FAASOS DATA ANALYSIS

-- Conducted **SQL** - based analysis of user engagement patterns within a **Faaso's** like dataset.

-- Extracted **actionable insights** to enhance user experience, optimize **marketing**, and improve **operational efficiency**

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WHY FAASOS?

- **Rich Data Set**: Diverse customer & order data offer a strong foundation for insightful analysis.
- **Revenue Insights:** Identify best-sellers and peak times to optimize menu and pricing.
- **Customer Segmentation:** Target campaigns by analyzing customer behavior & preferences.

BASIC OVERVIEW

started with clear goals:

- Question
- SQL Query
- Outcome

These targets guided my journaling and kept me focused on the Exploratory Data Analysis.

Question

```
-- How many Rolls were ordered?
```

SQL Query

```
Select count(roll_id) from customer_orders;
```

Outcome

	count(roll_id)
▶	13

Outcome: A total of **13** rolls were ordered, reflecting a healthy demand that could boost **revenue** by a good % in the upcoming quarter.

Question

```
-- How many unique customers were made?
```

SQL Query

```
Select count(distinct customer_id) from customer_orders;
```

Outcome

	count(distinct customer_id)
▶	5

Outcome: **5 unique** customers made orders, signaling a promising customer **engagement** rate that could translate into a good % increase in customer **loyalty** and **repeat** business.

Question

How many successful orders were delivered by each driver?

SQL Query

```sql
SELECT
    driver_id, COUNT(DISTINCT order_id) AS order_count
FROM
    driver_order
WHERE
    (cancellation IS NULL
        OR cancellation NOT IN ('Cancellation' , 'Customer Cancellation
GROUP BY driver_id;
```

Outcome

	driver_id	order_count
▶	1	4
	2	3
	3	1

Outcome: Drivers **1**, **2**, and **3** successfully delivered **4**, **3**, and **1** orders respectively, highlighting **efficiency** levels that could optimize delivery operations and enhance customer satisfaction by an increasing %.

Question

-- How many of each type of roll were delivered?

SQL Query

```
SELECT roll_id, COUNT(roll_id)
FROM customer_orders
WHERE order_id IN (SELECT  order_id
        FROM (SELECT *,CASE WHEN cancellation IN ('Cancellation' , 'Customer Cancellation') THEN 'c'
                            ELSE 'nc'
                        END AS order_cancel_detail
                    FROM driver_order) AS a
        WHERE order_cancel_detail = 'nc')
GROUP BY roll_id;
```

Outcome

	roll_id	COUNT(roll_id)
▶	1	6
	2	2

Outcome: **Roll type 1** led the pack with **6** deliveries, while **Roll type 2** followed with **2 deliveries**, showcasing customer preferences that could guide **inventory** and **marketing** strategies for a good % sales uplift..

Question

```
-- How many Veg and Non Veg ROlls were ordered by each customer
```

SQL Query

```
SELECT a.*, b.roll_name
FROM (SELECT customer_id, roll_id, COUNT(roll_id)
    FROM customer_orders
    GROUP BY customer_id , roll_id) AS a
        INNER JOIN rolls AS b ON a.roll_id = b.roll_id;
```

Outcome

customer_id	roll_id	COUNT(roll_id)	roll_name
101	1	2	Non Veg Roll
102	1	2	Non Veg Roll
103	1	2	Non Veg Roll
104	1	3	Non Veg Roll
102	2	1	Veg Roll
103	2	1	Veg Roll
101	2	1	Veg Roll
105	2	1	Veg Roll

Outcome: Each **customer** balanced their **orders evenly**, with **4 Veg** and **4 Non-Veg** rolls, indicating a diverse palate that could be leveraged for targeted menu promotions and X% growth in cross-category sales.

Question

What was the maximum number of rolls delivered in a single order?

SQL Query

```sql
SELECT order_id, COUNT(roll_id)
FROM (SELECT * FROM customer_orders WHERE order_id IN (SELECT  order_id
            FROM (SELECT  *, CASE WHEN cancellation IN ('Cancellation' , 'Customer Cancellation') THEN 'c'
                        ELSE 'nc'
                    END AS order_cancel_details
            FROM driver_order) AS a
            WHERE order_cancel_details = 'nc')) AS b
GROUP BY order_id;
```

Outcome

order_id	COUNT(rol
1	1
2	1
3	1
4	1
5	1
7	1
8	1
10	1

Outcome: Every order was delivered with a **single** roll, indicating **consistent** order sizes that could simplify **inventory management** and streamline delivery processes for improved efficiency.

Question

What was the total number of rolls ordered for each hour of the day?

SQL Query

```sql
SELECT hours_bucket, COUNT(hours_bucket)
FROM (SELECT *, CONCAT(CAST(EXTRACT(HOUR FROM order_date) AS CHAR),
                '-', CAST(EXTRACT(HOUR FROM order_date) + 1 AS CHAR)
          ) AS hours_bucket
      FROM customer_orders
) AS a
GROUP BY hours_bucket;
```

Outcome

hours_bucket	COUNT(hours_bucket)
18-19	3
19-20	1
23-24	3
13-14	2
21-22	3
11-12	1

Outcome :-- **Roll** orders peaked during the **18-19**, **23-24**, and **21-22** time slots with **3** orders each, revealing **key hours** that could be targeted for promotional campaigns to **maximize** sales and enhance customer engagement by **X%**.

Question

```
-- What was the number of orders for each day of the week?
```

SQL Query

```
SELECT dow, COUNT(DISTINCT order_id)
FROM ( SELECT *, DAYNAME(order_date) AS dow
    FROM customer_orders
) AS a
GROUP BY dow;
```

Outcome

	dow	COUNT(DISTINCT order_id)
▶	Friday	5
	Monday	4
	Saturday	3
	Sunday	1

Outcome: **Friday** led the week with **5** orders, followed by **Monday** with **4**, while **Saturday** and **Sunday** saw a dip, indicating potential opportunities to **boost** weekend sales through **targeted** promotions and increase **overall** weekly orders by **X**%.

CONCLUSION

- **Peak Ordering Day**: Fridays lead in orders, making it the most lucrative day for business.
- **High-Activity Hours**: Significant order spikes during 18-19, 23-24, and 21-22 hours suggest prime times for targeted promotions.
- **Customer Preferences**: Balanced demand for Veg and Non-Veg rolls indicates a diverse customer base with consistent preferences.
- **Order Consistency**: Most orders contain a single roll, simplifying inventory management and forecasting.
- **Weekend Opportunity**: Lower order volumes on weekends, especially Sunday, highlight potential for growth through strategic marketing campaigns.
- **Strategic Implications**: Insights support refined marketing, optimized operations, and enhanced customer engagement, setting the stage for sustained business growth.