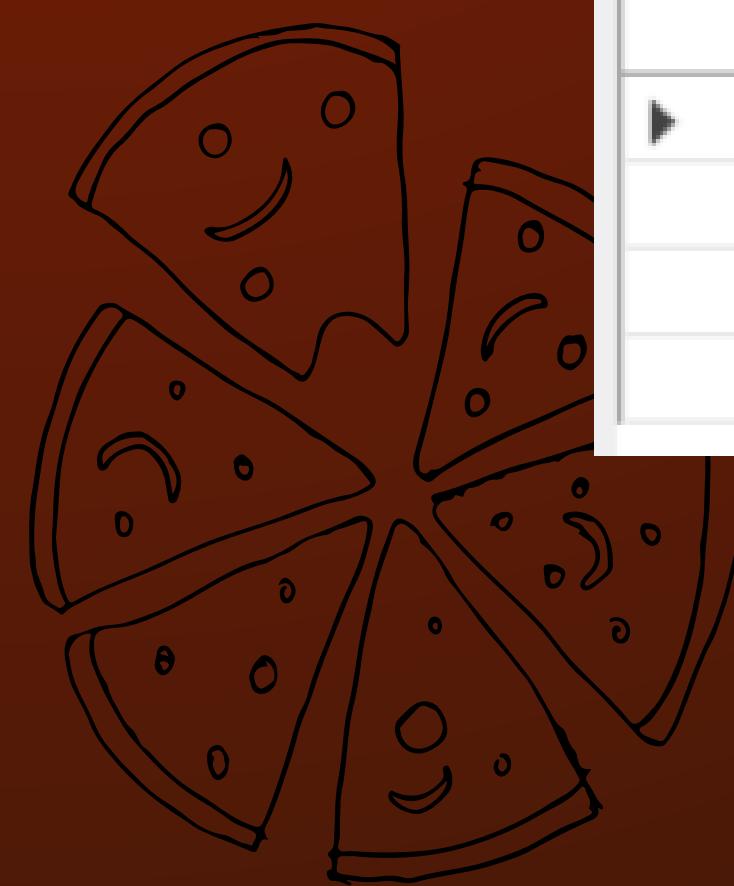
```
SELECT pizza_types.name, SUM(orders_details.quantity) AS Quantity
FROM pizza_types
INNER JOIN pizzas
ON pizza_types.pizza_type_ID = pizzas.pizza_type_ID
INNER JOIN orders_details
ON orders_details.pizza_ID = pizzas.pizza_ID
GROUP BY pizza_types.name
ORDER BY Quantity DESC LIMIT 5;
```



	name	Quantity
▶	The Classic Deluxe Pizza	2453
	The Barbecue Chicken Pizza	2432
	The Hawaiian Pizza	2422
	The Pepperoni Pizza	2418
	The Thai Chicken Pizza	2371

-- JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.

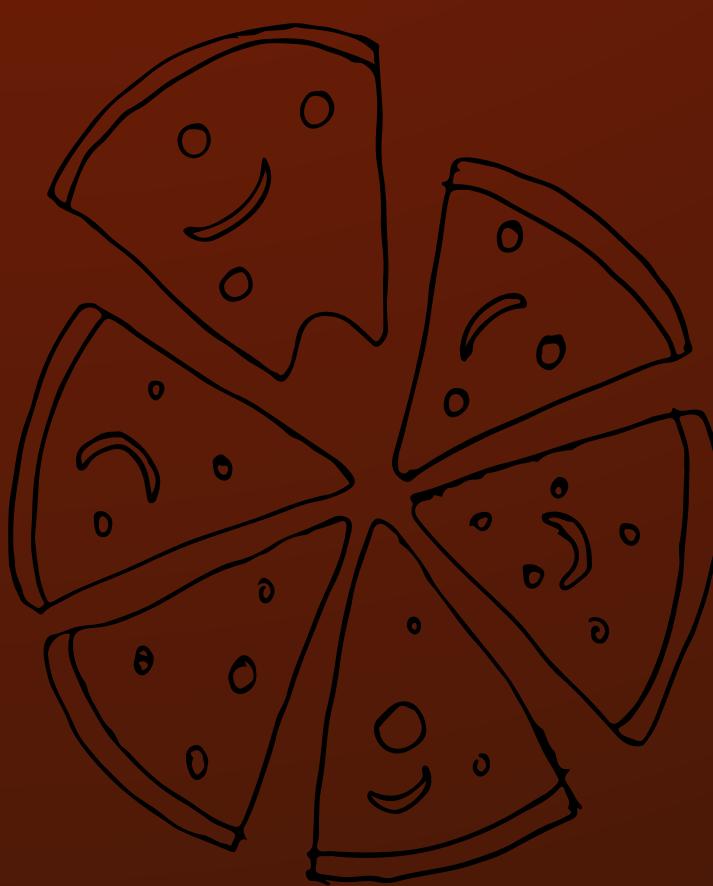
```
SELECT pizza_types.category, SUM(orders_details.quantity) AS Total_Quantity
FROM pizza_types
INNER JOIN pizzas
ON pizza_types.pizza_type_ID = pizzas.pizza_type_ID
INNER JOIN orders_details
ON orders_details.pizza_ID = pizzas.pizza_ID
GROUP BY pizza_types.category
ORDER BY Total_Quantity;
```



	category	Total_Quantity
▶	Chicken	11050
	Veggie	11649
	Supreme	11987
	Classic	14888

-- DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.

```
SELECT HOUR(Order_time) AS Hour, COUNT(Order_ID) AS Order_Count  
FROM orders  
GROUP BY HOUR(Order_time)  
ORDER BY Order_Count DESC;
```



	Hour	Order_Count
▶	12	2520
	13	2455
	18	2399
	17	2336
	19	2009
	16	1920
	20	1642
	14	1472
	15	1468
	11	1231
	21	1198
	22	663
	23	28
	10	8
	9	1

-- JOIN RELEVANT TABLES TO FIND THE
CATEGORY-WISE DISTRIBUTION OF PIZZAS

```
SELECT category, COUNT(name)  
FROM pizza_types  
GROUP BY category;
```



	category	COUNT(name)
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

-- GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.

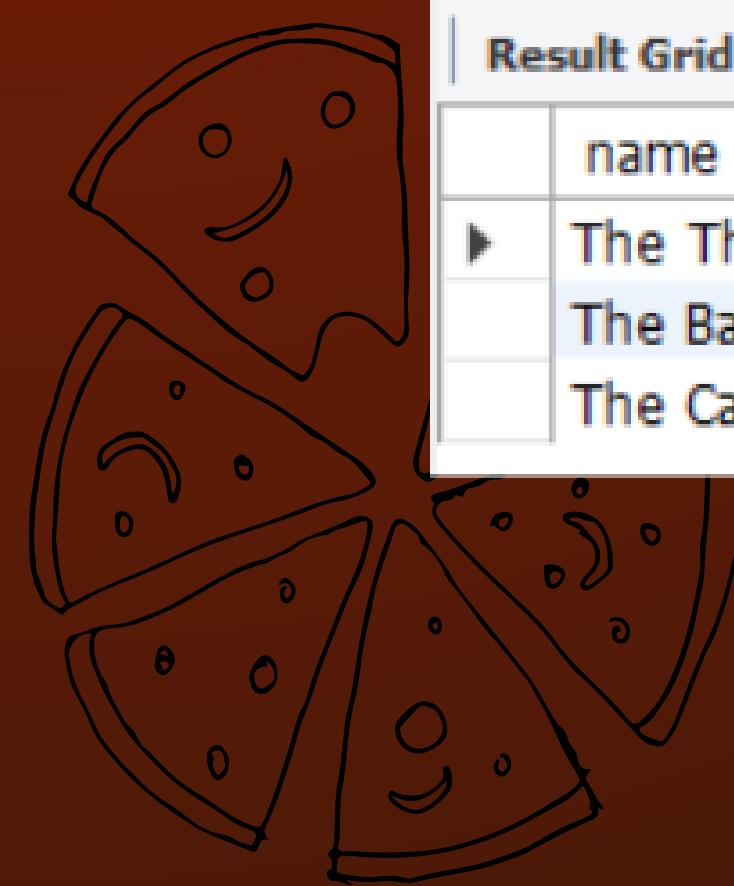
```
SELECT ROUND(AVG(quantity),0) AS Avg_Orders_Per_Day FROM  
  (SELECT orders.order_date, SUM(orders_details.quantity) AS quantity  
   FROM orders  
   INNER JOIN orders_details  
   ON orders.order_ID = orders_details.order_ID  
   GROUP BY orders.order_date) AS Order_quan;
```



	Avg_Orders_Per_Day
▶	138

-- DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES
BASED ON REVENUE.

```
SELECT pizza_types.name, SUM(orders_details.quantity * pizzas.price) AS Revenue
FROM pizza_types
INNER JOIN pizzas
ON pizza_types.pizza_type_ID = pizzas.pizza_type_ID
INNER JOIN orders_details
ON orders_details.pizza_ID = pizzas.pizza_ID
GROUP BY pizza_types.name
ORDER BY Revenue DESC LIMIT 3;
```



	name	Revenue
▶	The Thai Chicken Pizza	43434.25
	The Barbecue Chicken Pizza	42768
	The California Chicken Pizza	41409.5

-- CALCULATE THE PERCENTAGE CONTRIBUTION
OF EACH PIZZA TYPE TO TOTAL REVENUE.

```
SELECT pizza_types.category, ROUND((SUM(orders_details.quantity * pizzas.price)/  
(SELECT  
ROUND(SUM((orders_details.quantity * pizzas.price)),2) AS Total_Revenue  
FROM orders_details  
INNER JOIN pizzas  
ON orders_details.Pizza_ID = pizzas.pizza_ID))*100,2) AS Revenue  
FROM pizza_types  
INNER JOIN pizzas  
ON pizza_types.pizza_type_ID = pizzas.pizza_type_ID  
INNER JOIN orders_details  
ON orders_details.pizza_ID = pizzas.pizza_ID  
GROUP BY pizza_types.category  
ORDER BY Revenue DESC;
```



Result Grid | Filter Row

	Category	Revenue
▶	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68

-- ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.

```
SELECT order_date,  
SUM(Revenue) OVER (ORDER BY order_date) AS Cum_Revenue  
FROM  
(SELECT orders.order_date, ROUND(SUM(orders_details.quantity * pizzas.price),2) AS Revenue  
FROM orders_details  
INNER JOIN pizzas  
ON orders_details.pizza_ID = pizzas.pizza_ID  
INNER JOIN orders  
ON orders.order_ID = orders_details.order_ID  
GROUP BY orders.order_date) AS Rev;
```



	order_date	Cum_Revenue
▶	2015-01-01	2713.85
	2015-01-02	5445.75
	2015-01-03	8108.15
	2015-01-04	9863.6
	2015-01-05	11929.55
	2015-01-06	14358.5
	2015-01-07	16560.7
	2015-01-08	19399.05
	2015-01-09	21526.399999999998
	2015-01-10	23990.35
	2015-01-11	25862.649999999998
	2015-01-12	27781.699999999997
	2015-01-13	29831.299999999996

PIZZA SALES DASHBOARD

Pizza Sales Analysis



21.35K

Total_Orders

817.86K

Total_Revenue

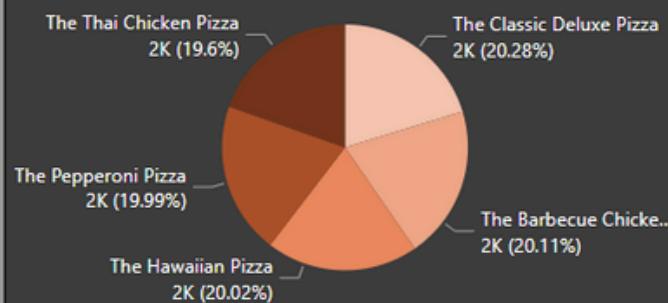
35.95

Highest_Price_Pizza

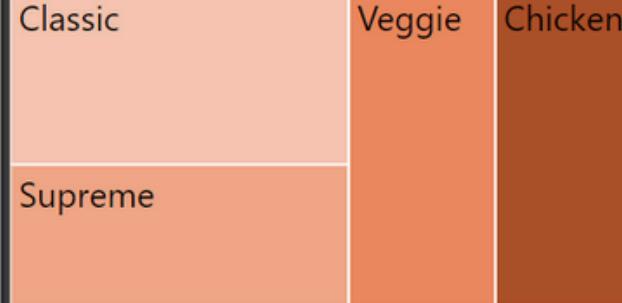
138.00

Avg_Orders_Per_Day

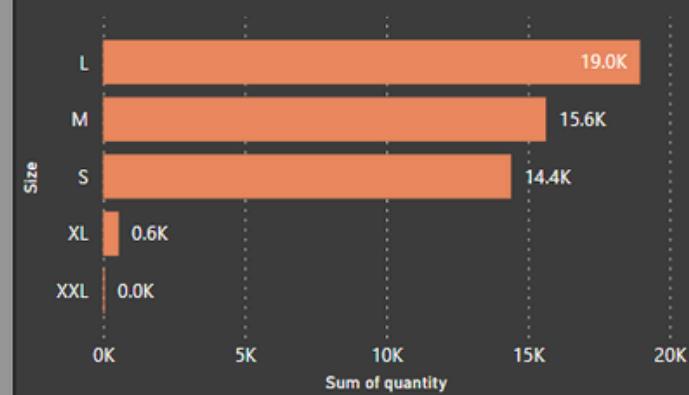
Sum of quantity by name



Sum of quantity by category



Common_Pizza_size_ordered



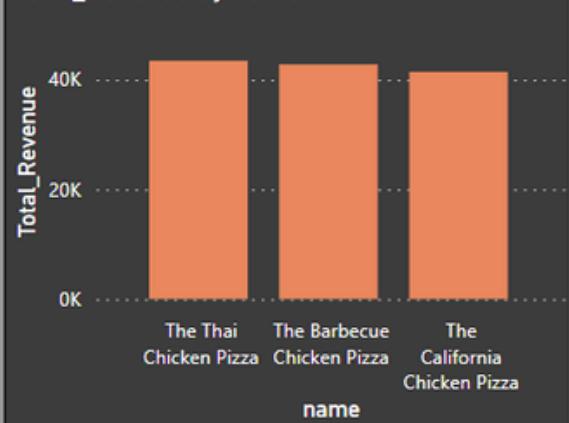
Chicken

Classic

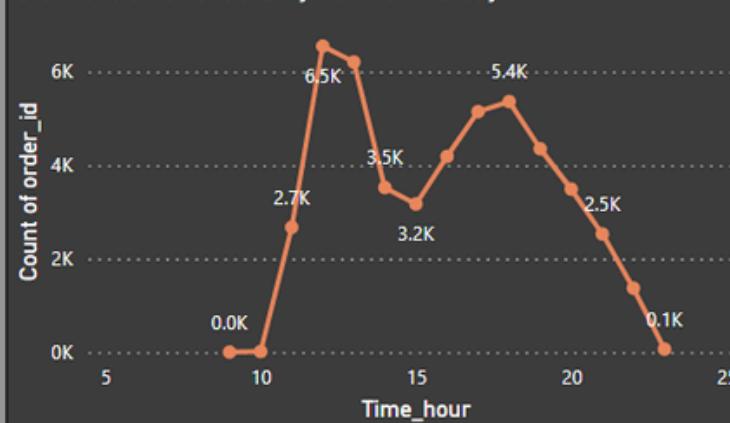
Supreme

Veggie

Total_Revenue by name



Distribution of Orders by hour of the day



Top 3 most ordered pizza types based on revenue for each pizza category

