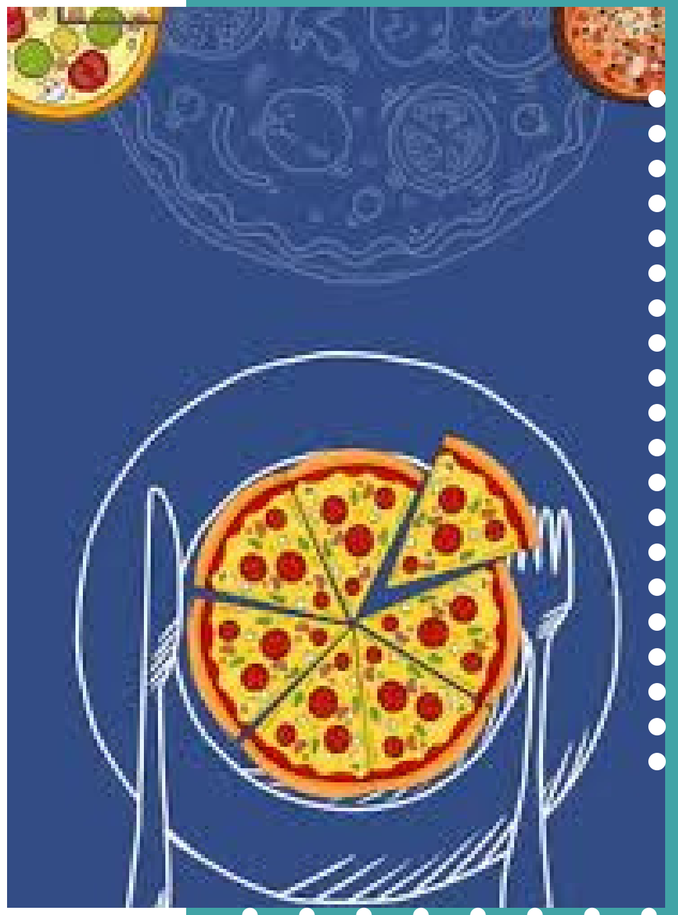
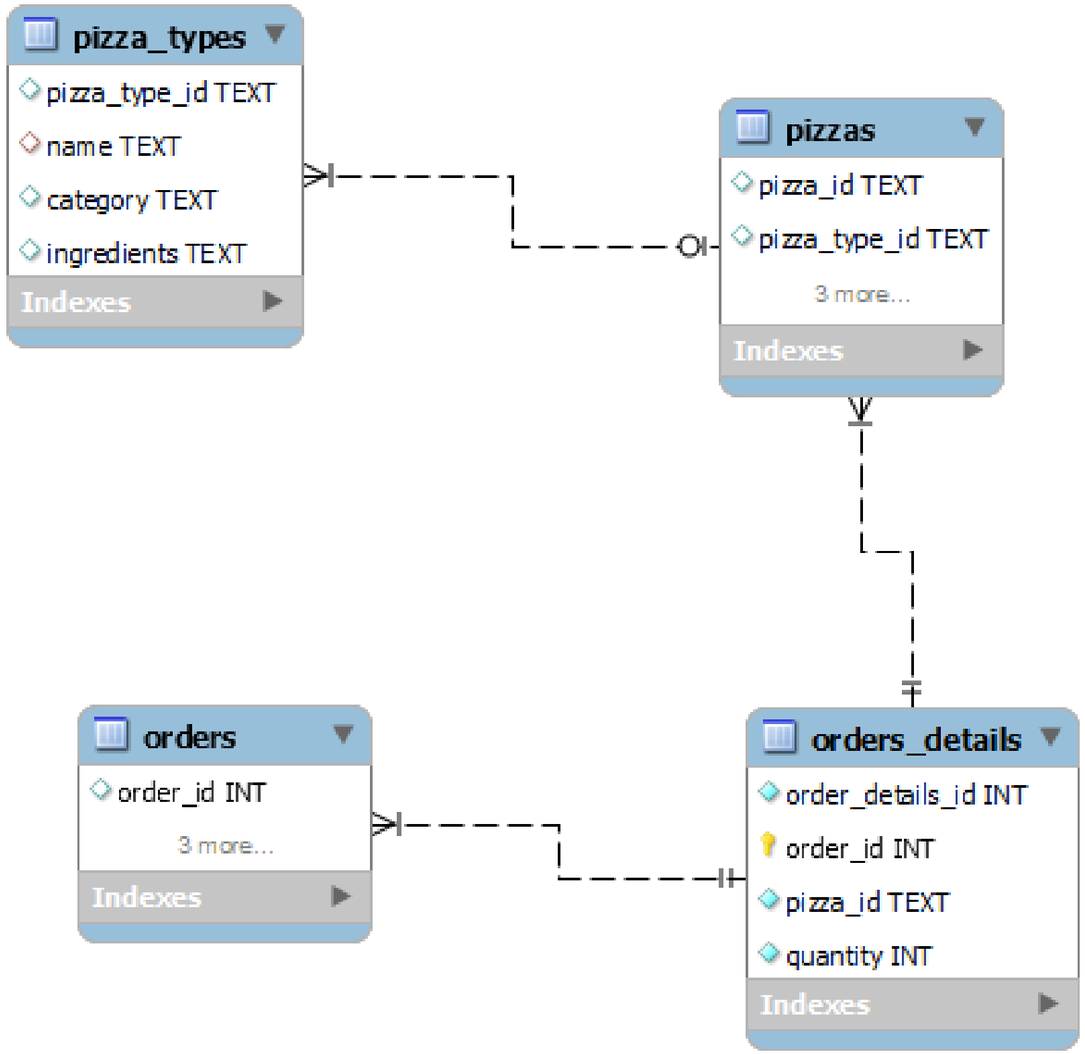
PIZZA SALES ANALYSIS USING SQL



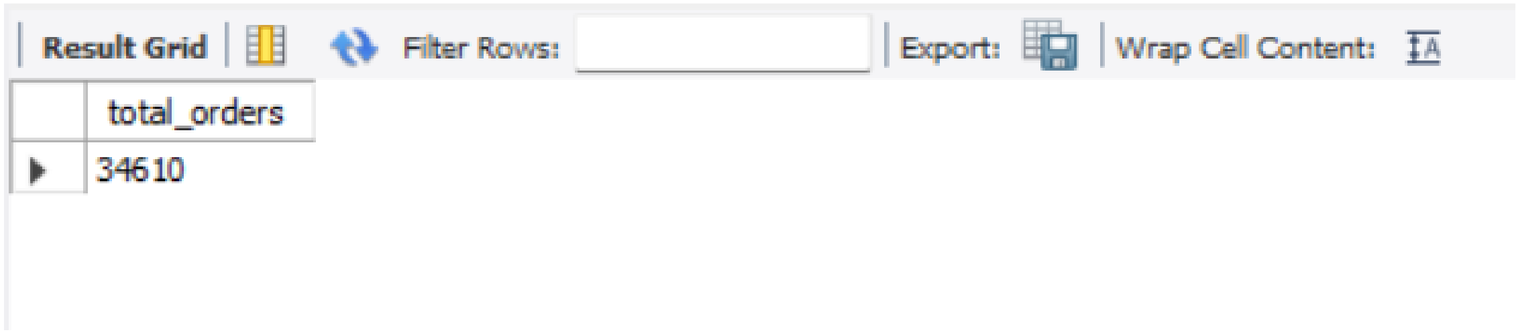
Madhuri Madineni

Data Model


pizza_types
pizza_type_id TEXT
name TEXT
category TEXT
ingredients TEXT
Indexes
pizzas
pizza_id TEXT
pizza_type_id TEXT
3 more...
Indexes
orders
order_id INT
3 more...
Indexes
orders_details
order_details_id INT
order_id INT
pizza_id TEXT
quantity INT
Indexes

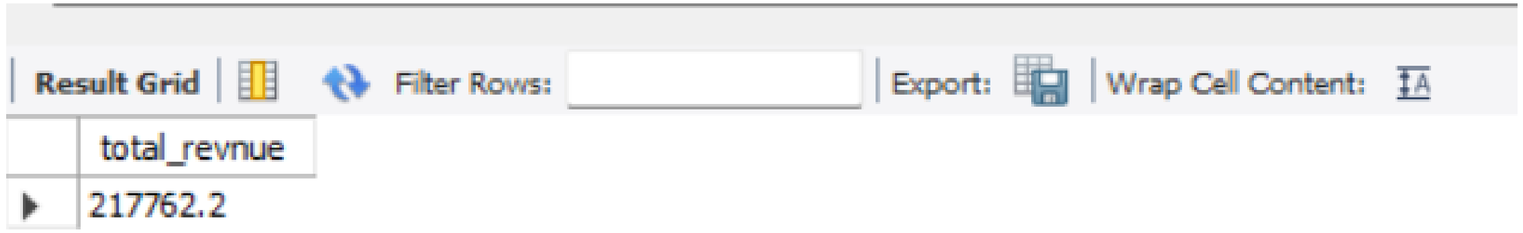
Q1. Retrieve the total no.of orders placed.

```
select count(order_id) as total_orders from orders;
```



Q2. Calculate the total revenue generated from pizza sales.

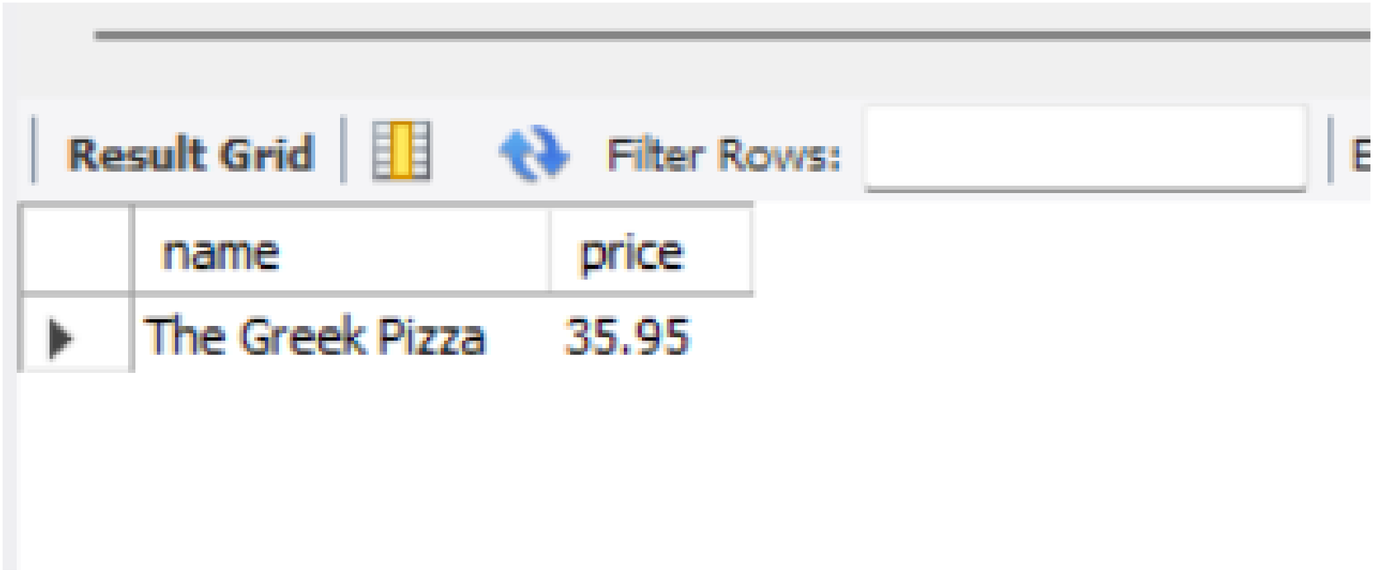
```
Select
round(Sum(orders_details.quantity*pizzas.price),2) as total_revnue
from orders_details
 join
 pizzas
on
 pizzas.pizza_id=orders_details.pizza_id
```



total_revnue
217762.2

Q3. Identify the highest-priced pizza.

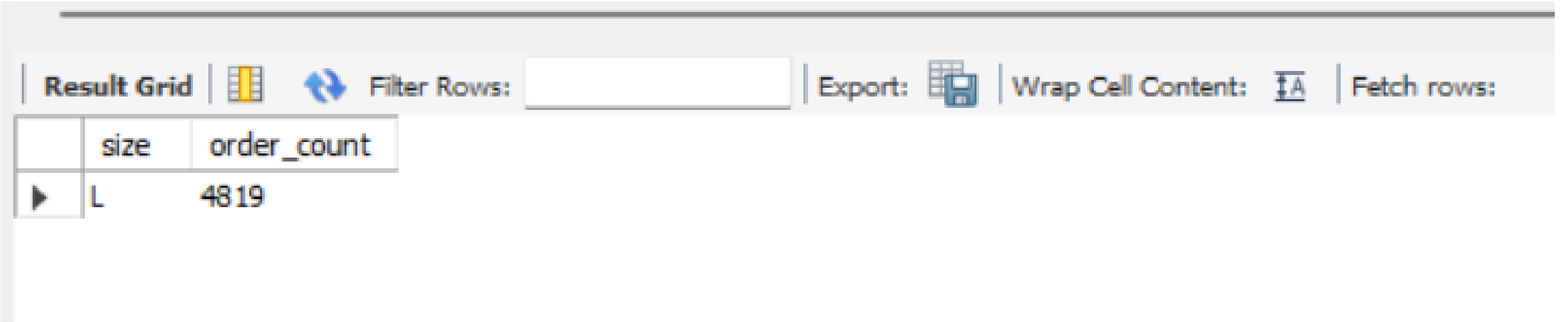
```
select pizza_types.name,pizzas.price
from pizza_types join pizzas
on pizza_types.pizza_type_id=pizzas.pizza_type_id
order by pizzas.price desc limit 1;
```



name	price
The Greek Pizza	35.95

Q4. Identify the most common pizza size ordered.

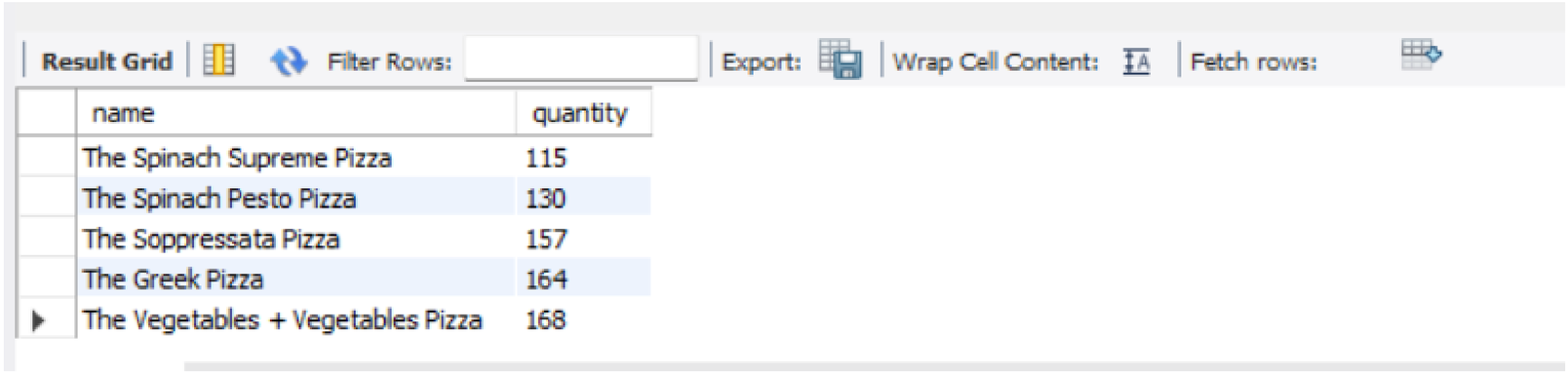
```
## most common pizza size ordered
select pizzas.size, count(orders_details.order_details_id) as order_count
from pizzas join orders_details
on pizzas.pizza_id=orders_details.pizza_id
group by pizzas.size
order by order_count desc limit 1;
```



size	order_count
L	4819

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

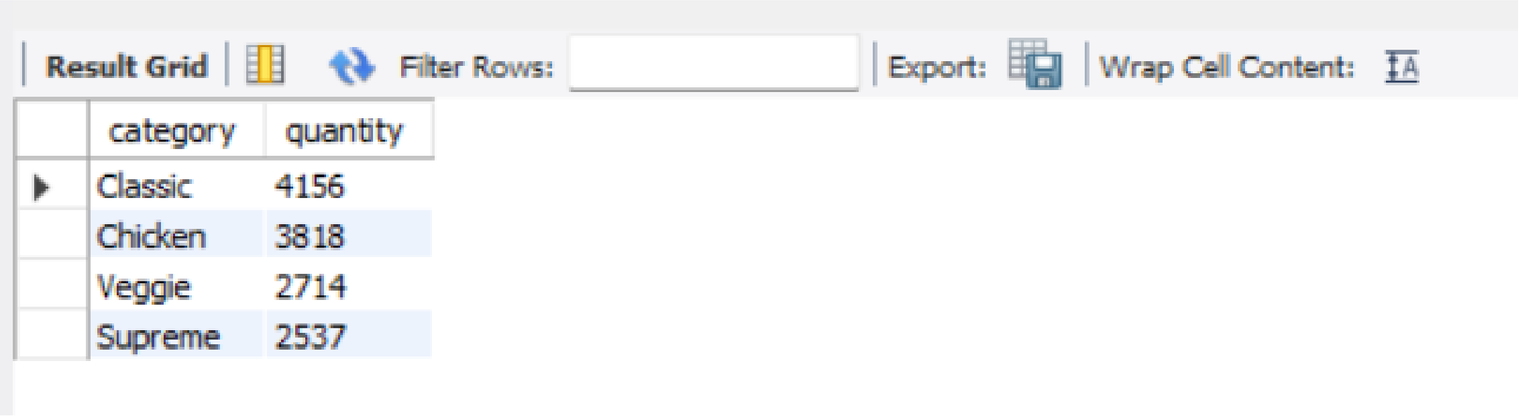
```sql
##list 5 most ordered pizzas along with their quantities
select pizza_types.name,
Sum(orders_details.quantity) as quantity
from pizza_types join pizzas
on pizza_types.pizza_type_id=pizzas.pizza_type_id
join orders_details
on orders_details.pizza_id=pizzas.pizza_id
group by pizza_types.name order by quantity limit 5;
```



name	quantity
The Spinach Supreme Pizza	115
The Spinach Pesto Pizza	130
The Soppressata Pizza	157
The Greek Pizza	164
The Vegetables + Vegetables Pizza	168

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

```sql
## Join the necessary tables to find the total quantity of each pizza category ordered.
Select pizza_types.category,
Sum(orders_details.quantity) as quantity
from pizza_types join pizzas
on pizza_types.pizza_type_id=pizzas.pizza_type_id
join orders_details
on orders_details.pizza_id=pizzas.pizza_id
group by pizza_types.category
order by quantity desc;
```



category	quantity
Classic	4156
Chicken	3818
Veggie	2714
Supreme	2537

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

```
Select hour(time) as hour, count(order_id) as order_count  from orders
group by hour(time);
```

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

hour	order_count
11	1983
12	4067
13	3952
14	2439
15	2390
16	3110
17	3823
18	3890
19	3242
20	2655
21	1933
22	1066
23	45
10	14
9	1

Result 10

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

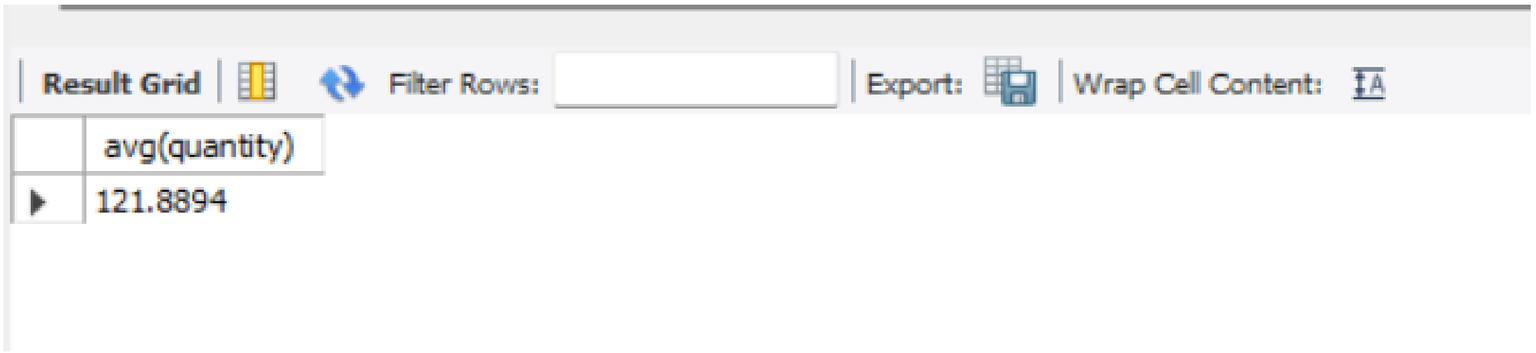
```
#Join relevant tables to find the category-wis
Select category,count(name) from pizza_types
group by category
```

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

	category	count(name)
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

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

```
SELECT avg(quantity) from
(Select orders.date, sum(orders_details.quantity)  as quantity from orders
Join orders_details
on orders.order_id=orders_details.order_id
group by orders.date
) as order_quantity;
```



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

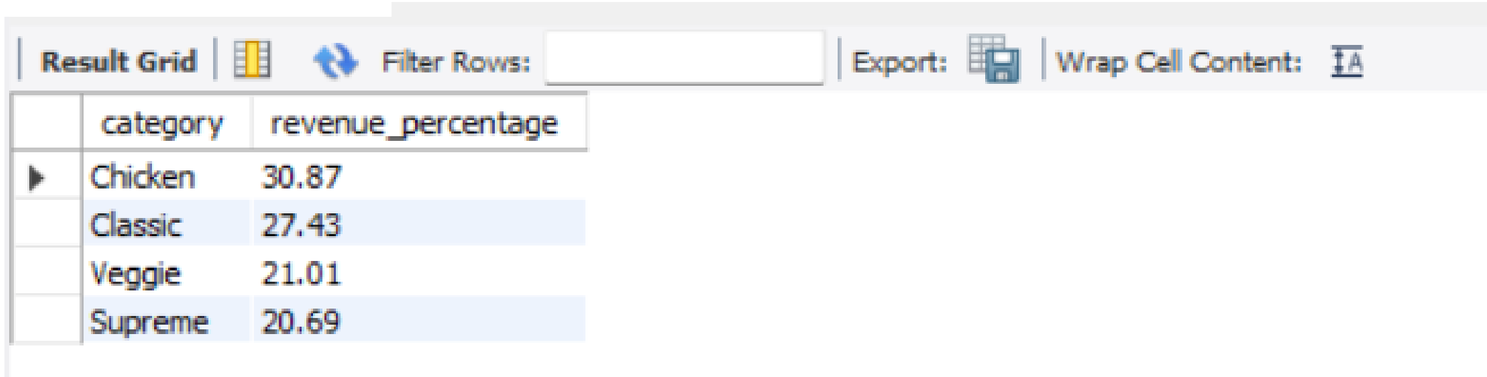
```
Select  pizza_types.name,
orders_details.quantity*price as revenue
from pizza_types join pizzas
on pizzas.pizza_type_id=pizza_types.pizza_type_id
join orders_details
on orders_details.pizza_id=pizzas.pizza_id
order by revenue desc limit 3
```

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

name	revenue
The Barbecue Chicken Pizza	50.25
The Big Meat Pizza	48
The Brie Carre Pizza	47.3

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

```sql
SELECT
    pizza_types.category,
    ROUND(
        SUM(orders_details.quantity * pizzas.price) /
        (
            SELECT ROUND(SUM(orders_details.quantity * pizzas.price), 2)
            FROM orders_details
            JOIN pizzas ON pizzas.pizza_id = orders_details.pizza_id
        ) * 100,
    2) AS revenue_percentage
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
ORDER BY revenue_percentage DESC;
```



category	revenue_percentage
Chicken	30.87
Classic	27.43
Veggie	21.01
Supreme	20.69

Q12. Analyze the cumulative revenue generated over time.

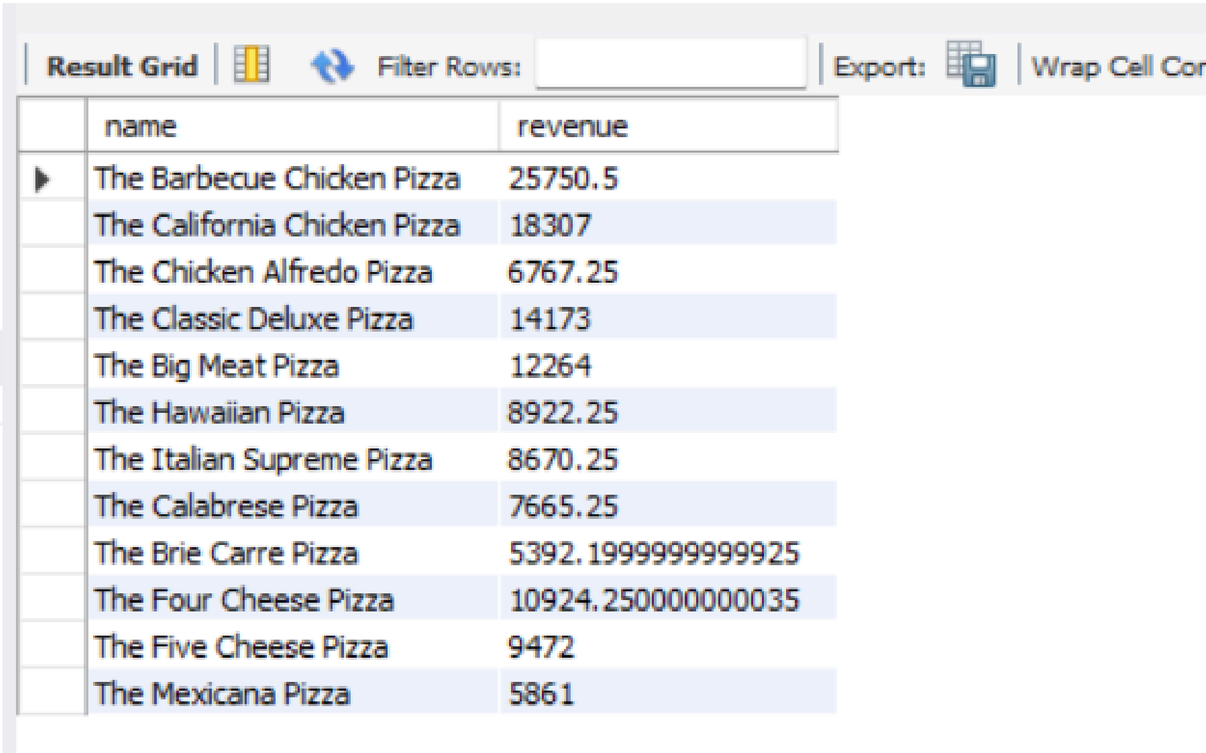
```sql
SELECT
    date,
    round(SUM(revenue) OVER (ORDER BY date),2) AS cum_revenue
FROM (
    SELECT
        orders.date,
       round( SUM(orders_details.quantity * pizzas.price),2) AS revenue
    FROM orders_details
    JOIN pizzas ON orders_details.pizza_id = pizzas.pizza_id
    JOIN orders ON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

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

date	cum_revenue
2015-01-01	2272.7
2015-01-02	4491.7
2015-01-03	6749.7
2015-01-04	8520.3
2015-01-05	10318.2
2015-01-06	12464.6
2015-01-07	14390.5
2015-01-08	16704.8
2015-01-09	18773.7
2015-01-10	21002.3
2015-01-11	22683.9
2015-01-12	24447.5
2015-01-13	26063.3
2015-01-14	28297.3
2015-01-15	30253.4

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 pizza_types.category, pizza_types.name,
sum(orders_details.quantity*pizzas.price) as revenue
from pizza_types join pizzas
on pizza_types.pizza_type_id=pizzas.pizza_type_id
join orders_details
on orders_details.pizza_id=pizzas.pizza_id
group by pizza_types.category, pizza_types.name) as a) as b
where rn<=3;
```



name	revenue
The Barbecue Chicken Pizza	25750.5
The California Chicken Pizza	18307
The Chicken Alfredo Pizza	6767.25
The Classic Deluxe Pizza	14173
The Big Meat Pizza	12264
The Hawaiian Pizza	8922.25
The Italian Supreme Pizza	8670.25
The Calabrese Pizza	7665.25
The Brie Carre Pizza	5392.1999999999925
The Four Cheese Pizza	10924.250000000035
The Five Cheese Pizza	9472
The Mexicana Pizza	5861

Thank You