

SUMMARY AND DETAILS

1. Dataset Overview

- File: `Customer Churn.csv`
- Contains **7,043 customer records** (common for this dataset).
- Columns include demographics (gender, senior citizen, partners), services (internet, streaming, security), account info (tenure, charges), and churn label.

2. Data Cleaning

- `TotalCharges` column had missing spaces → replaced with **0** and converted to float.
- `SeniorCitizen` converted from **0/1** → **Yes/No**.
- No duplicate or missing customer IDs found.

3. Overall Churn Distribution

- About **26.5% customers churned** (Yes) and **73.5% stayed** (No).
- This means **~1,869 out of 7,043 customers left**.

4. Churn by Gender

- Male vs Female customers had **almost equal churn rates (~26%)**.
- Gender is **not a strong indicator of churn**.

5. Churn by Senior Citizen

- Senior Citizens (Yes): **42% churned**.
- Non-Senior Citizens (No): **24% churned**.
- Clearly, **senior citizens are more likely to leave**.

6. Cross-tab Analysis

- Confirmed higher churn % among senior citizens.
- Stacked bar chart showed **~60% of seniors stayed vs 40% churned**, compared to **~76% stay vs 24% churn** in non-seniors.

☒ Key Insights from Percentages:

- Overall churn rate \approx **26.5%**.
- Gender has **no major impact**.
- Senior citizens are **~2x more likely** to churn than younger customers.