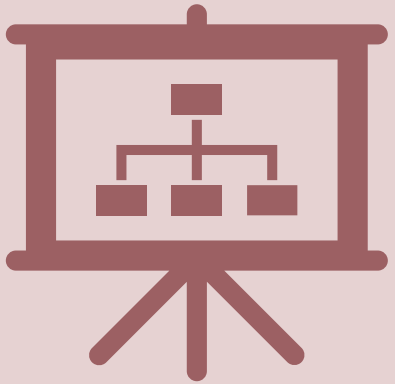


SQL PROJECT ON PIZZA SALES ANALYSIS

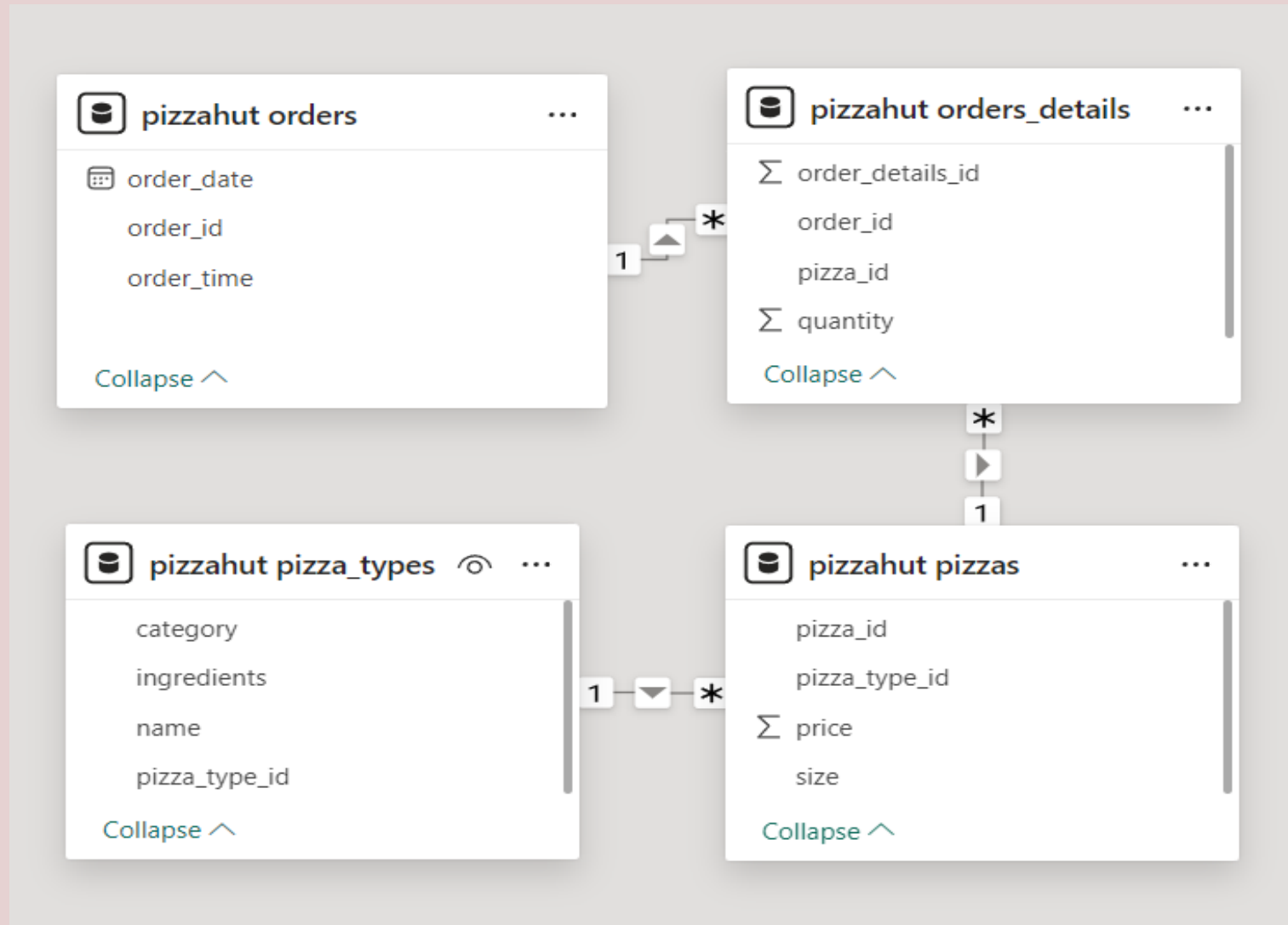


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OBJECTIVES


To utilize SQL queries to analyze and address various questions related to pizza sales. By querying the data, I extracted insights on revenue distribution, category performance, and sales trends. This analysis provided valuable information for understanding and optimizing pizza sales strategies.

ABOUT DATABASE MODEL





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(orders_details.quantity * pizzas.price),
          2) AS total_revenue
FROM
    orders_details
    JOIN
    pizzas ON pizzas.pizza_id = orders_details.pizza_id;
```

Result Grid			
	total_revenue		
▶	766930.6		

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.

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

	order_count	size
▶	17373	L

List the top 5 most ordered pizza types along with their quantities.

```
SELECT
    pizza_types.name, SUM(orders_details.quantity) AS quantity
FROM
    pizza_types
    JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;
```

	name	quantity
►	The Classic Deluxe Pizza	2291
	The Barbecue Chicken Pizza	2289
	The Pepperoni Pizza	2275
	The Hawaiian Pizza	2262
	The Thai Chicken Pizza	2212

Join the necessary tables to find the total quantity of each pizza category ordered.

```
SELECT
    pizza_types.category,
    SUM(orders_details.quantity) AS total_quantity
FROM
    pizza_types
    JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    JOIN
    orders_details ON pizzas.pizza_id = orders_details.pizza_id
GROUP BY pizza_types.category;
```

	category	total_quantity
▶	Classic	13945
	Veggie	10925
	Supreme	11252
	Chicken	10359

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

Join relevant tables to find the category-wise distribution of pizzas.

```
SELECT  
    COUNT(name), category  
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
    AVG(quantity)
FROM
    (SELECT
        orders.order_date, SUM(orders_details.quantity) AS quantity
    FROM
        orders
    JOIN orders_details ON orders.order_id = orders_details.order_id
    GROUP BY orders.order_date) AS order_quantity;
```

	AVG(quantity)
▶	139.1647

Determine the top 3 most ordered pizza types based on revenue.

```
SELECT
    name,
    ROUND(SUM(orders_details.quantity * pizzas.price),
          2) AS total_revenue
FROM
    orders_details
    JOIN
    pizzas ON pizzas.pizza_id = orders_details.pizza_id
    JOIN
    pizza_types ON pizza_types.pizza_type_id = pizzas.pizza_type_id
GROUP BY name
ORDER BY total_revenue DESC
LIMIT 3;
```

	name	total_revenue
►	The Thai Chicken Pizza	40443
	The Barbecue Chicken Pizza	40232.75
	The California Chicken Pizza	38604

Calculate the percentage contribution of each pizza type to total revenue.

```
SELECT
    pizza_types.category,
    ROUND(SUM(orders_details.quantity * pizzas.price) / (SELECT
        ROUND(SUM(orders_details.quantity * pizzas.price),
            2) AS total_sales
        FROM
            orders_details
            JOIN
            pizzas ON orders_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
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY revenue;
```

	category	revenue
▶	Veggie	23.69
	Chicken	23.94
	Supreme	25.48
	Classic	26.89

Analyze the cumulative revenue generated over time.

```
select order_date, ROUND(sum(revenue) over (order by order_date ),2) as cum_rev from
(SELECT orders.order_date, sum(orders_details.quantity* pizzas.price) as revenue
from orders_details join pizzas
on orders_details.pizza_id = pizzas.pizza_id join orders
on orders.order_id = orders_details.order_id
group by orders.order_date) as sales;
```

	order_date	cum_rev
▶	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

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 rnk from
(select pizza_types.category, pizza_types.name, sum(orders_details.quantity * pizzas.price)
as revenue from pizzas
join orders_details on orders_details.pizza_id = pizzas.pizza_id
join pizza_types on pizza_types.pizza_type_id = pizzas.pizza_type_id
group by pizza_types.category, pizza_types.name) as a) as b
where rnk <= 3;
```

	category	name	revenue
►	Chicken	The Thai Chicken Pizza	40443
	Chicken	The Barbecue Chicken Pizza	40232.75
	Chicken	The California Chicken Pizza	38604
	Classic	The Classic Deluxe Pizza	35627.5
	Classic	The Hawaiian Pizza	30133.25
	Classic	The Pepperoni Pizza	28382.5
	Supreme	The Spicy Italian Pizza	32761.25
	Supreme	The Italian Supreme Pizza	31518
	Supreme	The Sicilian Pizza	28877
	Veggie	The Four Cheese Pizza	30223.700000000586
	Veggie	The Mexicana Pizza	25293.5
	Veggie	The Five Cheese Pizza	24808.5