

Pizza Sales Analysis

Contents

1. Retrieve the total number of orders placed.	2
2. Calculate the total revenue generated from pizza sales	2
3. Identify the highest-priced pizza	2
4. Identify the most common pizza size ordered.	3
5. List the top 5 most ordered pizza types along with their quantities.....	3
6. Find the total quantity of each pizza category ordered.	4
7. Determine the distribution of orders by hour	4
8. Group the orders by date & calculate the average number of pizzas ordered per day.	5
9. Determine the top 3 most ordered pizza types based on revenue.....	5
10. Calculate the percentage contribution of each pizza type to total revenue.	6
11. Analyze the cumulative revenue generated over time.	6
12. Determine the top 3 most ordered pizza types based on revenue for each pizza category.....	7

1. Retrieve the total number of orders placed.

```
SELECT COUNT(order_id)
FROM orders;
```

Output:

COUNT(order_id)
21350

2. Calculate the total revenue generated from pizza sales

```
SELECT ROUND(SUM(order_details.quantity * pizzas.price),2) AS total_revenue
FROM order_details
JOIN pizzas
ON order_details.pizza_id = pizzas.pizza_id;
```

Output:

total_revenue
817860.05

3. 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 2 DESC
LIMIT 1;
```

Output:

name	price
The Greek Pizza	35.95

4. Identify the most common pizza size ordered.

```
WITH pizzas_ordered (pizza_id, size, quantity) AS (  
  SELECT order_details.pizza_id, pizzas.size, order_details.quantity  
  FROM order_details  
  JOIN pizzas  
  ON order_details.pizza_id = pizzas.pizza_id)  
SELECT size, SUM(quantity) AS total_quantity  
FROM pizzas_ordered  
GROUP BY size  
ORDER BY total_quantity DESC LIMIT 1
```

Output:

size	total_quantity
L	18956

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

```
SELECT pizza_types.name, SUM(order_details.quantity) AS total_quantity  
FROM pizzas  
JOIN pizza_types  
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 total_quantity DESC LIMIT 5;
```

Output:

name	total_quantity
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

6. Find the total quantity of each pizza category ordered.

```
SELECT pizza_types.category, SUM(order_details.quantity) AS total_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 total_quantity;
```

Output:

category	total_quantity
Chicken	11050
Veggie	11649
Supreme	11987
Classic	14888

7. Determine the distribution of orders by hour

```
SELECT HOUR(time), COUNT(order_id)
FROM orders
GROUP BY HOUR(time);
```

Output:

HOUR(time)	COUNT(order_id)
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336
18	2399
19	2009
20	1642
21	1198
22	663
23	28
10	8
9	1

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

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

Output:

avg_pizzas_per_day
61

9. 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;
```

Output:

name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

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

```
WITH revenue_per_category AS(  
SELECT pizza_types.category AS category,  
ROUND(SUM(order_details.quantity * pizzas.price),2) AS total_revenue_per_category  
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),  
total_revenue_category AS(  
SELECT category, total_revenue_per_category,  
SUM(total_revenue_per_category) OVER() AS total_revenue_category  
FROM revenue_per_category)  
SELECT category,  
ROUND((total_revenue_per_category/total_revenue_category) *100,2) AS percentage_revenue  
FROM total_revenue_category;
```

Output:

category	percentage
Classic	26.91
Veggie	23.68
Supreme	25.46
Chicken	23.96

11. 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 order_details.pizza_id = pizzas.pizza_id  
JOIN orders  
ON order_details.order_details_id = orders.order_id  
GROUP BY orders.date) AS sales;
```

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

```
WITH ranked_pizza AS(
SELECT pizza_types.category,
pizza_types.name,
ROUND(SUM(order_details.quantity*pizzas.price),2) as revenue,
RANK() OVER(PARTITION BY pizza_types.category ORDER BY SUM(order_details.quantity*pizzas.price) DESC) AS ranking
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
)
SELECT category, name, revenue, ranking
FROM ranked_pizza
WHERE ranking<=3;
```

Output:

category	name	revenue	ranking
Chicken	The Thai Chicken Pizza	43434.25	1
Chicken	The Barbecue Chicken Pizza	42768	2
Chicken	The California Chicken Pizza	41409.5	3
Classic	The Classic Deluxe Pizza	38180.5	1
Classic	The Hawaiian Pizza	32273.25	2
Classic	The Pepperoni Pizza	30161.75	3
Supreme	The Spicy Italian Pizza	34831.25	1
Supreme	The Italian Supreme Pizza	33476.75	2
Supreme	The Sicilian Pizza	30940.5	3
Veggie	The Four Cheese Pizza	32265.7	1
Veggie	The Mexicana Pizza	26780.75	2
Veggie	The Five Cheese Pizza	26066.5	3