SALES REPORT

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AGENDA

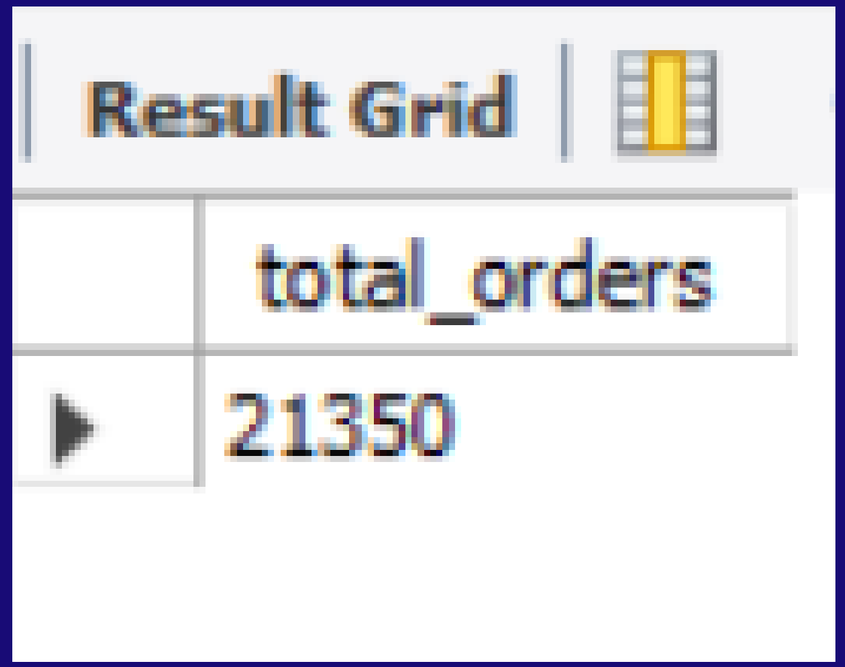
TODAY, WE WILL BE DISCUSSING:

- **Sales Overview** of Pizzas
- **Most demanded Pizza**
- **Revenue generated over time**

Retrieve the total number of orders placed.

```sql
Select count(order_id) as total_orders from orders;
```

The result of this query provides a crucial piece of information for understanding business performance and planning future strategies.



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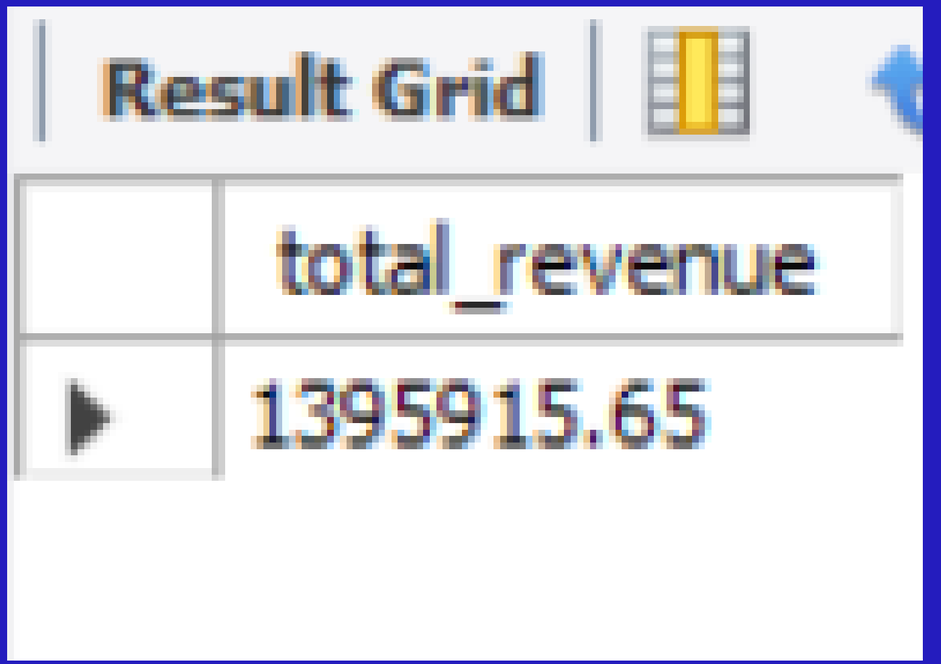
CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.

```
SELECT
    round(SUM(order_details.quantity * pizzas.price),2) AS total_revenue
FROM
    order_details
        JOIN
    pizzas ON pizzas.pizza_id = order_details.pizza_id
```

1. Strategic Decision-Making:
   - Pricing Strategies: By understanding total revenue, businesses can make informed decisions about pricing strategies, discounts, and promotions.
   - Inventory and Supply Chain Management: Knowing the revenue generated can help in planning inventory purchases and managing the supply chain more effectively.
   - Marketing Efforts: Analyzing revenue trends can guide marketing efforts to focus on promoting high-revenue pizzas or improving sales strategies for lower-performing items.



Identify the highest-priced pizza.

```sql
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.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.

```
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;
```

Result Grid | Filt

	size	order_count
▶	L	31624

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

```sql
SELECT
    SUM(order_details.quantity) AS quantity, pizza_types.name
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;
```

quantity	name
4180	The Barbecue Chicken Pizza
4155	The Classic Deluxe Pizza
4134	The Pepperoni Pizza
4101	The Hawaiian Pizza
4047	The California Chicken Pizza

```sql
SELECT
    SUM(order_details.quantity) AS quantity,
    pizza_types.category
FROM
    pizzas
        JOIN
    pizza_types 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;
```

JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED

quantity	category
25385	Classic
19955	Veggie
20441	Supreme
18821	Chicken

Strategic Decision-Making:

- Menu Optimization: Insights from this analysis can guide menu planning and optimization. If certain categories are significantly more popular, the business might consider expanding the variety within those categories or focusing promotional efforts on them.
- Resource Allocation: The business can allocate resources more effectively, such as kitchen staff and ingredients, to ensure that high-demand categories are prioritized.

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);
```

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

Strategic Decision-Making:

- Promotional Timing: Understanding when orders are typically placed can inform the timing of promotions and marketing efforts to maximize their impact.
- Service Optimization: The business can optimize service processes, such as order processing and delivery, based on expected order volumes at different times of the day.

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

Strategic Insights:

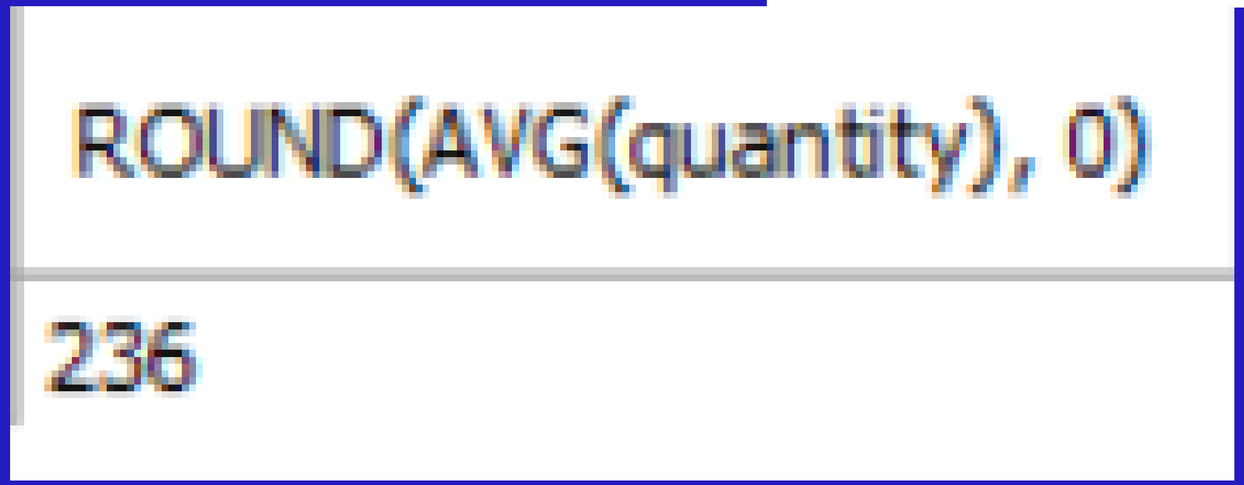
- Menu Planning: Insights from this analysis can guide menu planning decisions, such as adding new pizza types to underrepresented categories or diversifying popular categories further.
- Marketing and Promotions: Understanding the distribution of pizza types can help in designing targeted marketing campaigns and promotions to highlight the variety available in specific categories.

GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.

Strategic Decision-Making:

- Resource Allocation: Insights into the average number of daily orders help in resource allocation, ensuring that sufficient staff and ingredients are available to meet demand.
- Marketing Strategies: Understanding daily order volumes can guide marketing strategies and promotional activities to boost sales during slower periods or maximize revenue during peak times.

```sql
SELECT
    ROUND(AVG(quantity), 0)
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;
```



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
    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 revenue DESC
LIMIT 3;
```

Strategic Decision-Making:

- Focus on Best-Sellers: By identifying the top revenue-generating pizzas, the business can focus marketing efforts, promotions, and resources on these high-performing items to maximize sales and profitability.
- Menu Optimization: Insights from this analysis can guide menu design and pricing strategies to feature these popular items more prominently.

name	revenue
The Barbecue Chicken Pizza	73459
The Thai Chicken Pizza	73437.75
The California Chicken Pizza	70695.25

CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE.

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

category	revenue
Classic	26.89
Supreme	25.45
Chicken	23.89
Veggie	23.77

Strategic Insights:

- Product Mix Optimization: Insights into which categories contribute the most to revenue can guide decisions on menu optimization, promotional strategies, and inventory management.
- Market Positioning: Understanding revenue distribution across categories helps in better positioning products to match consumer preferences and maximize profitability.

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 perday_revenue;
```

order_date	cum_revenue
2015-01-01	5427.7
2015-01-02	10891.5
2015-01-03	16216.3
2015-01-04	19727.2
2015-01-05	23859.1
2015-01-06	28717
2015-01-07	33121.4
2015-01-08	38798.1
2015-01-09	43052.799999999996
2015-01-10	47980.7
2015-01-11	51725.299999999996
2015-01-12	55563.399999999994
2015-01-13	59662.59999999999
2015-01-14	64717.399999999994
2015-01-15	68687
2015-01-16	73875.3
2015-01-17	78003.5
2015-01-18	81957.2
2015-01-19	86731.5
2015-01-20	91527.3
2015-01-21	95608.40000000001
2015-01-22	100601.8
2015-01-23	105449.2
2015-01-24	110027.7

trategic Decision-Making:

- Business Planning: Understanding cumulative revenue growth helps in strategic planning and forecasting future performance. It can guide decisions on marketing budgets, inventory purchases, and staffing.
- Financial Analysis: It aids in financial analysis by providing a clear picture of how revenue is building up over time, which is crucial for cash flow management and financial reporting.

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

```sql
select name, revenue from
(select category, name, revenue,
rank () over(partition by category order by revenue desc) as rnk
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 sm) as pr
where rnk <= 3;
```

name	revenue
The Barbecue Chicken Pizza	73459
The Thai Chicken Pizza	73437.75
The California Chicken Pizza	70695.25
The Classic Deluxe Pizza	64665
The Hawaiian Pizza	54675.75
The Pepperoni Pizza	51598
The Spicy Italian Pizza	59724.5
The Italian Supreme Pizza	57427
The Sicilian Pizza	52360.75
The Four Cheese Pizza	54975.94999999823
The Mexicana Pizza	45491.75
The Five Cheese Pizza	44992

Strategic Decision-Making:

- Product Promotion: Insights from this analysis can guide promotional activities, focusing efforts on the best-selling pizzas.
- Menu Optimization: The business can use this data to optimize the menu by featuring high-revenue pizzas more prominently or considering adjustments to less popular ones.
- Inventory Management: Understanding which pizzas are the top sellers can assist in better inventory and supply chain management, ensuring that popular items are always in stock.

THANK YOU!

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