

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

```
SELECT
    pizza_types.category,
    SUM(pizzas.price * order_details.quantity) * 100.0 /
        (SELECT SUM(pizzas.price * order_details.quantity)
         FROM pizzas
         JOIN order_details ON pizzas.pizza_id = order_details.pizza_id)
    AS percentage_contribution
FROM pizza_types
JOIN pizzas
    ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN order_details
    ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizza_types.category;
```

2. Analyze the cumulative revenue generated over time.

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

```
GROUP BY orders.order_date  
) AS revenue_table;
```

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

```
SELECT  
    category,  
    name,  
    revenue  
FROM (  
    SELECT  
        pizza_types.category,  
        pizza_types.name,  
        SUM(pizzas.price * order_details.quantity) AS revenue,  
        ROW_NUMBER() OVER (  
            PARTITION BY pizza_types.category  
            ORDER BY SUM(pizzas.price * order_details.quantity) DESC  
        ) AS rank_in_category  
    FROM pizza_types  
    JOIN pizzas  
        ON pizza_types.pizza_type_id = pizzas.pizza_type_id  
    JOIN order_details  
        ON pizzas.pizza_id = order_details.pizza_id  
    GROUP BY pizza_types.category, pizza_types.name  
    ) ranked  
WHERE rank_in_category <= 3  
ORDER BY category, revenue DESC;
```