# PIZZA SALES SQL ANALYSIS :)

```sql
-- Q1. Retrieve the total number of orders placed.
SELECT COUNT(order_id) AS 'total_orders' FROM orders;
```

Result Grid

| | total_orders |
|---|---|
| ▶ | 21350 |

```sql
-- Q2. Calculate the total revenue generated from pizza sales.
SELECT ROUND(SUM(b.quantity*a.price), 2) AS 'total_revenue'
FROM pizzas a
JOIN order_details b
ON a.pizza_id = b.pizza_id;
```

Result Grid

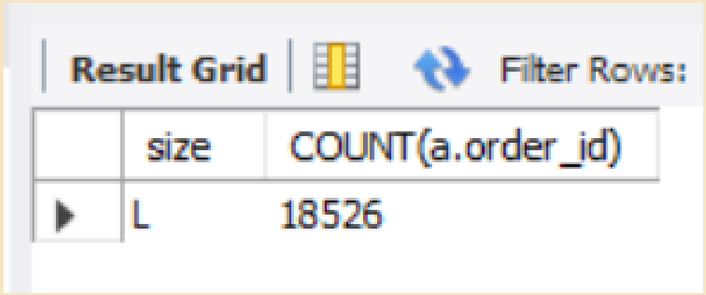
| | total_revenue |
|---|---|
| ▶ | 817860.05 |

```sql
-- Q3. Identify the highest-priced pizza.
SELECT b.name, a.price
FROM pizzas a
JOIN pizza_types b ON a.pizza_type_id = b.pizza_type_id
WHERE price = (SELECT MAX(price) FROM pizzas);
```

Result Grid | Filter Row

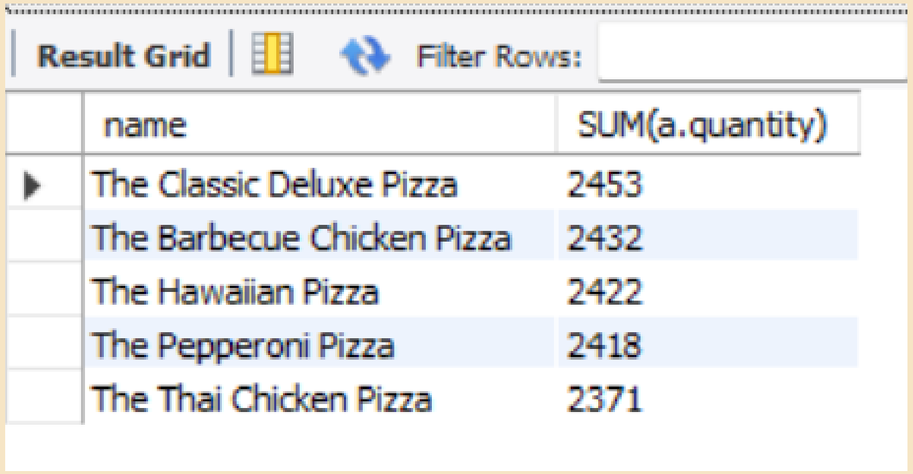
| | name | price |
|---|---|---|
| ▶ | The Greek Pizza | 35.95 |

```sql
-- Q4. Identify the most common pizza size ordered.
SELECT c.size, COUNT(a.order_id)
FROM orders a
JOIN order_details b ON a.order_id = b.order_id
JOIN pizzas c ON b.pizza_id = c.pizza_id
GROUP BY size
ORDER BY COUNT(a.order_id) DESC LIMIT 1;
```




| | size | COUNT(a.order_id) |
|---|---|---|
| ▶ | L | 18526 |

```sql
-- Q5. List the top 5 most ordered pizza types along with their quantities.
SELECT c.name, SUM(a.quantity)
FROM order_details a
JOIN pizzas b ON a.pizza_id = b.pizza_id
JOIN pizza_types c ON b.pizza_type_id = c.pizza_type_id
GROUP BY c.name
ORDER BY SUM(a.quantity) DESC LIMIT 5;
```




| name | SUM(a.quantity) |
|---|---|
| The Classic Deluxe Pizza | 2453 |
| The Barbecue Chicken Pizza | 2432 |
| The Hawaiian Pizza | 2422 |
| The Pepperoni Pizza | 2418 |
| The Thai Chicken Pizza | 2371 |

```sql
-- Q1. Join the necessary tables to find the total quantity of each pizza category ordered.
SELECT c.category, SUM(a.quantity)
FROM order_details a
JOIN pizzas b on a.pizza_id = b.pizza_id
JOIN pizza_types c ON b.pizza_type_id = c.pizza_type_id
GROUP BY c.category
ORDER BY SUM(a.quantity) DESC;
```

Result Grid | Filter Rows:

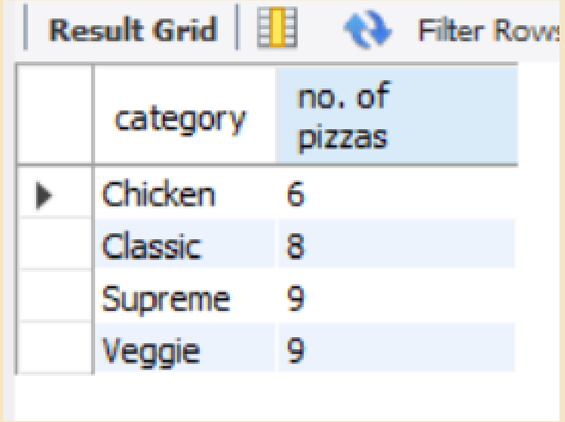
| category | SUM(a.quantity) |
|---|---|
| Classic | 14888 |
| Supreme | 11987 |
| Veggie | 11649 |
| Chicken | 11050 |

```sql
-- Q2. 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)
ORDER BY COUNT(order_id) DESC;
```

Result Grid | Filter

| Hour | Order Count |
|---|---|
| 12 | 2520 |
| 13 | 2455 |
| 18 | 2399 |
| 17 | 2336 |
| 19 | 2009 |
| 16 | 1920 |
| 20 | 1642 |
| 14 | 1472 |
| 15 | 1468 |
| 11 | 1231 |
| 21 | 1198 |
| 22 | 663 |
| 23 | 28 |
| 10 | 8 |
| 9 | 1 |

```sql
-- Q3. Join relevant tables to find the category-wise distribution of pizzas.
SELECT category, COUNT(name) AS 'no. of pizzas' FROM pizza_types
GROUP BY category;
```



Result Grid | Filter Rows

| category | no. of pizzas |
|---|---|
| Chicken | 6 |
| Classic | 8 |
| Supreme | 9 |
| Veggie | 9 |

```sql
-- Q4. Group the orders by date and calculate the average number of pizzas ordered per day.
SELECT ROUND(AVG(quantity),0)
FROM (SELECT a.order_date, SUM(b.quantity) AS 'quantity'
     FROM orders a
     JOIN order_details b ON a.order_id = b.order_id
     GROUP BY a.order_date) AS quantity;
```

Result Grid | Filter Rows

| | ROUND(AVG(quantity),0) |
|---|---|
| ▶ | 138 |

```sql
-- Q5. Determine the top 3 most ordered pizza types based on revenue.
SELECT d.name, SUM(c.price*b.quantity) AS 'Revenue'
FROM orders a
JOIN order_details b ON a.order_id = b.order_id
JOIN pizzas c ON b.pizza_id = c.pizza_id
JOIN pizza_types d ON c.pizza_type_id = d.pizza_type_id
GROUP BY d.name
ORDER BY Revenue DESC LIMIT 3;
```

Result Grid | Filter Rows:

| | name | Revenue |
|---|---|---|
| ▶ | The Thai Chicken Pizza | 43434.25 |
| | The Barbecue Chicken Pizza | 42768 |
| | The California Chicken Pizza | 41409.5 |

```sql
-- Q1. Calculate the percentage contribution of each pizza type to total revenue.
SELECT c.category, ROUND((SUM(a.quantity* b.price) / (SELECT SUM(a.quantity* b.price)
            FROM order_details a
            JOIN pizzas b ON a.pizza_id = b.pizza_id)) * 100, 2) AS '% of each category'
FROM order_details a
JOIN pizzas b ON a.pizza_id = b.pizza_id
JOIN pizza_types c ON b.pizza_type_id = c.pizza_type_id
GROUP BY c.category
ORDER BY '% of each category' DESC;
```

Result Grid | Filter Rows:

| category | % of each category |
|---|---|
| Classic | 26.91 |
| Veggie | 23.68 |
| Supreme | 25.46 |
| Chicken | 23.96 |

```sql
-- Q2. Analyze the cumulative revenue generated over time.
SELECT order_date, SUM(revenue) OVER(ORDER BY order_date) AS 'Cumulative Sum'
FROM(
    SELECT a.order_date, ROUND(SUM(b.quantity*c.price),2) AS 'revenue'
    FROM orders a
    JOIN order_details b ON a.order_id = b.order_id
    JOIN pizzas c ON b.pizza_id = c.pizza_id
    GROUP BY a.order_date) AS t;
```

Result Grid | Filter Rows:

| order_date | Cumulative Sum |
|---|---|
| 2015-01-01 | 2713.85 |
| 2015-01-02 | 5445.75 |
| 2015-01-03 | 8108.15 |
| 2015-01-04 | 9863.6 |
| 2015-01-05 | 11929.55 |
| 2015-01-06 | 14358.5 |
| 2015-01-07 | 16560.7 |
| 2015-01-08 | 19399.05 |
| 2015-01-09 | 21526.399999999998 |
| 2015-01-10 | 23990.35 |
| 2015-01-11 | 25862.649999999998 |
| 2015-01-12 | 27781.699999999997 |
| 2015-01-13 | 29831.299999999996 |
| 2015-01-14 | 32358.699999999997 |
| 2015-01-15 | 34343.5 |
| 2015-01-16 | 36937.65 |

```sql
-- Q3. Determine the top 3 most ordered pizza types based on revenue for each pizza category.
SELECT category, name, revenue
FROM
(SELECT category, name, revenue,
RANK() OVER(PARTITION BY category ORDER BY revenue DESC) AS 'rn'
FROM
(SELECT c.name, c.category, SUM(a.quantity*b.price) AS 'revenue'
FROM order_details a
JOIN pizzas b ON a.pizza_id = b.pizza_id
JOIN pizza_types c ON b.pizza_type_id = c.pizza_type_id
GROUP BY c.category, c.name) AS t1) AS t2
WHERE rn<=3;
```

Result Grid | Filter Rows: | Export:

| category | name | revenue |
|---|---|---|
| Chicken | The Thai Chicken Pizza | 43434.25 |
| Chicken | The Barbecue Chicken Pizza | 42768 |
| Chicken | The California Chicken Pizza | 41409.5 |
| Classic | The Classic Deluxe Pizza | 38180.5 |
| Classic | The Hawaiian Pizza | 32273.25 |
| Classic | The Pepperoni Pizza | 30161.75 |
| Supreme | The Spicy Italian Pizza | 34831.25 |
| Supreme | The Italian Supreme Pizza | 33476.75 |
| Supreme | The Sicilian Pizza | 30940.5 |
| Veggie | The Four Cheese Pizza | 32265.70000000065 |
| Veggie | The Mexicana Pizza | 26780.75 |
| Veggie | The Five Cheese Pizza | 26066.5 |

# THANK YOU