

# *Pizza Sales Analysis*

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# *Data Overview*

1. The present analysis used 4 CSV files including orders,order\_details,pizzas and pizza\_types which was available online.
2. “**order\_details**” file contain data of order\_detail\_id, order\_id, pizza\_id and quantity with 48,620 rows.
3. “**orders**” file contain data of order\_id, order\_date and order\_time with 21,350 rows.
4. “**pizza\_types**” file contain data of pizza\_type\_id,name,category,ingredients with 32 rows.
5. “**pizzas**” file contain data of pizza\_type\_id,pizza\_id,size and price with 96 rows.
6. 13 questions are answered using basic to advanced level SQL queries.
7. Related files are merged using joins to get the required output for different questions.

## *Objectives of the Study*

1. To carry out an Exploratory Data Analysis of pizza sales.
2. To find the the status of orders, sales and revenue on the basis of different criterias using present datasets.

## *Total Number Of Orders Placed*

```
select count(order_id) as Total_Orders  
from orders;
```

Total_Orders
21350



# *Total Revenue Generated From Pizza Sales*

```
select  
round(sum(od.quantity*p.price),2) as total_sales  
from pizzas p  
join order_details od  
on p.pizza_id=od.pizza_id;
```

total\_sales

817860.05



# *Highest-priced Pizza*

```
select pt.name, p.price as highest_price  
from pizzas p  
join pizza_types pt  
on p.pizza_type_id=pt.pizza_type_id  
group by pt.name,p.price  
order by p.price desc  
limit 1;
```

name	highest_price
The Greek Pizza	35.95

# *Most Common Pizza Size Ordered*

```
select p.size, count(od.quantity) as most_ordered  
from pizzas p  
join order_details od  
on p.pizza_id=od.pizza_id  
group by p.size  
order by most_ordered desc  
limit 1;
```

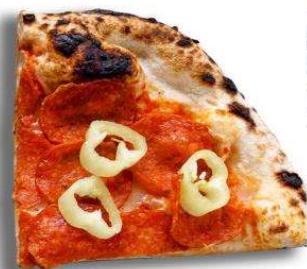
size	most_ordered
L	18526



# Top 5 Most Ordered Pizza types Along With Their Quantities

```
select pt.name,  
sum(od.quantity) as quantity  
from pizza_types pt join pizzas p  
on pt.pizza_type_id = p.pizza_type_id  
join order_details od  
on od.pizza_id = p.pizza_id  
group by pt.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



# Total Quantity Of Each Pizza Category Ordered

```
select pt.category,sum(od.quantity) as total_quantity  
from pizza_types pt  
join pizzas p  
on pt.pizza_type_id=p.pizza_type_id  
join order_details od  
on od.pizza_id=p.pizza_id  
group by pt.category  
order by total_quantity desc;
```

category	total_quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

# DISTRIBUTION OF ORDERS BY HOUR OF THE DAY

```
select hour(order_time) as hour,  
count(order_id) as quantity  
from orders  
group by hour  
order by quantity desc;
```

hour	quantity
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



# Category-wise Distribution Of Pizzas

```
select category, count(name) as distribution  
from pizza_types  
group by category  
order by distribution;
```

category	distribution
Chicken	6
Classic	8
Supreme	9
Veggie	9



# Average Number Of Pizzas Ordered Per Day

```
select round(avg(quantity),2) as avg_quantity from
(select o.order_date as date,
sum(od.quantity) as quantity
from orders o
join order_details od
on o.order_id=od.order_id
group by date) as per_day_qty;
```

avg_quantity
138.47



# Percentage Contribution Of Each Pizza Type To Total Revenue

```
select pt.category as pizza_category,  
concat(round(sum((p.price)*(od.quantity)) /  
(select round(sum((p.price)*(od.quantity))),2))  
from pizza_types pt  
join pizzas p  
on p.pizza_type_id = pt.pizza_type_id  
join order_details od  
on p.pizza_id=od.pizza_id)*100,2),'%') as revenue  
from pizza_types pt  
join pizzas p  
on p.pizza_type_id = pt.pizza_type_id  
join order_details od  
on p.pizza_id=od.pizza_id  
group by pizza_category;
```

pizza_type	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 Spicy Italian Pizza	34831.25
The Southwest Chicken Pizza	34705.75
The Italian Supreme Pizza	33476.75
The Hawaiian Pizza	32273.25
The Four Cheese Pizza	32265.7
The Sicilian Pizza	30940.5
The Pepperoni Pizza	30161.75
The Greek Pizza	28454.1
The Mexicana Pizza	26780.75
The Five Cheese Pizza	26066.5
The Pepper Salami Pizza	25529
The Italian Capocollo Pizza	25094
The Vegetables + Vegetable...	24374.75
The Prosciutto and Arugula ...	24193.25
The Napolitana Pizza	24087
The Spinach and Feta Pizza	23271.25
The Big Meat Pizza	22968
The Pepperoni, Mushroom, ...	18834.5
The Chicken Alfredo Pizza	16900.25
The Chicken Pesto Pizza	16701.75
The Soppressata Pizza	16425.75
The Italian Vegetables Pizza	16019.25
The Calabrese Pizza	15934.25
The Spinach Pesto Pizza	15596
The Mediterranean Pizza	15360.5
The Spinach Supreme Pizza	15277.75
The Green Garden Pizza	13955.75
The Brie Carre Pizza	11588.5



# Cumulative Revenue Generated Over Time

```
select date,
       sum(revenue) over(order by date) as cum_revenue
  from
    (select o.order_date as date,
            round(sum((p.price)*(od.quantity)),2) as revenue
       from order_details od
      join pizzas p
        on p.pizza_id = od.pizza_id
      join orders o
        on o.order_id = od.order_id
     group by o.order_date) as sales;
```



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	21526.4
2015-01-10	23990.35
2015-01-11	25862.65
2015-01-12	27781.7
2015-01-13	29831.3
2015-01-14	32358.7
2015-01-15	34343.5



# Top 3 Most Ordered Pizza Types Based On Revenue For Each Pizza Category



```

select category,
       name as most_ordered_pizza_type,
       revenue from
       (select category, name, revenue,
              rank() over(partition by category order by revenue desc) as rn
         from
       (select pt.category, pt.name,
              round((p.price)*(od.quantity)), 2) as revenue
         from pizza_types pt
        join pizzas p
          on p.pizza_type_id = pt.pizza_type_id
        join order_details od
          on p.pizza_id=od.pizza_id
       group by pt.category, pt.name) x) y
      where y.rn<=3;
    
```

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



## ***Summary and Findings***

- Total order count calculated using order table and it is found 21,350.
- Total revenue generated from pizza sales is found to be Rs.8,17,860.
- Highest prized pizza is found to be Greek pizza amounting Rs.35.95.
- Most commonly ordered size pizza is found to be 'L' size with the quantity ordered 18,526.
- Top 5 most ordered pizza types are found to be 'Classic Delux Pizza' with 2453, 'Barbeque Chicken pizza' with 2432, 'The Hawaiian pizza' with 2422, 'Pepperoni Pizza with 2418, 'The Thai Chicken Pizza' with 2371.
- The total quantity of each pizza category ordered is found to be Classic 14888, Supreme 11987, Veggie 11649, Chicken 111050.
- In the distribution of orders by hour of the day the peak hour with highest number of orders is found to be 12 o' clock with 2520 quantity and minimum orders with only 1 is found at 9 o' clock.
- In category wise distribution of pizza veggie pizza has got the maximum with 9 and chicken pizza got the minimum with 6.
- The avg number of pizzas ordered per day is found to be approximately 138.
- In the percentage contribution in revenue 'Thai Chicken Pizza' has contributed the most with Rs.43434 followed by 'Barbeque Chicken Pizza and 'Brie Crre Pizza' has contributed the least with Rs.11,588.
- There is found to be a constant rise in the cumulative revenue over time and it is found to be Rs.8,17860 at the end of the month.
- In top 3 most ordered pizza types based on revenue is found to be Chicken categories is found to be on top, followed by classic and veggie categories was found at the bottom.

*Thank-you  
for your Time*

