

# Pizza Sales Data Analysis

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# Retrieve the total number of orders placed.

```
# Retrieve the total number of orders placed.  
SELECT  
    COUNT(DISTINCT order_id) AS total_orders  
FROM  
    orders;
```

	total_orders
▶	21350

# Calculate the total revenue generated from pizza sales.

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

	total_price
▶	817860.05

# Identify the highest-priced pizza.

```
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
    INNER 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



# Identify the most common pizza size ordered.

```
SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS ord_cnt
FROM
    pizzas
    INNER JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizzas.size
ORDER BY ord_cnt DESC
LIMIT 5;
```

	size	ord_cnt
▶	L	18526
	M	15385
	S	14137
	XL	544
	XXL	28

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

```
SELECT
    pizza_types.name, SUM(order_details.quantity) AS qty
FROM
    pizza_types
    INNER JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    INNER JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizza_types.name
ORDER BY qty DESC
LIMIT 5;
```

	name	qty
►	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 qty
FROM
    pizza_types
    INNER JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    INNER JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizza_types.category
ORDER BY qty DESC;
```

	category	qty
▶	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050

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

```
SELECT
    HOUR(order_time) AS hrs, COUNT(order_id) AS ord_cnt
FROM
    orders
GROUP BY HOUR(order_time)
ORDER BY HOUR(order_time);
```

	hrs	ord_cnt
►	9	1
	10	8
	11	1231
	12	2520
	13	2455
	14	1472
	15	1468



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

# Group the orders by date and calculate the average number of pizzas ordered per day- Using CTE

```
with mycte as(  
  select orders.order_date, sum(order_details.quantity) as qty from  
  orders inner join order_details  
  on orders.order_id=order_details.order_id  
  group by order_date  
)  
select round(avg(qty),0) as avg_pizzas_ordered_per_day from mycte;
```

	avg_pizzas_ordered_per_day
▶	138

# Group the orders by date and calculate the average number of pizzas ordered per day- Using Sub Query

```
SELECT
    AVG(qty)
FROM
    (SELECT
        orders.order_date, SUM(order_details.quantity) AS qty
    FROM
        orders
    INNER JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY order_date) AS ord_qty;
```

	AVG(qty)
▶	138.4749

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

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

	pizza_type_id	name	revenue
▶	thai_ckn	The Thai Chicken Pizza	43434.25
	bbq_ckn	The Barbecue Chicken Pizza	42768
	cali_ckn	The California Chicken Pizza	41409.5



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

```
with mycte as(  
SELECT  
    pizza_types.category as pizza_category,  
    SUM(order_details.quantity * pizzas.price) AS revenue  
FROM  
    pizza_types  
    INNER JOIN  
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id  
    INNER JOIN  
    order_details ON pizzas.pizza_id = order_details.pizza_id  
GROUP BY pizza_types.category  
,  
total_revenue_cte as(  
select sum(revenue) as total_revenue  
from mycte  
)  
select mycte.pizza_category, mycte.revenue,  
round((mycte.revenue/total_revenue_cte.total_revenue)*100, 2) as percent_dist  
from mycte,total_revenue_cte  
order by percent_dist desc;
```

	pizza_category	revenue	percent_dist
►	Classic	220053.1000000001	26.91
	Supreme	208196.99999999822	25.46
	Chicken	195919.5	23.96
	Veggie	193690.45000000298	23.68

# Analyze the cumulative revenue generated over time-Using CTE

```
with mycte as(
select orders.order_date,
sum(pizzas.price*order_details.quantity) as revenue
from orders inner join order_details
on orders.order_id=order_details.order_id
inner join pizzas
on order_details.pizza_id=pizzas.pizza_id
group by orders.order_date
)
select mycte.order_date,
sum(revenue) over(order by mycte.order_date) as cum_revenue
from mycte;
```

	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

# Analyze the cumulative revenue generated over time- Using Sub Query

```
select order_date,  
sum(revenue) over(order by order_date) as cum_revenue  
from(  
select orders.order_date,  
sum(pizzas.price*order_details.quantity) as revenue  
from orders inner join order_details  
on orders.order_id=order_details.order_id  
inner join pizzas  
on order_details.pizza_id=pizzas.pizza_id  
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



# Determine the top 3 most ordered pizza types based on revenue for each pizza category-Using CTE

```
with mycte as(
select pizza_types.category, pizza_types.name,
sum(pizzas.price*order_details.quantity) as total_price
from pizza_types inner join pizzas
on pizza_types.pizza_type_id=pizzas.pizza_type_id
inner join order_details on
pizzas.pizza_id=order_details.pizza_id
group by pizza_types.category,pizza_types.name
),
mycte2 as(
select mycte.category, mycte.name, mycte.total_price,
row_number() over(partition by mycte.category order by mycte.total_price desc) as top_type_price
from mycte
)
select mycte2.category, mycte2.name, mycte2.total_price
from mycte2
where top_type_price<=3
order by mycte2.category, mycte2.total_price desc;
```

	category	name	total_price
▶	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
	Mexican	The Mexican Pizza	26322.25



# Determine the top 3 most ordered pizza types based on revenue for each pizza category-Using Sub Query

```
select category, name, total_price
from
(select category, name, total_price,
row_number() over(partition by category order by total_price desc) as top_type_price
from
(select pizza_types.category, pizza_types.name,
sum(pizzas.price*order_details.quantity) as total_price
from pizza_types inner join pizzas
on pizza_types.pizza_type_id=pizzas.pizza_type_id
inner join order_details on
pizzas.pizza_id=order_details.pizza_id
group by pizza_types.category,pizza_types.name
) as a) as b
where top_type_price<=3;
```

	category	name	total_price
▶	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
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