

# PIZZA SALES ANALYSIS

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# WELCOME



## STOP AND LOOK JUST ONCE

### INTRODUCTION

The pizza industry is a highly competitive market, with numerous players vying for customer attention. Pizza chains need to analyze their sales data to stay ahead of the competition and identify trends, patterns, and areas for improvement.

This project aims to analyze the pizza sales data of a fictional pizza chain, Pizza Palace, to provide insights to inform business decisions.

# BUSINESS CASE

This business case outlines the key objectives, requirements, and expected outcomes of a pizza sales report that will help us make data-driven decisions to optimize our menu, pricing, and marketing strategies.

- Retrieve the total number of orders placed to understand the overall sales volume.
- Calculate the total revenue generated from pizza sales to determine the financial performance.
- Identify the highest-priced pizza to inform pricing strategies.
- Identify the most common pizza size ordered to optimize menu offerings.
- List the top 5 most ordered pizza types along with their quantities.
- Total quantity of each pizza category ordered to understand category-wise sales.
- Determine the distribution of orders by hour of the day to identify peak hours
- find the category-wise distribution of pizzas to understand customer preferences.
- Group the orders by date and find average number of pizzas ordered per day
- Determine the top 3 most ordered pizza types based on revenue
- Calculate the percentage contribution of each pizza type to total revenue
- Analyze the cumulative revenue generated over time to understand the sales trend
- Determine the top 3 most ordered pizza types based on revenue

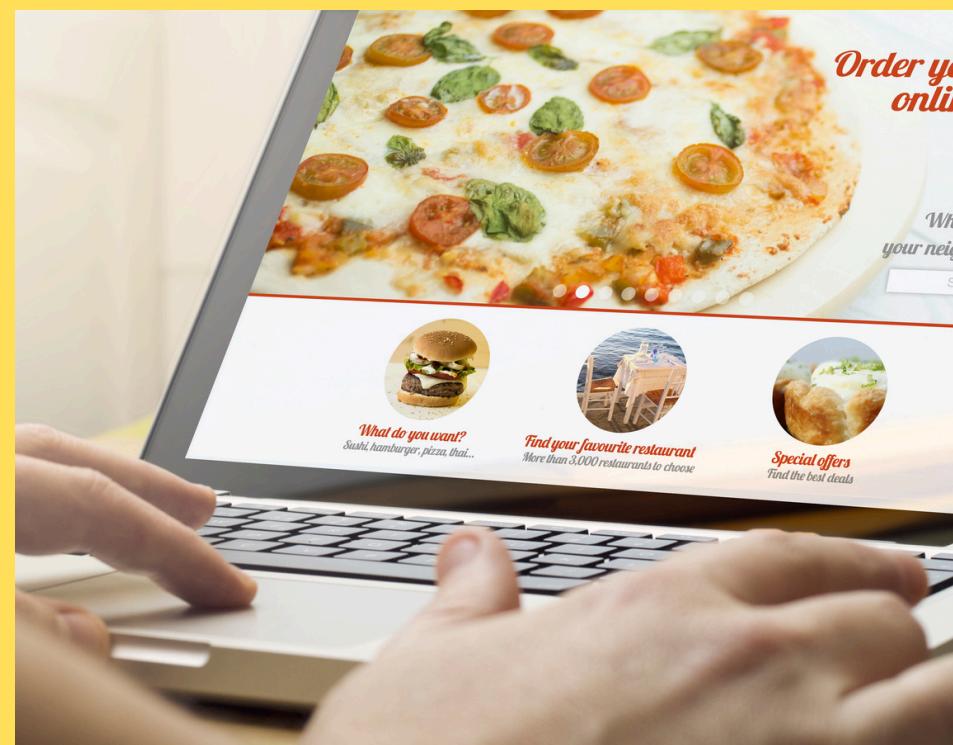


# MODEL VIEW

## E-R DIAGRAM



# 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 cast(sum(od.quantity * p.price)  
as decimal(10,2)) as total_revenue  
from order_details od  
left join pizzas p  
on od.pizza_id = p.pizza_id
```

total\_revenue  
817860.05



# IDENTIFY THE HIGHEST-PRICED PIZZA.



```
select top 1 pt.name, cast(max(p.price)  
as decimal(10,2)) as highest_priced  
from pizza_types pt join pizzas p  
on pt.pizza_type_id = p.pizza_type_id  
group by pt.name  
order by highest_priced desc
```

\$35.95

name	highest_priced
The Greek Pizza	35.95

# IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.

```
select p.size ,  
count(od.order_details_id) as  
no_of_orders  
from order_details od left join pizzas p  
on od.pizza_id = p.pizza_id  
group by p.size  
order by no_of_orders desc
```



size	no_of_orders
L	18526
M	15385
S	14137
XL	544
XXL	28



SUPREME PIZZA

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



```
select top 5 pt.name,sum(od.quantity) as  
no_of_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 no_of_quantity desc
```

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

# FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.

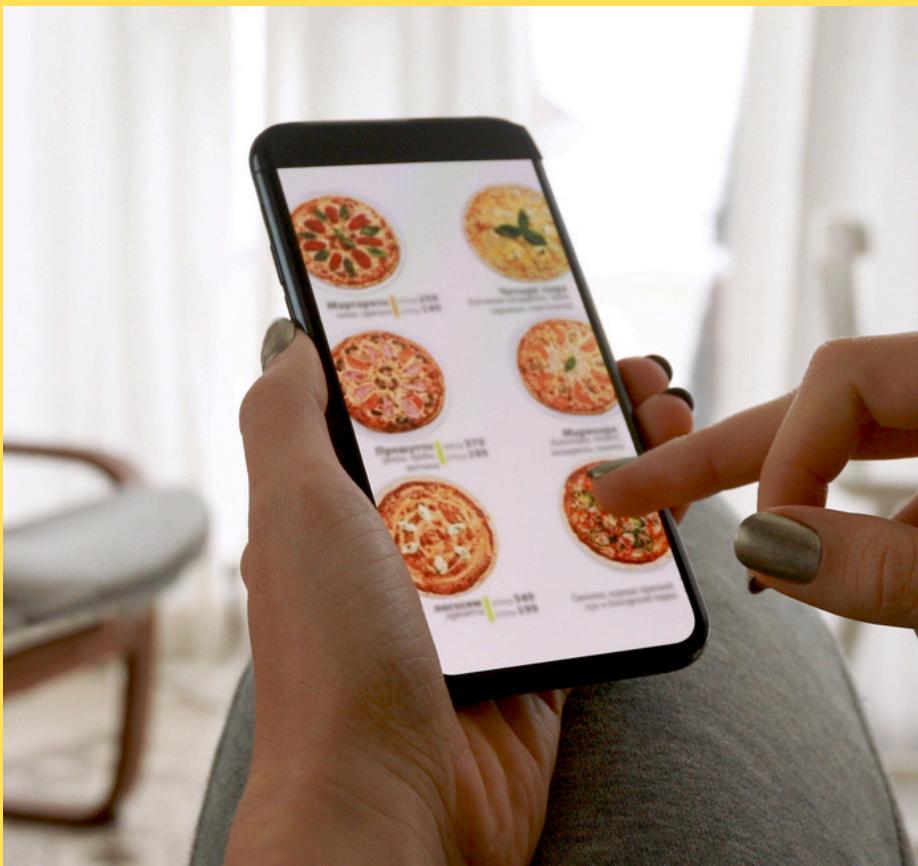


```
select pt.category,sum(od.quantity) as no_of_quantity  
from pizza_types pt join pizzas p  
on pt.pizza_type_id = p.pizza_type_id  
join order_details od  
on od.pizza_id = p.pizza_id  
group by pt.category  
order by no_of_quantity desc
```

category	no_of_quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050



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



```
select datepart(hour,time) as  
order_hour, count(order_id) as  
order_count  
from orders  
group by datepart(hour,time)  
order by order_count desc
```

order_hour	order_count
12	2520
13	2455
18	2399
17	2336
19	2009
16	1920
20	1642
14	1472

# FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS.

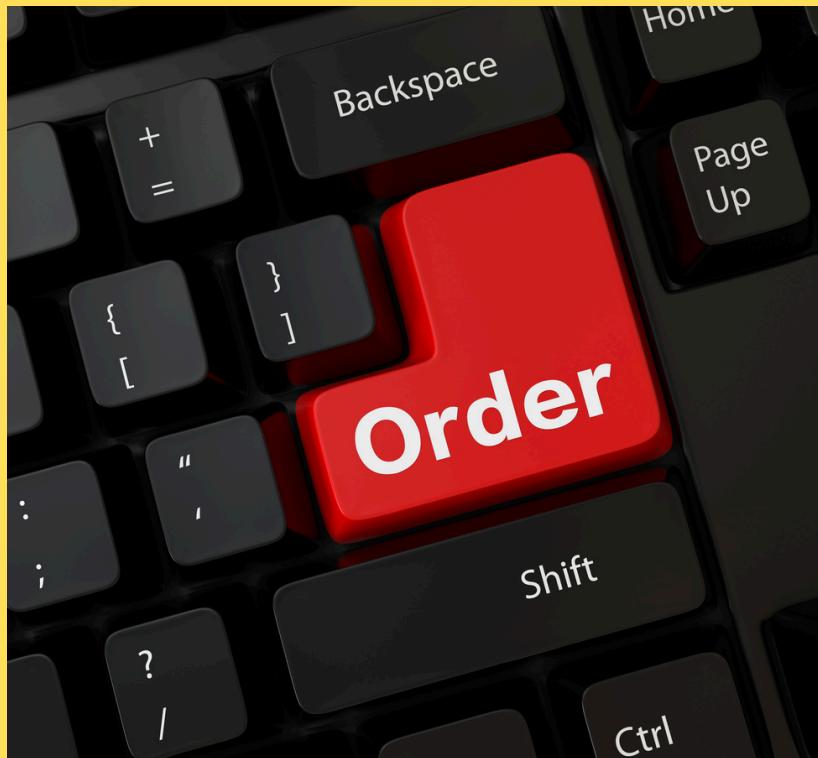


```
select category , count(name) as total  
from pizza_types  
group by category
```



category	total
Chicken	6
Classic	8
Supreme	9
Veggie	9

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



```
select avg(quantity) as  
avg_pizza_per_day  
from  
(select o.date,sum(od.quantity) as quantity  
from orders o join order_details od  
on o.order_id = od.order_id  
group by o.date ) as subquery
```

avg\_pizza\_per\_day  
138

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



```
select top 3 pt.name , cast(sum(od.quantity *  
p.price)as decimal(10,2)) as revenue  
from pizza_types pt join pizzas p  
on pt.pizza_type_id = p.pizza_type_id join  
order_details od  
on p.pizza_id = od.pizza_id  
group by pt.name  
order by revenue desc
```

name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768.00
The California Chicken Pizza	41409.50

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



```
select pt.category , cast(cast(sum(od.quantity * p.price) as decimal(10,2)) / (select cast(sum(od.quantity * p.price) as decimal(10,2)) from order_details od join pizzas p on od.pizza_id = p.pizza_id)*100 as decimal(10,2)) as revenue from pizza_types pt join pizzas p on pt.pizza_type_id = p.pizza_type_id join order_details od on p.pizza_id = od.pizza_id group by pt.category order by revenue desc
```

category	revenue
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

# ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.



```
select date,cast(sum(revenue) over(order by date) as decimal(10,2)) as cumulative_revenue  
from  
(select o.date, sum(od.quantity * p.price) as  
revenue  
from order_details od join pizzas p  
on od.pizza_id = p.pizza_id join orders o  
on o.order_id = od.order_id  
group by o.date) as subquery
```

date	cumulative_revenue
2015-01-01	2713.85
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.60
2015-01-05	11929.55
2015-01-06	14358.50
2015-01-07	16560.70
2015-01-08	19399.05
2015-01-09	21526.40
2015-01-10	23990.35
2015-01-11	25862.65
2015-01-12	27781.70

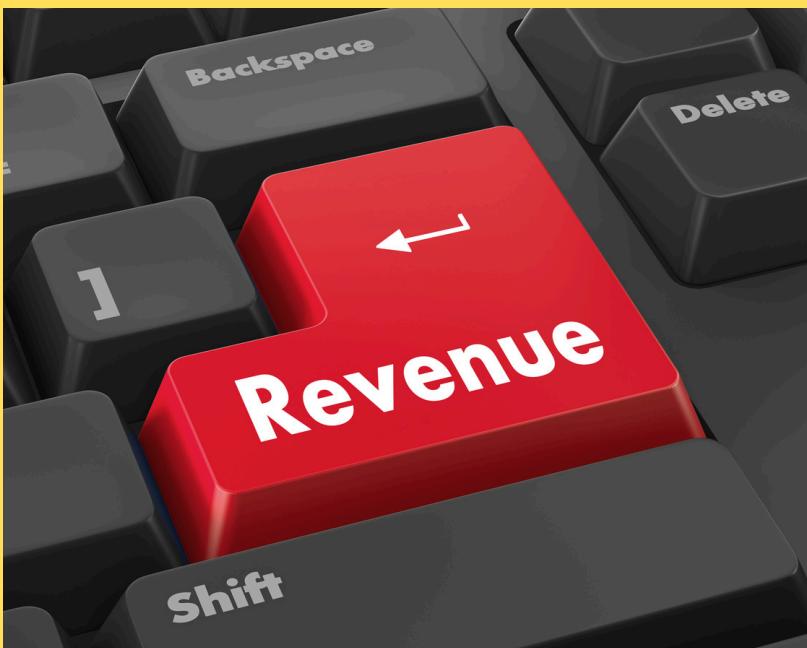
## DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.



```
select name, revenue
from
(select category,name,revenue, rank() over(partition by
category order by revenue desc) as rn
from
(select pt.category, pt.name, cast(sum(od.quantity *
p.price)as decimal(10,2)) as revenue
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,pt.name) as subquery) as query
where rn <= 3;
```

name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768.00
The California Chicken Pizza	41409.50
The Classic Deluxe Pizza	38180.50
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	30940.50
The Four Cheese Pizza	32265.70
The Mexicana Pizza	26780.75
The Five Cheese Pizza	26066.50

# Conclusion



**THE PIZZA SALES REPORT WILL PROVIDE VALUABLE INSIGHTS INTO OUR SALES DATA, ENABLING US TO MAKE INFORMED DECISIONS TO DRIVE BUSINESS GROWTH AND PROFITABILITY. BY ACHIEVING THE OBJECTIVES OUTLINED IN THIS BUSINESS CASE, WE CAN OPTIMIZE OUR MENU, PRICING, AND MARKETING STRATEGIES TO IMPROVE CUSTOMER SATISFACTION, INCREASE REVENUE, AND MAINTAIN OUR COMPETITIVE EDGE IN THE PIZZA INDUSTRY.**

# HAVE A GREAT DAY



## CONTACT

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