**CUSTOMER CHURN PROJECT**

**Problem Statement:**

The problem at hand is to analyze customer churn for a telecommunications company.

The company is experiencing a high rate of customer churn, resulting in significant revenue loss.

The management wants to identify the key factors contributing to customer churn and develop strategies to reduce churn rate and increase customer retention.

The dataset provided includes information about customers, such as demographics, service usage, contract details, and customer churn status.

The challenge is to analyze this dataset using data analytics techniques and uncover insights that can help the company understand the drivers of churn and take proactive measures to retain customers.

The project aims to answer the following questions:

1. What are the primary factors influencing customer churn? Are there any specific patterns or correlations in the data that indicate churn-prone customers?

2. Can we identify any demographic or behavioral characteristics that differentiate churned customers from those who continue to be active?

3. Are there any specific services or contract terms that contribute significantly to customer churn? Are there opportunities to modify or enhance these offerings to reduce churn?

4. Can we build a predictive model that accurately forecasts customer churn? What are the key features or variables that contribute most to the predictive accuracy of the model?

The outcome of this project will enable the telecommunications company to gain a deeper understanding of customer churn and develop data-driven strategies to improve customer retention. The insights derived from the analysis will guide decision-making processes and aid in the development of targeted retention programs, leading to increased customer satisfaction and reduced revenue loss due to churn.

**DATASET**

To create a dataset for customer churn analysis in a telecommunications company, we can include various relevant features that capture customer information, service usage, contract details, and churn status. Here's an example of a dataset that can be used for customer churn analysis:

1. Customer ID: A unique identifier for each customer.

2. Gender: The gender of the customer (Male/Female).

3. Age: The age of the customer.

4. Marital Status: Whether the customer is married or single.

5. Dependents: The number of dependents the customer has.

6. Contract Type: The type of contract the customer has (e.g., monthly, yearly).

7. Internet Service: The type of internet service the customer has subscribed to (e.g., DSL, fiber optic).

8. Phone Service: Whether the customer has a phone service or not.

9. Multiple Lines: Whether the customer has multiple phone lines or not.

10. Online Security: Whether the customer has opted for online security services.

11. Online Backup: Whether the customer has opted for online backup services.

12. Device Protection: Whether the customer has opted for device protection services.

13. Tech Support: Whether the customer has opted for technical support services.

14. Streaming TV: Whether the customer has subscribed to streaming TV services.

15. Streaming Movies: Whether the customer has subscribed to streaming movie services.

16. Monthly Charges: The monthly charges for the customer's services.

17. Total Charges: The total charges incurred by the customer.

18. Churn Status: Whether the customer has churned or not (Yes/No).

This dataset can be populated with data from actual customers of the telecommunications company. Each customer's information, service usage, contract details, and churn status should be recorded accurately. The dataset should include a sufficient number of records to provide a representative sample of the customer base.

With this dataset, various data analytics techniques and models can be applied to analyze the factors contributing to churn and develop predictive models to identify customers at risk of churning. This analysis can help the telecommunications company make data-driven decisions to improve customer retention strategies and reduce churn rates.