



Project Title - TELECOM CHURNER

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PROBLEM STATEMENT

- “Telecom companies are facing increasing customer churn due to factors such as poor service quality, lack of personalized offerings, and competitive pricing from rivals. This project aims to identify key drivers of customer churn and develop effective data-driven strategies to enhance customer retention and loyalty.”



Project Description

The telecom industry has seen a surge in competition, leading to a significant rise in customer churn. Retaining existing customers is now more critical than ever, as acquiring new ones is both expensive and time-consuming. This project focuses on analyzing the behavior and preferences of telecom customers to uncover the key factors behind churn.

Through a combination of data analysis, customer feedback, and market research, the project will identify patterns such as frequent call drops, poor internet speed, unresponsive customer service, or lack of value-added services. The goal is to design actionable strategies and predictive models that telecom providers can implement to improve customer satisfaction and retention.

By the end of the project, we aim to present a set of practical recommendations—such as loyalty programs, personalized plans, or service improvements—that will help telecom companies reduce churn and build long-term relationships with their users.



WHO ARE THE END USERS?

■ 1. Telecom Company Management Teams

- Decision-makers such as executives, marketing heads, and customer service leaders who will use insights from the project to implement strategies and improve retention.

■ 2. Customer Relationship Managers (CRM Teams)

- Teams directly responsible for handling customer queries, support, loyalty programs, and retention campaigns.

■ 3. Data Analysts and Business Intelligence Teams

- Professionals who will interpret churn data, monitor KPIs, and refine models based on project findings.

■ 4. Telecom Customers (Indirect End Users)

- While not directly using the system, customers benefit from improved service quality, customized plans, and churn results from project recommendations.

Technology Used

- Excel / Google Sheets
 - To organize and analyze customer data like usage, complaints, and feedback.
- SQL (Structured Query Language)
 - To fetch customer records from a database and check usage/churn patterns.
- PowerPoint / Canva
 - To create our presentation and showcase findings clearly.
- (Optional if used) Python (Basics only)
 - For simple analysis or visual charts using data.



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RESULTS

```

import pandas as pd
import numpy as np
import sklearn

# Load data
data = pd.read_csv('Telco_C churn.csv')

# Initial exploration
data.head()
data.info()
data.describe()

```

customerID	gender	SeniorCitizen	Partner	Dependents	tenure	PhoneService	MultipleLines	InternetService	OnlineSecurity	...	DeviceProtection	TechSupport	StreamingTV	Stream
7580-MATNG	Female	0	Yes	No	1	No	No phone service	DSL	No	...	No	No	No	No
6757-ONYDE	Male	0	No	No	34	Yes	No	DSL	Yes	...	Yes	No	No	No
3068-LIYER	Male	0	No	No	2	Yes	No	DSL	Yes	...	No	No	No	No
7715-DEYON	Male	0	No	No	45	No	No phone service	DSL	Yes	...	Yes	Yes	Yes	No
8037-HQITU	Female	0	No	No	2	Yes	No	DSL	No	...	No	No	No	No

DEMO LINK : https://colab.research.google.com/github/Mark-maker/Telco-Churn-Prediction/blob/master/Telco_Churn.ipynb



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Thank you

This project gave us valuable insights into customer behavior
and churn patterns in the telecom industry.



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