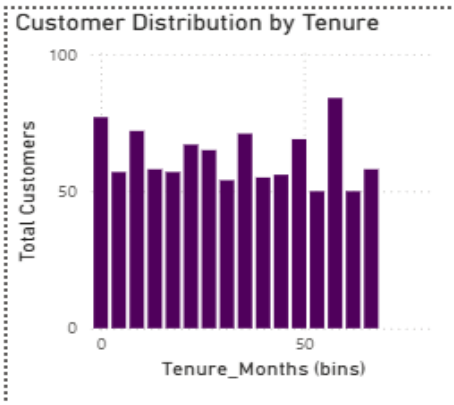
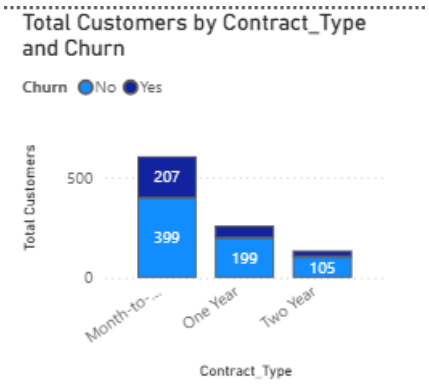
Customer Churn Analysis

1. Analyze the distribution of customer tenure. What trends do you observe?



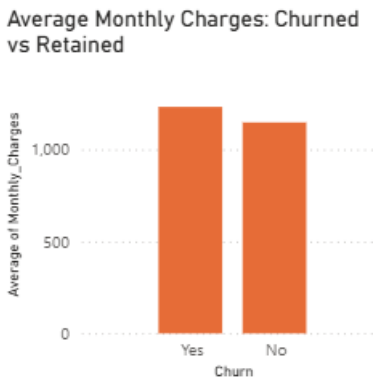
The distribution of customer tenure shows that customers are spread across different tenure ranges, with a noticeable concentration in the lower and mid-tenure periods. A significant number of customers have tenure within the early months, indicating that many customers leave the service before establishing long-term loyalty. Customers with higher tenure appear more stable, suggesting that retention improves as customers stay longer with the company.

2. Which contract types show the highest churn rate?



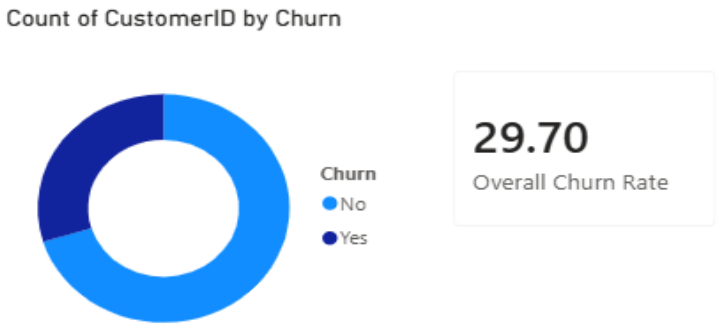
Among the different contract types, **Month-to-Month contracts exhibit the highest churn rate**. Customers on One-Year and Two-Year contracts show significantly lower churn, with Two-Year contracts having the strongest retention.

3. Are monthly charges related to customer churn?



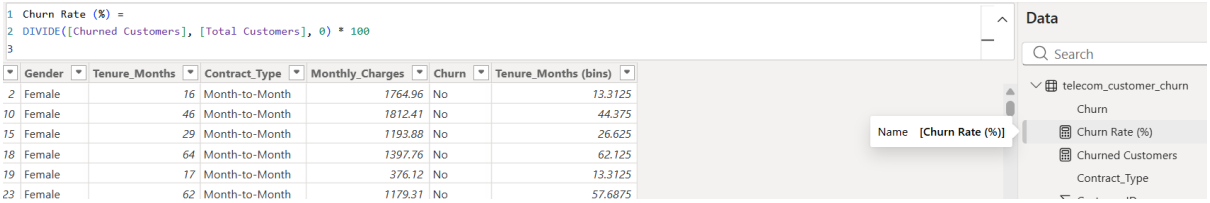
Yes, monthly charges are related to customer churn. The analysis shows that **customers who churn tend to have a higher average monthly charge** compared to retained customers. This indicates that customers are more likely to leave when they perceive the service cost to be high relative to the value received.

4. Perform univariate analysis on churn status.



Univariate analysis of the churn variable reveals that a considerable portion of customers have churned, while the majority remain retained. The presence of a substantial churn percentage indicates a meaningful loss of customers that can negatively impact recurring revenue if not addressed.

5. Create a DAX measure to calculate Churn Rate.



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Churn Rate (%) =
DIVIDE([Churned Customers], [Total Customers], 0) * 100
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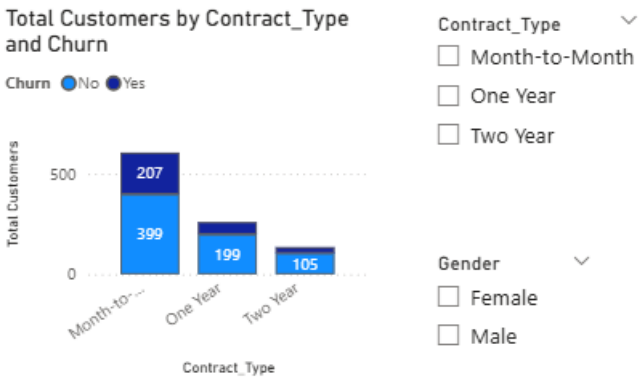
	Gender	Tenure_Months	Contract_Type	Monthly_Charges	Churn	Tenure_Months (bins)
2	Female	16	Month-to-Month	1764.96	No	13.3125
10	Female	46	Month-to-Month	1812.41	No	44.375
15	Female	29	Month-to-Month	1193.88	No	26.625
18	Female	64	Month-to-Month	1397.76	No	62.125
19	Female	17	Month-to-Month	376.12	No	13.3125
23	Female	62	Month-to-Month	1179.31	No	57.6875

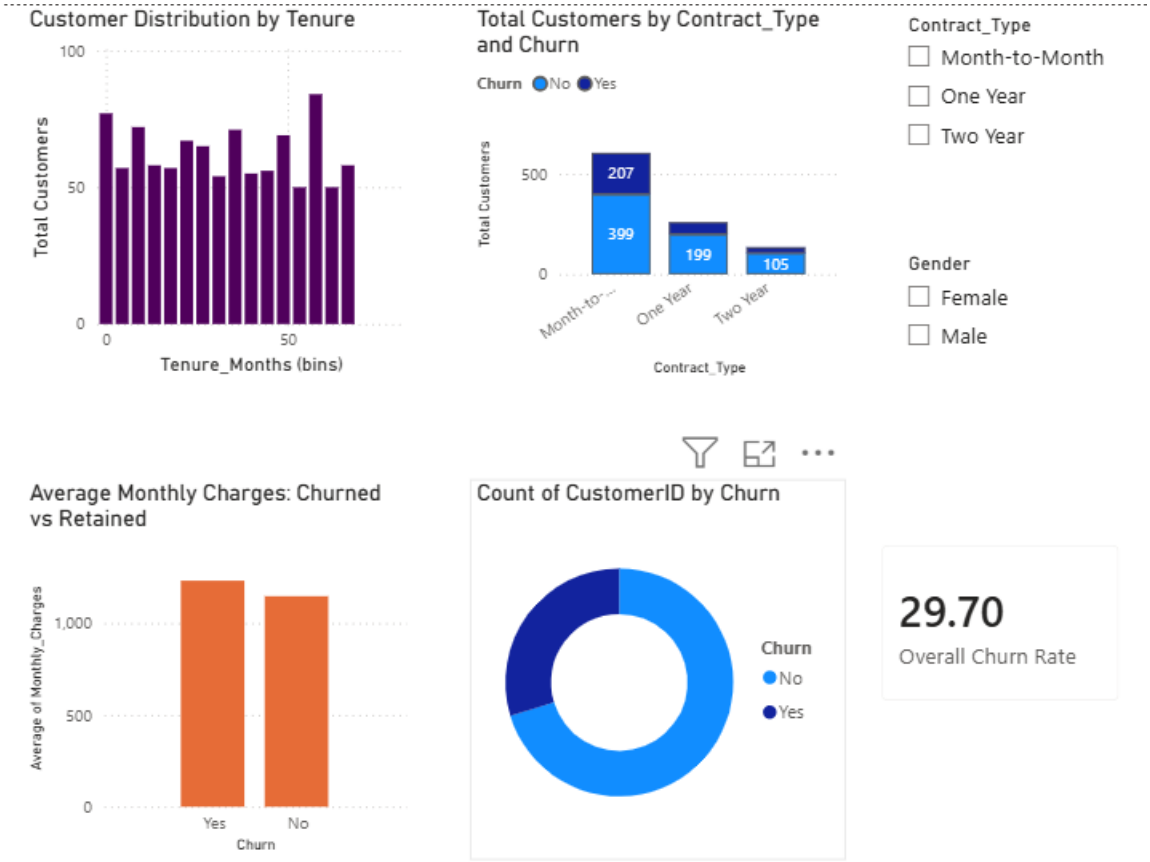
This DAX measure calculates the churn rate by dividing the number of churned customers by the total number of customers and expressing it as a percentage. It provides a key performance indicator to monitor customer attrition.

6. Use slicers to analyze churn by gender and contract type.



Slicers were used for Gender and Contract Type to enable interactive analysis of churn. The slicers allow filtering the dashboard to observe churn behavior across different demographic and contractual segments.

7. Identify key churn drivers using visualization patterns.



The key drivers of customer churn are:

- Short customer tenure
- Month-to-Month contract type
- Higher monthly charges

Customers exhibiting a combination of these factors are more likely to churn compared to others.

8. Which customer segment requires immediate retention strategies?

High-Risk Customer Segment

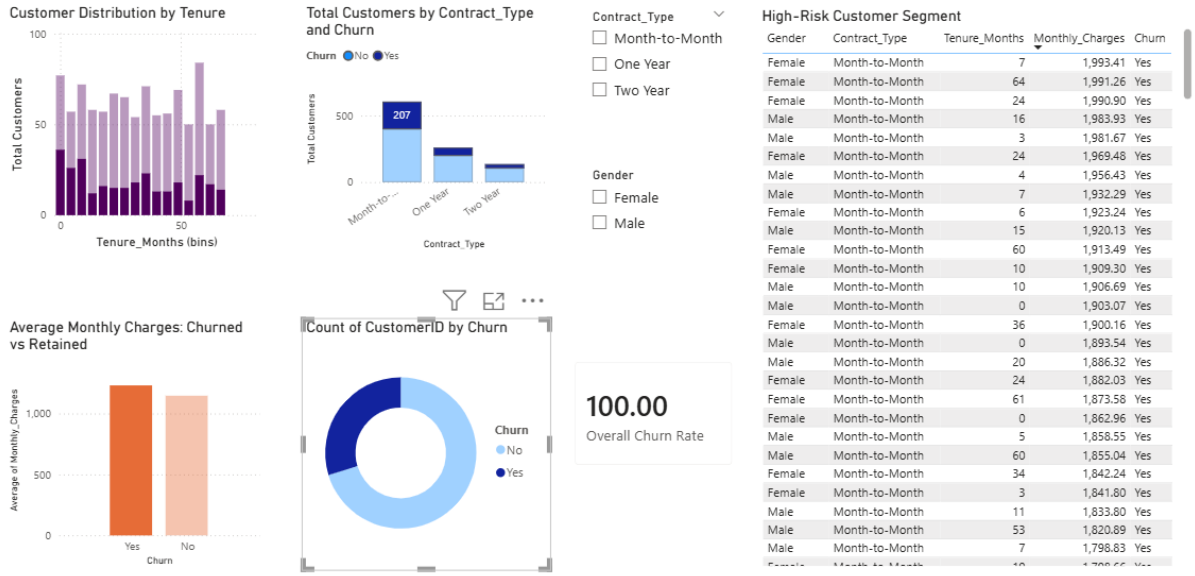
Gender	Contract_Type	Tenure_Months	Monthly_Charges	Churn
Female	Month-to-Month	7	1,993.41	Yes
Female	Month-to-Month	64	1,991.26	Yes
Female	Month-to-Month	24	1,990.90	Yes
Male	Month-to-Month	16	1,983.93	Yes
Male	Month-to-Month	3	1,981.67	Yes
Female	Month-to-Month	24	1,969.48	Yes
Male	Month-to-Month	4	1,956.43	Yes
Male	Month-to-Month	7	1,932.29	Yes
Female	Month-to-Month	6	1,923.24	Yes
Male	Month-to-Month	15	1,920.13	Yes
Female	Month-to-Month	60	1,913.49	Yes
Female	Month-to-Month	10	1,909.30	Yes
Male	Month-to-Month	10	1,906.69	Yes
Male	Month-to-Month	0	1,903.07	Yes
Female	Month-to-Month	36	1,900.16	Yes
Male	Month-to-Month	0	1,893.54	Yes
Male	Month-to-Month	20	1,886.32	Yes
Female	Month-to-Month	24	1,882.03	Yes
Female	Month-to-Month	61	1,873.58	Yes
Female	Month-to-Month	0	1,862.96	Yes
Male	Month-to-Month	5	1,858.55	Yes
Male	Month-to-Month	60	1,855.04	Yes
Female	Month-to-Month	34	1,842.24	Yes
Female	Month-to-Month	3	1,841.80	Yes
Male	Month-to-Month	11	1,833.80	Yes
Male	Month-to-Month	53	1,820.89	Yes
Male	Month-to-Month	7	1,798.83	Yes

The customer segment requiring immediate retention strategies consists of:

- Customers with **low tenure**
- Customers on **Month-to-Month contracts**
- Customers with **high monthly charges**

These customers represent the highest churn risk and should be prioritized for retention efforts.

9. How can churn insights influence business decisions?



Churn insights can significantly influence business decisions by:

- Improving customer onboarding for early-tenure users
- Encouraging long-term contracts through incentives
- Optimizing pricing strategies for high-paying customers
- Enabling proactive retention campaigns before customers churn
- Reducing revenue loss and improving customer lifetime value