



SQL PROJECT ON PIZZA SALES

INTRODUCTION

Hello! My Name is Shaikh Md Faizan, And in this project I have utilized Sql queries to solve questions that were realted to pizza Sales.

Database

Pizzas

| | pizza_id | pizza_type_id | size | price |
|---|---------------|---------------|------|-------|
| ▶ | bbq_ckn_s | bbq_ckn | S | 12.75 |
| | bbq_ckn_m | bbq_ckn | M | 16.75 |
| | bbq_ckn_l | bbq_ckn | L | 20.75 |
| | cali_ckn_s | cali_ckn | S | 12.75 |
| | cali_ckn_m | cali_ckn | M | 16.75 |
| | cali_ckn_l | cali_ckn | L | 20.75 |
| | ckn_alfredo_s | ckn_alfredo | S | 12.75 |
| | ckn_alfredo_m | ckn_alfredo | M | 16.75 |
| | ckn_alfredo_l | ckn_alfredo | L | 20.75 |
| | ckn_pesto_s | ckn_pesto | S | 12.75 |
| | ckn_pesto_m | ckn_pesto | M | 16.75 |
| | ckn_pesto_l | ckn_pesto | L | 20.75 |
| | southw_ckn_s | southw_ckn | S | 12.75 |
| | southw_ckn_m | southw_ckn | M | 16.75 |
| | southw_ckn_l | southw_ckn | L | 20.75 |

Pizza types

| | pizza_type_id | name | category | ingredients |
|---|---------------|------------------------------|----------|--|
| ▶ | bbq_ckn | The Barbecue Chicken Pizza | Chicken | Barbecued Chicken, Red Peppers, Green Pepp... |
| | cali_ckn | The California Chicken Pizza | Chicken | Chicken, Artichoke, Spinach, Garlic, Jalapeno P... |
| | ckn_alfredo | The Chicken Alfredo Pizza | Chicken | Chicken, Red Onions, Red Peppers, Mushrooms... |
| | ckn_pesto | The Chicken Pesto Pizza | Chicken | Chicken, Tomatoes, Red Peppers, Spinach, Garl... |
| | southw_ckn | The Southwest Chicken Pizza | Chicken | Chicken, Tomatoes, Red Peppers, Red Onions, ... |
| | thai_ckn | The Thai Chicken Pizza | Chicken | Chicken, Pineapple, Tomatoes, Red Peppers, T... |
| | big_meat | The Big Meat Pizza | Classic | Bacon, Pepperoni, Italian Sausage, Chorizo Sau... |
| | classic_dlx | The Classic Deluxe Pizza | Classic | Pepperoni, Mushrooms, Red Onions, Red Peppe... |
| | hawaiian | The Hawaiian Pizza | Classic | Sliced Ham, Pineapple, Mozzarella Cheese |
| | ital_cpdlo | The Italian Capocollo Pizza | Classic | Capocollo, Red Peppers, Tomatoes, Goat Chee... |

Database

Orders

Result Grid | Filter Rows:

| | order_id | order_date | order_time |
|---|----------|------------|------------|
| ▶ | 1 | 2015-01-01 | 11:38:36 |
| | 2 | 2015-01-01 | 11:57:40 |
| | 3 | 2015-01-01 | 12:12:28 |
| | 4 | 2015-01-01 | 12:16:31 |
| | 5 | 2015-01-01 | 12:21:30 |
| | 6 | 2015-01-01 | 12:29:36 |
| | 7 | 2015-01-01 | 12:50:37 |
| | 8 | 2015-01-01 | 12:51:37 |
| | 9 | 2015-01-01 | 12:52:01 |
| | 10 | 2015-01-01 | 13:00:15 |
| | 11 | 2015-01-01 | 13:02:59 |
| | 12 | 2015-01-01 | 13:04:41 |
| | 13 | 2015-01-01 | 13:11:55 |
| | 14 | 2015-01-01 | 13:14:19 |
| | 15 | 2015-01-01 | 13:33:00 |

Order details

Result Grid | Filter Rows: | Edit:

| | order_details_id | order_id | pizza_id | quantity |
|---|------------------|----------|----------------|----------|
| ▶ | 1 | 1 | hawaiian_m | 1 |
| | 2 | 2 | dassic_dlx_m | 1 |
| | 3 | 2 | five_cheese_l | 1 |
| | 4 | 2 | ital_supr_l | 1 |
| | 5 | 2 | mexicana_m | 1 |
| | 6 | 2 | thai_ckn_l | 1 |
| | 7 | 3 | ital_supr_m | 1 |
| | 8 | 3 | prsc_argla_l | 1 |
| | 9 | 4 | ital_supr_m | 1 |
| | 10 | 5 | ital_supr_m | 1 |
| | 11 | 6 | bbq_ckn_s | 1 |
| | 12 | 6 | the_greek_s | 1 |
| | 13 | 7 | spinach_supr_s | 1 |
| | 14 | 8 | spinach_supr_s | 1 |
| | 15 | 9 | classic_dlx_s | 1 |

Questions

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

Calculate the total revenue generated from pizza sales.

```
3 • SELECT  
4     ROUND(SUM(order_details.quantity * pizzas.price),  
5             2) AS total_sales  
6 FROM  
7     order_details  
8     JOIN  
9     pizzas ON pizzas.pizza_id = order_details.pizza_id
```

| Result Grid | |
|-------------|-------------|
| | total_sales |
| ▶ | 817860.05 |

Identify the highest-priced pizza.

```
3 • SELECT  
4     pizza_types.name, pizzas.price  
5 FROM  
6     pizza_types  
7     JOIN  
8     pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id  
9 ORDER BY pizzas.price DESC  
10 LIMIT 1;
```

Result Grid | Filter Rows:

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

Identify the most common pizza size ordered.

```
3 • SELECT
4     pizzas.size,
5     COUNT(order_details.order_details_id) AS order_count
6 FROM
7     pizzas
8         JOIN
9     order_details ON pizzas.pizza_id = order_details.pizza_id
10 GROUP BY pizzas.size
11 ORDER BY order_count DESC;
```

Result Grid | Filter Rows:

| | size | order_count |
|---|------|-------------|
| ▶ | L | 18526 |
| | M | 15385 |
| | S | 14137 |
| | XL | 544 |
| | XXL | 28 |

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

```
3 • SELECT
4     pizza_types.name, SUM(order_details.quantity) AS quantity
5 FROM
6     pizza_types
7     JOIN
8     pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
9     JOIN
10    order_details ON order_details.pizza_id = pizzas.pizza_id
11 GROUP BY pizza_types.name
12 ORDER BY quantity DESC
13 LIMIT 5;
```

Result Grid | Filter Rows:

| | 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.

```
3 • SELECT
4     pizza_types.category,
5     SUM(order_details.quantity) AS quantity
6 FROM
7     pizza_types
8     JOIN
9     pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
10    JOIN
11    order_details ON order_details.pizza_id = pizzas.pizza_id
12 GROUP BY pizza_types.category
13 ORDER BY quantity DESC;
```

Result Grid | Filter

| | category | quantity |
|---|----------|----------|
| ▶ | Classic | 14888 |
| | Supreme | 11987 |
| | Veggie | 11649 |
| | Chicken | 11050 |



Determine the distribution of orders by hour of the day.

```
3 • SELECT  
4     HOUR(order_time) AS hour, COUNT(order_id) AS order_count  
5 FROM  
6   orders  
7 GROUP BY HOUR(order_time);
```

| | hour | order_count |
|---|------|-------------|
| ▶ | 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 |

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

```
3 • SELECT category, count(name) FROM pizza_types  
4 GROUP BY category;
```

Result Grid | Filter Rows:

| | category | count(name) |
|---|----------|-------------|
| ▶ | Chicken | 6 |
| | Classic | 8 |
| | Supreme | 9 |
| | Veggie | 9 |

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

```
3 • SELECT
4     ROUND(AVG(quantity), 0) AS avg_pizza_ordered_per_day
5 FROM
6   (SELECT
7     orders.order_date, SUM(order_details.quantity) AS quantity
8   FROM
9     orders
10  JOIN order_details ON orders.order_id = order_details.order_id
11  GROUP BY orders.order_date) AS order_quantity;
```

Result Grid | Filter Rows:

| | avg_pizza_ordered_per_day |
|---|---------------------------|
| ▶ | 138 |

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

```
3 • SELECT
4     pizza_types.name,
5         SUM(order_details.quantity * pizzas.price) AS Revenue
6 FROM
7     pizza_types
8     JOIN
9     pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
10    JOIN
11    order_details ON order_details.pizza_id = pizzas.pizza_id
12 GROUP BY pizza_types.name
13 ORDER BY Revenue DESC
14 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 |



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

```
3 • SELECT pizza_types.category,  
4   ROUND(SUM(order_details.quantity*pizzas.price) /  
5   (SELECT ROUND(SUM(order_details.quantity * pizzas.price), 2) AS total_sales  
6   FROM order_details JOIN  
7   pizzas ON pizzas.pizza_id = order_details.pizza_id) *100, 2) AS Revenue  
8   FROM pizza_types JOIN pizzas  
9   ON pizza_types.pizza_type_id = pizzas.pizza_type_id  
10  JOIN order_details  
11  ON order_details.pizza_id = pizzas.pizza_id  
12  GROUP BY pizza_types.category ORDER BY Revenue DESC;
```

Result Grid | Filter

| | category | Revenue |
|---|----------|---------|
| ▶ | Classic | 26.91 |
| | Supreme | 25.46 |
| | Chicken | 23.96 |
| | Veggie | 23.68 |

Analyze the cumulative revenue generated over time.

```
3 • SELECT order_date,  
4   SUM(revenue) OVER(order by order_date) AS cum_revenue  
5   FROM  
6   (SELECT orders.order_date,  
7     SUM(order_details.quantity * pizzas.price) AS revenue  
8     FROM order_details JOIN pizzas  
9     ON order_details.pizza_id = pizzas.pizza_id  
10    JOIN orders  
11    ON orders.order_id = order_details.order_id  
12  GROUP BY orders.order_date) AS sales;
```

| | order_date | cum_revenue |
|---|------------|--------------------|
| ▶ | 2015-01-01 | 2713.8500000000004 |
| | 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 | 21526.4 |
| | 2015-01-10 | 23990.350000000002 |
| | 2015-01-11 | 25862.65 |
| | 2015-01-12 | 27781.7 |

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

```
3 • SELECT name, revenue
4   FROM
5   (SELECT category, name, revenue, RANK() OVER(PARTITION BY category ORDER BY revenue DESC) AS rnk
6   FROM
7   (SELECT pizza_types.category, pizza_types.name,
8     SUM((order_details.quantity) * pizzas.price) AS revenue
9   FROM pizza_types JOIN pizzas
10  ON pizza_types.pizza_type_id = pizzas.pizza_type_id
11  JOIN order_details
12  ON order_details.pizza_id = pizzas.pizza_id
13  GROUP BY pizza_types.category, pizza_types.name) AS a) AS b
14 WHERE rnk <= 3;
```

| Result Grid | | |
|-------------|------------|--------------------|
| | order_date | cum_revenue |
| ▶ | 2015-01-01 | 2713.8500000000004 |
| | 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 | 21526.4 |
| | 2015-01-10 | 23990.350000000002 |
| | 2015-01-11 | 25862.65 |
| | 2015-01-12 | 27781.7 |



THANK



YOU