

SQL Project: Analyzing pizza Hut data sales

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Date: 4-sep-2024



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Objective: Demonstrate SQL skills by analyzing simulated Pizza Hut sales data, focusing on trends, popular categories, and revenue contributions

Data Source

- A simulated dataset, designed to reflect real-world sales scenarios, including tables like Orders, Pizzas, and Customers.

Scope:

The project features 13 key SQL queries that explore different aspects of Pizza Hut's sales performance

Company name:

"Pizza Hut" is used to add a realistic context to the analysis

Basic:

Retrieve the total number of orders placed.

```
-- Retrieve the total number of orders placed.  
  
select count(order_id) as total_orders from orders;
```

Result Grid	
	total_orders
▶	21350



Calculate the total revenue generated from pizza sales.

```
select  
round(sum(order_details.quantity * pizzas.price),2) as total_revenue  
from order_details  
natural join pizzas
```

Result Grid	
	total_revenue
▶	817860.05

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;
```

Result Grid			Filter R
	name	price	
▶	The Greek Pizza	35.95	

Identify the most common pizza size ordered.

```
select pizzas.size,sum(order_details.order_details_id) as order_count
from pizzas
natural join order_details
group by pizzas.size
order by order_count desc
```

Result Grid		
	size	order_count
▶	L	449383379
	M	374739224
	S	344360774
	XL	12852430
	XXL	640703



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

```
select pizza_types.name, sum(order_details.quantity) as 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.name
order by quantity desc
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.

```
select pizza_types.category,  
sum(order_details.quantity) as quantity  
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 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.

```
select hour(order_time) as hour, count(order_id) as order_count from orders  
group by hour(order_time)
```

Result Grid		
	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.

```
select category, count(name) from pizza_types  
group by category
```

Result Grid			Filter Row
	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.



```
select round(avg(quantity),0) as avg_pizza_ordered_per_day
from
(select orders.order_date,sum(order_details.quantity) as quantity
from orders natural join order_details
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.

```
select 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.name  
order by revenue desc  
limit 3;
```

Result Grid   Filter Rows: <input type="text"/>		
	name	revenue
▶	The Thai Chicken Pizza	43434.25
	The Barbecue Chicken Pizza	42768
	The California Chicken Pizza	41409.5

Advance:

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

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

Result Grid			Filter Rows:
	category	revenue	
►	Classic	26.91	
	Supreme	25.46	
	Chicken	23.96	
	Veggie	23.68	

Analyze 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 order_details.pizza_id= pizzas.pizza_id  
join orders  
on orders.order_id=order_details.order_id  
group by orders.order_date)as sales
```

Result Grid			Filter Rows:
	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	

more 120 rows

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

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

name	category	revenue
The Barbecue Chicken Pizza	Chicken	42768
The California Chicken Pizza	Chicken	41409.5
The Classic Deluxe Pizza	Classic	38180.5
The Five Cheese Pizza	Veggie	26066.5
The Four Cheese Pizza	Veggie	32265.700000000065
The Hawaiian Pizza	Classic	32273.25
The Italian Supreme Pizza	Supreme	33476.75
The Mexicana Pizza	Veggie	26780.75
The Pepperoni Pizza	Classic	30161.75
The Sicilian Pizza	Supreme	30940.5
The Spicy Italian Pizza	Supreme	34831.25
The Thai Chicken Pizza	Chicken	43434.25