Telecom Customer Churn Analysis

Understanding Factors Contributing to Customer Churn

- **What is Customer Churn?**
    - Definition of churn in the telecom industry.
    - Importance of studying churn.

Objective

- **Objective of the Analysis**
    - To identify the factors that contribute to customer churn.
    - To build predictive models to forecast churn.
    - To provide actionable insights for reducing churn.

Data Overview

- **Dataset Description**
    - Overview of the data used (demographics, usage patterns, contract details, etc.).
    - Source of data and size of the dataset.

Data Exploration

- **Exploratory Data Analysis (EDA)**
    - Key metrics (e.g., churn rate, average tenure).
    - Visualizations: Distribution of customers by tenure, service usage, etc.
    - Correlation analysis: Identifying relationships between variables.

Key Factors Influencing Churn

- **Significant Predictors**
    - Demographic factors (e.g., age, income).
    - Service-related factors (e.g., contract type, internet service).
    - Usage patterns (e.g., monthly charges, total charges).

Predictive Modeling

Modeling Techniques Used

- o Overview of machine learning models applied (e.g., logistic regression, decision trees).

- o Model performance metrics (e.g., accuracy, sensitivity, specificity).

Model Insights

- **Interpretation of Results**

  - o Which factors are most strongly associated with churn?

  - o Example of model output: Predictive probabilities for customer churn.

Recommendations

- **Actionable Insights**

  - o Strategies to reduce churn based on analysis (e.g., targeted promotions for at-risk customers).

  - o Suggestions for improving customer retention.

Conclusion

- **Summary of Findings**

  - o Recap of key insights from the analysis.

  - o Final thoughts on how the telecom company can leverage these insights.

Thank You