



TELECOM INDUSTRY DATASET

Telco Churn Analytics

A hands-on training dataset for building Power BI dashboards — explore customer demographics, subscribed services, contracts and billing to model and visualize churn.

Dataset Overview & Purpose



Scope & Origin

Contains detailed customer behavior records from a telecommunications provider, serving as an industry benchmark for retention modeling.

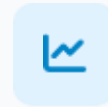
- ✓ **7,043** unique customer records
- ✓ **21** analytical dimensions & metrics
- ✓ Standardized customer lifecycle stages



Core Data Pillars

Structured across three interconnected business operational domains to support root-cause analysis:

-  **Demographics:** Seniority, partners & dependents
-  **Subscribed Services:** Phone, Fiber, TechSupport
-  **Contract & Billing:** Tenure, Monthly charges



Analytical Objective

Enables teams to discover friction points in service delivery and calculate customer attrition risks:

-  Pinpoint high-risk contract types
-  Calculate Churn Rate & Customer Lifetime Value
-  Evaluate impact of technical support & security

Dataset Column Definitions

👤 Demographics & Core Services	
Column Name	Explanation
customerID	Unique identifier assigned to each subscriber.
gender	Customer gender (Male / Female).
SeniorCitizen	Indicates if customer is a senior citizen (1 = Yes, 0 = No).
Partner	Indicates if the customer has a partner or spouse (Yes / No).
Dependents	Indicates if customer lives with dependents (Yes / No).
tenure	Total number of months subscribed with the company.
PhoneService	Indicates if subscribed to home phone service (Yes / No).
MultipleLines	Multiple telephone lines (Yes / No / No phone service).
InternetService	Internet connection provider (DSL, Fiber optic, No).
OnlineSecurity	Online security add-on package (Yes / No / No internet).
OnlineBackup	Online cloud backup add-on (Yes / No / No internet).

📄 Add-ons, Billing & Churn Target	
Column Name	Explanation
DeviceProtection	Device insurance coverage (Yes / No / No internet).
TechSupport	Technical support add-on service (Yes / No / No internet).
StreamingTV	IPTV streaming subscription (Yes / No / No internet).
StreamingMovies	Movie streaming subscription (Yes / No / No internet).
Contract	Contract terms (Month-to-month, One year, Two year).
PaperlessBilling	Customer opted for digital invoicing (Yes / No).
PaymentMethod	Payment mode (Electronic check, Mailed check, Bank/Card).
MonthlyCharges	The amount billed to the customer on a monthly basis.
TotalCharges	Total cumulative expenditure over the customer tenure.
Churn Target	TARGET Primary outcome: whether customer left (Yes / No).

Creating Visuals — Churn & Revenue KPIs

01 THE QUESTION

What is the overall churn rate and total lost revenue?

02 SUGGESTED VISUAL

Card Visuals / KPI Cards

Display core high-level metrics: Total Customers, Churned Customers, Churn %, and Lost Monthly Charges.

03 WHY IT WORKS

KPI cards surface headline metrics instantly, giving stakeholders the scale of churn before any breakdown.

Total customers
7043

Churn
1869

% churn
26.54%

Lost Revenue
139.13K

churnyes
CALCULATE(COUNT(churn[Churn]),churn[Churn]="yes")

lostrevenue =
CALCULATE(SUM(churn[MonthlyCharges]),churn[Churn] ="yes")

churn percentage =
churn[churnyes]/COUNT(churn[Churn])

Creating Visuals — Churn by Contract Type

01 THE QUESTION

How does customer churn vary across contract types?

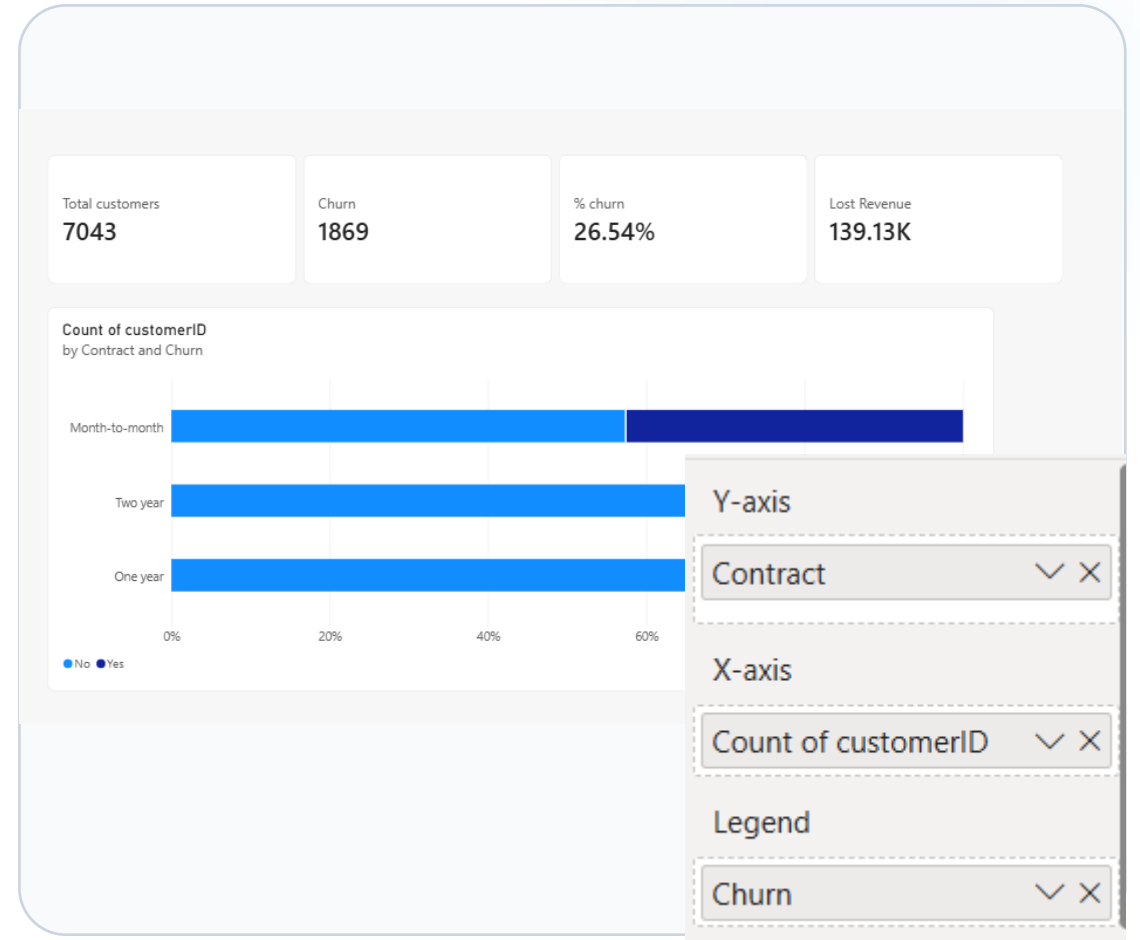
02 SUGGESTED VISUAL

Clustered Column or 100% Stacked Bar Chart

Contract type on the axis, churned vs retained compared side by side or as 100% shares.

03 WHY IT WORKS

Comparing categories side by side exposes which contract terms drive attrition — month-to-month versus one- and two-year plans.



Creating Visuals — Churn by Internet Service

01 THE QUESTION

Which internet service type has the highest churn rate?

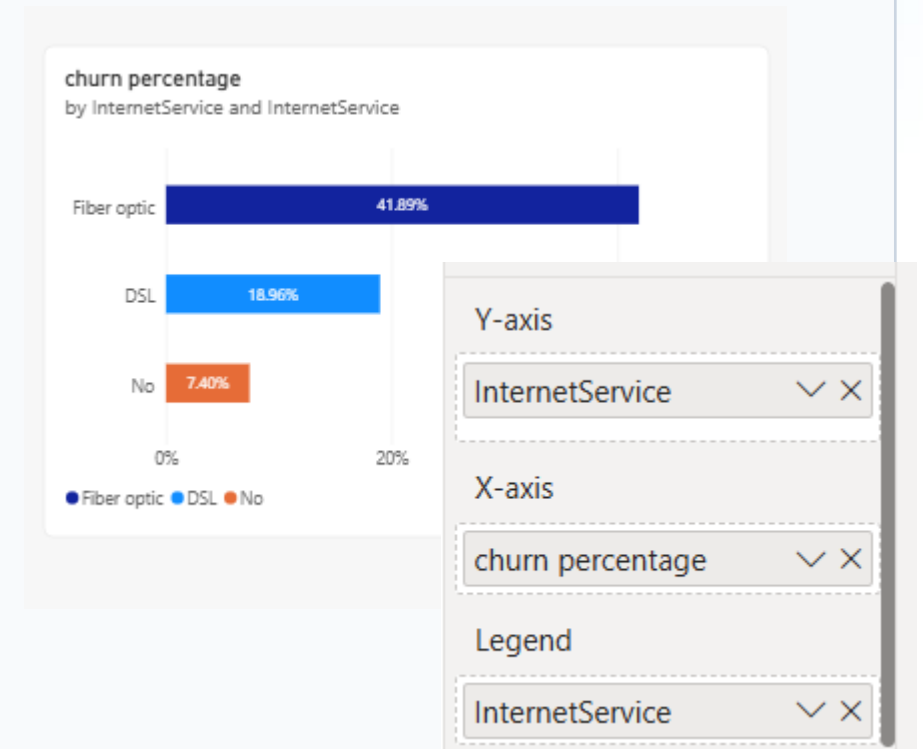
02 SUGGESTED VISUAL

Stacked Bar Chart

Internet service type on the axis, with churned vs retained customers stacked within each bar.

03 WHY IT WORKS

Stacking shares within each service type makes it easy to spot which technology — DSL, fiber optic, or none — loses the most customers.



Creating Visuals — Churn by Internet Service

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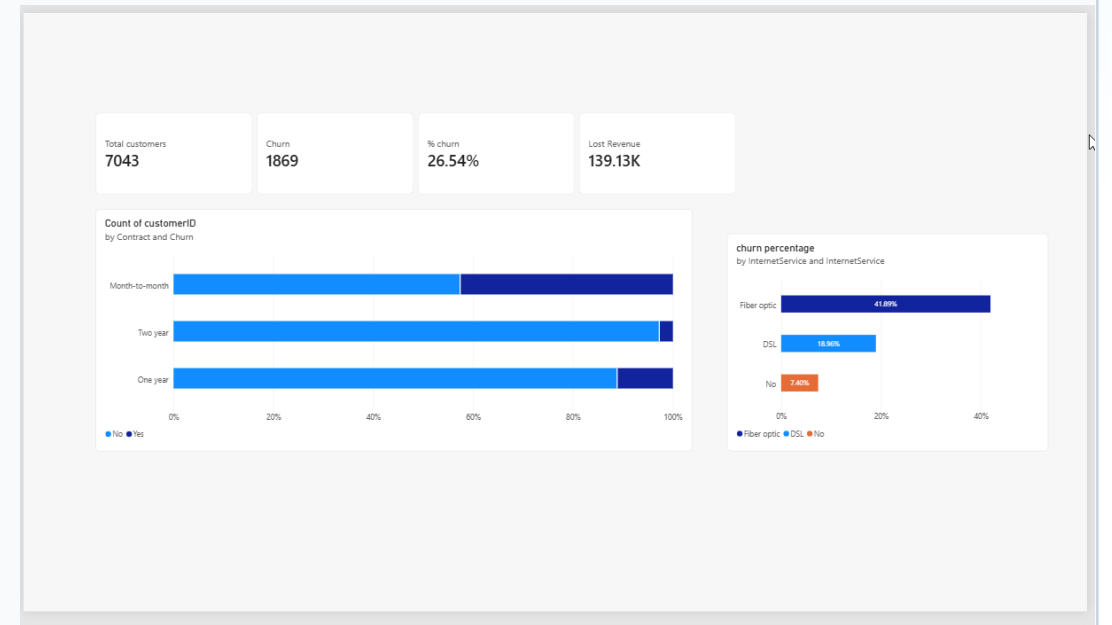
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Creating Visuals – Churn by Customer Tenure

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How does customer tenure relate to churn risk?

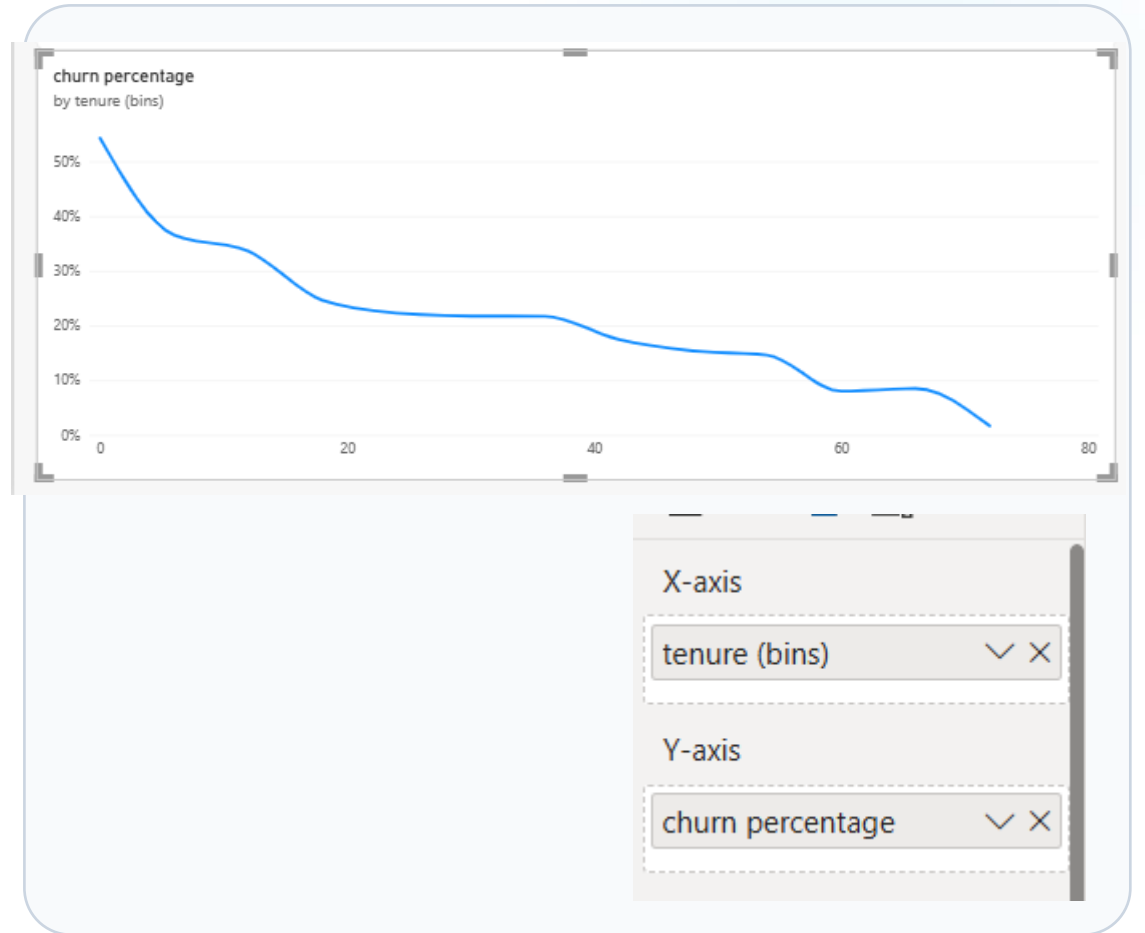
02 SUGGESTED VISUAL

Line Chart (tenure binned by 6 months)

Tenure grouped into 6-month bins on the axis, plotting churn rate across each bin.

03 WHY IT WORKS

A continuous line reveals how churn risk falls as customers stay longer, pinpointing the early months where retention effort pays off most.



Creating Visuals — Churn by Customer Tenure

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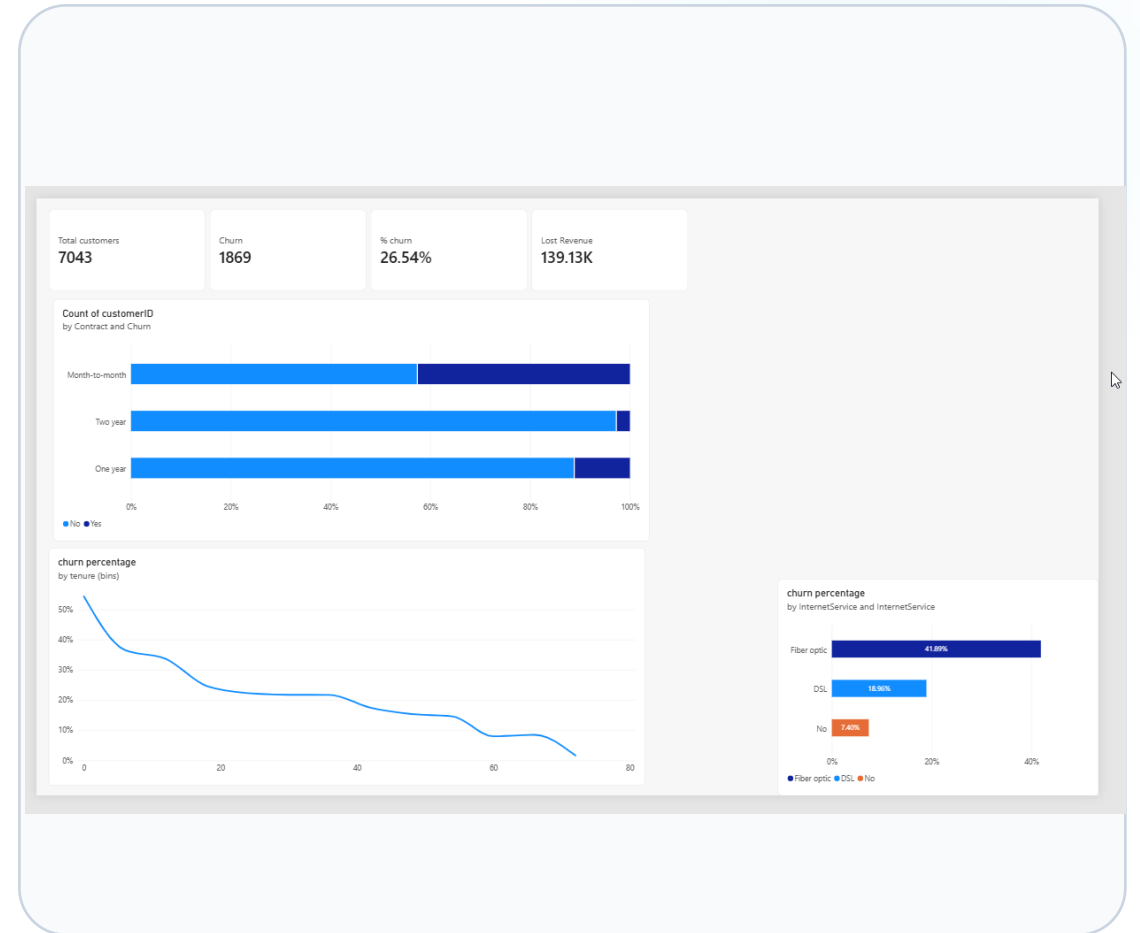
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Creating Visuals — Churn by Payment Method

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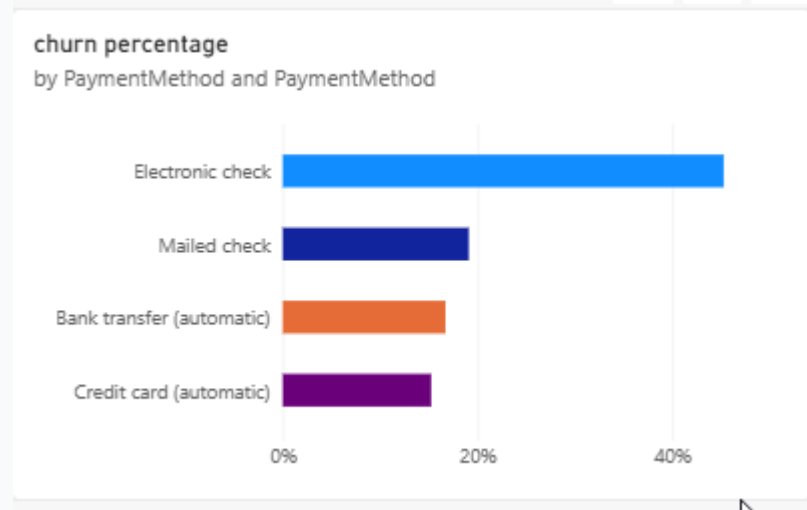
02 SUGGESTED VISUAL

Stacked Bar Chart

Payment method on the axis, with churned vs retained customers stacked within each bar.

03 WHY IT WORKS

Stacking each payment method's customers shows which billing options carry the highest share of churn — electronic check versus automatic payments.



Y-axis

InternetService ▼ ×

X-axis

churn percentage ▼ ×

Legend

InternetService ▼ ×

Creating Visuals — Churn by Payment Method

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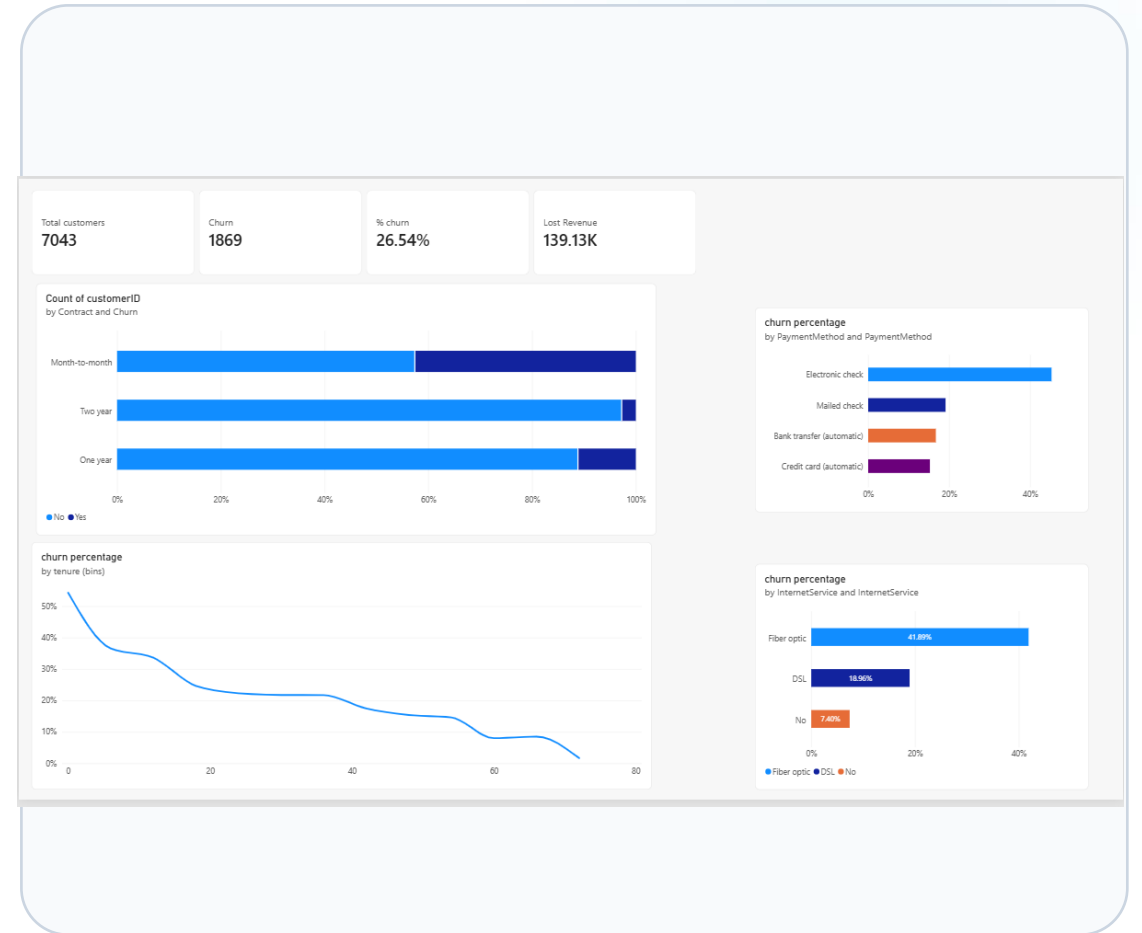
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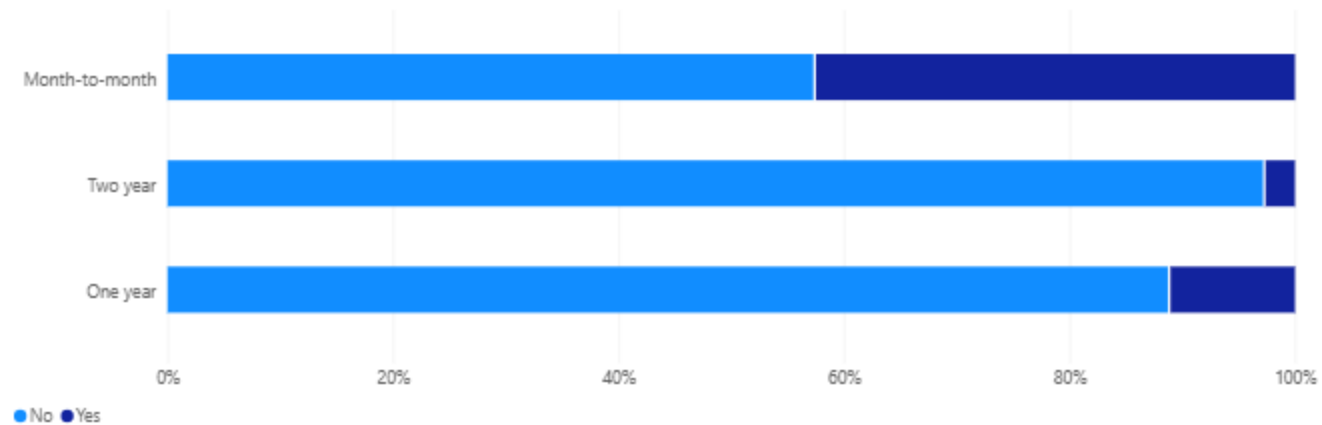
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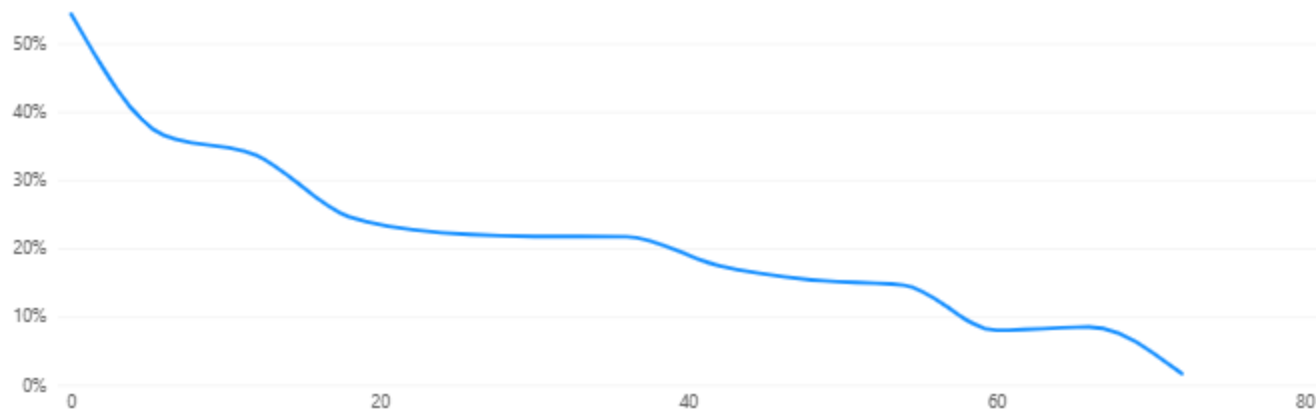
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Count of customerID
by Contract and Churn

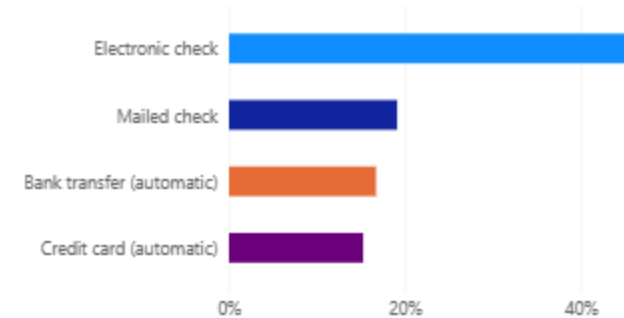


churn percentage
by tenure (bins)



churn percentage

by PaymentMethod and PaymentMethod



churn percentage

by InternetService and InternetService

