### **Problem & background**

### The problem at hand is to analyze customer churn in a telecom company and identify the key drivers of churn. The goal is to understand the customer profile for churned, joined, and stayed customers and find ways to retain high-value customers. This project aims to provide insights into customer behaviour and preferences in order to develop strategies for reducing churn and improving customer retention. It is a strategic project that requires analyzing customer data to identify patterns and trends.

### **Solution**

The solution involves analyzing the telecom customer churn data and deriving meaningful insights to understand customer behavior. By examining various factors such as gender, age group, cities, internet service, average revenue, average GB consumed, unlimited data usage, and streaming service preferences, we can gain a comprehensive understanding of churned, joined, and stayed customers. This information will help in developing targeted retention strategies and improving customer satisfaction.

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### **Methodology & Project scope**

### Data Cleaning: Identify and handle missing values in the dataset, impute missing values where possible, and categorize data where appropriate.

### Customer Profiling: Analyze customer demographics such as gender and age group to understand the customer composition for churned, joined, and stayed customers. Determine the top cities where churn occurred.

### Internet Service Analysis: Investigate the usage of internet services and identify the percentage of customers who opted for internet services.

### Revenue and Consumption Analysis: Calculate the average revenue and average GB consumed by customers to understand their usage patterns.

### Unlimited Data and Streaming Services: Analyze the usage of unlimited data and specific streaming services to identify customer preferences.

### Churn Reasons: Examine the reasons behind customer churn and identify the key drivers contributing to churn.

### Payment Method: Determine the preferred payment method for churned users.

### Churn Offers: Analyze the preference for churn offers among customers.

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### **Goals & KPIs**

### **Goal 1: Understand the customer profile for churned, joined, and stayed customers.**

### **KPIs: Percentage and number of customers by gender, age group, cities, and internet service.**

### **Goal 2: Identify the key drivers of customer churn.**

### **KPIs: Count of churn reasons, average revenue, average GB consumed, and usage of unlimited data and streaming services.**

### **Goal 3: Evaluate the impact of churn offers and payment methods.**

### **KPIs: Count of churn offers and payment methods preferred by churned users.**

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### **Concepts Used**

### Data cleaning and handling missing values.

### Descriptive statistics and data categorization.

### Data analysis and visualization techniques.

### **Conclusion**

### By analyzing the telecom customer churn data, we were able to gain insights into customer behavior and preferences. The project revealed key findings related to customer demographics, internet service usage, revenue, consumption patterns, unlimited data, streaming services, churn reasons, payment methods, and churn offers. These insights can guide the telecom company in developing strategies to retain high-value customers, improve customer satisfaction, and reduce churn. The project has provided a solid foundation for further analysis and decision-making in the context of customer churn.

### **Project owner**

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