**Question**

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

select count(\*)from orders

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

SELECT

ROUND(SUM(orders\_details.quantity \* pizzas.price),

2) AS total\_sales

FROM

orders\_details

JOIN

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

1. **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;

1. **Identify the 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;

1. **List the top 5 most ordered pizza types 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 DESC

LIMIT 5;

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

SELECT

pizza\_types.category,

SUM(orders\_details.quantity) AS quanlity

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 quanlity DESC;

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

SELECT

HOUR(order\_time) AS hour, COUNT(order\_id)

FROM

orders

GROUP BY HOUR(order\_time);

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

SELECT

category, COUNT(name)

FROM

pizza\_types

GROUP BY category;

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

SELECT

AVG(quantity)

FROM

(SELECT

orders.order\_date, SUM(orders\_details.quantity) AS quantity

FROM

orders

JOIN orders\_details ON orders\_details.order\_id = orders.order\_id

GROUP BY orders.order\_date) AS order\_quantity;

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

SELECT

pizza\_types.name,

SUM(orders\_details.quantity \* pizzas.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

GROUP BY pizza\_types.name

ORDER BY revenue DESC

LIMIT 3;

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

SELECT

pizza\_types.category,

SUM(orders\_details.quantity \* pizzas.price) / ((select sum(orders\_details.quantity\*pizzas.price)

from orders\_details join pizzas on pizzas.pizza\_id=orders\_details.pizza\_id))\*100 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

GROUP BY pizza\_types.category

ORDER BY revenue DESC

LIMIT 3;

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

select order\_date,

sum(revenue) over(order by order\_date) as cum\_revenue

from

(select orders.order\_date,sum(orders\_details.quantity\*pizzas.price) 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.order\_date) as sales ;