Pizza Sales Analysis using SQL

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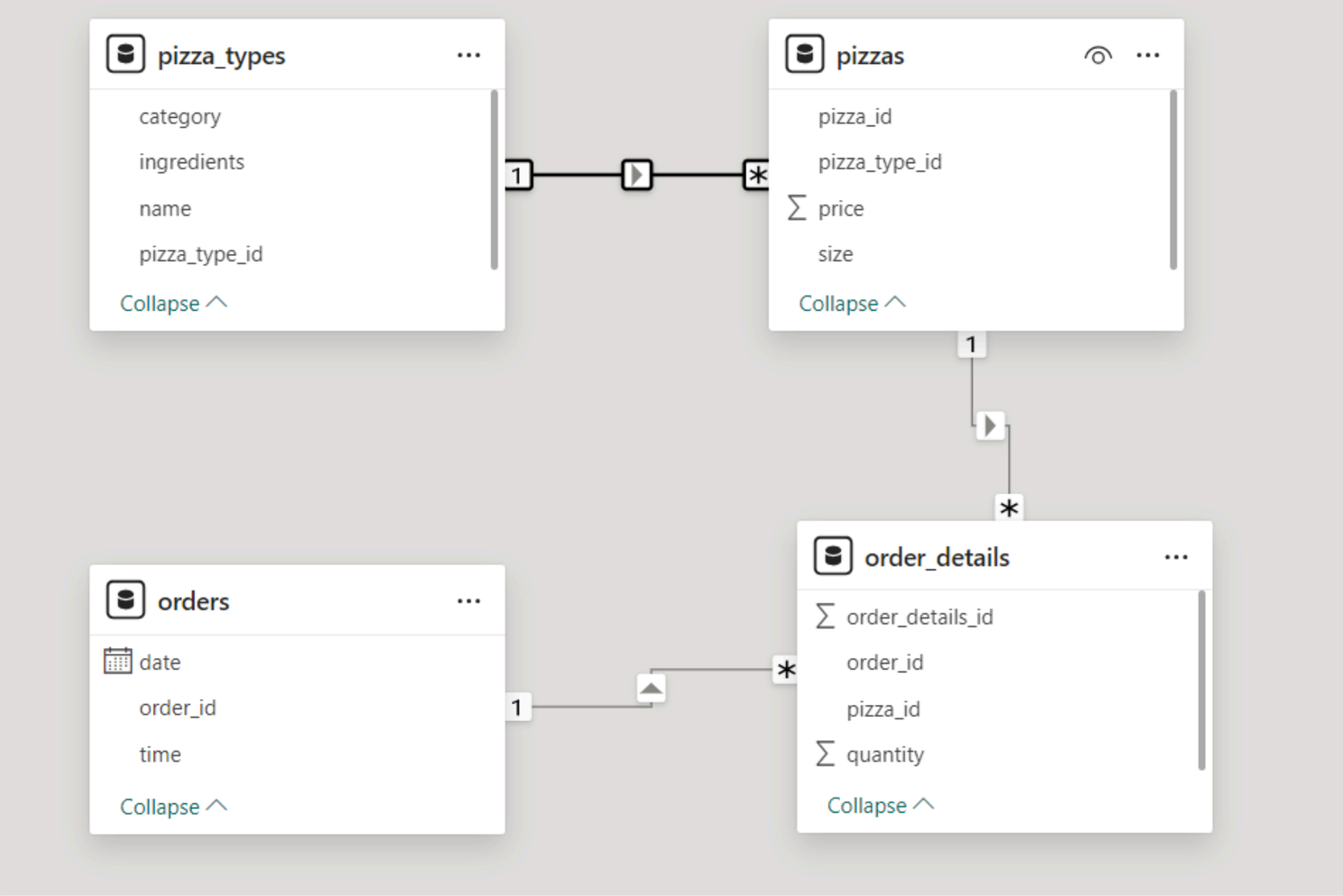
Data Model


pizza_types
category
ingredients
name
pizza_type_id
Collapse
pizzas
pizza_id
pizza_type_id
price
size
Collapse
order_details
order_details_id
order_id
pizza_id
quantity
Collapse
orders
date
order_id
time
Collapse
1
*

Q1 - Retrieve the total number of orders placed.

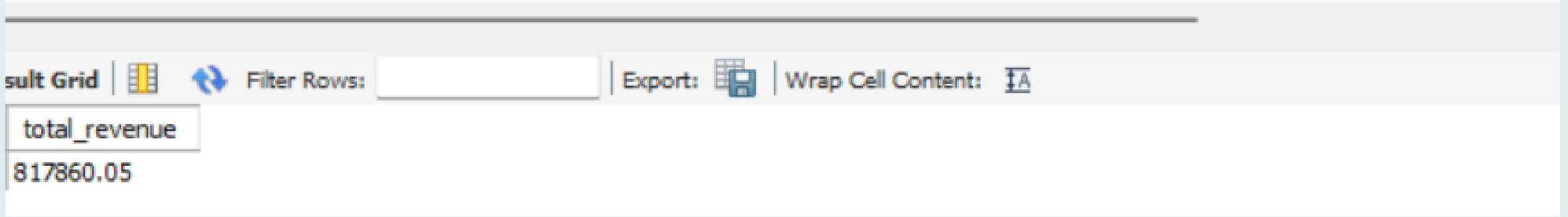
```
3 •  select count(order_id) as total_order from orders;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

total_order
21350

Q2 - Calculate the total revenue generated from pizza sales.

```
3 •  select round(sum(quantity*price),2) as total_revenue
4    from order_details od join pizzas p
5    on od.pizza_id = p.pizza_id;
```



Q3 - Identify the highest-priced pizza.

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

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

name	price
The Greek Pizza	35.95

Q4 - Identify the most common pizza size ordered.

```
3 •  SELECT
4        size, COUNT(quantity) AS pizza_count
5    FROM
6        pizzas p
7            JOIN
8        order_details od ON p.pizza_id = od.pizza_id
9    GROUP BY size
10   ORDER BY pizza_count DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

size	pizza_count
L	18526
M	15385
S	14137
XL	544
XXL	28

Q5 - List the top 5 most ordered pizza types along with their quantities.

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

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

pizza_type_id	quantities
classic_dlx	2416
bbq_ckn	2372
hawaiian	2370
pepperoni	2369
thai_ckn	2315

Q6 -Join the necessary tables to find the total quantity of each pizza category ordered.

```
3 •  SELECT
4        pt.category, SUM(od.quantity) AS quantity
5    FROM
6        pizza_types pt
7            JOIN
8        pizzas p ON pt.pizza_type_id = p.pizza_type_id
9            JOIN
10       order_details od ON p.pizza_id = od.pizza_id
11   GROUP BY pt.category
12   ORDER BY quantity DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

Q7 - Determine the distribution of orders by hour of the day.

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

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

hour	order_count
12	2520
13	2455
18	2399
17	2336
19	2009
16	1920
20	1642
14	1472
15	1468
11	1231
21	1198
22	663
23	28
10	8
9	1

Q8 - Join relevant tables to find the category-wise distribution of pizzas.

```
4 •  SELECT
5        category, COUNT(name) AS count
6    FROM
7        pizza_types
8    GROUP BY category;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

category	count
Chicken	6
Classic	8
Supreme	9
Veggie	9

Q9 - Group the orders by date and calculate the average number of pizzas ordered per day.

```
3
4   SELECT
5       ROUND(AVG(total_pizzas), 0) as avg_order
6   FROM
7       (SELECT
8           o.order_date, SUM(quantity) AS total_pizzas
9       FROM
10          orders o
11      JOIN order_details od ON o.order_id = od.order_id
12      GROUP BY o.order_date) AS order_quantity;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

avg_order
138

Q10 - Determine the top 3 most ordered pizza types based on revenue.

```sql
SELECT
    pt.name, SUM(od.quantity * p.price) 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.name
ORDER BY total_revenue DESC
LIMIT 3;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

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

Q11- Calculate the percentage contribution of each pizza type to total revenue.

```sql
SELECT
    pt.category,
    concat(round((SUM(od.quantity * p.price) / (SELECT
                    ROUND(SUM(quantity * price), 2) AS total_revenue
                FROM
                    order_details od
                        JOIN
                    pizzas p ON od.pizza_id = p.pizza_id)) * 100,
            2),"%") 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.category
ORDER BY total_revenue DESC;
```

esult Grid | Filter Rows: | Export: | Wrap Cell Content:

category	total_revenue
Classic	26.91%
Supreme	25.46%
Chicken	23.96%
Veggie	23.68%

Q12- Analyze the cumulative revenue generated over time.

```
2
3 •     select order_date, round(sum(revenue) over(order by order_date),2) as cum_revenue
4       from
5       (select o.order_date, sum(od.quantity*p.price) as revenue from
6       orders o join order_details od
7       on o.order_id = od.order_id
8       join pizzas p on od.pizza_id = p.pizza_id
9       group by o.order_date) as sales;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

order_date	cum_revenue
2015-01-01	2713.85
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	23990.35

Q13- Determine the top 3 most ordered pizza types based on revenue for each pizza category.

```
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, round(sum(od.quantity*p.price),2) as 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.category, pt.name) as a ) as b
where rn <=3;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	revenue
The California Chicken Pizza	41409.5
The Classic Deluxe Pizza	38180.5
The Hawaiian Pizza	32273.25
The Pepperoni Pizza	30161.75
The Spicy Italian Pizza	34831.25
The Italian Supreme Pizza	33476.75

Result Grid

Form Editor

Thank you for Reading!