Customer Churn Analysis - Insights

Customer Churn Analysis - Key Insights and Documentation

1. Data Overview:

- Dataset contains customer information such as gender, senior citizen status, tenure, services, and churn status.

- Loaded from a public CSV URL and cleaned for further analysis.

2. Data Cleaning:

- 'TotalCharges' column had some blank values which were replaced with zero and converted to float.

- No null values or duplicate customer IDs were found.

3. Data Transformation:

- 'SeniorCitizen' column transformed from numeric (0/1) to categorical ('No'/'Yes') for readability.

4. Churn Analysis:

- Overall churn rate: approximately 26.54% of customers have churned.

- This was visualized using both bar plot and pie chart.

5. Demographic Impact:

- Gender: Churn appears relatively balanced across male and female customers.

- Senior Citizens: Higher churn rate among senior citizens was observed. A stacked bar chart with percentages confirmed this trend.

6. Visualizations:

- Count plots and stacked bar charts used effectively to explore customer churn behavior by demographic attributes.

- Labels and annotations added to visualize counts and percentages clearly.

Conclusion:

The dataset is clean and reveals significant patterns in churn behavior, especially among senior citizens. Further analysis could explore service types and contract durations for deeper insights.