



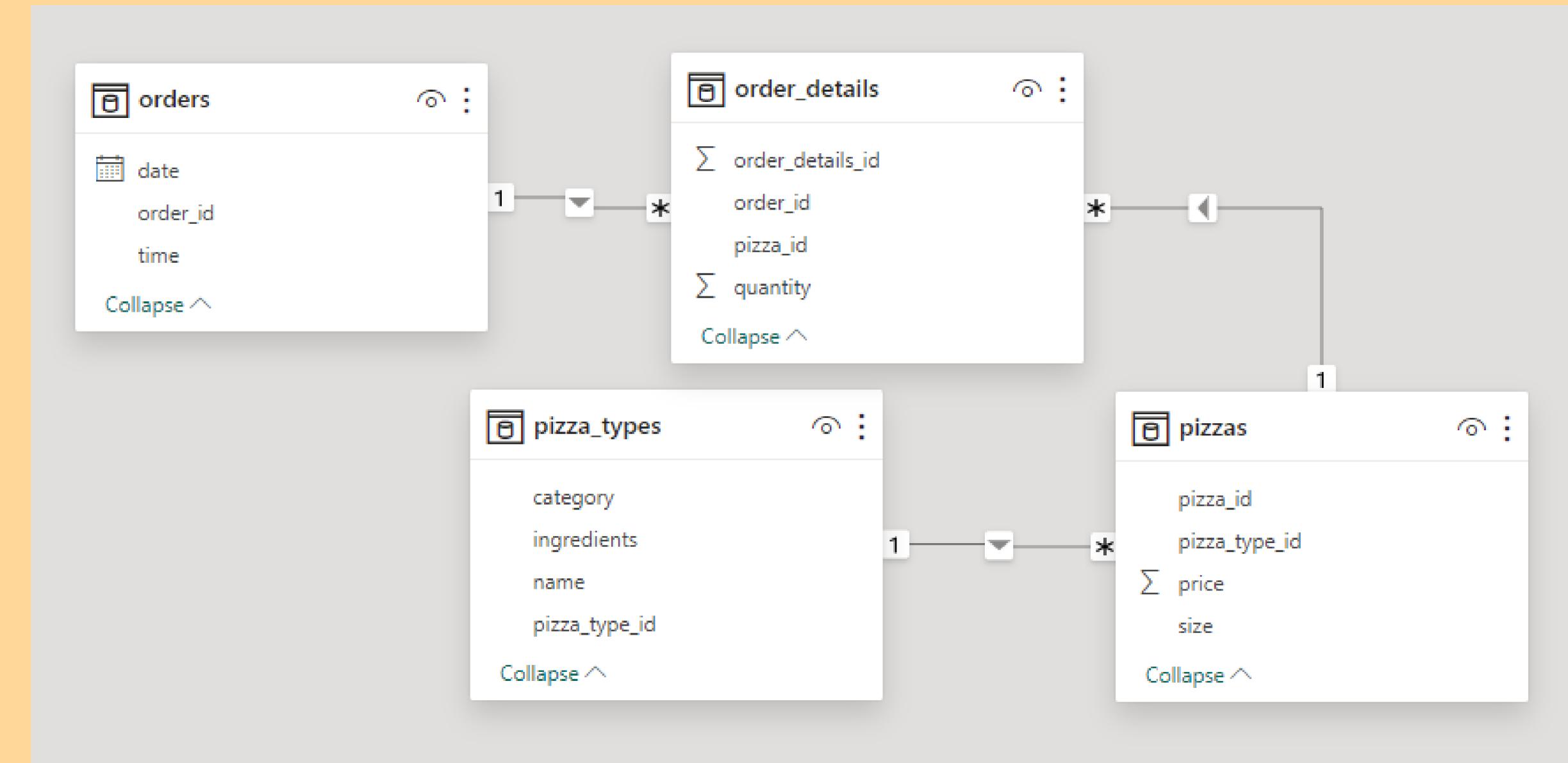
PIZZA SALES ANALYSIS

Introduction

Welcome to the Pizza Sales Analysis Portfolio Project, where we dive into a dataset of over 48 thousand records, including 21 thousand pizza orders across 30 types and 100 variations. Using advanced SQL techniques like window functions, CTEs, and subqueries, we've crafted insightful queries to uncover trends and patterns. From popular toppings to pizza types and sizes, join us in exploring the rich world of pizza sales through SQL analysis.



Data Schema





QUERIES



Total number of orders placed

```
SELECT
```

```
    COUNT(order_id) as Total_orders
```

```
FROM
```

```
orders;
```

Total_orders
21350





Total revenue generated from pizza sales

```
SELECT  
    round(SUM(od.quantity * p.price), 2) AS Total_Revenue  
FROM  
    pizzas p  
    JOIN  
    order_details od ON p.pizza_id = od.pizza_id
```

Total_Revenue
817860.05





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 p.price DESC  
LIMIT 1
```

name	price
The Greek Pizza	35.95





Most commonly ordered pizza size

```
SELECT
    p.size AS Pizza_Size, COUNT(od.order_details_id) AS Frequency
FROM
    pizzas p
        JOIN
    order_details od ON p.pizza_id = od.pizza_id
GROUP BY Pizza_Size
ORDER BY Frequency DESC
```

Pizza_Size	Frequency
L	18526
M	15385
S	14137
XL	544
XXL	28





5 most ordered pizzas types along with their quantities

```
SELECT
    pt.name AS Pizza_name, 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 p.pizza_id = od.pizza_id
GROUP BY Pizza_name
ORDER BY Quantity DESC
LIMIT 5
```

Pizza_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





Total pizzas ordered from each pizza category

```
SELECT
    pt.category AS Category,
    SUM(od.quantity) AS Quantity_ordered
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 Category
```

Category	Quantity_ordered
Classic	14888
Veggie	11649
Supreme	11987
Chicken	11050





Distribution of pizza orders for each hour of the day

```
SELECT  
    HOUR(orders.time) AS Hour, COUNT(order_id) as Total_orders  
FROM  
    orders  
GROUP BY Hour  
ORDER BY Hour
```

Hour	Total_orders
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





Category-wise distribution of pizzas

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

Category	Number_of_pizzas
Chicken	6
Classic	8
Supreme	9
Veggie	9





Grouping the orders by date and calculating the average number of pizzas ordered per day

```
SELECT
    AVG(quantity) AS Average_Quantity
FROM
    (SELECT
        o.date, SUM(od.quantity) AS quantity
    FROM
        orders o
    JOIN order_details od ON o.order_id = od.order_id
    GROUP BY o.date) AS quantity_ordered
```

Average_Quantity
138.4749





3 most ordered pizza types based on revenue

```
SELECT
    pt.pizza_type_id,
    SUM(p.price * od.quantity) AS Total_Revenue
FROM
    pizza_types pt
        JOIN
    pizzas p ON pt.pizza_type_id = p.pizza_type_id
        JOIN
    order_details od ON p.pizza_id = od.pizza_id
GROUP BY pt.pizza_type_id
ORDER BY Total_Revenue DESC
LIMIT 3
```

pizza_type_id	Total_Revenue
thai_ckn	43434.25
bbq_ckn	42768
cali_ckn	41409.5



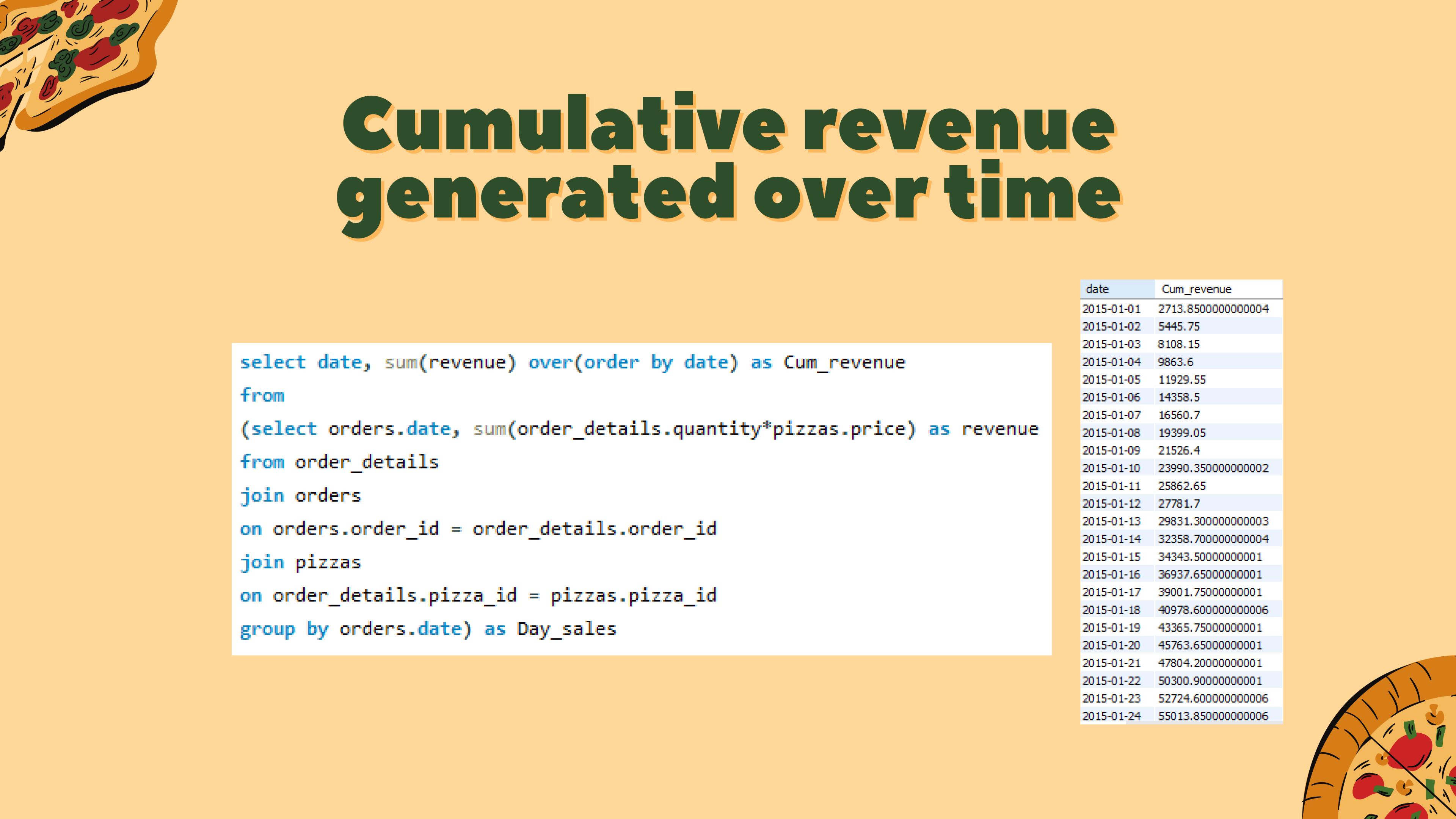


Percentage contribution of each pizza type to total revenue

```
SELECT
    pizza_types.pizza_type_id,
    ROUND(SUM(order_details.quantity * pizzas.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,
    2) AS revenue
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.pizza_type_id
ORDER BY revenue DESC
```

pizza_type_id	revenue
thai_ckn	5.31
bbq_ckn	5.23
cali_ckn	5.06
classic_dlx	4.67
spicy_ital	4.26
southw_ckn	4.24
ital_supr	4.09
hawaiian	3.95
four_cheese	3.95
sicilian	3.78
pepperoni	3.69
the_greek	3.48
mexicana	3.27
five_cheese	3.19
peppr_salami	3.12
ital_cpdlo	3.07
veggie_veg	2.98
prsc_argla	2.96
napolitana	2.95
spinach_fet	2.85
big_meat	2.81
pep_msh_pep	2.3
ckn_alfredo	2.07
ckn_pesto	2.04
soppressata	2.01
ital_veggie	1.96
calabrese	1.95
spin pesto	1.91
mediterraneo	1.88
spinach_supr	1.87
green_garden	1.71
brie_carre	1.42





Cumulative revenue generated over time

```
select date, sum(revenue) over(order by date) as Cum_revenue
from
(select orders.date, sum(order_details.quantity*pizzas.price) as revenue
from order_details
join orders
on orders.order_id = order_details.order_id
join pizzas
on order_details.pizza_id = pizzas.pizza_id
group by orders.date) as Day_sales
```

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
2015-01-09	21526.4
2015-01-10	23990.35000000002
2015-01-11	25862.65
2015-01-12	27781.7
2015-01-13	29831.30000000003
2015-01-14	32358.70000000004
2015-01-15	34343.50000000001
2015-01-16	36937.65000000001
2015-01-17	39001.75000000001
2015-01-18	40978.60000000006
2015-01-19	43365.75000000001
2015-01-20	45763.65000000001
2015-01-21	47804.20000000001
2015-01-22	50300.90000000001
2015-01-23	52724.60000000006
2015-01-24	55013.85000000006



3 most ordered pizza types based on revenue for each pizza category

```
select category, name, revenue from
(select category, name, revenue,
rank() over (partition by category order by revenue desc) as rn
from
(select pizza_types.category, pizza_types.name,
sum(order_details.quantity*pizzas.price) as revenue
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.category, pizza_types.name) as a) as b
where rn <= 3
```

category	name	revenue
Chicken	The Thai Chicken Pizza	43434.25
Chicken	The Barbecue Chicken Pizza	42768
Chicken	The California Chicken Pizza	41409.5
Classic	The Classic Deluxe Pizza	38180.5
Classic	The Hawaiian Pizza	32273.25
Classic	The Pepperoni Pizza	30161.75
Supreme	The Spicy Italian Pizza	34831.25
Supreme	The Italian Supreme Pizza	33476.75
Supreme	The Sicilian Pizza	30940.5
Veggie	The Four Cheese Pizza	32265.70000000065
Veggie	The Mexicana Pizza	26780.75
Veggie	The Five Cheese Pizza	26066.5

