PIZZA SALES ANALYSIS USING SQL

OBJECTIVE

The main objective of this project is to analyze pizza sales data to gain insights into customer preferences, popular pizza types, peak ordering hours with the goal of optimizing inventory management, marketing strategies, and overall business performance

Retrieve the total number of orders placed.

```
select count(order_id) as total_number_of_orders_placed from orders;
```

Output : 21350

Calculate the total revenue generated from pizza sales

```
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;
```

Output : 817860.05

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;
```

Output:

name	price
The Greek Pizza	35.95

Identify the most common pizza size ordered.

```
SELECT PIZZAS.SIZE,
COUNT(ORDER_DETAILS.ORDER_DETAILS_ID)AS ORDER_COUNT
FROM PIZZAS
JOIN ORDER_DETAILS ON PIZZAS.PIZZA_ID = ORDER_DETAILS.PIZZA_ID
GROUP BY PIZZAS.SIZE
ORDER BY ORDER_COUNT DESC
LIMIT 1;
```

Output :

size	order_count
L	18526

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;
```

OUTPUT:

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

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;
```

OUTPUT:

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

Determine the distribution of orders by hour of the day

```
select extract(hour from order_time) as hour_of_order, count(order_id) as
    order_count from orders group by extract(hour from order_time)order by
    hour_of_order ;
```

OUTPUT:

hour_of_order	order_count
9	1
10	8
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

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

```sql
select category , count(name) as distribution_of_pizzas
from pizza_types group by category;
```

OUTPUT:

category	distribution_of_pizzas
Supreme	9
Chicken	6
Classic	8
Veggie	9

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;
```

OUTPUT:

avg_pizza_ordered_per_day
138

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;
```

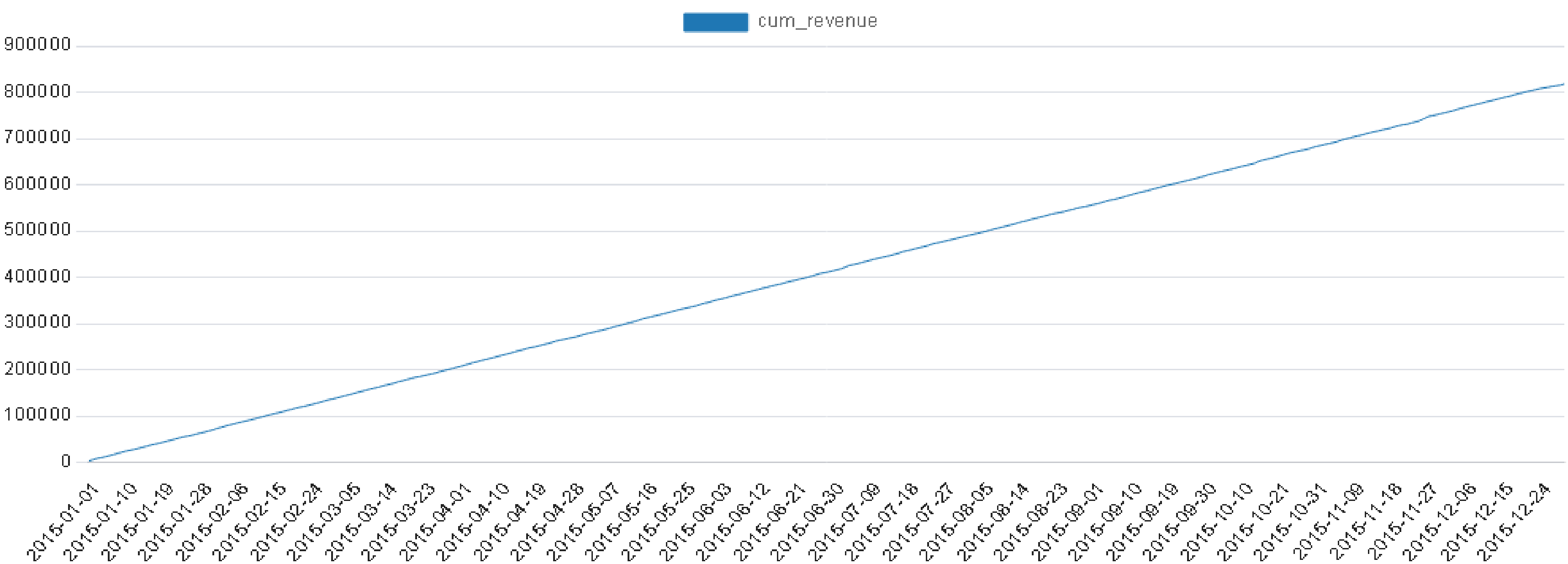
OUTPUT:

category	revenue
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

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;
```

OUTPUT:



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

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

THANK YOU