



PIZZA RESTAURANT

PIZZA SALES ANALYSIS

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INTRODUCTION

THE PIZZA SALES ANALYSIS PROJECT USES SQL TO EXPLORE SALES DATA FROM A PIZZA RESTAURANT. IT IDENTIFIES TOP-SELLING PIZZAS, PEAK SALES PERIODS, AND CUSTOMER PREFERENCES. BY ANALYZING TRENDS IN SALES PERFORMANCE AND CUSTOMER BEHAVIOR, THE PROJECT PROVIDES ACTIONABLE INSIGHTS TO IMPROVE MENU OFFERINGS, OPTIMIZE MARKETING, AND ENHANCE BUSINESS DECISIONS.



RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

```
SELECT  
    COUNT(order_id) AS total_orders  
FROM  
    orders;
```



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
```

Result Grid			
	total_revenue		
▶	817860.05		

IDENTIFY THE HIGHEST-PRICED PIZZA.

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

Result Grid			Filter Rows:	
	name	price		
▶	The Greek Pizza	35.95		



IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.



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

Result Grid			Filter
	order_count	size	
▶	18526	L	

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

```
SELECT
    pizza_types.name,
    SUM(order_details.quantity) AS total_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 total_quantity DESC
LIMIT 5
```

Result Grid	Filter Rows:
name	total_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(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
```

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), COUNT(order_id)
FROM
    orders
GROUP BY HOUR(order_time)
```

Result Grid			Filter Rows:
	HOUR(order_time)	COUNT(order_id)	
	11	1231	
	12	2520	
	13	2455	
	14	1472	
	15	1468	
	16	1920	
	17	2336	
	18	2399	
	19	2009	
	20	1642	
	21	1198	

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

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

Result Grid			Filter Rows
	category	COUNT(name)	
▶	Supreme	9	
	Veggie	9	
	Classic	8	
	Chicken	6	



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

```
SELECT
    ROUND(AVG(quantity), 0) AS Avg_pizza_sales_per_day
FROM
    (SELECT
        orders.order_date, SUM(order_details.quantity) AS quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date) AS order_quantity;
```

Result Grid		Filter Rows:
	Avg_pizza_sales_per_day	
▶	138	

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

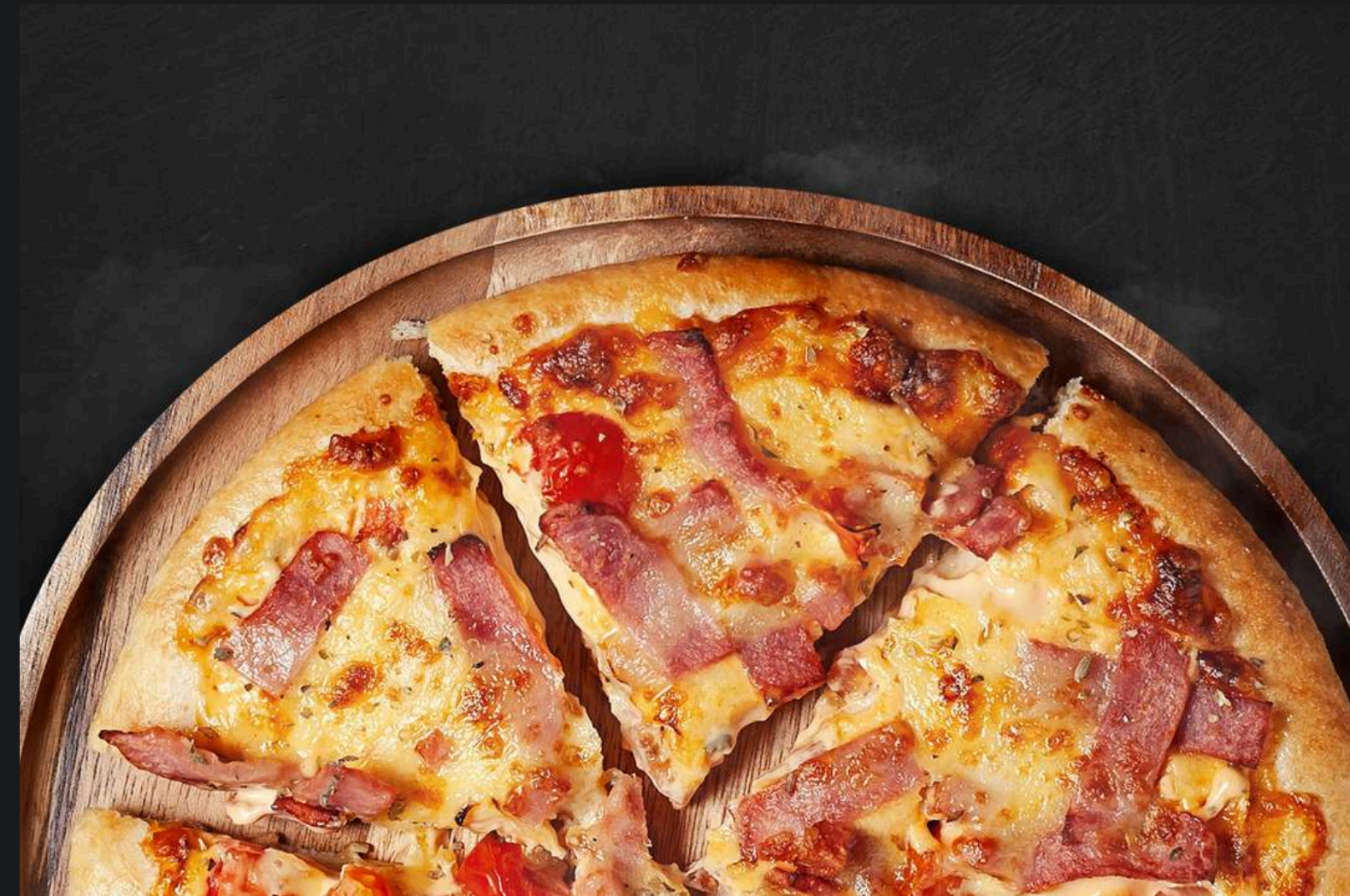
```
SELECT
    pizza_types.name,
    SUM(order_details.quantity * pizzas.price) AS pizza_revenue
FROM
    order_details
    JOIN
    pizzas ON order_details.pizza_id = pizzas.pizza_id
    JOIN
    pizza_types ON pizza_types.pizza_type_id = pizzas.pizza_type_id
GROUP BY pizza_types.name
ORDER BY pizza_revenue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

Result Grid			Filter Rows:	
	name	pizza_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
```

Result Grid			Filter
	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(order_details.quantity * pizzas.price),2) 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 sales
```

Result Grid			Filter Rows:
	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	

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

```
select category ,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 , sum(order_details.quantity * pizzas.price) 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 ) as a ) as b
where rn <=3
```



Result Grid				Filter Rows:	Export:
	category	name	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	32265.70000000065		





THANK
YOU