

# SQL PROJECT ON PIZZA SALE

## INTRODUCTION

In this project I have utilized SQL query to solve questions which are related to pizza sales which help the pizza store understand its business growth.



1. Retrieve the total number of orders placed. Calculate the total revenue generated from pizza sales.

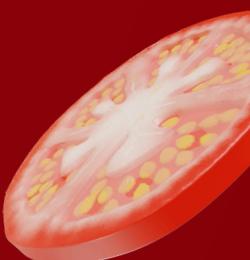
```
SELECT  
    COUNT(order_id) AS total_orders  
FROM  
    orders;
```

Result Grid	
	total_orders
▶	21350

2. Calculate the total revenue generated from pizza sales.

```
SELECT  
    ROUND(SUM(order_details.quantity * pizzas.price),  
        2) AS Total_Revenue  
FROM  
    order_details  
    JOIN  
    pizzas ON order_details.pizza_id = pizzas.pizza_id;
```

Result Grid	
	Total_Revenue
▶	786397.45



### 3. Identify the highest-priced pizza.

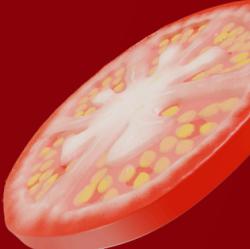
```
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1;
```

name	price
The Greek Pizza	35.95

### 4. 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;
```

size	order_count
L	17805



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

```
SELECT
    pizza_types.name,
    SUM(order_details.quantity) AS total_quantity
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 total_quantity DESC
LIMIT 5;
```

	name	total_quantity
▶	The Classic Deluxe Pizza	2343
▶	The Barbecue Chicken Pizza	2343
▶	The Pepperoni Pizza	2331
▶	The Hawaiian Pizza	2324
▶	The California Chicken Pizza	2276

1. Join the necessary tables to find the total quantity of each pizza category ordered.

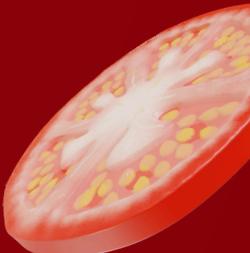
```
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS total_quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY total_quantity DESC;
```

	category	total_quantity
▶	Classic	14282
	Supreme	11559
	Veggie	11111559
	Chicken	10632

2. Determine the distribution of orders by hour of the day.

```
SELECT
    HOUR(order_time) AS hour, COUNT(order_id) AS total_order
FROM
    orders
GROUP BY HOUR(order_time);
```

	hour	total_order
▶	11	1231
	12	2520
	13	2455
	14	1472
	15	1468
	16	1920
	17	2336
	18	2399
	19	2009



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

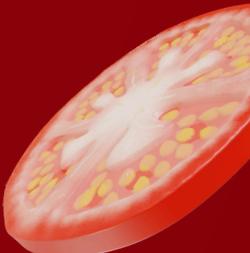
```
SELECT
    category, COUNT(name)
FROM
    pizza_types
GROUP BY category;
```

	category	COUNT(name)
▶	Chicken	6
	Classic	8
	Supreme	9
	Veggie	9

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

```
SELECT
    ROUND(AVG(Total_quantity), 0) AS avg_pizza_order
FROM
    (SELECT
        orders.order_date,
        SUM(order_details.quantity) AS Total_quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date) AS order_quantity;
```

	avg_pizza_order
▶	139



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

```
SELECT
    pizza_types.name,
    SUM(pizzas.price * order_details.quantity) AS Revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizza_types.name
ORDER BY Revenue DESC
LIMIT 3;
```

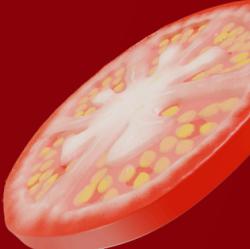
	name	Revenue
▶	The Thai Chicken Pizza	41616.75
	The Barbecue Chicken Pizza	41157.25
	The California Chicken Pizza	39775



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

```
SELECT
    pizza_types.category,
    ROUND((SUM(pizzas.price * order_details.quantity) / (SELECT
                    ROUND(SUM(order_details.quantity * pizzas.price),
                    2) AS Total_Revenue
                FROM
                    order_details
                        JOIN
                    pizzas ON order_details.pizza_id = pizzas.pizza_id)) * 100,
    0) AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizza_types.category
ORDER BY Revenue DESC;
```

	category	revenue
▶	Classic	27
	Supreme	26
	Veggie	24
	Chicken	24



## 2. Analyse 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 pizzas.pizza_id = order_details.pizza_id join orders on orders.order_id = order_details.order_id  
GROUP BY orders.order_date) as sales;
```

	order_date	cum_revenue
▶	2015-01-01	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	23990.35000000002
	2015-01-11	25862.65
	2015-01-12	27781.7
	2015-01-13	29831.30000000003



## 3. 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  
    pizza_types.category,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.category,pizza_types.name)as a)as b where rn<=3;
```

	category	name	revenue
▶	Chicken	The Thai Chicken Pizza	41616.75
	Chicken	The Barbecue Chicken Pizza	41157.25
	Chicken	The California Chicken Pizza	39775
	Classic	The Classic Deluxe Pizza	36466
	Classic	The Hawaiian Pizza	30951.5
	Classic	The Pepperoni Pizza	29060.5
	Supreme	The Spicy Italian Pizza	33590.75
	Supreme	The Italian Supreme Pizza	32247
	Supreme	The Sicilian Pizza	29746.75
	Veggie	The Four Cheese Pizza	30969.950000000612
	Veggie	The Mexicana Pizza	25901.5
	Veggie	The Five Cheese Pizza	25271

