**Basics**

1. **Retrieve the total number of orders placed.**

*select count(order\_id) from orders*

1. **Calculate the total revenue generated from pizza sales.**

SELECT

round(SUM(order\_details.quantity \* pizzas.price),1) AS total\_sales

FROM

order\_details

JOIN

pizzas ON pizzas.pizza\_id = order\_details.pizza\_iid

1. **Identify the highest-priced pizza.**

SELECT pt.name, p.Price from pizzas p

join pizza\_type pt

on pt.pizza\_type\_id = p.pizza\_type\_id

order by price desc

limit 1;

1. **Identify the most common pizza size ordered.**

SELECT p.size, count(od.order\_details\_id) as total\_quantity from order\_details od

join pizzas p

on p.pizza\_id = od.pizza\_id

group by size

order by total\_quantity desc

limit 1;

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

select pt.name, sum(od.quantity) as total\_quantity from pizza\_type pt

join pizzas p

on pt.pizza\_type\_id = p.pizza\_type\_id

join order\_details od

on od.pizza\_id = p.pizza\_id

group by pt.name

order by total\_quantity desc

limit 5;

**Intermediate:**

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

select pt.category, count(od.quantity) as total\_quantity from pizza\_type pt

join pizzas p

on p.pizza\_type\_id = pt.pizza\_type\_id

join order\_details od

on od.pizza\_id = p.pizza\_id

group by category

order by total\_quantity desc;

1. **Determine the distribution of orders by hour of the day.**

SELECT count(order\_id), EXTRACT(HOUR FROM time) AS hour FROM orders

group by hour

order by hour;

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

select category, count(name) from pizza\_type

group by category;

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

select round(avg(Total\_Orders\_perday),0) from (select o.date, sum(od.quantity) as Total\_Orders\_perday from orders o

join order\_details od

on od.order\_id = o.order\_id

group by o.date) as order\_quantity

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

select pt.name, sum(od.quantity \* price) as revenue from order\_details od

join pizzas p

on p.pizza\_id = od.pizza\_id

join pizza\_type pt

on pt.pizza\_type\_id = p.pizza\_type\_id

group by pt.name

order by revenue desc

limit 3;

**Advanced:**

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

SELECT

pizza\_type.category,

ROUND(SUM(order\_details.quantity \* pizzas.price) / (SELECT ROUND(SUM(order\_details.quantity \* pizzas.price), 2) AS total\_sales

FROM

order\_details

JOIN

pizzas ON pizzas.pizza\_id = order\_details.pizza\_id

) \* 100, 2) AS revenue

FROM

pizza\_type

JOIN

pizzas ON pizza\_type.pizza\_type\_id = pizzas.pizza\_type\_id

JOIN

order\_details ON order\_details.pizza\_id = pizzas.pizza\_id

GROUP BY

pizza\_type.category

ORDER BY

revenue DESC;

1. **Analyze the cumulative revenue generated over time.**

select date, sum(revenue) over (order by date) as cum\_revenue

from

(select orders.date, SUM(order\_details.quantity \* pizzas.price) as revenue

FROM

order\_details

JOIN pizzas on pizzas.pizza\_id = order\_details.pizza\_id

join orders on orders.order\_id = order\_details.order\_id

group by date

order by revenue) as sales

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

select name, category, revenue from (select name, category, revenue, rank() over(partition by category order by revenue desc) as rn from

(SELECT

pizza\_type.category,

pizza\_type.name,

SUM(order\_details.quantity \* pizzas.price) AS revenue

FROM

order\_details

JOIN

pizzas ON order\_details.pizza\_id = pizzas.pizza\_id

JOIN

pizza\_type ON pizzas.pizza\_type\_id = pizza\_type.pizza\_type\_id

GROUP BY

pizza\_type.category, pizza\_type.name

ORDER BY

pizza\_type.category, revenue DESC) as a) as b

where rn <= 3;