

• DATA ANALYSIS USING SQL



TOPIC - PIZZA SALES



I'm **Aaditya Prajapt**, a passionate data analytics with a knack for turning raw data into actionable insights. Recently, I had the opportunity to dive deep into the world of SQL through a project on **pizza sales analysis.** 

This project allowed me to:

Write complex queries to extract meaningful insights from large datasets.

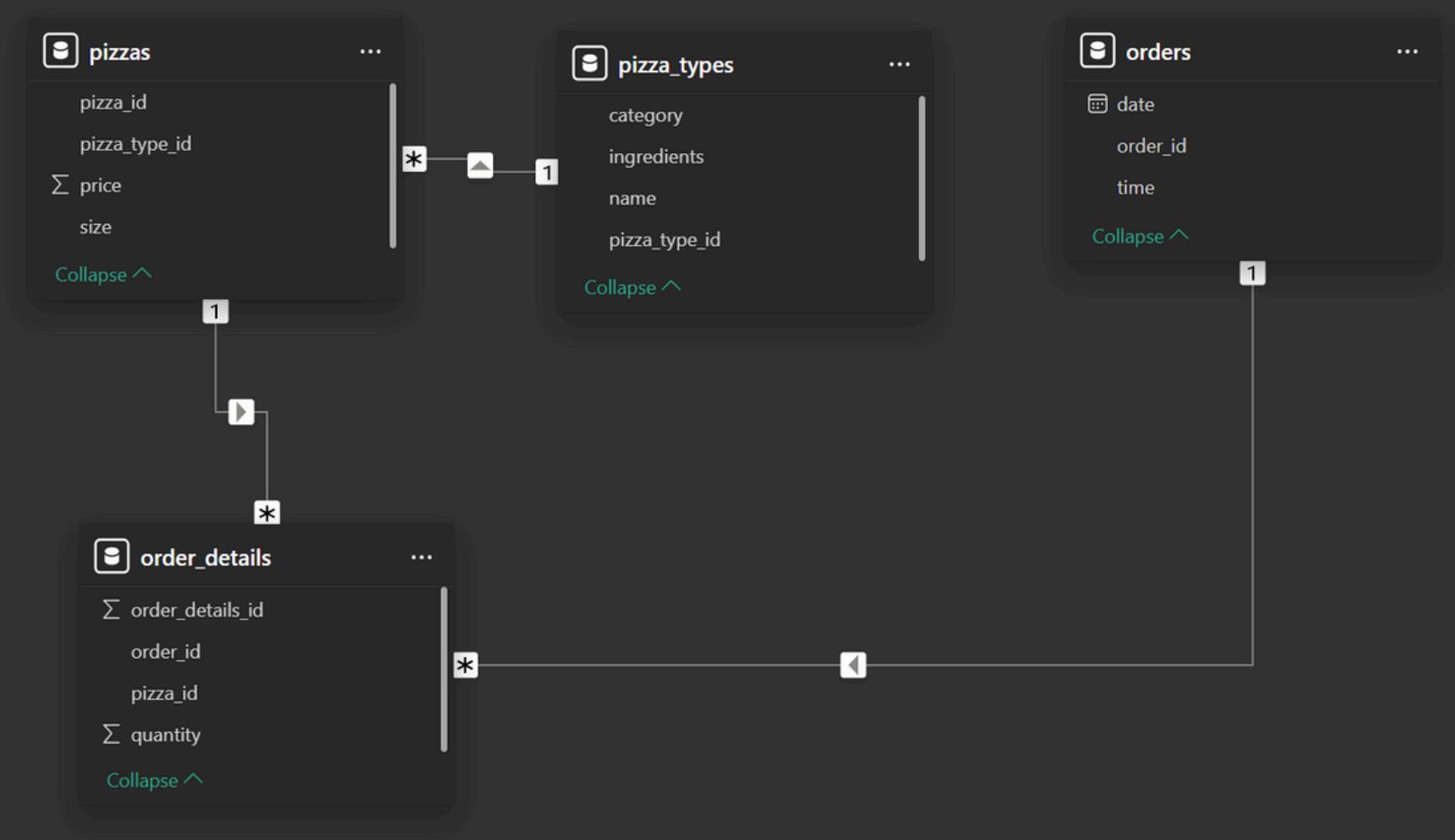
Analyze sales trends, customer preferences, and operational efficiencies.

Develop a data-driven approach to identify growth opportunities for businesses.

With each query and visualization, I discovered the power of data in solving real-world problems. This experience has strengthened my skills in SQL, data modeling, and storytelling with data—essential tools for driving decision-making.

I'm excited to connect with like-minded professionals and explore opportunities to apply my skills to new challenges. Let's connect and share our journeys in data! 

DATA MODEL



BASIC QUESTIONS

Q)1 RETRIVE THE TOTAL NUMBER OF ORDERS PLACED ?

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

	total_orders
▶	21350

Q)2 CALCULATE TOTAL REVENUE GENERATED FROM PIZZA SALES

```
SELECT  
    SUM(order_details.quantity * pizzas.price)  
FROM  
    order_details  
    JOIN  
    pizzas ON pizzas.pizza_id = order_details.pizza_id
```

	SUM(order_details.quantity * pizzas.price)
▶	817860.049999993

Q) 3 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

Q)4 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;
```

	name	price
▶	The Greek Pizza	35.95

Q)5 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 ;
```

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

INTERMEDIATE QUESTIONS

Q) JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY ?

```
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 | ;
```

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

Q)2 DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY ?

```
select hour (order_time) as hour , count(order_id)
from orders group by hour (order_time)
```

	hour	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
	22	663
	23	28
	10	8
	9	1

Q)3 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

Q)4 GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NO. OF PIZZAS ORDERED PER DAY ?

```
SELECT round(avg(quantity),0)as avg_pizza_ordered_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;
```

	avg_pizza_ordered_per_day
▶	138

Q5 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

ADVANCED PROBLEMS

Q)1 ANALYSE THE CUMULATIVE REVENUE GENERATED OVER TIME ?

```
select order_date ,  
sum(revenue)over (order by order_date) as cum_revenue  
from  
(select orders.order_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 orders.order_date) as sales ; |
```

	order_date	cum_revenue
▶	2015-01-01	2713.8500000000004
	2015-01-02	5445.75
	2015-01-03	2015-01-02
	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	32358.700000000004
	2015-01-15	34343.50000000001
	2015-01-16	36937.65000000001
	2015-01-17	39001.75000000001
	2015-01-18	40978.600000000006
	2015-01-19	43365.75000000001
	2015-01-20	45763.65000000001
	2015-01-21	47804.20000000001
	2015-01-22	50300.90000000001
	2015-01-23	52724.60000000001

Q)2 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 ,  
   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 ;
```

	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	32265.70000000065
	The Mexicana Pizza	26780.75
	The Five Cheese Pizza	26066.5

THANK YOU