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Pizza Sales

As a data enthusiast and pizza enthusiast , I'm thrilled to present our SQL-powered exploration into the world of pizza sales. Through meticulous analysis and data-driven insights, we aim to uncover the hidden ingredients behind customer preferences, optimize operational efficiency, and ultimately, deliver a piping hot slice of success to our pizza enterprise.



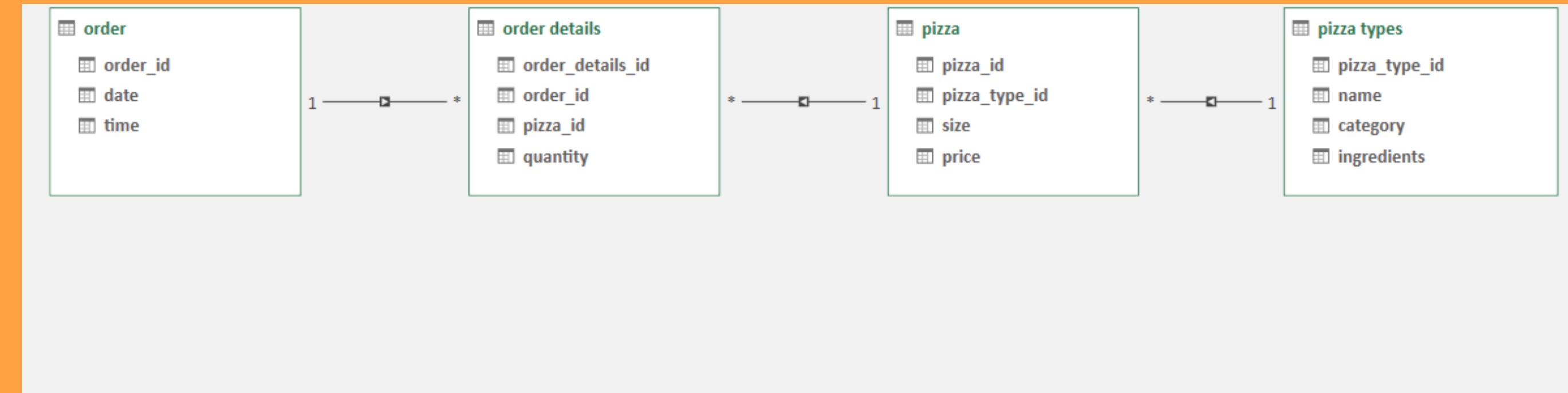
Overview

Through SQL analysis of our pizza sales data, we've uncovered key insights. These include the total number of orders, average pizzas per order, and the most popular pizza types. Additionally, by categorizing orders, we've identified trends in customer preferences, guiding menu decisions and marketing strategies for improved business performance.



Unlocking Pizza Sales Insights Through Data Modeling

Using data modeling techniques, we structure our pizza sales data to understand relationships between orders, pizzas, and customer preferences. This modeling enables us to extract actionable insights and make informed business decisions.



Retrieve total no of order placed

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



Result Grid	
	Total_Orders
▶	21350

Calculate total revenue generated from pizza sales

```
select round(sum(order_details.quantity*pizzas.price),2) as Total_Sales  
From  
order_details  
join  
pizzas on pizzas.pizza_id = order_details.pizza_id
```

Total_Sales
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 pizzas.price desc  
limit 1;
```

	name	price
▶	The Greek Pizza	35.95



Identify the most common pizza size ordered

```
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;
```



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

list the top 5 most ordered pizza types along with their quantity.

```
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;
```



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

join 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 pizza_types.category
order by quantity desc;
```

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050



Determine the distribution of order by hour of the day.

```
select  
hour(time)as hour,count(order_id) as order_count  
from orders  
group by hour(time);
```

hour	order_count
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;
```

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_pizza_ordered_per_day
from
(select
    orders.date,sum(order_details.quantity) as quantity
    from
    orders
    join order_details on orders.order_id = order_details.order_id
    group by orders.date)as order_quantity;
```

avg_pizza_ordered_per_day

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Determine the top 3 most ordered pizza types based on revenue

```
select pizza_types.name,  
sum(order_details.quantity * pizzas.price) as revenue  
from  
pizza_types join pizzas  
on pizzas.pizza_type_id = pizza_types.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;
```

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_sales  
from  
order_details  
join  
pizzas on pizzas.pizza_id = order_details.pizza_id)* 100,2) as revenue  
from pizza_types join pizzas  
on pizzas.pizza_type_id = pizza_types.pizza_type_id  
join order_details  
on order_details.pizza_id = pizzas.pizza_id  
group by pizza_types.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,  
sum(revenue) over (order by date) as cum_revenue  
from  
(select date,  
sum(order_details.quantity * pizzas.price) as revenue  
from order_details join pizzas  
on order_details.pizza_id = pizzas.pizza_id  
join orders  
on orders.order_id = order_details.order_id  
group by date) as sales;
```



date	cum_revenue
2015-01-01	2713.850000000004
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	22890.35000000007

Thank You

