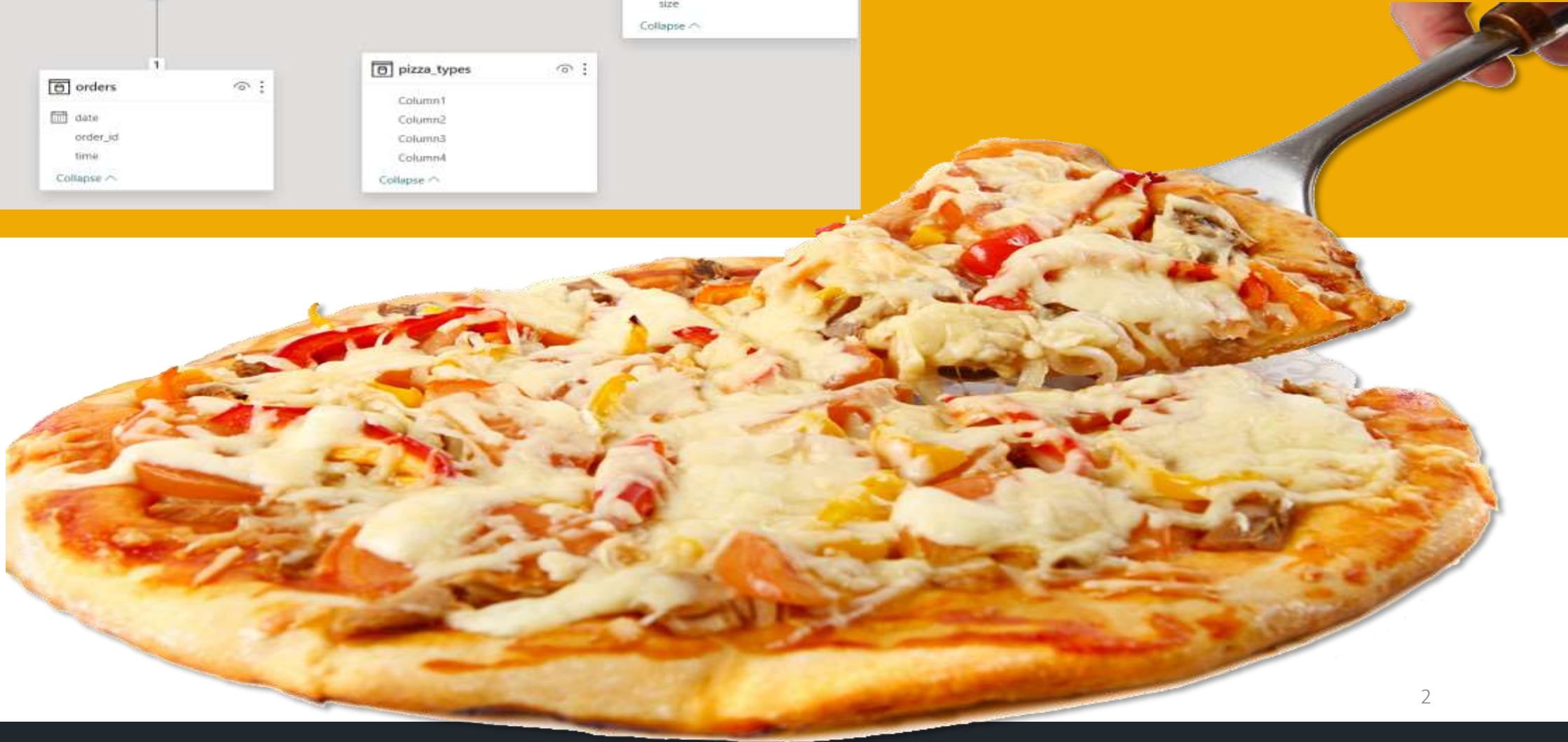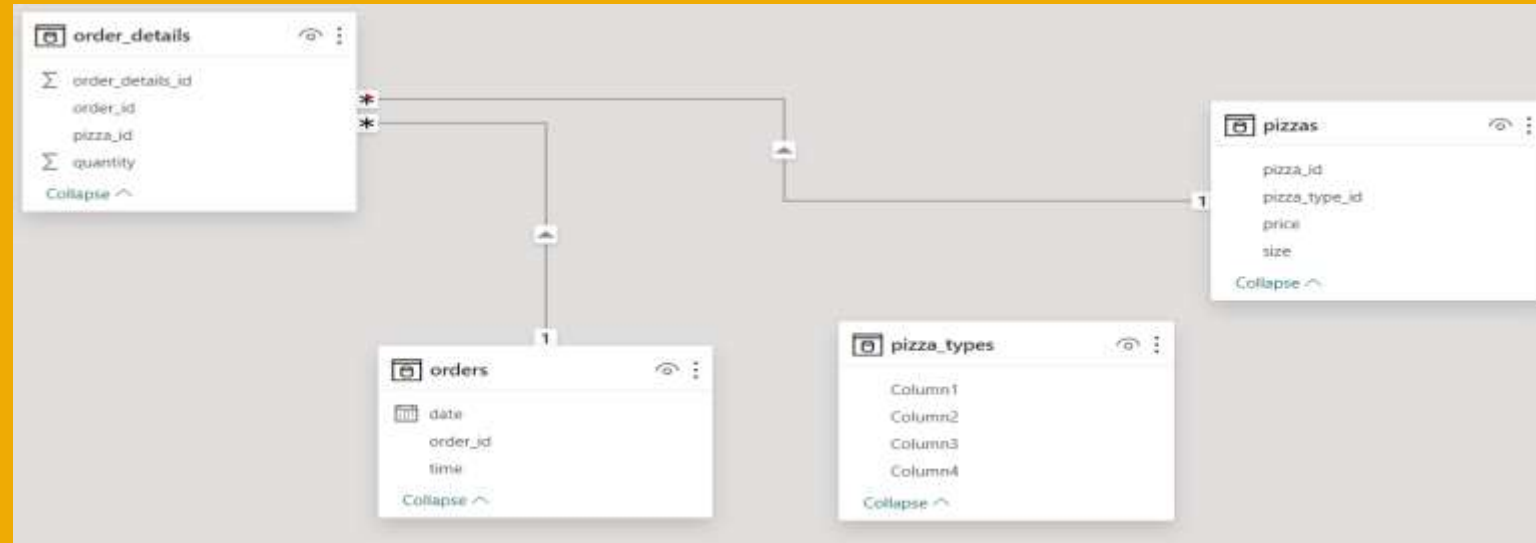# SQL Project on PIZZA Sales

Hello!

My Name is Arbaz Khan, and this project I have Utilized SQL Queries to Solve Questions that were Related to in pizza sales.

Excel Data Model Schema

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(order_details.quantity * pizzas.price),
            2) AS total_sales
FROM
    order_details
        JOIN
    pizzas ON pizzas.pizza_id = order_details.pizza_id
```

Result Grid		
	total_sales	
▶	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

Result Grid | Filter Rows:

Identify the most common pizza size ordered.

```sql
SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC;
```

Result Grid | Filter Rows:

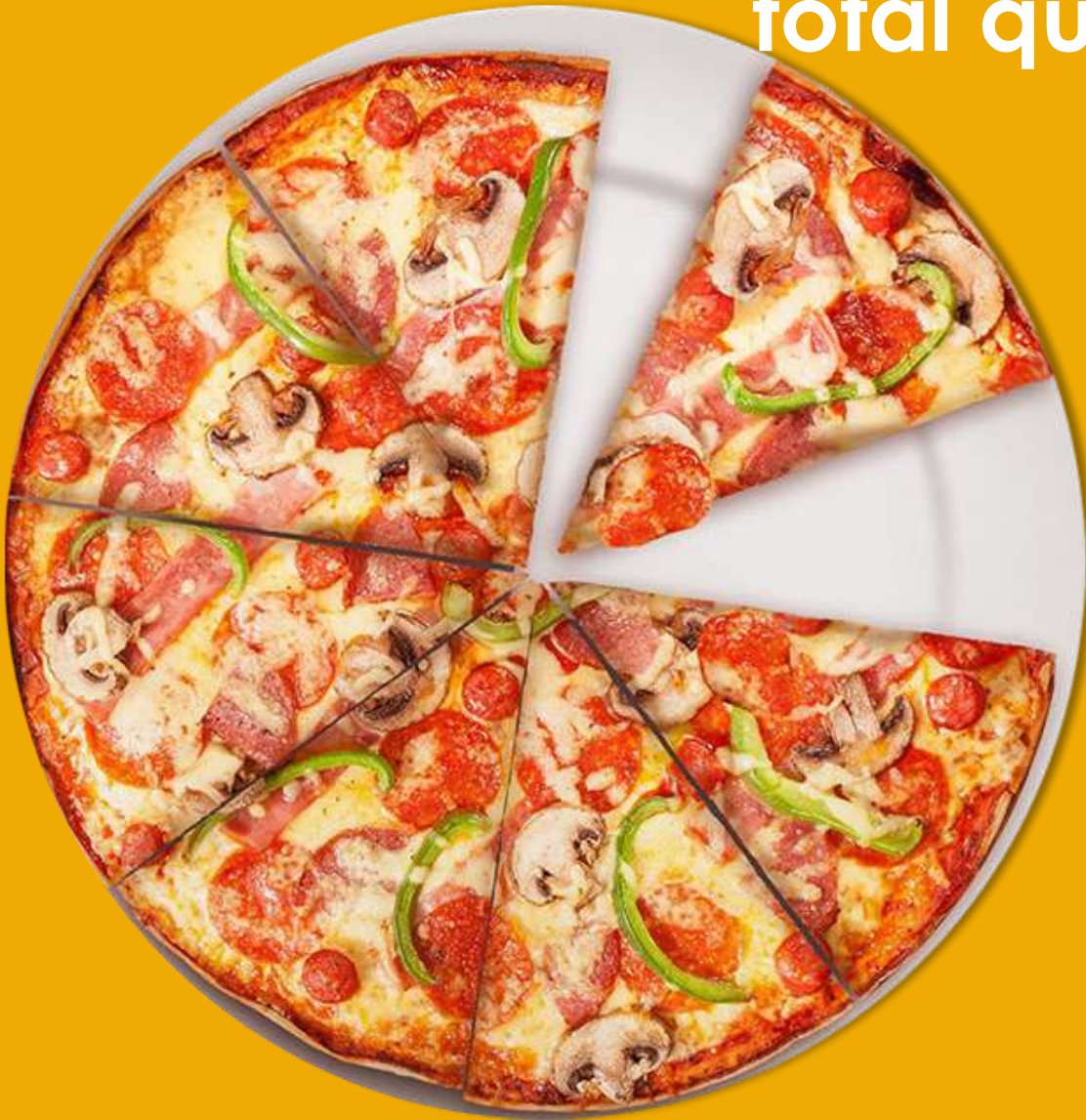| size	order_count
L	18526
M	15385
S	14137
XL	544
XXL	28

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

```sql
SELECT
    pt.name, SUM(od.quantity) AS total_quantity
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.name
ORDER BY total_quantity DESC
LIMIT 5;
```

Result Grid | Filter Rows:

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
    pt.category, SUM(od.quantity) AS quantity
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
ORDER BY quantity DESC;
```

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

Determine the distribution of orders by hour of the day.

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

| Result Grid | Filter |
hour	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920

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


```sql
SELECT
    category, COUNT(name)
FROM
    pizza_types
GROUP BY category
```

category	COUNT(name)
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(quantity), 0) AS avg_pizza_ordered_per_day
FROM
    (SELECT
        orders.order_date, SUM(order_details.quantity) AS quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date) AS order_quantity;
```

Result Grid	Filter Rows:
avg_pizza_ordered_per_day	
138	

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;
```

Result Grid | Filter Rows:

name	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 type to total revenue.

```sql
SELECT
    pt.category,
    ROUND(SUM(od.quantity * p.price) / (SELECT
            SUM(od2.quantity * p2.price)
        FROM
            order_details od2
                JOIN
            pizzas p2 ON p2.pizza_id = od2.pizza_id) * 100,2) AS revenue_percentage
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
ORDER BY revenue_percentage DESC;
```

category	revenue_percentage
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

Analyze the cumulative revenue generated over time.

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

Result Grid	Filter Rows:
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

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

```sql
SELECT name, revenue
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) AS 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
    ) AS a
) AS b
WHERE rn <= 3;
```

Result Grid | Filter Rows:

name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5
The Classic Deluxe Pizza	38180.5
The Hawaiian Pizza	32273.25

THANK YOU