BASIC LEVEL → INTERMEDIATE LEVEL → ADVANCE LEVEL

PIZZA SALES PROJECT

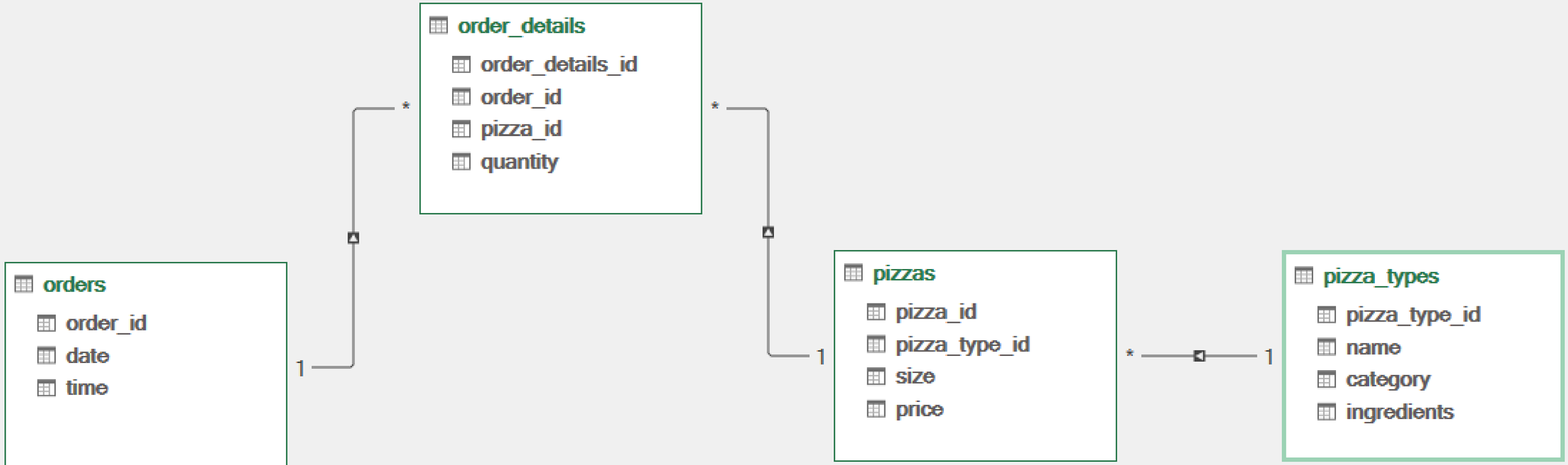
WELCOME TO
PIZZA SQL PROJECT

This SQL-based pizza sales analysis project explores key business insights by retrieving total orders, revenue, and popular pizza types. It identifies the highest-priced pizza, the most common pizza size, and the top-selling varieties.

Intermediate analysis includes order distribution by time, category-wise sales, and daily order trends.

Advanced queries assess revenue contribution, cumulative earnings, and top-selling pizzas by category. By leveraging SQL to analyze sales data, this project helps optimize inventory management, pricing strategies, and overall business performance.

DATA RELATIONS



ORDERS TABLE

ORDER DEATAILS TABLE

PIZZA TABLE

PIZZA TYPES TABLE

RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

```sql
SELECT count(order_id) as Total_Orders
FROM orders;
```

Result Grid

	Total_Orders
▶	21350

CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.

```sql
SELECT
    ROUND(SUM(p.price * od.quantity), 2) AS Total_price
FROM
    pizzas p
INNER JOIN
    Order_details od ON p.pizza_id = od.pizza_id;
```

Result Grid

	Total_price
▶	817860.05

IDENTIFY THE HIGHEST-PRICED PIZZA.

```sql
SELECT pt.name, p.price as Highest_priced_pizza
FROM pizza_types pt
INNER JOIN pizzas p
ON pt.pizza_type_id = p.pizza_type_id
ORDER BY p.price DESC
LIMIT 1;
```

Result Grid | Filter Rows:

name	Highest_priced_pizza
The Greek Pizza	35.95

IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.

```sql
SELECT p.size as most_commonly_use_size,
count(od.order_details_id) as Number_of_orders
FROM pizzas p
INNER JOIN Order_details od
ON p.pizza_id = od.pizza_id
group by 1
Having count(od.order_details_id)
order by count(od.order_details_id) desc
Limit 1;
```

	most_commonly_use_size	Number_of_orders
▶	L	18526

LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.

```sql
SELECT pt.pizza_type_id, pt.name,
count(o.order_id) as Most_purchased, sum(od.quantity) as total_quantity
FROM pizzas p
INNER JOIN pizza_types pt
ON p.pizza_type_id = pt.pizza_type_id
INNER JOIN order_details od
ON p.pizza_id = od.Pizza_id
Inner join orders o
on o.order_id = od.order_id
group by 1, 2
order by count(o.order_id) desc
limit 5;
```

pizza_type_id	name	Most_purchased	total_quantity
classic_dlx	The Classic Deluxe Pizza	2416	2453
bbq_ckn	The Barbecue Chicken Pizza	2372	2432
hawaiian	The Hawaiian Pizza	2370	2422
pepperoni	The Pepperoni Pizza	2369	2418
thai_ckn	The Thai Chicken Pizza	2315	2371

JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.

```sql
SELECT pt.category, sum(od.quantity) as total_quantity
FROM pizzas p
INNER JOIN pizza_types pt
ON p.pizza_type_id = pt.pizza_type_id
INNER JOIN order_details od
ON p.pizza_id = od.Pizza_id
GROUP BY 1;
```

category	total_quantity
Classic	14888
Veggie	11649
Supreme	11987
Chicken	11050

DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.

```sql
SELECT hour(time) as Hours, count(order_id) as Total_orders
FROM orders
Group by 1;
```

	Hours	Total_orders
▶	11	1231
	12	2520
	13	2455
	14	1472
	15	1468
	16	1920
	17	2336

JOIN RELEVANT TABLES TO FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS.

```sql
SELECT category, count(name) as Total_pizzas
FROM pizza_types
GROUP BY 1;
```

	category	Total_pizzas
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.

```sql
select ROUND(avg(total_count),2) as average
from (
SELECT o.date, SUM(od.quantity) as  total_count
FROM order_Details od
join orders o
on od.order_id = o.order_id
GROUP BY 1) AS SUB;
```

	average
▶	138.47

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.

```sql
SELECT pt.name, ROUND(SUM(p.price * od.quantity), 2) AS Total_price
FROM pizzas p
INNER JOIN Order_details od
ON p.pizza_id = od.pizza_id
INNER JOIN pizza_types pt
ON p.pizza_type_id = PT.pizza_type_id
GROUP BY  1
ORDER BY ROUND(SUM(p.price * od.quantity), 2) DESC
LIMIT 3;
```

name	Total_price
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.

```sql
SELECT pt.category,
round((SUM(p.price * od.quantity) / (SELECT sum(p.price * od.quantity)
                                     FROM pizzas p
                                     INNER JOIN Order_details od
                                     ON p.pizza_id = od.pizza_id)) * 100,2) as Percentage_countribution
FROM pizzas p
INNER JOIN Order_details od
ON p.pizza_id = od.pizza_id
INNER JOIN pizza_types pt
ON p.pizza_type_id = Pt.Pizza_type_id
group by 1;
```

category	Percentage_countribution
Classic	26.91
Veggie	23.68
Supreme	25.46
Chicken	23.96

ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.

```sql
WITH total_revenue as (
SELECT o.date, sum(p.price * od.quantity) as revenue
FROM pizzas p
INNER JOIN Order_details od
ON p.pizza_id = od.pizza_id
INNER JOIN orders o
ON od.order_id = o.order_id
GROUP BY 1)
SELECT date, sum(revenue) over(order by date) as cum_revenue
FROM total_revenue;
```

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

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.

```sql
with cte as (
select category, name, dense_rank() over(partition by category order by revenue desc) as ranking
from (
SELECT pt.category, pt.name, sum(p.price * od.quantity) as revenue
FROM pizzas p
INNER JOIN Order_details od
ON p.pizza_id = od.pizza_id
INNER JOIN pizza_types pt
ON p.pizza_type_id = PT.pizza_type_id
GROUP BY pt.category, pt.name) as sub)
select category, name, ranking
from cte
where ranking <= 3;
```

category	name	ranking
Chicken	The Thai Chicken Pizza	1
Chicken	The Barbecue Chicken Pizza	2
Chicken	The California Chicken Pizza	3
Classic	The Classic Deluxe Pizza	1
Classic	The Hawaiian Pizza	2
Classic	The Pepperoni Pizza	3
Supreme	The Spicy Italian Pizza	1
Supreme	The Italian Supreme Pizza	2
Supreme	The Sicilian Pizza	3
Veggie	The Four Cheese Pizza	1
Veggie	The Mexicana Pizza	2
Veggie	The Five Cheese Pizza	3

THANK YOU!