

CUSTOMER CHURN ANALYSIS

Analyzing customer attrition by geography, contract type, and tenure to
identify key risk factors and inform retention strategies

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INTRODUCTION

- **Purpose:** Analyze customer churn in dataset of 1000 clients
- **Goal:** Identify key drivers of churn and areas to reduce customer loss

DATA OVERVIEW

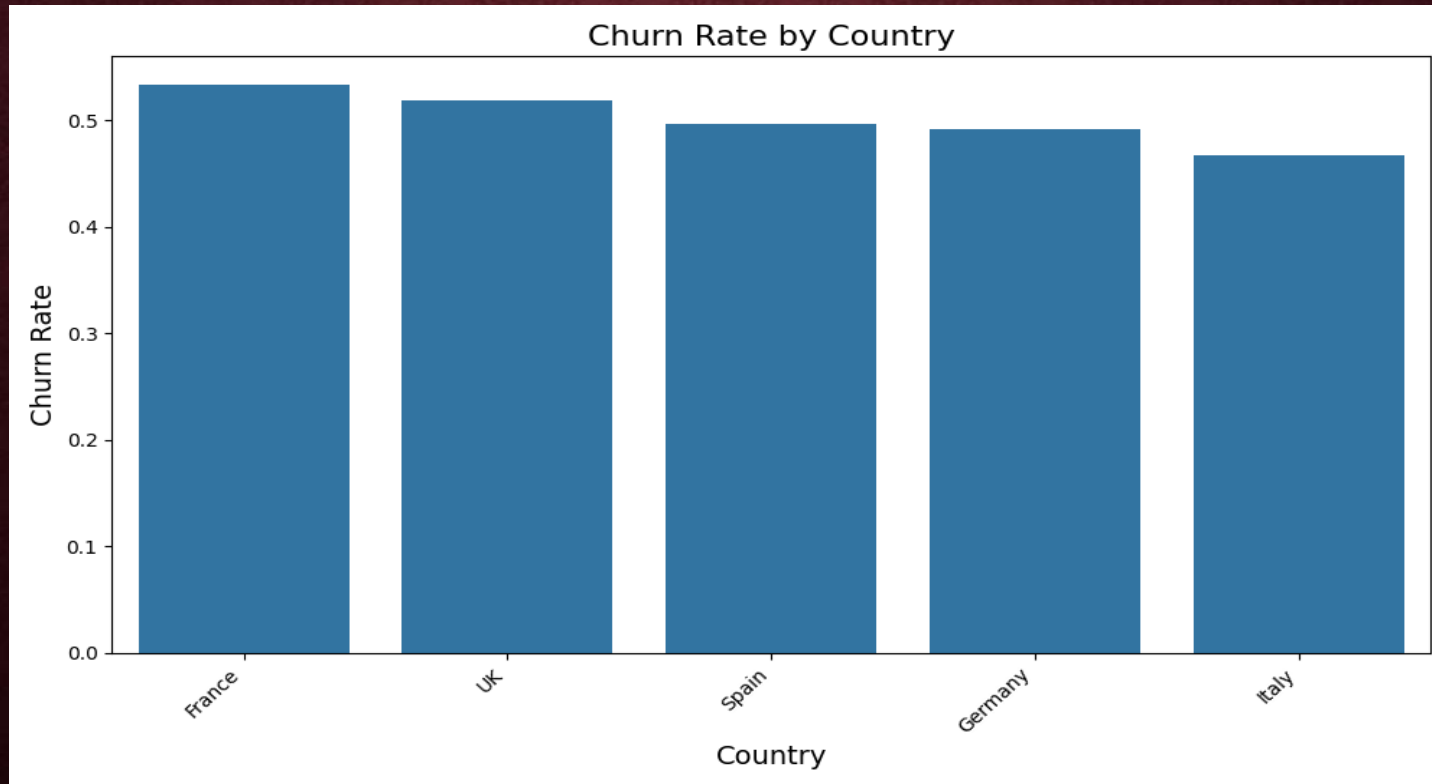
- Dataset from [Kaggle: Large Customer Churn Analysis Dataset](#)
- Contains 1000 customers with data on demographics, contract type, payments, and churn status
- Key columns analyzed: Geography, Contract, Tenure, MonthlyCharges, Churn
- The data is clean: no missing values, all CustomerIDs are unique

CORE METRICS AND QUERIES

- Total customers: 1000
- Customers churned: ~50%
- Breakdown of churn by country and contract type calculated via SQL and Python
- Metrics support targeted analysis by segments

CHURN BY COUNTRY

- Highest churn observed in France (53%) and UK (52%)
- Spain, Germany, Italy show lower but significant churn levels
- Indicates regional differences needing focused retention

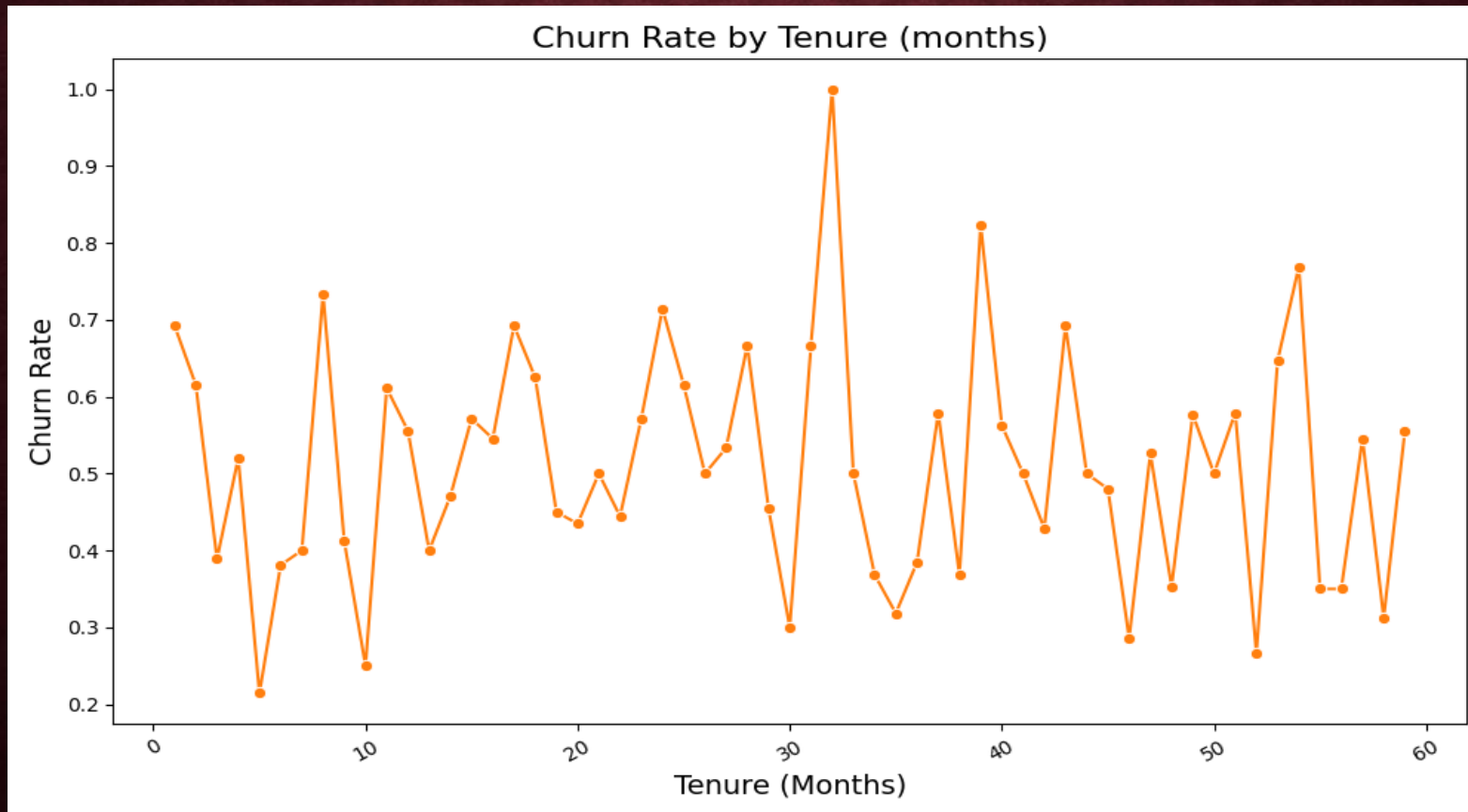


CHURN BY CONTRACT TYPE

- One-year contracts have highest churn (~54%)
- Two-year and Month-to-month contracts have slightly lower churn (~48%)
- Suggests contract length impacts churn behavior

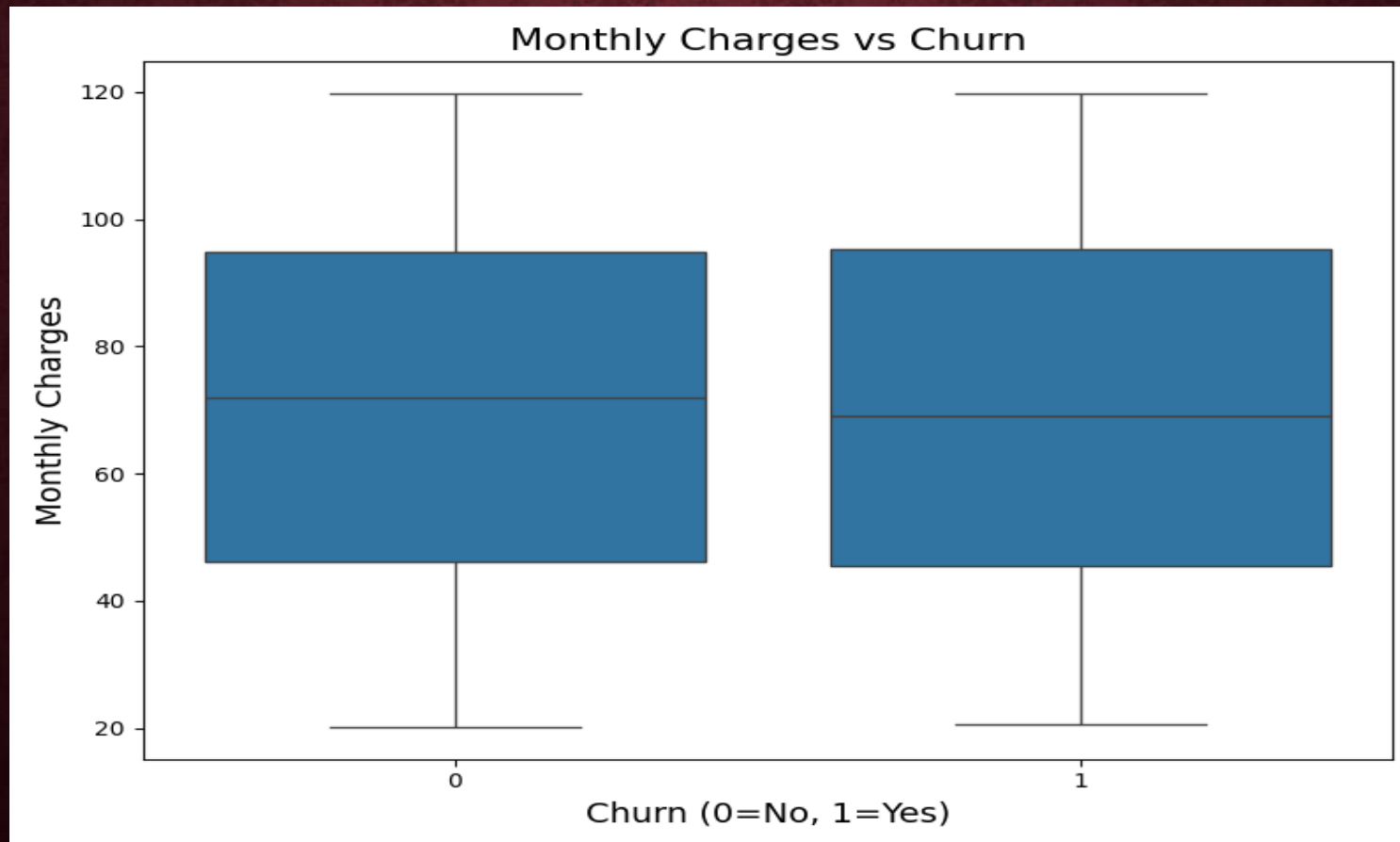
CHURN BY TENURE

- Churn rates highest in first months (peaks at tenure 1, 2, 8 months)
- Declines gradually with longer customer tenure
- Highlights critical period for customer retention efforts



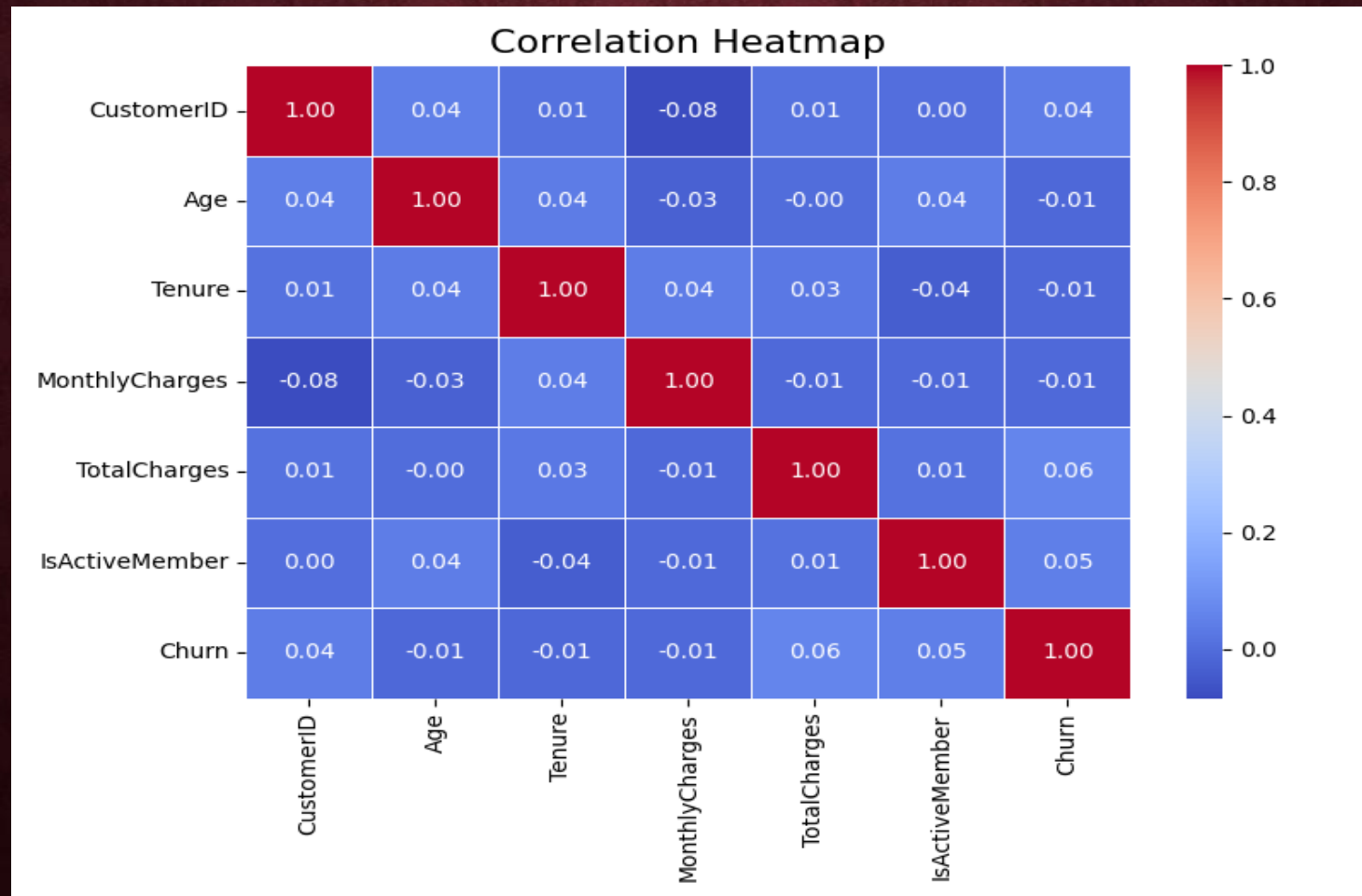
MONTHLY CHARGES VS CHURN

This chart shows the relationship between monthly charges and customer churn. Customers who churn tend to have higher monthly charges, indicating pricing impact on retention. Understanding this pattern helps in reviewing pricing strategies to reduce churn risk.



CORRELATION HEATMAP

The heatmap illustrates correlations between numerical variables in the dataset. Strong correlations highlight key factors influencing churn, providing insight for targeted retention efforts and further analysis.



FINANCIAL FACTORS & CHURN

- **Higher monthly charges correlate with increased churn**

Customers who churn tend to have notably higher average Monthly Charges compared to those who stay. This suggests that cost is a significant factor influencing customer decisions to leave

- **Monthly Charges differ significantly between churned and retained customers**

Statistical analysis shows a clear difference in monthly billing amounts, indicating that customers facing higher fees are more likely to churn.

- **Pricing strategy review recommended**

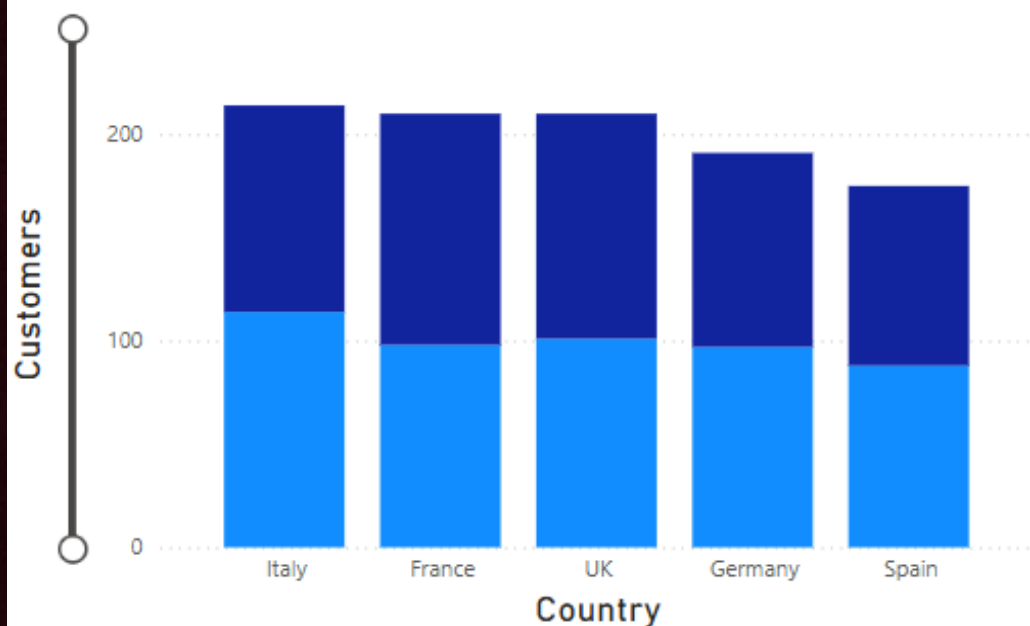
A detailed review of the pricing model is advised to identify opportunities for adjusting charges or offering tailored plans to reduce churn among high-paying customers. Consider discounts, tiered pricing, or value-added services to improve retention.

POWER BI DASHBOARD SUMMARY

- Visualizations cover churn by geography, contract, tenure
- Dashboard includes overall churn rate card and interactive filters
- Enables quick identification of risk segments

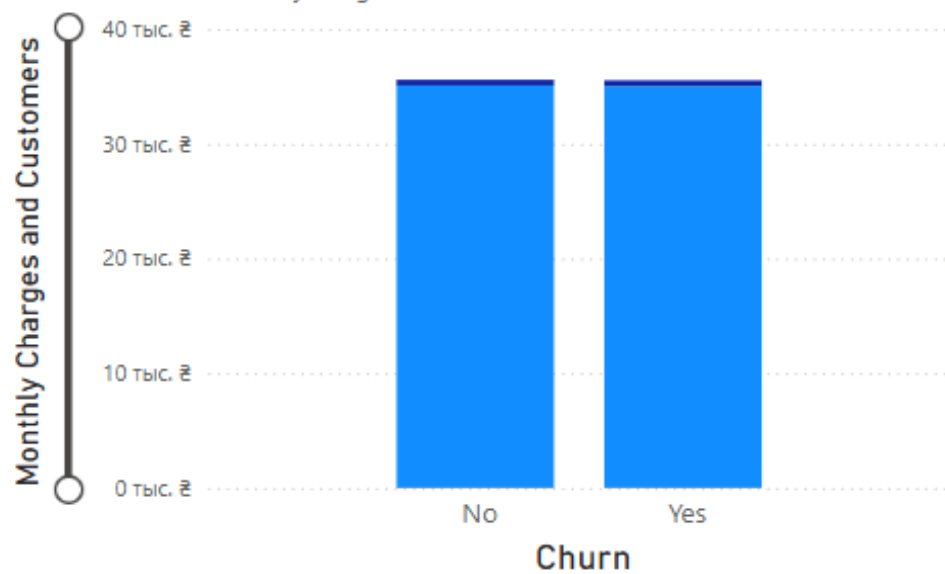
Number of Customers by Geography and Churn

Churn ● No ● Yes



Sum of Monthly Charges and Number of Customers by Churn

MonthlyCharges ● CustomerID



Geography

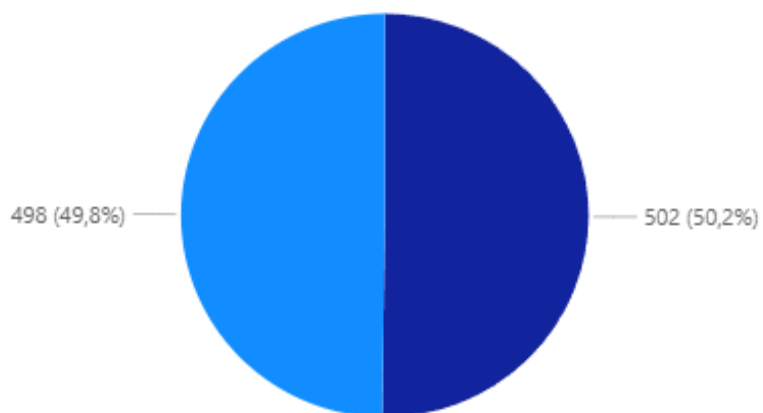
- France
- Germany
- Italy
- Spain
- UK

Contract

- Month-to-month
- One-year
- Two-year

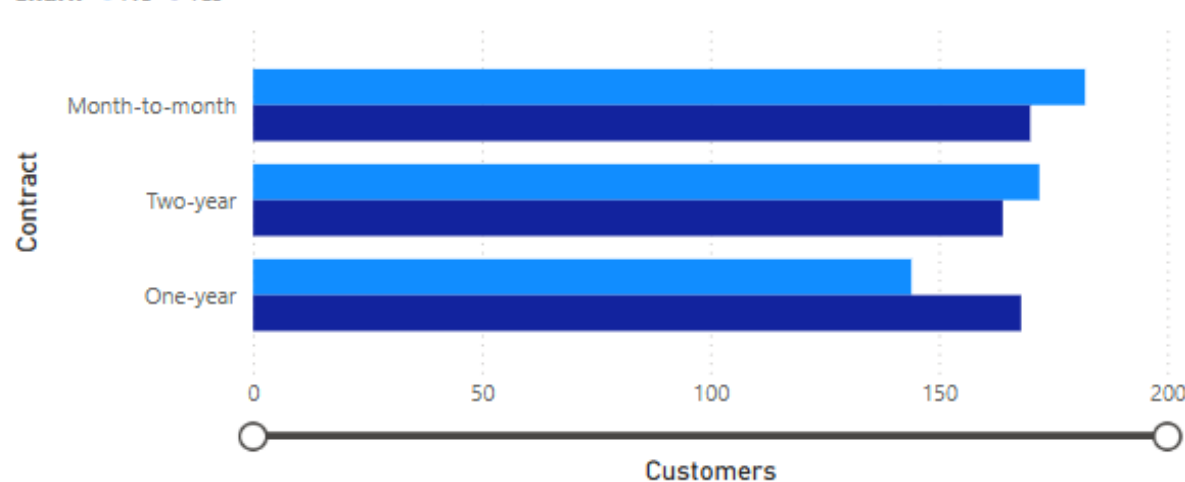
1000
CustomerID (number)
0,01
ChurnRate(%)

Number of Customers by Churn



Number of Customers by Contract and Churn

Churn ● No ● Yes



CONCLUSIONS

- **Priority focus:** France and UK regions, one-year contracts, early tenure customers
- **Financial leverage via monthly charges requires evaluation**
Higher monthly charges are linked to higher churn rates, indicating that pricing directly impacts customer retention. It is crucial to analyze pricing tiers and payment plans to identify if customers perceive value proportional to cost. Adjusting pricing strategies—such as introducing flexible payment options, discounts, or bundling services—could help reduce churn among customers with higher bills.
- **Early engagement is key to reducing churn** means actively interacting with customers during the first months after signup to lower their likelihood of leaving.

Specifically, this can include:

- Providing fast onboarding and education so customers understand the value of the service
- Offering personalized deals or bonuses within the first 1–3 months
- Regularly checking customer satisfaction and quickly addressing issues
- Proactive support to help resolve initial questions or difficulties
- Sending reminders and notifications to encourage service usage

RECOMMENDED ACTIONS

- Targeted marketing and retention for high-churn segments
- Offer incentives or contract flexibility for one-year subscribers
- Monitor pricing and customer satisfaction in high monthly charge brackets
- Use dashboard for ongoing monitoring and decision making

THANK YOU FOR YOUR ATTENTION

I appreciate your time and interest!

Looking forward to any questions or discussion