SQL PIZZA SALES ANALYSIS PROJECT

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PROJECT OVERVIEW

Conducted an end-to-end SQL-based analysis on pizza sales data to extract key business insights.

- **Basic Insights:**

Identified total orders, revenue, top-selling pizzas, most common size, and highest-priced item.

- **Intermediate Analysis:**

Analyzed order trends by time, category-wise sales, and daily ordering patterns.

Advanced Metrics:

- Calculated revenue contribution per pizza, cumulative revenue over time, and top performers by category.

Goal:

To support data-driven decision-making in product, marketing, and operations through sales performance insights.

Retrieve the total number of orders placed.

```sql
SELECT
    COUNT(order_id) AS Total_orders
FROM
    orders;
```

Result Grid | Filter

Total_orders
21350

Calculate the total revenue generated from pizza sales.

Limit to 5000 rows

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

	revenue_generated
▶	817860.05

Identify the highest-priced pizza.

```sql
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 Row

name	price
The Greek Pizza	35.95

Identify the most common pizza size ordered.

```sql
SELECT
    pizzas.size, COUNT(order_details.order_details_id)
FROM
    order_details
        JOIN
    pizzas ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizzas.size
ORDER BY COUNT(order_details.order_details_id) DESC
LIMIT 1;
```

Result Grid | Filter Rows:

size	COUNT(order_details.order_details_id)
L	18526

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

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

name	quantity
The Classic Deluxe Pizza	2453
The Hawaiian Pizza	2422
The Thai Chicken Pizza	2371
The Pepperoni Pizza	2418
The Barbecue Chicken Pizza	2432

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

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

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

Determine the distribution of orders by hour of the day.

```sql
SELECT
    HOUR(order_time) as Hour, COUNT(order_id) as order_count
FROM
    orders
GROUP BY HOUR(order_time);
```

Hour	order_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336

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

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

category	Category_distribution
Chicken	6
Classic	8
Supreme	9
Veggie	9

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

```sql
SELECT
    ROUND(AVG(Quantity), 0) as avg_pizza_ordered_per_day
FROM
    (SELECT
        orders.order_date, SUM(order_details.quantity) AS Quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date) AS Order_Quantity;
```

avg_pizza_ordered_per_day
138

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

```sql
SELECT
    pizza_types.name,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    pizzas
        JOIN
    pizza_types ON pizzas.pizza_type_id = pizza_types.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	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

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

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

	category	revenue
▶	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68

Analyze the cumulative revenue generated over time.

```sql
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 orders on
order_details.order_id = orders.order_id 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

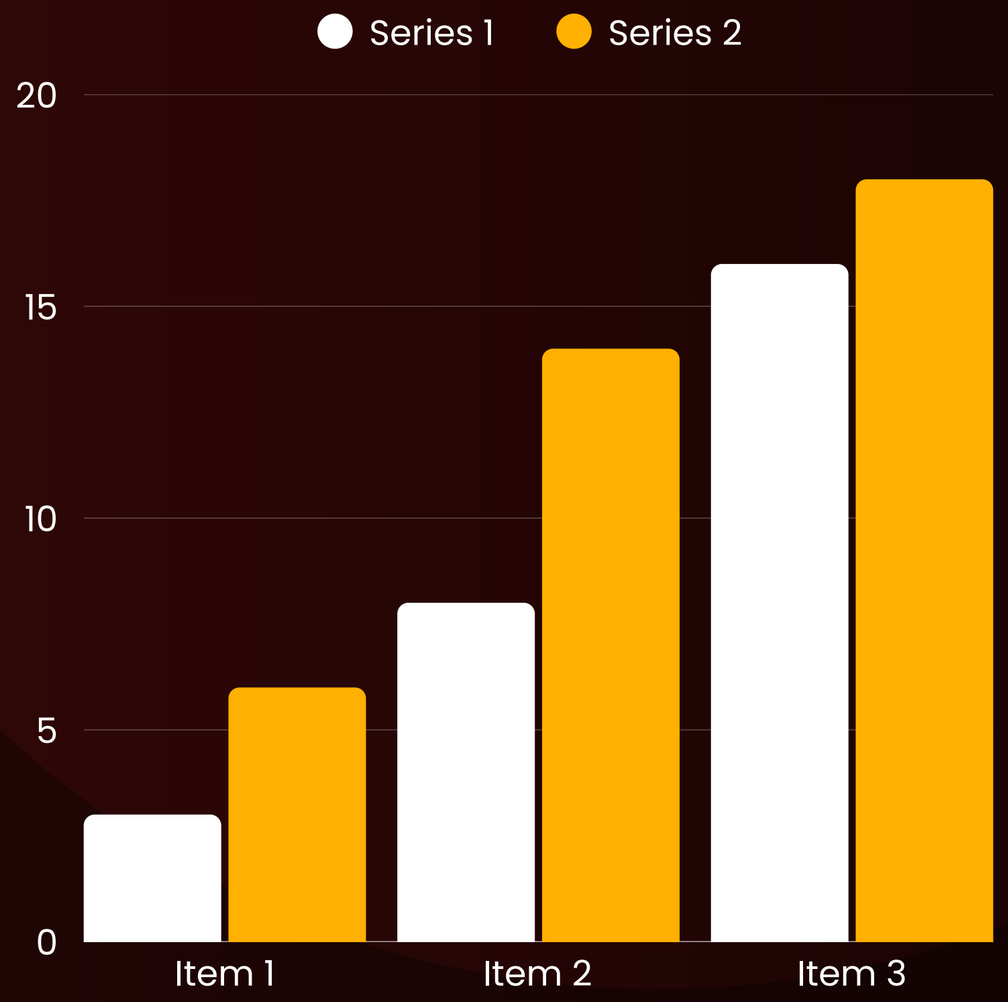
Determine the top 3 most ordered pizza types based on revenue for each pizza category.

```sql
select name,category,revenue
from
(select category,name,revenue, rank() over(partition by category order by revenue desc) as rn
from (SELECT
    pizza_types.name,
    pizza_types.category,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    order_details
        JOIN
    pizzas ON order_details.pizza_id = pizzas.pizza_id
        JOIN
    pizza_types ON pizza_types.pizza_type_id = pizzas.pizza_type_id
GROUP BY pizza_types.name , pizza_types.category) as a) as b
where rn<=3
```

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

INSIGHTS

- Over 21,000+ orders placed, generating significant revenue across all categories.
- Top 5 pizzas dominate sales volume, driving the majority of customer preferences.
- Medium size pizzas are the most popular among customers.
- Orders peak between 12 PM – 2 PM and 6 PM – 8 PM, aligning with lunch and dinner hours.
- Veggie and Classic categories lead in quantity sold.
- Daily average of pizzas ordered reveals consistent demand across dates.
- Top 3 pizza types contribute a major share of total revenue.
- Cumulative revenue trend shows steady business growth over time.
- Category-wise top performers identified for targeted marketing and inventory focus.



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THANK YOU

FOR ATTENTION

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