PIZZA SALES ANALYSIS

BY

SANJANAA

Retrieve the total number of orders placed

```sql
select
    count(*) as total_orders
from orders;
```

total_orders
21350

Calculate the total revenue generated from pizza sales

```sql
select
    sum(o.quantity * p.price) as total_revenue
from order_details o
join pizzas p
on o.pizza_id = p.pizza_id
```

total_revenue
817860.04999993

Identify the highest-priced pizza

```sql
select
    t.name
from pizza_types t
join pizzas p
on t.pizza_type_id = p.pizza_type_id
order by p.price desc
limit 1
```
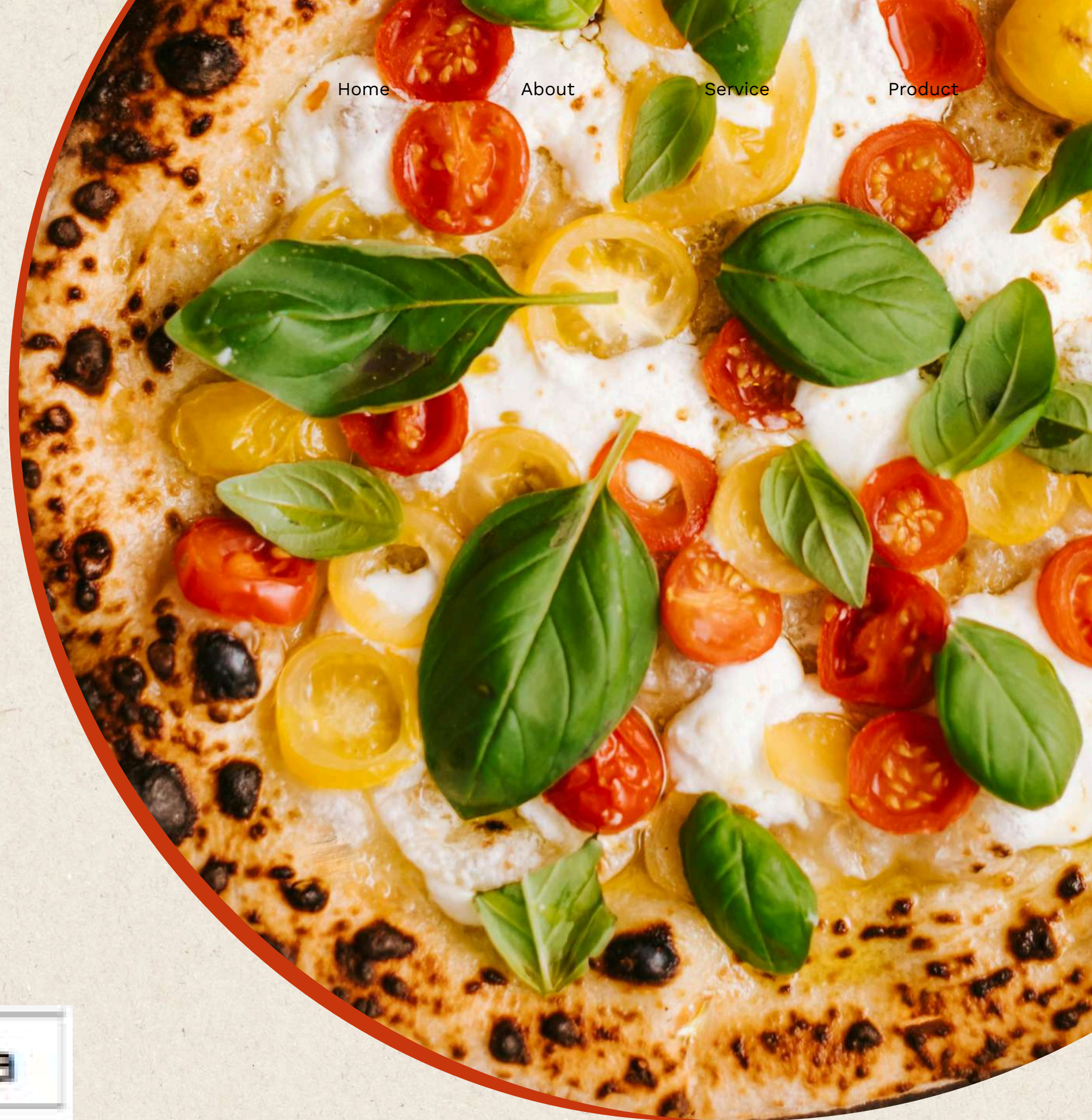
name
The Greek Pizza

Identify the most common pizza size ordered

```
select
        p.size,
        count(p.size) as common_pizza
from pizzas p
join order_details o
on p.pizza_id = o.pizza_id
group by p.size
order by common_pizza desc
limit 1
```

size	common_pizza
L	18526

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

```sql
select
    t.name,
    sum(o.quantity) as quantity
from order_details o
join pizzas p
on p.pizza_id = o.pizza_id
join pizza_types t
on p.pizza_type_id = t.pizza_type_id
group by t.name
order by quantity desc
limit 5
```

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

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

```sql
select
        t.category,
        sum(o.quantity) as total_quantity
from order_details o
join pizzas p
on o.pizza_id = p.pizza_id
join pizza_types t
on p.pizza_type_id = t.pizza_type_id
group by t.category
```

category	total_quantity
Chicken	11050
Classic	14888
Supreme	11987
Veggie	11649
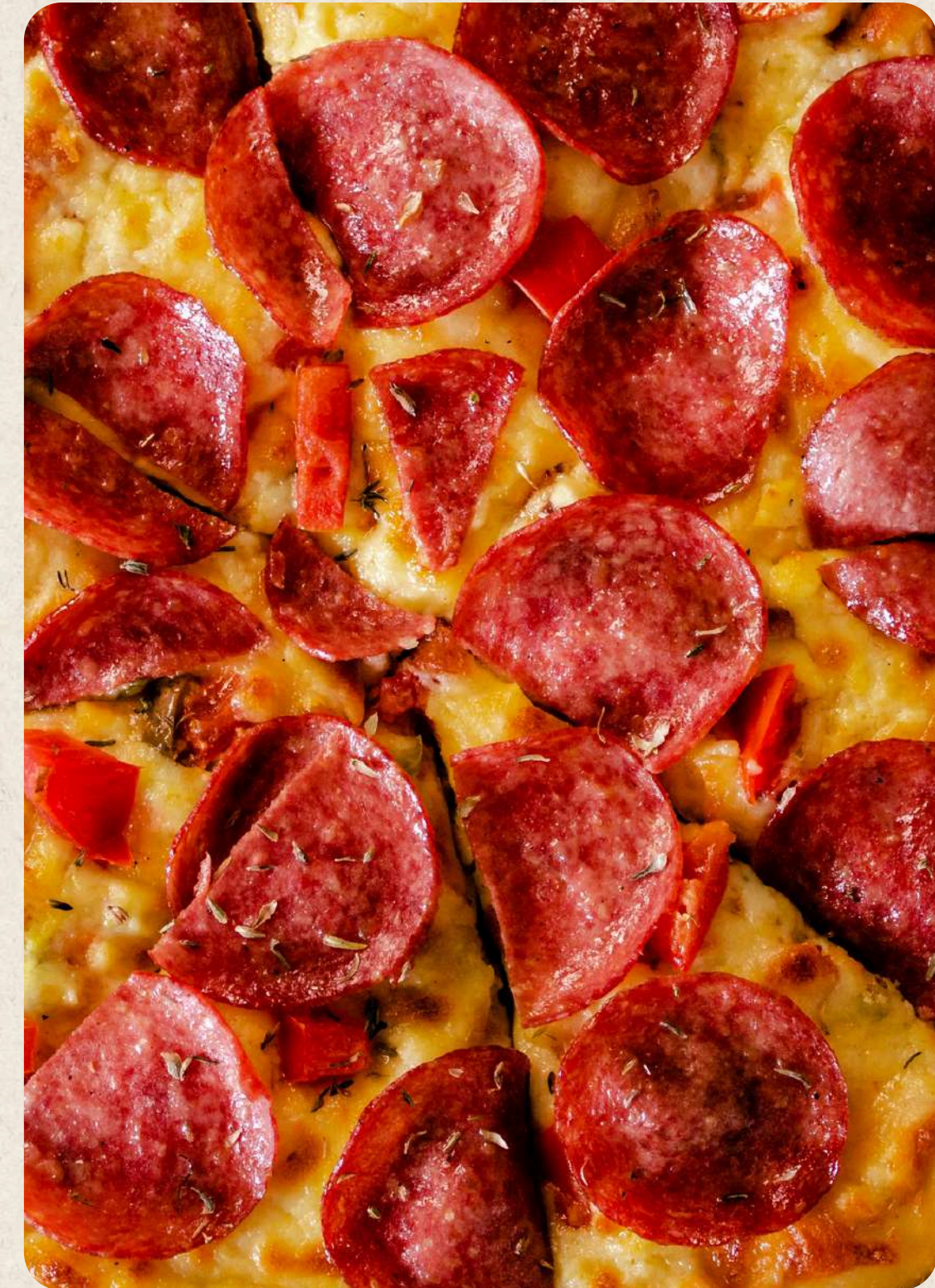
Determine the distribution of orders by hour of the day

hours	distribution
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

```
select
    hour(order_time) hours,
    count(order_id) as distribution
from orders
group by hours
```

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

```
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
    o.order_date,
    avg(d.quantity) as average
from orders o
join order_details d
on o.order_id = d.order_id
group by o.order_date
```

order_date	average
2015-01-01	1.0062
2015-01-02	1.0313
2015-01-03	1.0260
2015-01-04	1.0000
2015-01-05	1.0331
2015-01-06	1.0208
2015-01-07	1.0376
2015-01-08	1.0117
2015-01-09	1.0325
2015-01-10	1.0069
2015-01-11	1.0175
2015-01-12	1.0085
2015-01-13	1.0256
2015-01-14	1.0417
2015-01-15	1.0000

Determine the top 3 most ordered pizza types based on revenue

```sql
select
        t.name,
        sum(o.quantity * p.price) as total_revenue
from order_details o
join pizzas p
on o.pizza_id = p.pizza_id
join pizza_types t
on p.pizza_type_id = t.pizza_type_id
group by t.name
order by total_revenue desc
limit 3
```

name	total_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

```
select
    t.category,
    round(sum(o.quantity * p.price),2) as revenue,
    round(sum(o.quantity * p.price) /
        (select
            round(sum(o.quantity * p.price),2) as total_revenue
        from order_details o
        join pizzas p
        on o.pizza_id = p.pizza_id)
    *100,2) as percentage
from order_details o
join pizzas p
on o.pizza_id = p.pizza_id
join pizza_types t
on p.pizza_type_id = t.pizza_type_id
group by t.category
```

category	revenue	percentage
Chicken	195919.50	23.96
Classic	220053.10	26.91
Supreme	208197.00	25.46
Veggie	193690.45	23.68

Analyze the cumulative revenue generated over time

```sql
select
    order_date,
    sum(revenue) over(order by order_date) as cumulative_revenue
from
    (select
        o.order_date,
        sum(d.quantity * p.price) as revenue
    from order_details d
    join orders o
    on d.order_id = o.order_id
    join pizzas p
    on d.pizza_id = p.pizza_id
    group by o.order_date) as daily_revenue
order by order_date
```
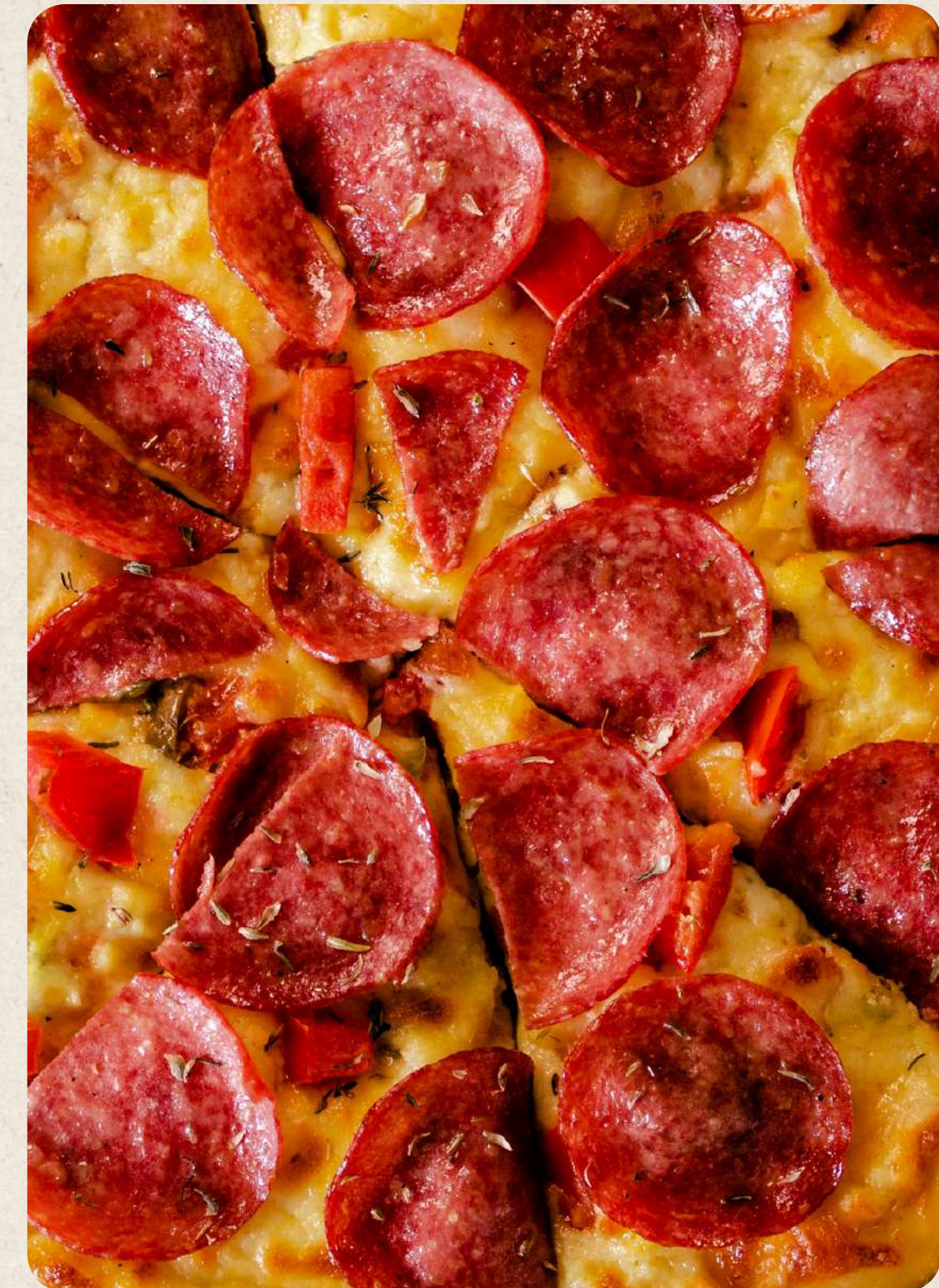
order_date	cumulative_revenue
2015-01-01	2713.8500000000004
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55
2015-01-06	14358.5
2015-01-07	16560.7
2015-01-08	19399.05
2015-01-09	21526.4
2015-01-10	23990.350000000002
2015-01-11	25862.65

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

```sql
with type_revenue as (
    select
            t.category,
            t.name,
            sum(o.quantity*p.price) as revenue
    from order_details o
    join pizzas p
    on o.pizza_id = p.pizza_id
    join pizza_types t
    on p.pizza_type_id = t.pizza_type_id
    group by t.category, t.name
),
```

```sql
ranks as (
    select
            category,
            name,
            revenue,
            rank() over(partition by
category order by revenue desc) as rnk
        from
            type_revenue
)
select
        category,
        name,
        revenue
from
        ranks
where rnk<=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