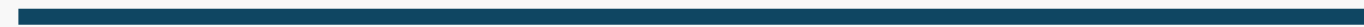


# *Pizza\_sales\_analysis*



Developed comprehensive SQL queries to analyze and optimize pizza sales at Pizza outlet. Extracted key metrics such as total orders, revenue, top-selling pizzas, and order patterns by size, category, and time. Provided insights on revenue contributions and cumulative revenue trends, aiding strategic decision-making and operational efficiency.



## *The most common pizza size ordered*



```
/* Identify the most common pizza size ordered */  
select  
    size,  
    count(quantity) as no_of_times_ordered  
from  
    pizzas  
    inner join orders_details on pizzas.pizza_id = orders_details.pizza_id  
group by  
    size  
order by  
    no_of_times_ordered desc  
limit  
    1;
```



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



```
/* List the top 5 most ordered pizza types along with their quantities */
select
  pizzas.pizza_type_id as ordered_pizza_type,
  sum(quantity) as no_of_times_ordered
from
  pizzas
  inner join pizza_types on pizzas.pizza_type_id = pizza_types.pizza_type_id
  inner join orders_details on pizzas.pizza_id = orders_details.pizza_id
group by
  pizzas.pizza_type_id
order by
  no_of_times_ordered desc
limit
  5;
```



## *The category-wise distribution of pizzas*



```
/* The category-wise distribution of pizzas */  
select  
    category as Pizza_Category,  
    count(name) as Pizza_count  
from  
    pizza_types  
group by  
    Pizza_Category  
order by  
    Pizza_count;
```



# *The orders by date and calculate the average number of pizzas ordered per day*



```
/* Group the orders by date and calculate the average number of pizzas ordered per day */
select
  round(
    avg(no_of_pizzas_ordered_each_day),
    0
  ) as avg_no_of_pizzas_ordered_each_day
from
  (
    select
      order_date,
      sum(quantity) as no_of_pizzas_ordered_each_day
    from
      orders
      inner join orders_details on orders.order_id = orders_details.order_id
    group by
      order_date
  ) as pizza_qty;
```



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

```
select
  pizza_types.category as ordered_pizza_type,
  sum(quantity) as total_quantity_of_each_pizza_category_ordered
from
  pizzas
  inner join pizza_types on pizzas.pizza_type_id = pizza_types.pizza_type_id
  inner join orders_details on pizzas.pizza_id = orders_details.pizza_id
group by
  pizza_types.category
order by
  total_quantity_of_each_pizza_category_ordered desc;
/* Determine the distribution of orders by hour of the day */
select
  hour(order_time) as hour_of_the_day,
  count(order_id) as no_of_orders
from
  orders
group by
  hour_of_the_day;
/* Join relevant tables to find the category-wise distribution of pizzas */
select
  category as Pizza_Category,
  count(name) as Pizza_count
from
  pizza_types
group by
  Pizza_Category
order by
  Pizza_count;
```

# *The top 3 most ordered pizza types based on revenue*



```
/* The top 3 most ordered pizza types based on revenue */
with cte1 as (
  select pizza_type_id,name
  from pizza_types
),
cte2 as (
  select pizza_id, pizza_type_id,price
  from pizzas
),
cte3 as (
  select pizza_id,quantity
  from orders_details
)
select
  cte1.pizza_type_id as Pizza_Types,
  sum(cte3.quantity * cte2.price) as revenue
from
  cte2
  inner join cte3 on cte2.pizza_id = cte3.pizza_id
  inner join cte1 on cte2.pizza_type_id = cte1.pizza_type_id
group by Pizza_Types
order by revenue desc
limit 3;
```



# The percentage contribution of each pizza type to total revenue



```
/* The percentage contribution of each pizza category to total revenue */
select ct.category as Pizza_Category,
round(
  (
    sum(ct.price * ct.quantity) / (
      select
        sum(
          pizzas.price * orders_details.quantity
        )
      from
        pizzas
        inner join orders_details on pizzas.pizza_id = orders_details.pizza_id
    )
  ),
  4
) * 100 as Total_contribution
from
(
  select
    pizza_types.category,
    pizzas.price,
    orders_details.quantity
  from
    pizzas
    inner join pizza_types on pizzas.pizza_type_id = pizza_types.pizza_type_id
    inner join orders_details on pizzas.pizza_id = orders_details.pizza_id
) ct
group by Pizza_Category
order by Total_contribution desc;
```





# *The top 3 most ordered pizza types based on revenue for each pizza category*



```
/* Determine the top 3 most ordered pizza name based on revenue for each pizza category */
select category, name, Revenue_Generated
from
(
  select category, name, Revenue_Generated,
    rank() over (
      partition by category
      order by Revenue_Generated desc
    ) as rnk
  from
  (
    select
      pizza_types.category,
      pizza_types.name,
      sum(
        pizzas.price * orders_details.quantity
      ) as Revenue_Generated
    from
      pizzas
      inner join pizza_types on pizzas.pizza_type_id = pizza_types.pizza_type_id
      inner join orders_details on pizzas.pizza_id = orders_details.pizza_id
    group by
      pizza_types.category,
      pizza_types.name
  ) x
  ) y
where rnk < 4;
```



# Conclusion



- Conducted in-depth analysis of Pizza outlet sales data to uncover customer preferences and trends.
  - Identified top-selling pizzas, revenue distribution by category, and peak ordering times.
  - Provided insights to enhance marketing strategies and inventory management.
  - Analyzed order patterns by size and category, and tracked cumulative revenue trends.
  - Enabled precise forecasting and resource allocation.
  - Supported strategic planning and operational optimization.
  - Contributed to revenue growth and maintained Pizza outlet's competitive edge in the food industry.
- 