

PIZZA SALES ANALYSIS



WELCOME TO PIZZA SALES ANALYSIS PROJECT

Hello, My name is Arpit Awasthi, and in this project, I have utilized SQL queries, MS Excel and Power Bi for cleaning, analysing and making an interactive dashboard for Pizza Sales. The aim was to uncover meaningful insights and trends that would aid in making informed business decisions and optimizing future sales strategies.



RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED

```
SELECT  
    COUNT(*) AS Total_orders  
FROM  
    orders;
```

OUTPUT

Result Grid	
	Total_orders
▶	21350

CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES

SELECT

ROUND(SUM(order_details.quantity * pizzas.price),
2) AS total_revenue

FROM

order_details

JOIN

pizzas ON order_details.pizza_id = pizzas.pizza_id;

OUTPUT

Result Grid	
	total_revenue
▶	817860.05

IDENTIFY THE HIGHEST-PRICED PIZZA

```
SELECT
    pizza_types.name AS Highest_rated_pizza,
    pizzas.price AS price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1;
```

OUTPUT

Result Grid | Filter Rows:

	Highest_rated_pizza	price
▶	The Greek Pizza	35.95

IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED

```
SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC
LIMIT 1;
```

OUTPUT

Result Grid | Filter

	size	order_count
▶	L	18526

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

```
SELECT
    pizza_types.name,
    SUM(order_details.quantity) as quantity
FROM
    pizza_types
    JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    JOIN
    order_details on order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;
```

OUTPUT

	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 AS Category,  
    SUM(order_details.quantity) AS quantity  
FROM  
    pizza_types  
        JOIN  
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id  
        JOIN  
    order_details ON order_details.pizza_id = pizzas.pizza_id  
GROUP BY Category  
ORDER BY quantity DESC;
```

OUTPUT

Result Grid | Filter

	Category	quantity
▶	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050

DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY

SELECT

```
HOUR(order_time) AS hour,  
COUNT(order_id) AS order_distribution
```

FROM

```
orders
```

GROUP BY HOUR(order_time);

OUTPUT

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

FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS

```
SELECT  
    category, COUNT(pizza_type_id) AS pizza_count  
FROM  
    pizza_types  
GROUP BY category;
```

OUTPUT

Result Grid | Filter Rows

	category	pizza_count
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

DETERMINE THE DAILY TREND

```
SELECT  
    DAYNAME(orders.order_date) AS order_day,  
    COUNT(distinct order_details.order_id) AS total_orders  
FROM  
    orders  
    JOIN  
    order_details ON orders.order_id = order_details.order_id  
group by order_day;
```

OUTPUT

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

DETERMINE THE MONTHLY TREND

```
SELECT  
    monthname(orders.order_date) AS month_name,  
    COUNT(distinct order_details.order_id) AS total_orders  
FROM  
    orders  
    JOIN  
        order_details ON orders.order_id = order_details.order_id  
    group by month_name;
```

OUTPUT

	month_name	total_orders
▶	April	1799
	August	1841
	December	1680
	February	1685
	January	1845
	July	1935
	June	1773
	March	1840
	May	1853
	November	1792
	October	1646
	September	1661

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE

```
SELECT
    pizza_types.name,
    ROUND(SUM(order_details.quantity * pizzas.price),
        2) AS revenue
FROM
    pizza_types
    JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY revenue DESC
LIMIT 3;
```

OUTPUT

Result Grid | Filter Rows:

	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(order_details.quantity * pizzas.price) / (SELECT
        ROUND(SUM(order_details.quantity * pizzas.price),
        2) AS total_revenue
    FROM
        order_details
        JOIN
        pizzas ON order_details.pizza_id = pizzas.pizza_id))*100,2) as revenue
FROM
    pizza_types
    JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY revenue DESC;
```

OUTPUT

	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 cumulative_revenue
```

```
from
```

```
(SELECT orders.order_date , SUM(order_details.quantity * pizzas.price) as revenue
```

```
from orders join order_details on orders.order_id = order_details.order_id join pizzas on pizzas.pizza_id = order_details.pizza_id group by orders.order_date) as total_revenue;
```

OUTPUT

Result Grid		
	order_date	cumulative_revenue
▶	2015-01-01	2713.8500000000004
	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	21526.4
	2015-01-10	23990.350000000002
	2015-01-11	25862.65
	2015-01-12	27781.7
	2015-01-13	29831.300000000003
	2015-01-14	32358.70000000004
	2015-01-15	34343.50000000001
	2015-01-16	36937.65000000001
	2015-01-17	39001.75000000001
	2015-01-18	40978.60000000006
	2015-01-19	43365.75000000001
	2015-01-20	45763.65000000001
	2015-01-21	47804.20000000001
	2015-01-22	50300.90000000001
	2015-01-23	52724.60000000006

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY

```
select name, revenue from
(select category,name,revenue, rank() over(partition by category order by revenue desc) as rn from
(select pizza_types.category,pizza_types.name,ROUND(SUM(order_details.quantity * pizzas.price),2) AS revenue
FROM
pizza_types
JOIN
pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN
order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category,pizza_types.name
ORDER BY revenue DESC) as a) as b
where rn <=3;
```

OUTPUT

	name	revenue
▶	The Thai Chicken Pizza	43434.25
	The Barbecue Chicken Pizza	42768
	The California Chicken Pizza	41409.5
	The Classic Deluxe Pizza	38180.5
	The Hawaiian Pizza	32273.25
	The Pepperoni Pizza	30161.75
	The Spicy Italian Pizza	34831.25
	The Italian Supreme Pizza	33476.75
	The Sicilian Pizza	30940.5
	The Four Cheese Pizza	32265.7
	The Mexicana Pizza	26780.75
	The Five Cheese Pizza	26066.5

PIZZA SALES DASHBOARD

Best & Worst Seller Pizzas >

BUSIEST DAYS & TIMES

Orders are highest on weekends, Friday/Saturday around midnoon and in evening.

Maximum orders are from month of July and January.

Total Revenue

817.86K

Total Orders

21350

Total Quantity Sold

49574

Avg Order Value

38.31

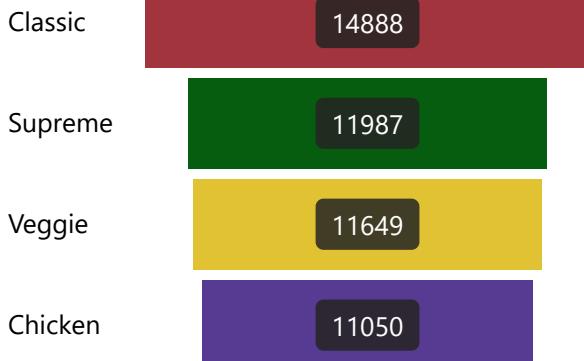
Most Ordered Size

Large

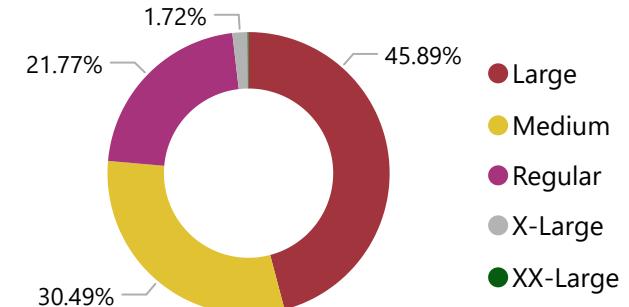
Date

All

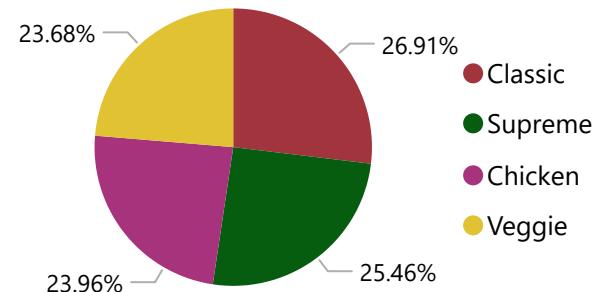
Total Pizza Sold By Category



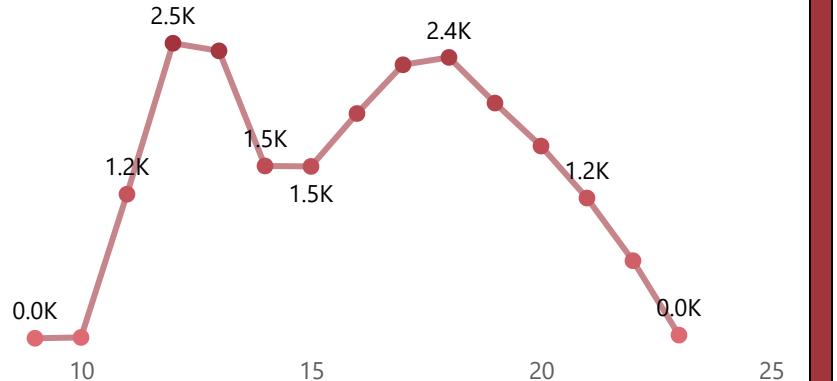
% Sales by Size



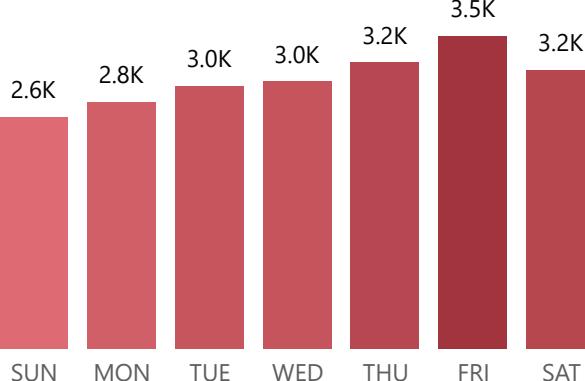
% Sales by Category



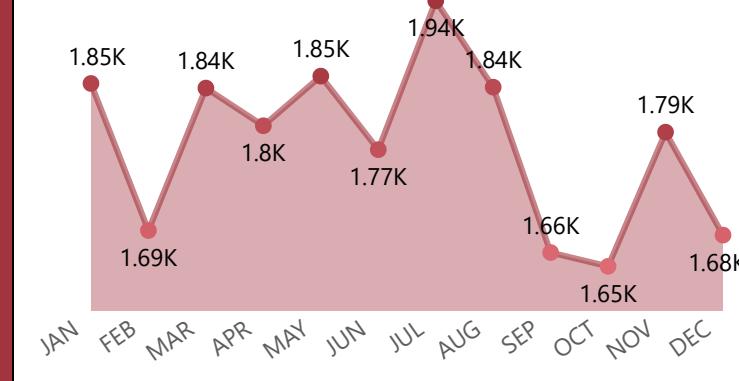
Hourly Order Distribution



Daily Trend for Total Orders



Monthly Trend For Total Orders



BEST & WORST SELLER PIZZAS



Category

All

Date

All



Home

BEST SELLERS

REVENUE

The Thai Chicken Pizza contributes to maximum Revenue.

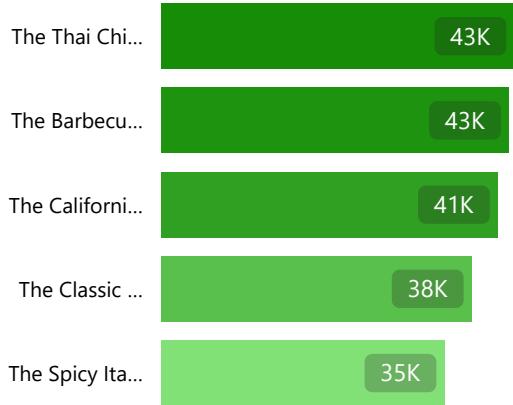
QUANTITY

The Classic Deluxe Pizza Contributes to maximum total quantities.

TOTAL ORDERS

The Classic Deluxe Pizza Contributes to maximum total Orders.

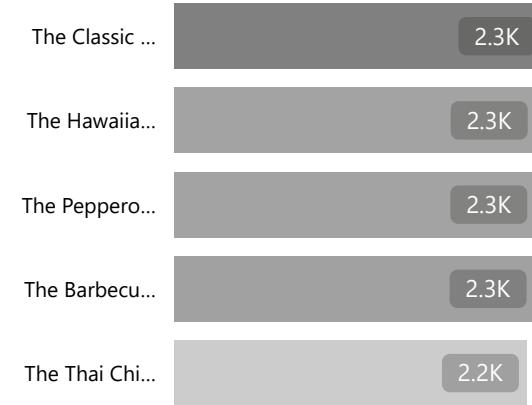
Top 5 Pizzas By Revenue



Top 5 Pizzas By Quantity Sold



Top 5 Pizzas By Total Orders



WORST SELLERS

REVENUE

The Brie Carre Pizza contributes to minimum Revenue.

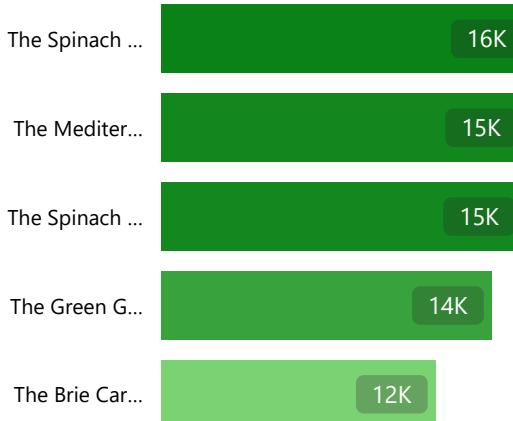
QUANTITY

The Brie Carre Pizza Contributes to minimum total quantities.

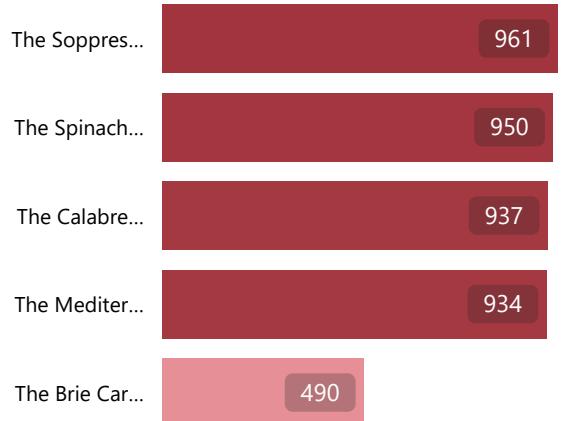
TOTAL ORDERS

The Brie Carre Pizza Contributes to minimum total Orders.

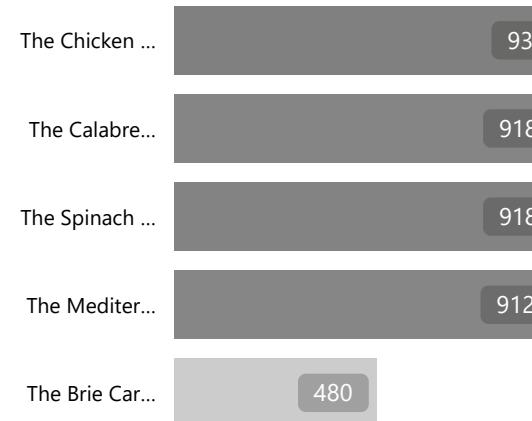
Bottom 5 Pizzas By Revenue



Bottom 5 Pizzas By Quantity Sold



Bottom 5 Pizzas By Total Orders



KEY TAKEAWAYS



1) UNDER PERFORMANCE OF XXL PIZZA

2) ORDERS TREND:

Orders are highest on weekends, Friday/Saturday around midnoon and in evening. Maximum orders are from month of July and January. Daily Peak orders are between 11 A.M. to 1 P.M. and then in evening at 6 P.M.

3) BEST SELLER PIZZA:

The Thai Chicken Pizza contributes to maximum Revenue.

The Classic Deluxe Pizza Contributes to maximum total quantities.

The Classic Deluxe Pizza Contributes to maximum total Orders.

4) WORST SELLER PIZZA:

The Brie Carre Pizza contributes to minimum Revenue.

The Brie Carre Pizza Contributes to minimum total quantities.

The Brie Carre Pizza Contributes to minimum total Orders.

5) MOST PREFERRED PIZZA SIZE IS LARGE

6) CHICKEN PIZZA CATEGORY:

The chicken category has only six pizza types, leading to fewer sales.

Expanding the category like others (supreme, veggies, classic) could boost sales.

THANK YOU!

