



SHODWE
Pizza Resto

PIZZA HUT

- WHERE EVERY SLICE TELLS A STORY
 - Analysis by Manav Gulati



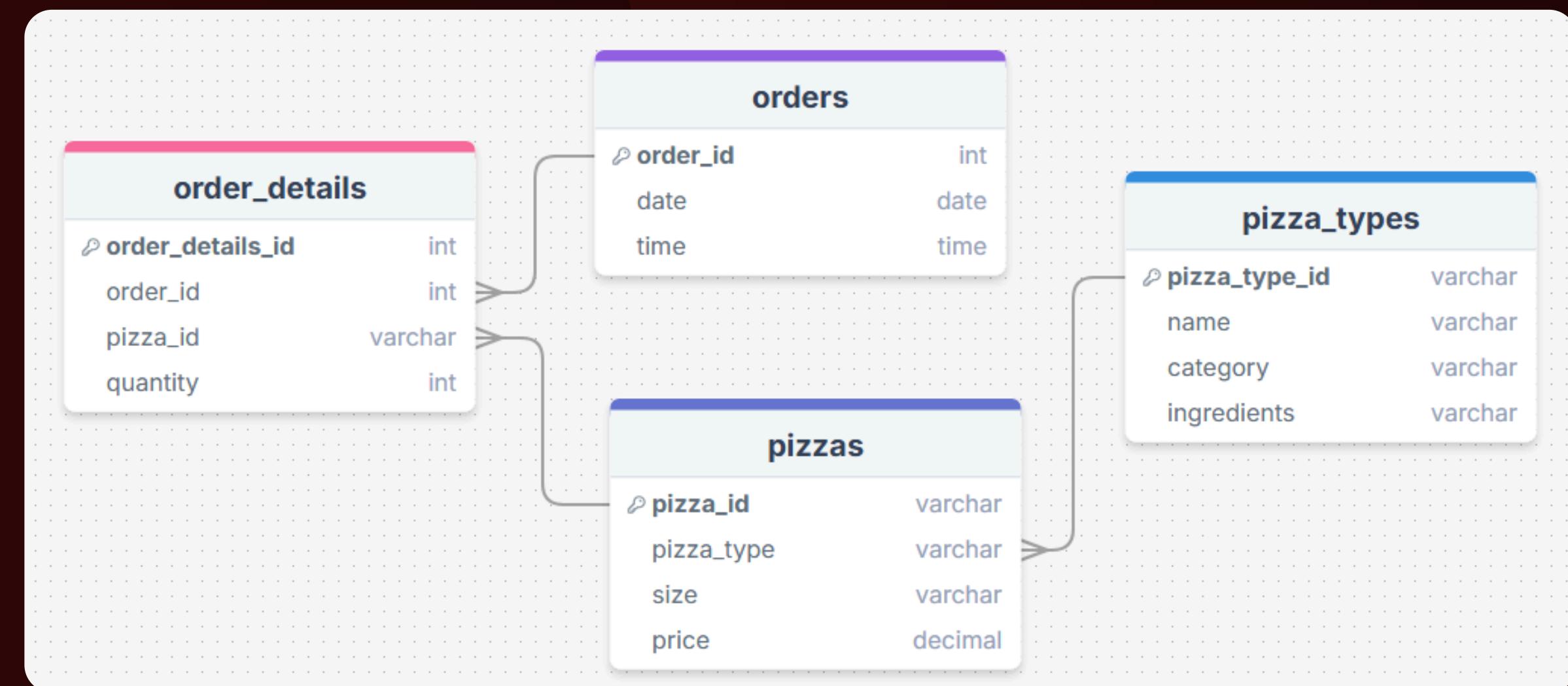


INTRODUCTION

This project leverages SQL to perform an end-to-end analysis of a pizza sales dataset. The objective is to uncover key business insights such as the highest-revenue pizza categories, top-selling products, peak sales hours, and month-wise performance trends.



DATASET OVERVIEW





Retrieve the total number of orders placed.

```
SELECT COUNT(*) AS [total_orders]  
FROM orders;
```



total_orders
21350



Calculate the total revenue generated from pizza sales.

```
SELECT  
    SUM(quantity * prize) [revenue]  
FROM order_details a  
JOIN pizzas b  
ON a.pizza_id = b.pizza_id;
```



revenue
817860.05



Identify the highest-priced pizza.

```
SELECT  
    [name],  
    prize  
FROM pizzas a  
JOIN pizza_types b  
ON a.pizza_type = b.pizza_type_id  
WHERE prize = (SELECT MAX(prize) FROM pizzas);
```



name	prize
The Greek Pizza	35.95



Identify the most common pizza size ordered.

```
SELECT TOP 1 WITH TIES
    size,
    COUNT(*) [Total_orders]
FROM order_details AS [od]
JOIN pizzas AS [p] ON od.pizza_id = p.pizza_id
GROUP BY size
ORDER BY Total_orders DESC;
```



size	Total_orders
L	18526



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

```
SELECT TOP 5 WITH TIES
    [name],
    SUM(quantity) AS [quantites_sold]
FROM pizzas AS [p]
JOIN order_details AS [od] ON p.pizza_id = od.pizza_id
JOIN pizza_types AS [pt] ON pt.pizza_type_id = p.pizza_type
GROUP BY [name]
ORDER BY quantites_sold DESC;
```



name	quantites_sold
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

```
category,  
SUM(quantity) AS [qty_ordered]  
FROM pizza_types AS [pt]  
JOIN pizzas AS [p] ON pt.pizza_type_id = p.pizza_type  
JOIN order_details AS [od] ON p.pizza_id = od.pizza_id  
GROUP BY category  
ORDER BY qty_ordered DESC;
```



category	qty_ordered
Classic	13529
Supreme	11987
Veggie	11649
Chicken	11050
Mushroom	1359



Determine the distribution of orders
by hour of the day.

```
SELECT  
    DATEPART(HOUR, time) AS [hour_of_day],  
    COUNT(*) [orders]  
FROM orders  
GROUP BY DATEPART(HOUR, time)  
ORDER BY Hour_of_day;
```



hour_of_day	orders
9	1
10	8
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



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

```
SELECT  
    category,  
    COUNT(*) AS [pizzas]  
FROM pizza_types  
GROUP BY category;
```



category	pizzas
Mushroom	1
Chicken	6
Classic	7
Supreme	9
Veggie	9



Group the orders by date and calculate the average number of pizzas ordered per day.

```
WITH CTE_ORDER_BY_DATE AS
(
    SELECT
        [date],
        SUM(quantity) [qty_ordered]
    FROM orders AS [o]
    JOIN order_details AS [od] ON o.order_id = od.order_id
    GROUP BY [date]
)
SELECT
    DATENAME(WEEKDAY,[date]) AS [weekday],
    AVG(qty_ordered) [avg_qty_ordered]
FROM CTE_ORDER_BY_DATE
GROUP BY DATENAME(WEEKDAY,[date]), DATEPART(WEEKDAY, [date])
ORDER BY DATEPART(WEEKDAY, [date]);
```



weekday	avg_qty_ordered
Sunday	116
Monday	135
Tuesday	132
Wednesday	133
Thursday	143
Friday	164
Saturday	144



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

```
SELECT TOP 3 WITH TIES
    [name],
    FORMAT(SUM(prize * quantity), 'N2') [revenue]
FROM pizzas AS [p]
JOIN order_details AS [od] ON p.pizza_id = od.pizza_id
JOIN pizza_types AS [pt] ON p.pizza_type = pt.pizza_type_id
GROUP BY [name]
ORDER BY revenue DESC;
```



name	revenue
The Thai Chicken Pizza	43,434.25
The Barbecue Chicken Pizza	42,768.00
The Califomia Chicken Pizza	41,409.50



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

```
WITH CTE_REVENUE AS
(
    SELECT
        SUM(quantity * prize) [total_revenue]
    FROM order_details AS [od]
    JOIN pizzas AS [p] ON od.pizza_id = p.pizza_id
)
SELECT
    [name],
    FORMAT(SUM(quantity * prize)/cr.total_revenue, 'P2') AS
        [revenue_percentage]
FROM order_details AS [od]
JOIN pizzas AS [p] ON od.pizza_id = p.pizza_id
JOIN pizza_types AS [pt] ON p.pizza_type = pt.pizza_type_id
CROSS JOIN CTE_REVENUE AS [cr]
GROUP BY [name], cr.total_revenue
ORDER BY revenue_percentage DESC;
```



name	revenue_percentage
The Thai Chicken Pizza	5.31%
The Barbecue Chicken Pizza	5.23%
The California Chicken Pizza	5.06%
The Classic Deluxe Pizza	4.67%
The Spicy Italian Pizza	4.26%
The Southwest Chicken Piz...	4.24%
The Italian Supreme Pizza	4.09%
The Four Cheese Pizza	3.95%
The Hawaiian Pizza	3.95%
The Sicilian Pizza	3.78%



Analyze the cumulative revenue generated over time.

```
WITH CTE_MONTHLY AS
(
    SELECT
        DATEPART(MONTH, date) AS [month_no],
        DATENAME(MONTH, date) AS [month_name],
        SUM(quantity * prize) AS [revenue]
    FROM orders AS [o]
    JOIN order_details AS [od] ON o.order_id = od.order_id
    JOIN pizzas AS [p] ON od.pizza_id = p.pizza_id
    GROUP BY DATEPART(MONTH, date), DATENAME(MONTH, date)
)
SELECT
    month_name,
    SUM(revenue) OVER (ORDER BY month_name) AS [revenue]
FROM CTE_MONTHLY
ORDER BY month_no;
```



month_name	revenue
January	336669.10
February	266875.80
March	547854.30
April	68736.80
May	619257.05
June	477457.20
July	409227.00
August	137015.05
September	817860.05
October	753680.00
November	689652.40
December	201716.20



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

```
WITH CTE_REVENUE_BY_CATEGORY_TYPE AS
(
    SELECT
        category,
        [name] AS [pizza_type],
        SUM(quantity * prize) AS [revenue],
        RANK() OVER (PARTITION BY category ORDER BY SUM(quantity * prize) DESC) AS
            [rank_no]
    FROM pizza_types AS [pt]
    JOIN pizzas AS [p] ON pt.pizza_type_id = p.pizza_type
    JOIN order_details AS [od] ON p.pizza_id = od.pizza_id
    GROUP BY category, [name]
)
SELECT *
FROM CTE_REVENUE_BY_CATEGORY_TYPE
WHERE rank_no < 4;
```



category	pizza_type	revenue	rank_no
Mushroom	"The Pepperoni"	18834.50	1
Chicken	The Thai Chicken Pizza	43434.25	1
Chicken	The Barbecue Chicken Pizza	42768.00	2
Chicken	The California Chicken Pizza	41409.50	3
Classic	The Classic Deluxe Pizza	38180.50	1
Classic	The Hawaiian Pizza	32273.25	2



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THANK YOU

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