**Project: Customer Churn Analysis**

**Objective**

Analyze customer churn (cancellations) to identify patterns and factors influencing customer retention.

**Dataset Overview**

The dataset includes:

* **Customer ID**: Unique identifier for each customer.
* **Gender**: Male or Female.
* **Age**: Customer's age.
* **Subscription Plan**: Type of plan (Basic, Standard, Premium).
* **Contract Type**: Payment frequency (Monthly, Quarterly, Yearly).
* **Payment Method**: How the customer paid (Credit Card, Debit Card, PayPal, etc.).
* **Monthly Fee**: Amount charged per month.
* **Total Spent**: The total amount spent by the customer.
* **Churn**: Whether the customer left (Yes) or stayed (No).

**SQL Queries for Analysis**

1. **Overall Churn Rate**

sql

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SELECT

(COUNT(CASE WHEN Churn = 'Yes' THEN 1 END) \* 100.0 / COUNT(\*)) AS Churn\_Rate

FROM Customers;

1. **Churn by Subscription Plan**

sql

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SELECT Subscription\_Plan,

COUNT(\*) AS Total\_Customers,

SUM(CASE WHEN Churn = 'Yes' THEN 1 ELSE 0 END) AS Churned\_Customers,

(SUM(CASE WHEN Churn = 'Yes' THEN 1 ELSE 0 END) \* 100.0 / COUNT(\*)) AS Churn\_Rate

FROM Customers

GROUP BY Subscription\_Plan;

1. **Churn by Age Group**

sql

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SELECT

CASE

WHEN Age < 25 THEN 'Under 25'

WHEN Age BETWEEN 25 AND 40 THEN '25-40'

WHEN Age BETWEEN 41 AND 60 THEN '41-60'

ELSE '60+'

END AS Age\_Group,

COUNT(\*) AS Total\_Customers,

SUM(CASE WHEN Churn = 'Yes' THEN 1 ELSE 0 END) AS Churned\_Customers

FROM Customers

GROUP BY Age\_Group;

1. **Revenue Lost Due to Churn**

sql

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SELECT SUM(Total\_Spent) AS Revenue\_Lost

FROM Customers

WHERE Churn = 'Yes';

1. **Most Common Payment Method Among Churned Customers**

sql

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SELECT Payment\_Method, COUNT(\*) AS Churned\_Count

FROM Customers

WHERE Churn = 'Yes'

GROUP BY Payment\_Method

ORDER BY Churned\_Count DESC;