

Problem Statements and Solutions

#1 Retrieve the total number of orders placed?

```
select * from pizzas;  
SELECT count(order_id) as TotalOrders from orders;
```

#Calculate the total revenue generated from pizza sales?

```
select sum(a.quantity*p.price) as totrevenue from order_details as a  
join pizzas as p on a.pizza_id = p.pizza_id;
```

#3 Identify the highest-priced pizza.

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

#Q4 Identify the most common pizza size ordered.

```
select size,a.size,count(b.quantity) as countofq from pizzas as a  
join order_details as b on a.pizza_id=b.pizza_id  
group by 1  
order by countofq desc;
```

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

```
select a.name, sum(b.quantity) as mostorderd from pizza_types as a  
join pizzas as c on a.pizza_type_id=c.pizza_type_id  
join order_details as b on c.pizza_id=b.pizza_id  
group by 1  
order by 2 desc  
limit 5;
```

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

```
select sum(a.quantity),b.category from order_details as a  
join pizzas as c on a.pizza_id = c.pizza_id  
join pizza_types as b on c.pizza_type_id=b.pizza_type_id  
group by 2;
```

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

```
select count(order_id), hour(time) as byhour from orders
group by 2;
```

#8) Join relevant tables to find the category-wise distribution of pizzas.

```
select category,count(b.order_id) from pizza_types as a
join pizzas as c on a.pizza_type_id = c.pizza_type_id
join order_details as b on b.pizza_id=c.pizza_id
group by category;
```

#9)Group the orders by date and calculate the average number of pizzas ordered per day.

```
with aa as
(
select sum(b.quantity) as tqty, a.date from order_details as b
join orders as a on a.order_id=b.order_id
group by 2
)
select avg(tqty) from aa;
```

#Q10)Determine the top 3 most ordered pizza name based on revenue.

```
select a.name, sum(quantity*price) as Revenue from pizza_types as a
join pizzas as b on a.pizza_type_id=b.pizza_type_id
join order_details as c on b.pizza_id=c.pizza_id
group by 1
order by 2 desc;
```

#Q11)Calculate the percentage % contribution of each pizza Category to total revenue.

```
with aa as
(
select a.category as cat,round(sum(c.quantity*b.price),2) as revenue from pizza_types as a
join pizzas as b on a.pizza_type_id=b.pizza_type_id
join order_details as c on b.pizza_id=c.pizza_id
group by 1
)
select cat, (revenue/(select sum(revenue) from aa))*100.00 as percentage from aa;
```

#Q12) Analyze the cumulative revenue generated over time.

```
with aa as
(
select a.date,round(sum(d.quantity*c.price),2) as revenue from orders as a
join order_details as d on a.order_id=d.order_id
join pizzas as c on d.pizza_id=c.pizza_id
group by 1
)
select date,revenue,round(sum(revenue) over (partition by date order by date),2) as
cum_revenue from aa;
```

#13)Determine the top 3 most ordered pizza types_id based on revenue for each pizza category.

```
with bb as
(
with aa as
(
select a.category as cat,a.name as pizza_name,sum(c.quantity*b.price) as revenue from
pizza_types as a
join pizzas as b on a.pizza_type_id=b.pizza_type_id
join order_details as c on b.pizza_id=c.pizza_id
group by cat,pizza_name
order by cat, 2 desc
)
select cat,pizza_name,revenue, row_number() over(partition by cat order by revenue desc) as
ranking from aa
)
select cat,pizza_name,revenue,ranking from bb
where ranking <=3;
```