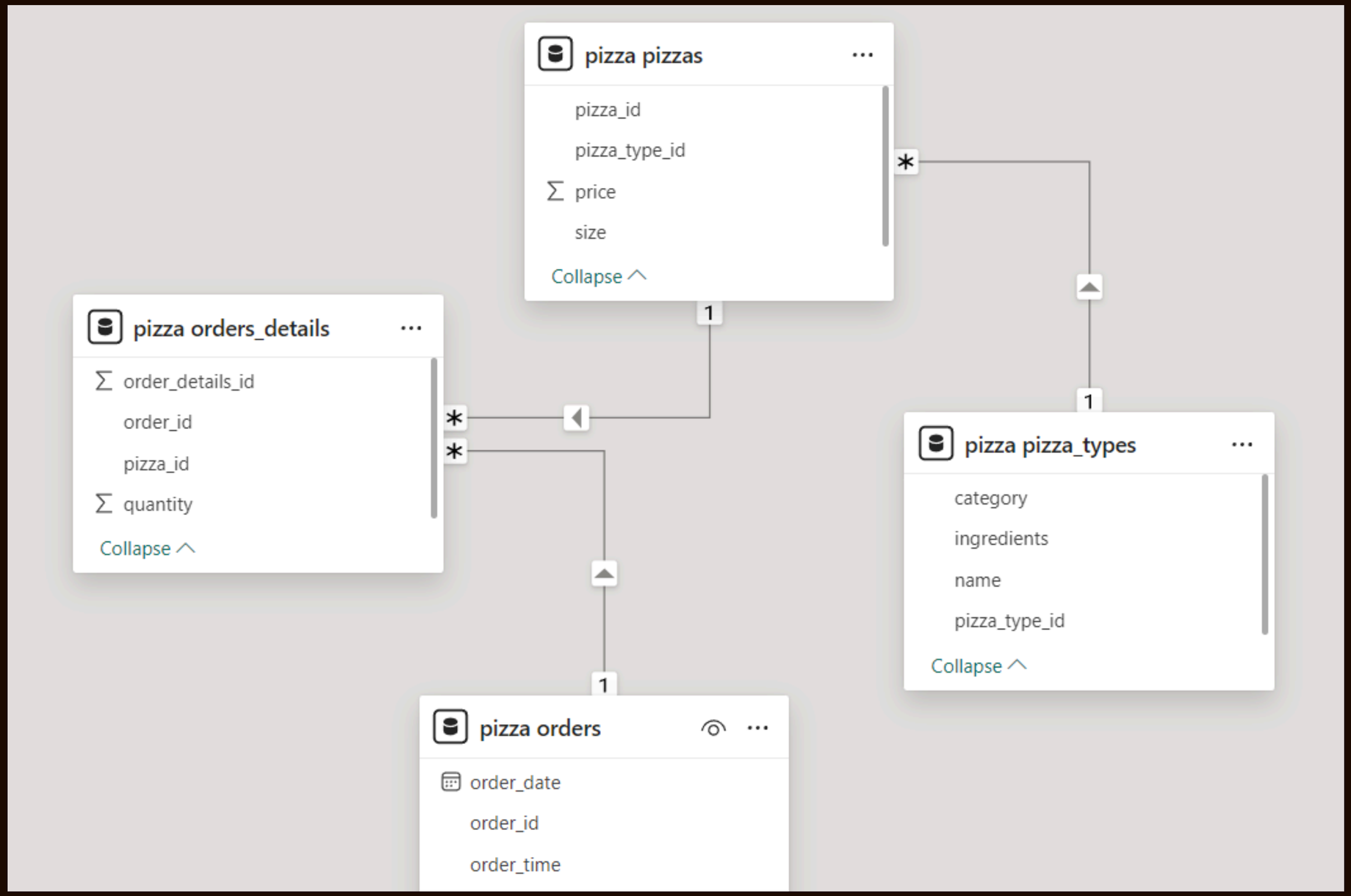
SQL PIZZA SALES PROJECT

ABOUT THE AUTHOR

I am Atharva Lad, a recent Computer Science graduate from Mumbai University with a strong interest in data analysis.
This project allowed me to apply my SQL skills to analyze pizza sales data, providing insights that can help optimize business strategies.
I'm passionate about turning data into actionable information and continuously expanding my expertise in the field of data science.

PIZZA DATABASE SCHEMA



Retrieve the total number of orders placed.

```sql
SELECT
    COUNT(order_id) AS Total_orders
FROM
    orders;
```

Total_orders
21350

Calculate the total revenue generated from pizza sales.

```sql
SELECT
    ROUND(SUM(pizzas.price * orders_details.quantity),
            2) AS Total_revenue
FROM
    pizzas
        JOIN
    orders_details ON pizzas.pizza_id = orders_details.pizza_id;
```

	Total_revenue
▶	817860.05

Identify the highest-priced pizza.

```sql
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.

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

	size	Pizza_count
▶	L	18526

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

```sql
SELECT
    pizza_types.name,
    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.name
ORDER BY Total_quantity DESC
LIMIT 5;
```

name	Total_quantity
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.

```sql
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	14888
Veggie	11649
Supreme	11987
Chicken	11050

Determine the distribution of orders by hour of the day.

```sql
SELECT
    HOUR(order_time) AS Order_hour,
    COUNT(order_id) AS order_count
FROM
    orders
GROUP BY Order_hour;
```

Order_hour	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336
18	2300

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

```sql
SELECT
    category, COUNT(pizza_type_id) AS Pizzas
FROM
    pizza_types
GROUP BY category;
```

category	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(daily_quantity), 0) AS average_quantity_per_day
FROM
    (SELECT
        orders.order_date,
            SUM(orders_details.quantity) AS daily_quantity
    FROM
        orders
    JOIN orders_details ON orders.order_id = orders_details.order_id
    GROUP BY orders.order_date) AS daily_totals;
```

average_quantity_per_day
138

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

```sql
SELECT
    pizza_types.name,
    SUM(orders_details.quantity * pizzas.price) AS total_revenue
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.name
ORDER BY total_revenue DESC
LIMIT 3;
```

name	total_revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

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

```sql
SELECT
    pizza_types.category,
    round(SUM(orders_details.quantity * pizzas.price) / (SELECT
    ROUND(SUM(pizzas.price * orders_details.quantity),
            2)
FROM
    pizzas
        JOIN
    orders_details ON pizzas.pizza_id = orders_details.pizza_id) * 100,2) as Percentage_Contibution
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	Percentage_Contibution
Classic	26.91
Veggie	23.68
Supreme	25.46
Chicken	23.96

Analyze the cumulative revenue generated over time.

```sql
SELECT
    order_date,
    revenue,
    ROUND(SUM(revenue) OVER (ORDER BY order_date),2) AS cum_revenue
FROM
    (SELECT
        orders.order_date,
        ROUND(SUM(orders_details.quantity * pizzas.price),2) AS revenue
    FROM
        orders
    JOIN
        orders_details ON orders.order_id = orders_details.order_id
    JOIN
        pizzas ON orders_details.pizza_id = pizzas.pizza_id
    GROUP BY
        orders.order_date
    ) AS sales;
```

order_date	revenue	cum_revenue
2015-01-01	2713.85	2713.85
2015-01-02	2731.9	5445.75
2015-01-03	2662.4	8108.15
2015-01-04	1755.45	9863.6
2015-01-05	2065.95	11929.55
2015-01-06	2428.95	14358.5
2015-01-07	2202.2	16560.7
2015-01-08	2838.35	19399.05

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

```sql
SELECT
    category,
    name,
    Total_revenue,
    Ranking
FROM (
    SELECT
        pizza_types.category,
        pizza_types.name,
        SUM(orders_details.quantity * pizzas.price) AS Total_revenue,
        RANK() OVER (PARTITION BY pizza_types.category ORDER BY SUM(orders_details.quantity * pizzas.price) DESC) AS Ranking
    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, pizza_types.name
) AS ranked_pizzas
WHERE
    Ranking <= 3;
```

category	name	Total_revenue	Ranking
Chicken	The Thai Chicken Pizza	43434.25	1
Chicken	The Barbecue Chicken Pizza	42768	2
Chicken	The California Chicken Pizza	41409.5	3
Classic	The Classic Deluxe Pizza	38180.5	1
Classic	The Hawaiian Pizza	32273.25	2