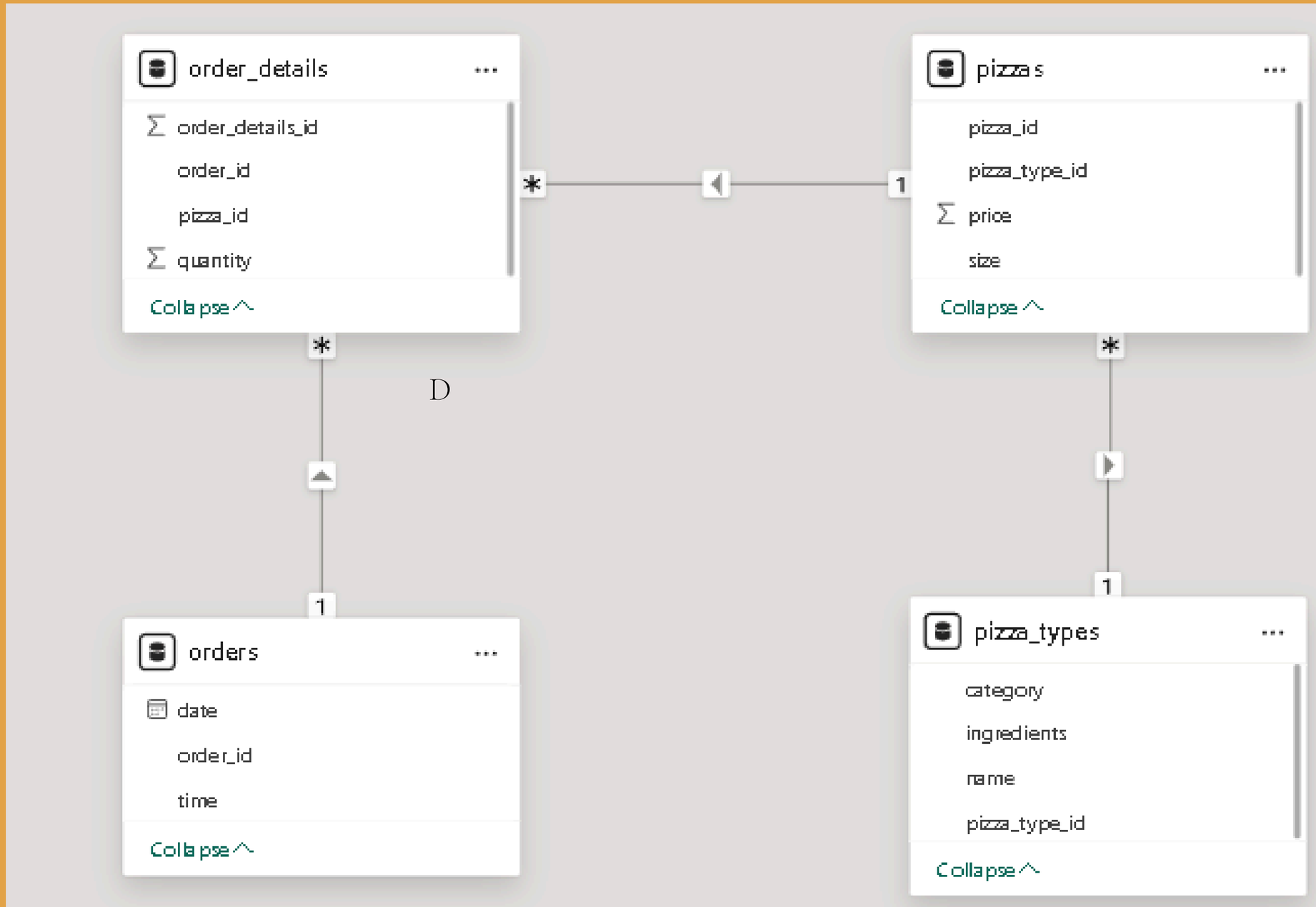
# Pizza Project

# Hello! My name is Shubhangi Dhale

*In this project I have utilized SQL queries to solves questions related to the pizza's sales!*

# Database Schema



# Basic Sql Queries

# 1.Retrieve the total number of orders placed.

```sql
select count(order_id) Total_orders from orders;
```

| | Total_orders |
|---|---|
| ▶ | 21350 |

# 2.Calculate the total revenue generated from pizza sales.

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

| | Total_revenue |
|---|---|
| ▶ | 817860.05 |

# 3.Identify the highest-priced pizza.

```sql
SELECT
    t.name, p.price
FROM
    pizzas p
        JOIN
    order_details o ON p.pizza_id = o.pizza_id
        JOIN
    pizza_types t ON p.pizza_type_id = t.pizza_type_id
ORDER BY 2 DESC
LIMIT 1;
```

| | name | price |
|---|---|---|
| ▶ | The Greek Pizza | 35.95 |

# 4.Identify the most common pizza size ordered.

```sql
SELECT
    size, SUM(quantity) AS Total_quantityOfPizza
FROM
    pizzas p
        JOIN
    order_details o ON p.pizza_id = o.pizza_id
GROUP BY size
ORDER BY 2 DESC;
```

| size | Total_quantityOfPizza |
|---|---|
| L | 18956 |
| M | 15635 |
| S | 14403 |
| XL | 552 |
| XXL | 28 |

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

```sql
SELECT
    t.name, SUM(o.quantity) Total_q
FROM
    pizza_types t
        JOIN
    pizzas p ON t.pizza_type_id = p.pizza_type_id
        JOIN
    order_details o ON o.pizza_id = p.pizza_id
GROUP BY name
ORDER BY Total_q DESC
LIMIT 5;
```

| name | Total_q |
|---|---|
| The Classic Deluxe Pizza | 2453 |
| The Barbecue Chicken Pizza | 2432 |
| The Hawaiian Pizza | 2422 |
| The Pepperoni Pizza | 2418 |
| The Thai Chicken Pizza | 2371 |

# Intermediate

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

```sql
SELECT
    t.category, SUM(o.quantity) Total_q
FROM
    pizza_types t
        JOIN
    pizzas p ON t.pizza_type_id = p.pizza_type_id
        JOIN
    order_details o ON o.pizza_id = p.pizza_id
GROUP BY t.category
ORDER BY Total_q DESC;
```

| category | Total_q |
|---|---|
| Classic | 14888 |
| Supreme | 11987 |
| Veggie | 11649 |
| Chicken | 11050 |

# 2. Determine the distribution of orders by hour of the day.

```sql
SELECT
    HOUR(time) AS Hour_t, COUNT(order_id) count_of_id
FROM
    orders
GROUP BY HOUR(time)
ORDER BY 1;
```

| Hour_t | count_of_id |
|---|---|
| 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 |

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

```sql
select category, count(pizza_type_id) as TotalPizzaName
from pizza_types
group by category
order by 2 desc;
```

| category | TotalPizzaName |
|---|---|
| Supreme | 9 |
| Veggie | 9 |
| Classic | 8 |
| Chicken | 6 |

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

```sql
SELECT
    ROUND(AVG(Totalorder)) as Avg_Pizza_order
FROM
    (SELECT
        o.order_date, SUM(d.quantity) Totalorder
    FROM
        orders o
    JOIN order_details d ON o.order_id = d.order_id
    GROUP BY o.order_date) t;
```

| | Avg_Pizza_order |
|---|---|
| ▶ | 138 |

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

```sql
SELECT
    p.pizza_type_id, SUM(a.price * d.quantity) TotalPrice
FROM
    pizza_types p
        JOIN
    pizzas a ON p.pizza_type_id = a.pizza_type_id
        JOIN
    order_details d ON a.pizza_id = d.pizza_id
GROUP BY p.pizza_type_id
ORDER BY TotalPrice DESC
LIMIT 3;
```

| | pizza_type_id | TotalPrice |
|---|---|---|
| ▶ | thai_ckn | 43434.25 |
| | bbq_ckn | 42768 |
| | cali_ckn | 41409.5 |

# Advanced

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

```sql
SELECT
    p.category,
    ROUND(SUM(a.price * o.quantity) / (SELECT
                    ROUND(SUM(p.price * o.quantity), 2) AS Total_revenue
                FROM
                    pizzas p
                        JOIN
                    order_details o ON p.pizza_id = o.pizza_id) * 100,
            2) AS Revenue
FROM
    pizza_types p
        JOIN
    pizzas a ON p.pizza_type_id = a.pizza_type_id
        JOIN
    order_details o ON o.pizza_id = a.pizza_id
GROUP BY p.category;
```

| | category | Revenue |
|---|---|---|
| ▶ | Classic | 26.91 |
| | Veggie | 23.68 |
| | Supreme | 25.46 |
| | Chicken | 23.96 |

# 2.Analyze the cumulative revenue generated over time.

```
select order_date, sum(Total) over (order by order_date) as cumlative_sum from
(select o.order_date, round(sum(p.price*d.quantity)) as Total
from orders o join order_details d
on o.order_id=d.order_id
join pizzas p
on d.pizza_id=p.pizza_id
group by o.order_date) m;
```

| order_date | cumlative_sum |
|---|---|
| 2015-01-01 | 2714 |
| 2015-01-02 | 5446 |
| 2015-01-03 | 8108 |
| 2015-01-04 | 9863 |
| 2015-01-05 | 11929 |
| 2015-01-06 | 14358 |
| 2015-01-07 | 16560 |
| 2015-01-08 | 19398 |
| 2015-01-09 | 21525 |
| 2015-01-10 | 23989 |
| 2015-01-11 | 25861 |
| 2015-01-12 | 27780 |

| category | Revenue |
|---|---|
| Classic | 26.91 |
| Veggie | 23.68 |
| Supreme | 25.46 |
| Chicken | 23.96 |

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

```sql
with cte as(
select p.category,p.pizza_type_id, sum(o.quantity*a.price) revenue, rank() over (partition by p.category order by sum(o.quantity*a.price) desc)
  pizza_types p
        JOIN
    pizzas a ON p.pizza_type_id = a.pizza_type_id
        JOIN
    order_details o ON o.pizza_id = a.pizza_id
GROUP BY p.category,p.pizza_type_id
)
select category,pizza_type_id,revenue
from cte
where rk<=3;
```

| category | pizza_type_id | revenue |
|---|---|---|
| Chicken | thai_ckn | 43434.25 |
| Chicken | bbq_ckn | 42768 |
| Chicken | cali_ckn | 41409.5 |
| Classic | classic_dlx | 38180.5 |
| Classic | hawaiian | hawaiian |
| Classic | pepperoni | 30161.75 |
| Supreme | spicy_ital | 34831.25 |
| Supreme | ital_supr | 33476.75 |
| Supreme | sicilian | 30940.5 |
| Veggie | four_cheese | 32265.70000000065 |
| Veggie | mexicana | 26780.75 |
| Veggie | five_cheese | 26066.5 |