CREATE DATABASE PIZZA

USE PIZZA

-- let's import the csv files

-- Now understand each table (all columns)

select \* from order\_details; -- order\_details\_id order\_id pizza\_id quantity

select \* from pizzas -- pizza\_id, pizza\_type\_id, size, price

select \* from orders -- order\_id, date, time

select \* from pizza\_types; -- pizza\_type\_id, name, category, ingredients

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Basic:

Retrieve the total number of orders placed.

Calculate the total revenue generated from pizza sales.

Identify the highest-priced pizza.

Identify the most common pizza size ordered.

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

Intermediate:

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

Determine the distribution of orders by hour of the day.

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

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

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

-- Retrieve the total number of orders placed.

select count(distinct order\_id) as 'Total Orders' from orders;

-- Calculate the total revenue generated from pizza sales.

-- to see the details

select order\_details.pizza\_id, order\_details.quantity, pizzas.price

from order\_details

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

-- to get the answer

SELECT pizza\_types.name AS 'Pizza Name',

CAST(pizzas.price AS DECIMAL(10,2)) AS 'Price'

FROM pizzas

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

ORDER BY price DESC

LIMIT 1;

-- Identify the highest-priced pizza.

-- using TOP/Limit functions

select top 1 pizza\_types.name as 'Pizza Name', cast(pizzas.price as decimal(10,2)) as 'Price'

from pizzas

join pizza\_types on pizza\_types.pizza\_type\_id = pizzas.pizza\_type\_id

order by price desc

-- Identify the most common pizza size ordered.

select pizzas.size, count(distinct order\_id) as 'No of Orders', sum(quantity) as 'Total Quantity Ordered'

from order\_details

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

-- join pizza\_types on pizza\_types.pizza\_type\_id = pizzas.pizza\_type\_id

group by pizzas.size

order by count(distinct order\_id) desc

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

select top 5 pizza\_types.name as 'Pizza', sum(quantity) as 'Total Ordered'

from order\_details

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

join pizza\_types on pizza\_types.pizza\_type\_id = pizzas.pizza\_type\_id

group by pizza\_types.name

order by sum(quantity) desc

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

SELECT pizza\_types.name AS 'Pizza',

SUM(order\_details.quantity) AS 'Total Ordered'

FROM order\_details

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

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

GROUP BY pizza\_types.name

ORDER BY SUM(order\_details.quantity) DESC

LIMIT 5;

-- Determine the distribution of orders by hour of the day.

SELECT HOUR(time) AS 'Hour of the day',

COUNT(DISTINCT order\_id) AS 'No of Orders'

FROM orders

GROUP BY HOUR(time)

ORDER BY `No of Orders` DESC;

-- find the category-wise distribution of pizzas

SELECT category,

COUNT(DISTINCT pizza\_type\_id) AS `No of pizzas`

FROM pizza\_types

GROUP BY category

ORDER BY `No of pizzas`;

-- Calculate the average number of pizzas ordered per day.

SELECT AVG(`Total Pizza Ordered that day`) AS `Avg Number of pizzas ordered per day`

FROM (

SELECT orders.date AS `Date`,

SUM(order\_details.quantity) AS `Total Pizza Ordered that day`

FROM order\_details

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

GROUP BY orders.date

) AS subquery;

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

SELECT pizza\_types.name,

SUM(order\_details.quantity \* pizzas.price) AS `Revenue from pizza`

FROM order\_details

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

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

GROUP BY pizza\_types.name

ORDER BY `Revenue from pizza` DESC

LIMIT 3;

-- try doing it using window functions also

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Advanced:

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

Analyze the cumulative revenue generated over time.

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

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select pizza\_types.category,

concat(cast((sum(order\_details.quantity\*pizzas.price) /

(select sum(order\_details.quantity\*pizzas.price)

from order\_details

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

))\*100 as decimal(10,2)), '%')

as 'Revenue contribution from pizza'

from order\_details

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

join pizza\_types on pizza\_types.pizza\_type\_id = pizzas.pizza\_type\_id

group by pizza\_types.category