SWIGGY SALES ANALYSIS USING SQL

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INTRODUCTION

Hi, I’m Ethen D’Costa, an aspiring data analyst skilled in Excel, SQL, and Python. In this project, I used SQL queries to analyze Swiggy's sales data for strategic insights and decision-making.

EXPLORING SWIGGY SALES ANALYSIS THROUGH SQL QUERIES

AGENDA - 1

- Introduction to Swiggy Sales Analysis
- SQL Analysis Problem Statement
- SQL Queries Overview
  - Restaurant Analysis
  - Customer Analysis
  - Delivery Partner Analysis

EXPLORING SWIGGY SALES ANALYSIS THROUGH SQL QUERIES

AGENDA - II

- Key Insights Derived from SQL Queries
  - Restaurant Analysis
  - Customer Analysis
  - Delivery Partner Analysis
- Conclusion
- Recommendations

INTRODUCTION TO SWIGGY SALES ANALYSIS

- Used SQL to analyze customer, restaurant, and delivery partner data.
- Identified patterns in customer orders, including frequency and location.
- Found inactive customers who haven’t placed any orders.
- Analyzed top-rated restaurants and those generating the most revenue.
- Evaluated delivery partners based on completed deliveries and customer interactions.
- Provided insights to help Swiggy improve decision-making, customer satisfaction, and operational efficiency.

SWIGGY ANALYSIS PROBLEM STATEMENTS

RESTAURANTS

1. Find the average rating of all restaurants in 'Mumbai'.
2. Find the total revenue generated by each restaurant.
3. Find the top 5 restaurants with the highest average rating.

CUSTOMERS

1. Display all customers who live in 'Delhi'.
2. List all customers who have placed at least one order.
3. Display the total number of orders placed by each customer.
4. Display all customers who have never placed an order.
5. Find the number of orders placed by each customer in 'Mumbai'.
6. Find the customers who have placed orders on exactly three different days.
7. Identify customers who have the same city and have placed orders at the same restaurants, but on different dates.
8. Display all orders placed in the last 30 days.

DELIVERY PARTNERS

1. List all delivery partners who have completed more than 1 delivery
2. Find the delivery partner who has worked with the most different customers.

SQL QUERIES: RESTAURANT ANALYSIS

AVERAGE RATING OF RESTAURANTS IN “MUMBAI”

```sql
SELECT
    round(AVG(rating),2) as Average
FROM
    restaurants
WHERE
    city = 'Mumbai';
```

TOP 5 RESTAURANTS BY RATING

```sql
SELECT
    name, rating
FROM
    restaurants
ORDER BY rating DESC
LIMIT 5;
```

TOTAL REVENUE PER RESTAURANT

```sql
SELECT
    restaurants.name, coalesce(sum(orders.total_amount),0) AS revenue
FROM
    restaurants
        LEFT JOIN
    orders ON orders.restaurant_id = restaurants.restaurant_id
GROUP BY restaurants.name;
```

SQL QUERIES: CUSTOMER ANALYSIS

CUSTOMERS WHO LIVE IN "DELHI"

```sql
SELECT
    name, city
FROM
    customers
WHERE
    city = 'Delhi';
```

CUSTOMERS WHO HAVE PLACED ATLEAST ONE ORDER

```sql
SELECT DISTINCT
    customers.name
FROM
    customers
        JOIN
    orders
    ON
    customers.customer_id = orders.customer_id;
```

TOTAL NUMBER OF ORDERS PLACED BY EACH CUSTOMER

```sql
SELECT
    customers.name, COUNT(orders.customer_id) AS no_of_orders
FROM
    customers
        LEFT JOIN
    orders ON customers.customer_id = orders.customer_id
GROUP BY customers.name;
```

CUSTOMERS WHO HAVE NEVER PLACED AN ORDER

```sql
SELECT
    distinct customers.name
FROM
    customers
        LEFT JOIN
    orders ON customers.customer_id = orders.customer_id
WHERE
    orders.order_id IS NULL;
```

ORDERS PLACED IN THE LAST 30 DAYS

```sql
SELECT
    *, DATEDIFF(NOW(), order_date) AS date_diff
FROM
    orders
WHERE
    DATEDIFF(NOW(), order_date) <= 30;
```

NUMBER OF ORDERS PLACED BY EACH CUSTOMER IN “MUMBAI”

```sql
SELECT
    customers.name,
    customers.city,
    COUNT(orders.customer_id) AS no_of_orders
FROM
    customers
        LEFT JOIN
    orders ON customers.customer_id = orders.customer_id
WHERE
    city = 'Mumbai'
GROUP BY customers.name , customers.city;
```

CUSTOMERS WHO HAVE PLACED ORDERS ON EXACTLY THREE DIFFERENT DAYS

```sql
SELECT
    customers.name
FROM
    customers
        JOIN
    orders ON customers.customer_id = orders.customer_id
GROUP BY customers.name
HAVING COUNT(DISTINCT orders.order_date) = 3;
```

CUSTOMERS IN SAME CITY, ORDERED FROM THE SAME RESTAURANT, BUT ON DIFFERENT DATES

```sql
SELECT DISTINCT
    c1.name AS customer1,c2.name AS customer2,c1.city,r.name AS restaurant,
    o1.order_date AS order_date1,o2.order_date AS order_date2
FROM
    Customers c1
        JOIN
    Orders o1 ON c1.customer_id = o1.customer_id
        JOIN
    Orders o2 ON o1.restaurant_id = o2.restaurant_id
        JOIN
    Customers c2 ON c1.city = c2.city
        AND c1.customer_id <> c2.customer_id
        AND o2.customer_id = c2.customer_id
        JOIN
    Restaurants r ON o1.restaurant_id = r.restaurant_id
WHERE
    o1.order_date <> o2.order_date
        AND c1.customer_id < c2.customer_id
ORDER BY c1.city , r.name , o1.order_date;
```

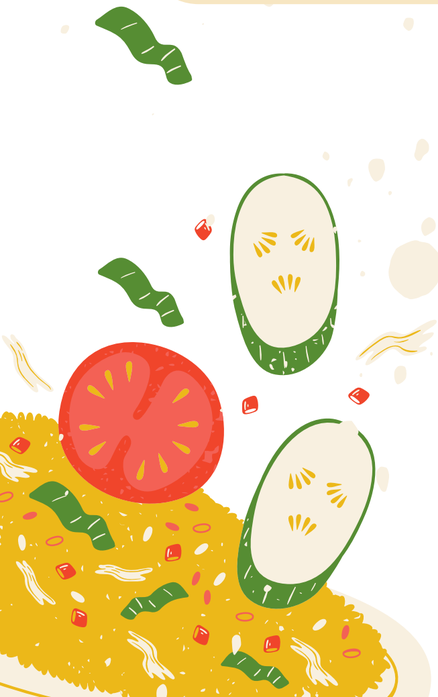
SQL QUERIES: DELIVERY AGENT ANALYSIS

DELIVERY PARTNERS WITH MORE THAN 1 DELIVERY

```sql
SELECT
    deliverypartners.name,
    COUNT(orderdelivery.partner_id) AS no_of_deliveries
FROM
    deliverypartners
        LEFT JOIN
    orderdelivery ON deliverypartners.partner_id = orderdelivery.partner_id
GROUP BY deliverypartners.name
HAVING COUNT(orderdelivery.partner_id) > 1;
```

DELIVERY PARTNER WITH MOST UNIQUE CUSTOMERS

```sql
SELECT
    orderdelivery.partner_id,
    deliverypartners.name,
    COUNT(DISTINCT orders.customer_id) AS no_of_unique_customers
FROM
    deliverypartners
        JOIN
    orderdelivery ON deliverypartners.partner_id = orderdelivery.partner_id
        JOIN
    orders ON orderdelivery.order_id = orders.order_id
GROUP BY deliverypartners.name , orderdelivery.partner_id
ORDER BY no_of_unique_customers DESC
LIMIT 1;
```



KEY INSIGHTS : RESTAURANT ANALYSIS

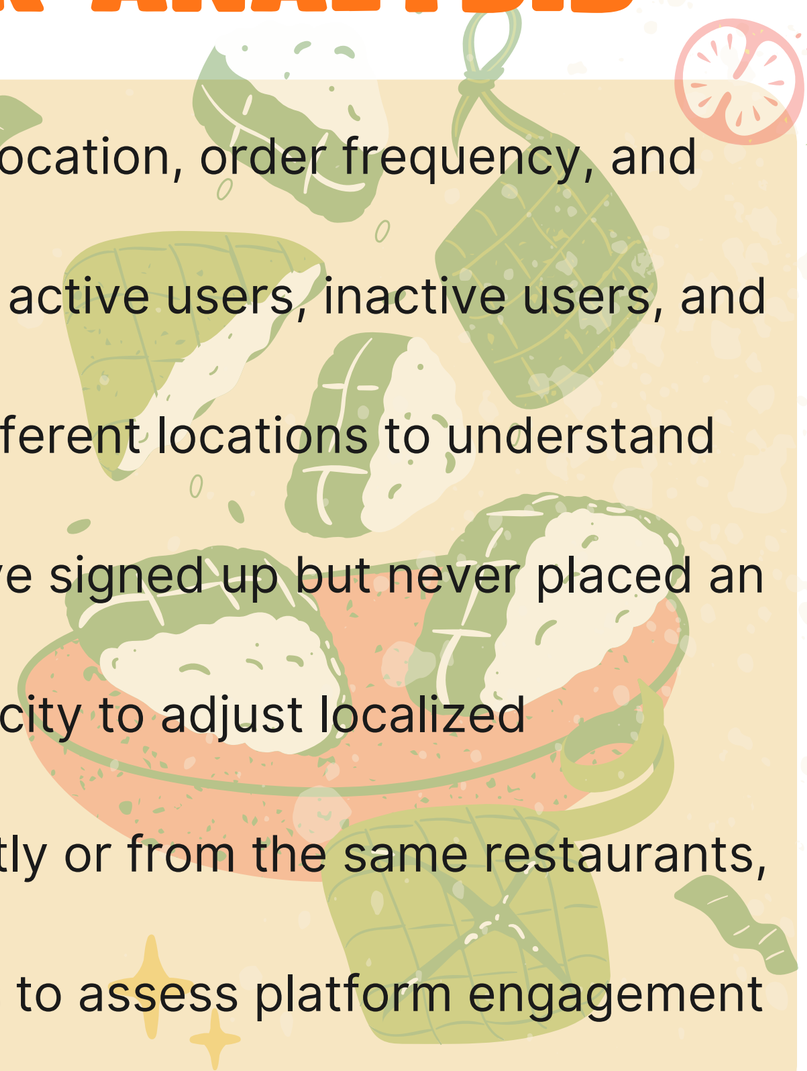
- Analyzing average restaurant ratings, total revenue, and top-performing restaurants provides Swiggy with a comprehensive understanding of:
  - Customer satisfaction levels.
  - Business performance metrics.

- These insights help Swiggy to:
  - Identify restaurants that excel in service quality and customer experience.
  - Determine which restaurants generate the highest revenue.

- As a result, Swiggy can:
  - Strengthen partnerships with high-performing restaurants.
  - Target underperforming areas for improvement.
  - Optimize overall platform efficiency for enhanced customer satisfaction and profitability.

KEY INSIGHTS : CUSTOMER ANALYSIS

- Customer Segmentation: Identify customer groups based on location, order frequency, and activity status to tailor marketing strategies.
- Customer Engagement: Analyze customer behavior to assess active users, inactive users, and repeat customers, helping improve retention efforts.
- Order Trends: Track order frequency by customers across different locations to understand demand patterns and regional preferences.
- Conversion Opportunities: Target inactive customers who have signed up but never placed an order with specific incentives or promotions.
- Geographical Insights: Gain insights into customer activity by city to adjust localized strategies for marketing and operations.
- Loyalty & Retention: Recognize customers who order frequently or from the same restaurants, helping to foster loyalty and create personalized offers.
- Recent Activity Analysis: Monitor the number of recent orders to assess platform engagement and the effectiveness of recent campaigns.



KEY INSIGHTS : DELIVERY PARTNER ANALYSIS

- Top Performers: Identify delivery partners who have completed more than one delivery. This helps in recognizing and rewarding those who are consistently active.
- Customer Interaction: Find out which delivery partner has worked with the most different customers. This shows who is engaging with a wide range of customers and can help in evaluating their service quality.
- Efficiency and Logistics: Use this information to better manage delivery routes and assignments, making sure deliveries are efficient and well-distributed.
- Service Quality: Understanding which partners interact with many customers helps ensure they are providing good service and can guide decisions on how to support or reward them.
- Partner Engagement: Recognize and retain top delivery partners by acknowledging their performance and broad customer interactions, keeping them motivated and engaged.

CONCLUSION

The analysis of Swiggy’s dataset reveals key insights into customer behavior, restaurant performance, and delivery partner activity. By examining customer locations, order frequencies, and recent activity, we can understand engagement patterns and regional preferences. Analyzing delivery partners’ performance highlights their activity levels and customer interactions, offering a view into operational efficiency.

Key findings include:

- Customer Engagement: Insights into which customers are active, inactive, or frequent, and understanding order trends in different locations.
- Restaurant Performance: Identifying high-rated restaurants and revenue generation.
- Delivery Partner Efficiency: Recognizing active delivery partners and those interacting with diverse customer bases.

RECOMMENDATIONS

- Targeted Marketing: Utilize customer segmentation data to design location-specific promotions and retention strategies, especially targeting inactive customers with personalized incentives.
- Optimize Operations: Adjust delivery routes and assignments based on delivery partner performance to enhance efficiency and coverage.
- Enhance Customer Engagement: Develop loyalty programs for frequent customers and provide incentives for those ordering from specific restaurants.
- Improve Service Quality: Use insights into delivery partners' interactions to ensure high service standards and implement recognition programs for top performers.
- Strategic Promotions: Focus on high-rated restaurants for special promotions and partnerships to drive more customer engagement and revenue.

THANK YOU

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