pizza-sales---SQL Full Portfolio Project

Questions to Solve in this Project

- **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.
- **Advanced:**
- Calculate the percentage contribution of each pizza type to total revenue.
- Analyse the cumulative revenue generated over time.
- Determine the top 3 most ordered pizza types based on revenue for each pizza category.

Solved Query

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

```
SELECT
pizza_types.name, SUM(order_details.quantity) AS quantity
FROM
pizza_types
JOIN
pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN
order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;
```

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

```
SELECT
pizza_types.category,
SUM(order_details.quantity) AS quantity
FROM
pizza_types
JOIN
pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN
order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity DESC;
```

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

```
SELECT
   HOUR(order_time) AS hour, COUNT(order_id) AS order_count
FROM
   orders
GROUP BY HOUR(order_time);
```

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

```
SELECT
category, COUNT(name)
FROM
pizza_types
GROUP BY category;
```

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

```
SELECT
ROUND(AVG(quantity), 0) as avg_pizza_ordered_per_day
FROM
(SELECT
orders.order_date, SUM(order_details.quantity) AS quantity
FROM
orders
JOIN order_details ON orders.order_id = order_details.order_id
GROUP BY orders.order_date) AS order_quantity;
```

- **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_types
JOIN
pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
JOIN
order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY revenue DESC
LIMIT 3;
```

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

```
SELECT
pizza_types.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_types JOIN pizzas
ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN
order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY revenue DESC;
```

- **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(order_details.quantity * pizzas.price) as revenue
from order_details join pizzas
on order_details.pizza_id = pizzas.pizza_id
join orders
on orders.order_id = order_details.order_id
group by orders.order_date) as Sales;
```

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

```
select name,revenue from
(select category,name,revenue,
rank() over(partition by category order by revenue desc) as
rn
from
(select pizza_types.category,pizza_types.name,
Sum( (order_details.quantity) * pizzas.price) as revenue
from pizza_types join pizzas
on pizza_types.pizza_type_id = pizzas.pizza_type_id
join order_details
on order_details.pizza_id = pizzas.pizza_id
group by pizza_types.category,pizza_types.name) as a) as b
where rn <= 3;
```