

ANP-D0449

DATA ANALYSIS USING PYTHON

**Customer Churn Analysis in the Telecom
Industry**

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Abstract

Customer churn is a major challenge for telecom companies, as losing subscribers directly affects revenue and growth. This project dives into analyzing why customers leave and how businesses can improve retention. By examining key factors like customer tenure, recharge history, and contract type, we identify patterns that contribute to churn. We clean the data by handling missing values and filtering out inactive users to ensure accurate insights. Through statistical analysis, we explore churn rates across different plans, and with the help of visualizations, we uncover trends in customer behavior. The goal is to provide telecom companies with actionable insights to enhance customer satisfaction, refine service plans, and reduce churn. Additionally, we explore predictive modeling techniques to identify potential churners early, allowing businesses to take proactive steps to retain them.