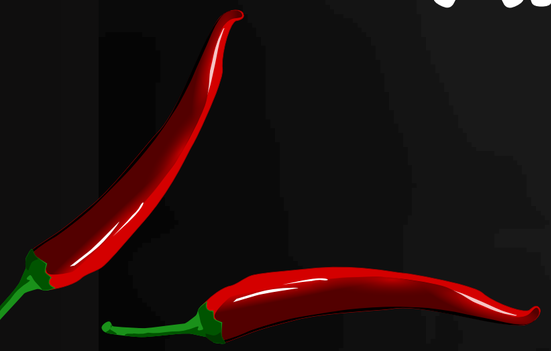
ALSO USED ADV SQL FOR QUERIES

SQL PROJECT

PIZZA SALES ANALYSIS



MySQL

FRIENDS, IN THIS PROJECT I HAD SOLVED 15 REQUIREMENTS

Which involves many SQL concepts

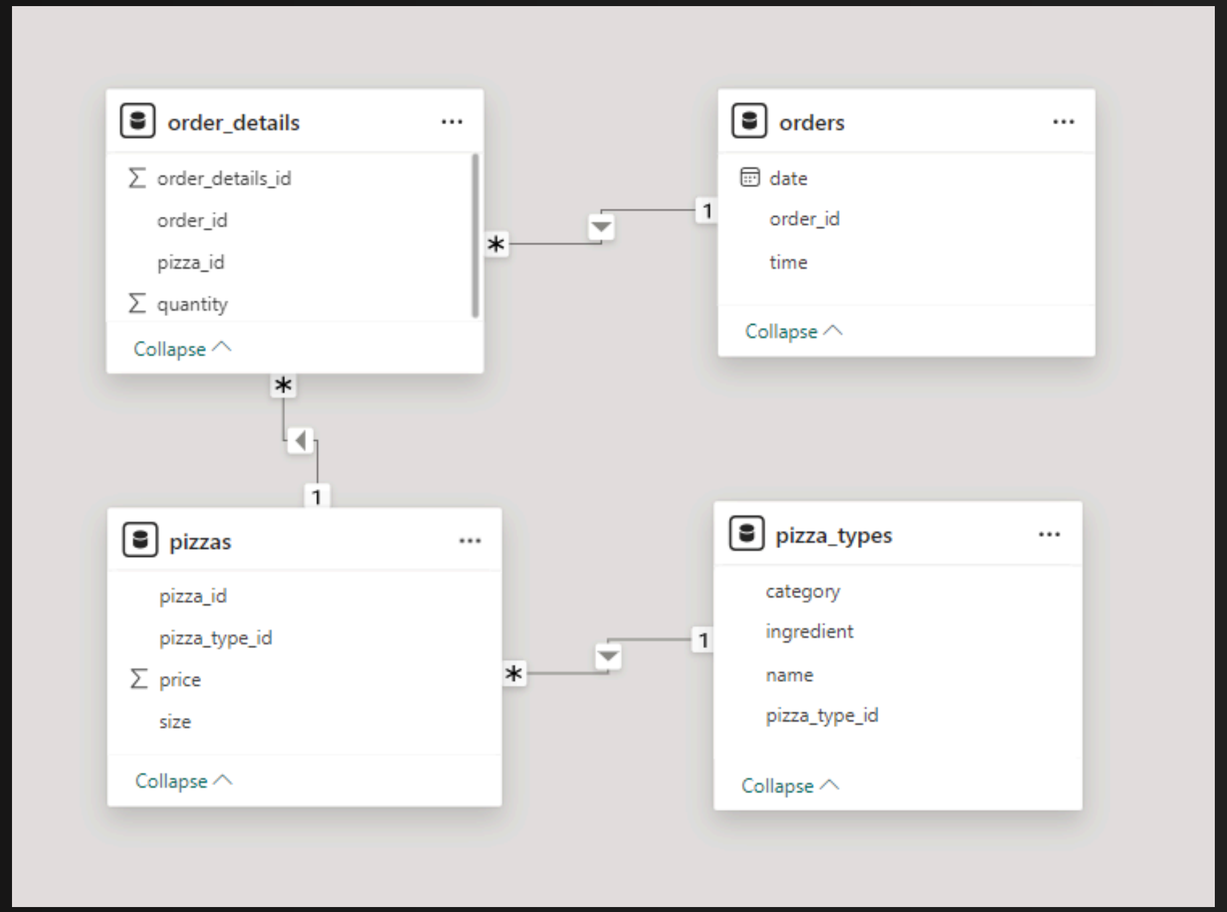
- **BASIC**
- **INTERMEDIATE**
- **ADVANCE**

WE HAVE **4** TABLES IN PROJECT

ER DIAGRAM

4 TABLES

- ORDERS
- ORDER_DETAILS
- PIZZAS
- PIZZA_TYPES



REQUIREMENT 1 RETRIVE THE TOTAL NO OF ORDER PLACED

```sql
SELECT
    COUNT(ORDER_ID) AS "TOTAL_ORDERS"
FROM
    ORDERS;
```

Result Grid | Filter Rov

	TOTAL_ORDERS
▶	21350

REQUIREMENT 2

Calculate the total revenue generated from pizza sales.

```
SELECT ROUND(SUM(O.QUANTITY * P.PRICE),2) AS TOTAL_REVENUE
FROM ORDER_DETAILS O
JOIN PIZZAS P
ON O.PIZZA_ID = P.PIZZA_ID;
```

TOTAL_REVENUE
817860.05

REQUIREMENT 3 Identify the highest-priced pizza.

```
SELECT PT.NAME, P.PRICE
FROM PIZZA_TYPES PT
JOIN PIZZAS P
ON PT.PIZZA_TYPE_ID = P.PIZZA_TYPE_ID
ORDER BY PRICE DESC
LIMIT 1;
```

	NAME	PRICE
▶	The Greek Pizza	35.95

REQUIREMENT 4

Identify the most common pizza size ordered.

```sql
SELECT P.SIZE, COUNT(*) AS ORDER_COUNT
FROM ORDER_DETAILS O
JOIN PIZZAS P
ON O.PIZZA_ID = P.PIZZA_ID
GROUP BY P.SIZE
ORDER BY ORDER_COUNT DESC
LIMIT 1;
```

SIZE	ORDER_COUNT
L	18526

REQUIREMENT 5

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

```sql
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

REQUIREMENT 6

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

```
SELECT PT.CATEGORY, SUM(O.QUANTITY) QUANTITY FROM PIZZA_TYPES PT
JOIN PIZZAS P ON P.PIZZA_TYPE_ID = PT.PIZZA_TYPE_ID
JOIN ORDER_DETAILS O
ON O.PIZZA_ID = P.PIZZA_ID
GROUP BY CATEGORY
ORDER BY QUANTITY DESC;
```

CATEGORY	QUANTITY
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

REQUIREMENT 7

Determine the distribution of orders by hour of the day.

```
SELECT HOUR(ORDER_TIME) , COUNT(ORDER_ID) FROM
ORDERS
GROUP BY HOUR(ORDER_TIME);
```

H	COUNT(ORDER_ID)
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336
18	2399
19	2009
20	1642

REQUIREMENT 8

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

REQUIREMENT 9

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

```
SELECT ROUND(AVG(QUANTITY)) AVG_DAILY_QUANTITY FROM
(SELECT ORDERS.ORDER_DATE,
SUM(ORDER_DETAILS.QUANTITY)  QUANTITY FROM ORDERS
JOIN ORDER_DETAILS
ON ORDERS.ORDER_ID = ORDER_DETAILS.ORDER_ID
GROUP BY ORDERS.ORDER_DATE) AS ORDER_QUANTITY;
```

AVG_DAILY_QUANTITY
138

REQUIREMENT 10

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

```sql
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

REQUIREMENT 11

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

```
SELECT PT.CATEGORY,ROUND(SUM(O.QUANTITY * P.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) * 100,0) REVENUE
FROM PIZZA_TYPES PT
JOIN PIZZAS P ON PT.PIZZA_TYPE_ID = P.PIZZA_TYPE_ID
JOIN ORDER_DETAILS O ON O.PIZZA_ID = P.PIZZA_ID
GROUP BY CATEGORY
ORDER BY REVENUE DESC;
```

CATEGORY	REVENUE
Classic	27
Supreme	25
Veggie	24
Chicken	24

REQUIREMENT 12

Analyze the cumulative revenue generated over time.

```sql
SELECT ORDER_DATE, SUM(REVENUE) OVER(ORDER BY ORDER_DATE) AS CUM_REVENUE
FROM
(SELECT O.ORDER_DATE, SUM(OD.QUANTITY * P.PRICE) AS REVENUE
FROM ORDERS O JOIN ORDER_DETAILS OD
ON O.ORDER_ID = OD.ORDER_ID
JOIN PIZZAS P ON
P.PIZZA_ID = OD.PIZZA_ID
GROUP BY ORDER_DATE) AS SALES;
```

ORDER_DATE	CUM_REVENUE
2015-01-01	2713.8500000000004
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

REQUIREMENT 13

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

```
SELECT NAME, REVENUE, RN FROM

(SELECT CATEGORY, NAME, REVENUE, RANK() OVER(PARTITION BY CATEGORY ORDER BY REVENUE DESC) AS RN
FROM
(SELECT PT.CATEGORY, PT.NAME, SUM((OD.QUANTITY) * P.PRICE) REVENUE
FROM PIZZA_TYPES PT JOIN
PIZZAS P
ON PT.PIZZA_TYPE_ID = P.PIZZA_TYPE_ID
JOIN ORDER_DETAILS OD
ON OD.PIZZA_ID = P.PIZZA_ID
GROUP BY PT.CATEGORY , PT.NAME) T1) T2
WHERE RN <= 3;
```

NAME	REVENUE	RN
The Thai Chicken Pizza	43434.25	1
The Barbecue Chicken Pizza	42768	2
The California Chicken Pizza	41409.5	3
The Classic Deluxe Pizza	38180.5	1
The Hawaiian Pizza	32273.25	2
The Pepperoni Pizza	30161.75	3
The Spicy Italian Pizza	34831.25	1
The Italian Supreme Pizza	33476.75	2
The Sicilian Pizza	30940.5	3
The Four Cheese Pizza	32265.70000000065	1

REQUIREMENT 14

Determine the revenue contribution of each pizza size (e.g., Small, Medium, Large) as a percentage of total revenue.

```
SELECT
    P.SIZE AS PIZZA_SIZE,
    ROUND(SUM(O.QUANTITY * P.PRICE) /
    (SELECT SUM(OD.QUANTITY * PZ.PRICE)
    FROM Order_Details OD
    JOIN Pizzas PZ
    ON OD.PIZZA_ID = PZ.PIZZA_ID) * 100, 2) AS REVENUE_PERCENTAGE
FROM
    Order_Details O JOIN Pizzas P ON O.PIZZA_ID = P.PIZZA_ID GROUP BY P.SIZE ORDER BY
    REVENUE_PERCENTAGE DESC;
```

PIZZA_SIZE	REVENUE_PERCENTAGE
L	45.89
M	30.49
S	21.77
XL	1.72
XXL	0.12

REQUIREMENT 15

Identify the change in total revenue from one order date to the next using the LEAD function.

```sql
SELECT
    O.ORDER_DATE,
    ROUND(SUM(OD.QUANTITY * P.PRICE), 2) AS DAILY_REVENUE,
    ROUND(LEAD(SUM(OD.QUANTITY * P.PRICE)) OVER (ORDER BY O.ORDER_DATE), 2) AS NEXT_DAY_REVENUE,
    ROUND(LEAD(SUM(OD.QUANTITY * P.PRICE)) OVER (ORDER BY O.ORDER_DATE) - SUM(OD.QUANTITY * P.PRICE), 2) AS REVENUE_CHANGE
FROM Orders O
JOIN Order_Details OD ON O.ORDER_ID = OD.ORDER_ID
JOIN Pizzas P ON OD.PIZZA_ID = P.PIZZA_ID
GROUP BY O.ORDER_DATE
ORDER BY O.ORDER_DATE;
```

ORDER_DATE	DAILY_REVENUE	NEXT_DAY_REVENUE	REVENUE_CHANGE
2015-01-01	2713.85	2731.9	18.05
2015-01-02	2731.9	2662.4	-69.5
2015-01-03	2662.4	1755.45	-906.95
2015-01-04	1755.45	2065.95	310.5
2015-01-05	2065.95	2428.95	363
2015-01-06	2428.95	2202.2	-226.75
2015-01-07	2202.2	2838.35	636.15
2015-01-08	2838.35	2127.35	-711

Insights -

BEST SELLER

THE CLASSIX DILUX PIZZA

Insights -

- we get to know that total orderes placed are **21350**
- Total revenue = **817860 USD**
- Highest Priced pizza - The Greek Pizza
- Most common size ordered - LARGE
- Top 5 pizzas -
  - The Classic Deluxe Pizza
  - The Barbecue Chicken Pizza
  - The Hawaiian Pizza
  - The Pepperoni Pizza
  - The Thai Chicken Pizza

Insights -

- TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED
  - Classic - 14888
  - Supreme - 11987
  - Veggie - 11649
  - Chicken - 11050

- Busy Hours : 12- 1 pm and 5 -7 pm
- Category -
  - Chicken
  - Classic
  - Supreme
  - Veggie

Insights -

- Average no of pizza ordered per day - **138**
- **Top 3 pizza types by revenue.**
  - The Thai Chicken Pizza
  - The Barbecue Chicken Pizza
  - The California Chicken Pizza

The Classic Deluxe Pizza is the most ordered but if we look by the revenue perspective, The Thai Chicken Pizza is on first rank

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THANK YOU!