# Pizza Sales Analysis Report

# Using SQL

## Queries

### 1. Show all the column from the pizza table

select * from pizza_sales;

| pizza_id | order_id | pizza_name_id | quantity | order_date | order_time | unit_price | total_price | pizza_size | pizza_category | pizza_ingredients | pizza_name |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | hawaiian_m | 1 | 1/1/2015 | 11:38:36 | 13.25 | 13.25 | M | Classic | Sliced Ham, Pineapple, Mozzarella Cheese | The Hawaiian Pizza |
| 2 | 2 | classic_dlx_m | 1 | 1/1/2015 | 11:57:40 | 16 | 16 | M | Classic | Pepperoni, Mushrooms, Red Onions, Red Peppe... | The Classic Deluxe Pizza |
| 3 | 2 | five_cheese_l | 1 | 1/1/2015 | 11:57:40 | 18.5 | 18.5 | L | Veggie | Mozzarella Cheese, Provolone Cheese, Smoked ... | The Five Cheese Pizza |
| 4 | 2 | ital_supr_l | 1 | 1/1/2015 | 11:57:40 | 20.75 | 20.75 | L | Supreme | Calabrese Salami, Capocollo, Tomatoes, Red O... | The Italian Supreme Pizza |
| 5 | 2 | mexicana_m | 1 | 1/1/2015 | 11:57:40 | 16 | 16 | M | Veggie | Tomatoes, Red Peppers, Jalapeno Peppers, Re... | The Mexicana Pizza |
| 6 | 2 | thai_ckn_l | 1 | 1/1/2015 | 11:57:40 | 20.75 | 20.75 | L | Chicken | Chicken, Pineapple, Tomatoes, Red Peppers, T... | The Thai Chicken Pizza |
| 7 | 3 | ital_supr_m | 1 | 1/1/2015 | 12:12:28 | 16.5 | 16.5 | M | Supreme | Calabrese Salami, Capocollo, Tomatoes, Red O... | The Italian Supreme Pizza |
| 8 | 3 | prsc_argla_l | 1 | 1/1/2015 | 12:12:28 | 20.75 | 20.75 | L | Supreme | Prosciutto di San Daniele, Arugula, Mozzarella C... | The Prosciutto and Arugula Pizza |
| 9 | 4 | ital_supr_m | 1 | 1/1/2015 | 12:16:31 | 16.5 | 16.5 | M | Supreme | Calabrese Salami, Capocollo, Tomatoes, Red O... | The Italian Supreme Pizza |
| 10 | 5 | ital_supr_m | 1 | 1/1/2015 | 12:21:30 | 16.5 | 16.5 | M | Supreme | Calabrese Salami, Capocollo, Tomatoes, Red O... | The Italian Supreme Pizza |
| 11 | 6 | bbq_ckn_s | 1 | 1/1/2015 | 12:29:36 | 12.75 | 12.75 | S | Chicken | Barbecued Chicken, Red Peppers, Green Peppe... | The Barbecue Chicken Pizza |
| 12 | 6 | the_greek_s | 1 | 1/1/2015 | 12:29:36 | 12 | 12 | S | Classic | Kalamata Olives, Feta Cheese, Tomatoes, Garli... | The Greek Pizza |
| 13 | 7 | spinach_supr_s | 1 | 1/1/2015 | 12:50:37 | 12.5 | 12.5 | S | Supreme | Spinach, Red Onions, Pepperoni, Tomatoes, Art... | The Spinach Supreme Pizza |
| 14 | 8 | spinach_supr_s | 1 | 1/1/2015 | 12:51:37 | 12.5 | 12.5 | S | Supreme | Spinach, Red Onions, Pepperoni, Tomatoes, Art... | The Spinach Supreme Pizza |
| 15 | 9 | classic_dlx_s | 1 | 1/1/2015 | 12:52:01 | 12 | 12 | S | Classic | Pepperoni, Mushrooms, Red Onions, Red Peppe... | The Classic Deluxe Pizza |
| 16 | 9 | green_garden_s | 1 | 1/1/2015 | 12:52:01 | 12 | 12 | S | Veggie | Spinach, Mushrooms, Tomatoes, Green Olives, ... | The Green Garden Pizza |
| 17 | 9 | ital_cpdlo_l | 1 | 1/1/2015 | 12:52:01 | 20.5 | 20.5 | L | Classic | Capocollo, Red Peppers, Tomatoes, Goat Chee... | The Italian Capocollo Pizza |
| 18 | 9 | ital_supr_l | 1 | 1/1/2015 | 12:52:01 | 20.75 | 20.75 | L | Supreme | Calabrese Salami, Capocollo, Tomatoes, Red O... | The Italian Supreme Pizza |
| 19 | 9 | ital_supr_s | 1 | 1/1/2015 | 12:52:01 | 12.5 | 12.5 | S | Supreme | Calabrese Salami, Capocollo, Tomatoes, Red O... | The Italian Supreme Pizza |
| 20 | 9 | mexicana_s | 1 | 1/1/2015 | 12:52:01 | 12 | 12 | S | Veggie | Tomatoes, Red Peppers, Jalapeno Peppers, Re... | The Mexicana Pizza |

## 2. Retrive Pizza's with their name and their prices

select pizza_name , total_price
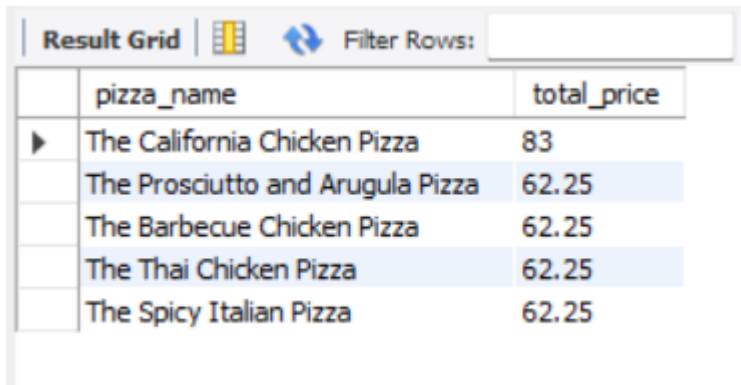
from pizza_sales;

| pizza_name | total_price |
|---|---|
| The Hawaiian Pizza | 13.25 |
| The Classic Deluxe Pizza | 16 |
| The Five Cheese Pizza | 18.5 |
| The Italian Supreme Pizza | 20.75 |
| The Mexicana Pizza | 16 |
| The Thai Chicken Pizza | 20.75 |
| The Italian Supreme Pizza | 16.5 |
| The Prosciutto and Arugula Pizza | 20.75 |
| The Italian Supreme Pizza | 16.5 |
| The Italian Supreme Pizza | 16.5 |
| The Barbecue Chicken Pizza | 12.75 |
| The Greek Pizza | 12 |
| The Spinach Supreme Pizza | 12.5 |
| The Spinach Supreme Pizza | 12.5 |
| The Classic Deluxe Pizza | 12 |
| The Green Garden Pizza | 12 |
| The Italian Capocollo Pizza | 20.5 |

pizza_sales 1 ×

### 3. List top 5 most expensive pizza's

select

       pizza_name , total_price

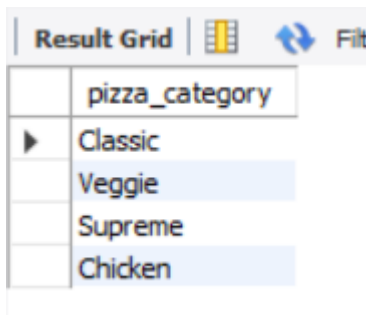from pizza_sales

order by total_price desc

limit 5;

| pizza_name | total_price |
|---|---|
| The California Chicken Pizza | 83 |
| The Prosciutto and Arugula Pizza | 62.25 |
| The Barbecue Chicken Pizza | 62.25 |
| The Thai Chicken Pizza | 62.25 |
| The Spicy Italian Pizza | 62.25 |

### 4. Show the categories of the pizza
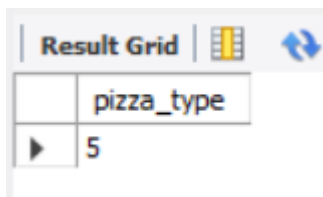
select DISTINCT pizza_category

from pizza_sales;

| pizza_category |
|---|
| Classic |
| Veggie |
| Supreme |
| Chicken |

### 5. Types of the pizza available in the table

select count(distinct pizza_size) as pizza_type

from pizza_sales

| pizza_type |
|---|
| 5 |

## 6. calculate total revenue from all pizza sales.

select pizza_name, pizza_category,

      SUM(total_price) as total_revenue

from pizza_sales

group by pizza_name, pizza_category

order by total_revenue desc;

| pizza_name | pizza_category | total_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 Spicy Italian Pizza | Supreme | 34831.25 |
| The Southwest Chicken Pizza | Chicken | 34705.75 |
| The Italian Supreme Pizza | Supreme | 33476.75 |
| The Hawaiian Pizza | Classic | 32273.25 |
| The Four Cheese Pizza | Veggie | 32265.70000000065 |
| The Sicilian Pizza | Supreme | 30940.5 |
| The Pepperoni Pizza | Classic | 30161.75 |
| The Greek Pizza | Classic | 28454.100000000013 |
| The Mexicana Pizza | Veggie | 26780.75 |
| The Five Cheese Pizza | Veggie | 26066.5 |

## 7. Show the average pizza price by pizza category

select pizza_category, ROUND(AVG(total_price),2) as avg_price

from pizza_sales

group by pizza_category

order by avg_price;

| pizza_category | avg_price |
|---|---|
| Classic | 15.09 |
| Veggie | 16.92 |
| Supreme | 17.68 |
| Chicken | 18.12 |
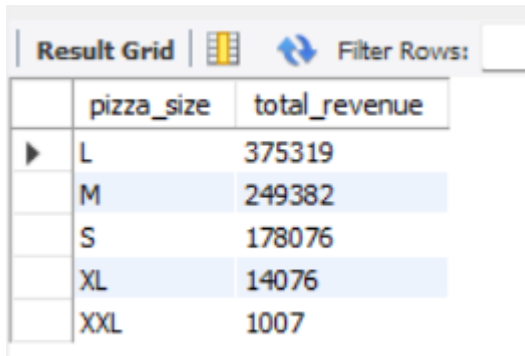
## 8. Find the total quantity sold.

select count(*) as total_pizza_sold

from pizza_sales

| total_pizza_sold |
|---|
| 48620 |

### 9. Calculate total revenue by the pizza size

select pizza_size, round(sum(total_price),0) as total_revenue

from pizza_sales
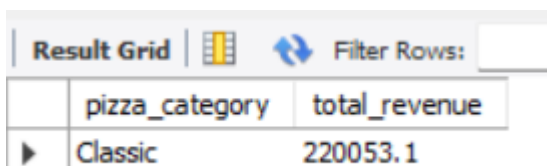
group by pizza_size

order by total_revenue desc;

| | pizza_size | total_revenue |
|---|---|---|
| ▶ | L | 375319 |
| | M | 249382 |
| | S | 178076 |
| | XL | 14076 |
| | XXL | 1007 |

### 10. Find the category that generates most revenue

select

pizza_category, round(SUM(total_price), 2) as total_revenue

from pizza_sales

group by pizza_category

order by total_revenue desc

limit 1;

| | pizza_category | total_revenue |
|---|---|---|
| ▶ | Classic | 220053.1 |

### 11.  Find the number of orders per day

select

order_date,

COUNT(DISTINCT order_id) AS number_of_orders

from pizza_sales

group by order_date

order by order_date;

| order_date | number_of_orders |
|---|---|
| 01-01-2015 | 69 |
| 01-02-2015 | 87 |
| 01-03-2015 | 49 |
| 01-04-2015 | 67 |
| 01-05-2015 | 75 |
| 01-06-2015 | 72 |
| 01-07-2015 | 66 |
| 01-08-2015 | 74 |
| 01-09-2015 | 61 |
| 01-10-2015 | 84 |
| 01-11-2015 | 55 |
| 01-12-2015 | 61 |

## 12. Find the pizzas that generate revenue more than 30000

select

      pizza_name,

  pizza_category,

  ROUND(SUM(total_price),1) as Total_revenue

from pizza_sales

group by pizza_name, pizza_category

having sum(total_price) > 30000;



| pizza_name | pizza_category | Total_revenue |
|---|---|---|
| The Hawaiian Pizza | Classic | 32273.2 |
| The Classic Deluxe Pizza | Classic | 38180.5 |
| The Italian Supreme Pizza | Supreme | 33476.8 |
| The Thai Chicken Pizza | Chicken | 43434.2 |
| The Barbecue Chicken Pizza | Chicken | 42768 |
| The Spicy Italian Pizza | Supreme | 34831.2 |
| The Southwest Chicken Pizza | Chicken | 34705.8 |
| The California Chicken Pizza | Chicken | 41409.5 |
| The Pepperoni Pizza | Classic | 30161.8 |
| The Four Cheese Pizza | Veggie | 32265.7 |
| The Sicilian Pizza | Supreme | 30940.5 |

## 13. Use CTE to find the total revenue and total sales for each pizza

with cte as(

select

  pizza_name,

  SUM(quantity) as total_sales,

  ROUND(SUM(total_price),1) as total_revenue

from pizza_sales

group by pizza_name

)

select  pizza_name,  total_sales ,   total_revenue

from cte;

| pizza_name | total_sales | total_revenue |
|---|---|---|
| The Hawaiian Pizza | 2422 | 32273.2 |
| The Classic Deluxe Pizza | 2453 | 38180.5 |
| The Five Cheese Pizza | 1409 | 26066.5 |
| The Italian Supreme Pizza | 1884 | 33476.8 |
| The Mexicana Pizza | 1484 | 26780.8 |
| The Thai Chicken Pizza | 2371 | 43434.2 |
| The Prosciutto and Arugula Pizza | 1457 | 24193.2 |
| The Barbecue Chicken Pizza | 2432 | 42768 |
| The Greek Pizza | 1420 | 28454.1 |
| The Spinach Supreme Pizza | 950 | 15277.8 |
| The Green Garden Pizza | 997 | 13955.8 |

## 14 . find the highest and lowest prices pizzas in each category

```
with cte_high as (
select
        pizza_category,
    Round(SUM(total_price),2) as Total_revenue,
    ROW_NUMBER() over (order by sum(total_price) desc) as rankhigh
from pizza_sales
group by pizza_category
),
cte_low as (
select
        pizza_category,
    ROUND(SUM(total_price),2) as total_revenue,
    ROW_NUMBER() over (order by SUM(total_price) asc) as ranklow
from pizza_sales
group by pizza_category
)
select
        h.pizza_category AS category_high,
    h.total_revenue as revenue_high,
    l.pizza_category as category_low,
    l.total_revenue as revenue_low
from cte_high h
JOIN cte_low l
ON h.rankhigh = l.ranklow;
```

| | category_high | revenue_high | category_low | revenue_low |
|---|---|---|---|---|
| ▶ | Classic | 220053.1 | Veggie | 193690.45 |
| | Supreme | 208197 | Chicken | 195919.5 |
| | Chicken | 195919.5 | Supreme | 208197 |
| | Veggie | 193690.45 | Classic | 220053.1 |

## 15. Find the top 3 pizzas per category using rank() function

with rnk_pizza as (

select

       pizza_name,

       pizza_category,

       ROUND(sum(total_price),1) as total_revenue,

       RANK() over (partition by pizza_category order by sum(total_price) desc) as rnk

from pizza_sales

group by pizza_name, pizza_category

)

select

       pizza_name,

       pizza_category,

       total_revenue,

       rnk

from rnk_pizza

where rnk <=3

order by rnk asc, pizza_category;

| pizza_name | pizza_category | total_revenue | rnk |
| --- | --- | --- | --- |
| The Thai Chicken Pizza | Chicken | 43434.2 | 1 |
| The Classic Deluxe Pizza | Classic | 38180.5 | 1 |
| The Spicy Italian Pizza | Supreme | 34831.2 | 1 |
| The Four Cheese Pizza | Veggie | 32265.7 | 1 |
| The Barbecue Chicken Pizza | Chicken | 42768 | 2 |
| The Hawaiian Pizza | Classic | 32273.2 | 2 |
| The Italian Supreme Pizza | Supreme | 33476.8 | 2 |
| The Mexicana Pizza | Veggie | 26780.8 | 2 |
| The California Chicken Pizza | Chicken | 41409.5 | 3 |
| The Pepperoni Pizza | Classic | 30161.8 | 3 |
| The Sicilian Pizza | Supreme | 30940.5 | 3 |
| The Five Cheese Pizza | Veggie | 26066.5 | 3 |

## 16. Display the pizza ranking by quantity sold for each category

with ranking as (

select

        pizza_name,

        pizza_category,

        Sum(quantity) as total_quantity

from pizza_sales

group by pizza_name, pizza_category

)

select

        pizza_category,

        pizza_name,

RANK() over (partition by pizza_category order by total_quantity desc) as rnk

from ranking

order by pizza_category, pizza_name;

| | pizza_category | pizza_name | rnk |
|---|---|---|---|
| ▶ | Chicken | The Barbecue Chicken Pizza | 1 |
| | Chicken | The California Chicken Pizza | 3 |
| | Chicken | The Chicken Alfredo Pizza | 5 |
| | Chicken | The Chicken Pesto Pizza | 6 |
| | Chicken | The Southwest Chicken Pizza | 4 |
| | Chicken | The Thai Chicken Pizza | 2 |
| | Classic | The Big Meat Pizza | 4 |
| | Classic | The Classic Deluxe Pizza | 1 |
| | Classic | The Greek Pizza | 7 |
| | Classic | The Hawaiian Pizza | 2 |
| | Classic | The Italian Capocollo Pizza | 6 |
| | Classic | The Napolitana Pizza | 5 |
| | Classic | The Pepperoni Pizza | 3 |
| | Classic | The Pepperoni, Mushroom, ... | 8 |
| | Supreme | The Brie Carre Pizza | 9 |

17.

```sql
with pizza_rank as (

select

pizza_name,

pizza_category,

ROUND(SUM(total_price),1) as total_revenue,

RANK() over (order by sum(total_price) desc) as rnk

from pizza_sales

group by pizza_category, pizza_name

)

select

pizza_name, pizza_category, total_revenue, rnk

from pizza_rank

where rnk <= 1
```

| | pizza_name | pizza_category | total_revenue | rnk |
|---|---|---|---|---|
| ▶ | The Thai Chicken Pizza | Chicken | 43434.2 | 1 |

## 18. Calculate the running total by order date

```sql
with daily_sales as(

select

        order_date ,

        round(sum(total_price),1) as total_revenue,

        sum(quantity) as total_sales

from pizza_sales

group by order_date

)

select

        order_date,

        total_revenue,

        ROUND(SUM(total_revenue) over (order by order_date),1) as runnig_total_revenue,

        SUM(total_sales) over (order by order_date) as running_total_sales

from daily_sales
```

order by order_date asc;

| order_date | total_revenue | runnig_total_revenue | running_total_sales |
|---|---|---|---|
| 01-01-2015 | 2713.9 | 2713.9 | 162 |
| 01-02-2015 | 3189.2 | 5903.1 | 353 |
| 01-03-2015 | 1598.6 | 7501.7 | 452 |
| 01-04-2015 | 2176.9 | 9678.6 | 587 |
| 01-05-2015 | 2572 | 12250.6 | 741 |
| 01-06-2015 | 3067.8 | 15318.4 | 925 |
| 01-07-2015 | 2231.5 | 17549.9 | 1062 |
| 01-08-2015 | 2440.6 | 19990.5 | 1216 |
| 01-09-2015 | 2352.9 | 22343.4 | 1362 |
| 01-10-2015 | 3202.1 | 25545.5 | 1556 |
| 01-11-2015 | 1986.6 | 27532.1 | 1680 |
| 01-12-2015 | 2076.7 | 29608.8 | 1811 |
| 02-01-2015 | 2731.9 | 32340.7 | 1976 |
| 02-02-2015 | 2328.6 | 34669.3 | 2121 |
| 02-03-2015 | 2379 | 37048.3 | 2260 |

## 19. Show top 5 pizza that contribute most to overall revenue

with top_pizza as (

select

pizza_name,

pizza_category,

pizza_size,

ROUND(SUM(total_price),1) as total_revenue,

RANK() over (order by sum(total_price)desc) as rnk

from pizza_sales

group by pizza_name, pizza_category, pizza_size

)

select * from top_pizza

where rnk<=6

order by rnk asc;

| pizza_name | pizza_category | pizza_size | total_revenue | rnk |
|---|---|---|---|---|
| The Thai Chicken Pizza | Chicken | L | 29257.5 | 1 |
| The Five Cheese Pizza | Veggie | L | 26066.5 | 2 |
| The Four Cheese Pizza | Veggie | L | 23622.2 | 3 |
| The Spicy Italian Pizza | Supreme | L | 23011.8 | 4 |
| The Big Meat Pizza | Classic | S | 22968 | 5 |
| The Southwest Chicken Pizza | Chicken | L | 21082 | 6 |

## 20. Find the percentage contribution of each pizza in overall revenue

with percentage as (

select

pizza_name,

ROUND(SUM(total_price),1) as total_revenue

from pizza_sales

group by pizza_name

)

select

pizza_name,

total_revenue,

ROUND((total_revenue / (select sum(total_revenue) from percentage)) * 100, 2) as revenue_percentage

FROM percentage

order by revenue_percentage desc;

| pizza_name | total_revenue | revenue_percentage |
|---|---|---|
| The Thai Chicken Pizza | 43434.2 | 5.31 |
| The Barbecue Chicken Pizza | 42768 | 5.23 |
| The California Chicken Pizza | 41409.5 | 5.06 |
| The Classic Deluxe Pizza | 38180.5 | 4.67 |
| The Spicy Italian Pizza | 34831.2 | 4.26 |
| The Southwest Chicken Pizza | 34705.8 | 4.24 |
| The Italian Supreme Pizza | 33476.8 | 4.09 |
| The Hawaiian Pizza | 32273.2 | 3.95 |
| The Four Cheese Pizza | 32265.7 | 3.95 |
| The Sicilian Pizza | 30940.5 | 3.78 |
| The Pepperoni Pizza | 30161.8 | 3.69 |
| The Greek Pizza | 28454.1 | 3.48 |
| The Mexicana Pizza | 26780.8 | 3.27 |
| The Five Cheese Pizza | 26066.5 | 3.19 |