Customer Churn Analysis Using Python

Project Summary

This project analyzes customer data from a telecom company to identify patterns and reasons why customers leave (churn). Using Python, pandas, matplotlib, and seaborn, we explored customer behavior and created actionable insights to help reduce churn.

Tools Used

- Python (Pandas, Matplotlib, Seaborn)
- Jupyter Notebook
- Google Colab (optional)

Key Steps Performed

1. Data Cleaning:

- Removed missing values from TotalCharges
- Converted TotalCharges column to float

2. EDA (Exploratory Data Analysis):

- Visualized churn distribution
- Analyzed churn by:
  - Gender
  - Contract Type
  - Internet Service

3. Insights:

- Customers with month-to-month contracts have the highest churn

- Fiber optic users churn more than DSL or no internet users

- Churn is almost equal among genders

Conclusion

The analysis helps the telecom company understand churn behavior. Focus should be on converting month-to-month users to long-term contracts and improving fiber optic service quality.