Validation Report for kaggle - customer\_churn\_dataset\_kaggle\_20250313223208.csv

missing\_data: {'customerID': '0 missing (0.00%)', 'gender': '0 missing (0.00%)', 'SeniorCitizen': '0 missing (0.00%)', 'Partner': '0 missing (0.00%)', 'Dependents': '0 missing (0.00%)', 'tenure': '0 missing (0.00%)', 'PhoneService': '0 missing (0.00%)', 'MultipleLines': '0 missing (0.00%)', 'InternetService': '0 missing (0.00%)', 'OnlineSecurity': '0 missing (0.00%)', 'OnlineBackup': '0 missing (0.00%)', 'DeviceProtection': '0 missing (0.00%)', 'TechSupport': '0 missing (0.00%)', 'StreamingTV': '0 missing (0.00%)', 'StreamingMovies': '0 missing (0.00%)', 'Contract': '0 missing (0.00%)', 'PaperlessBilling': '0 missing (0.00%)', 'PaymentMethod': '0 missing (0.00%)', 'MonthlyCharges': '0 missing (0.00%)', 'TotalCharges': '0 missing (0.00%)', 'Churn': '0 missing (0.00%)'}

tenure: 0 out of 7043 rows (0.00%) are outside the expected range (0, 100).

MonthlyCharges: 0 out of 7043 rows (0.00%) are outside the expected range (0, 500).

TotalCharges: 0 out of 7043 rows (0.00%) are outside the expected range (0, 10000).

gender: 0 invalid values out of 7043 rows (0.00%). (All values valid)

InternetService: 0 invalid values out of 7043 rows (0.00%). (All values valid)

MultipleLines: Unique values: ['No phone service', 'No', 'Yes']

PaperlessBilling: Unique values: ['Yes', 'No']

StreamingMovies: Unique values: ['No', 'Yes', 'No internet service']

TechSupport: Unique values: ['No', 'Yes', 'No internet service']

Partner: Unique values: ['Yes', 'No']

PaymentMethod: Unique values: ['Electronic check', 'Mailed check', 'Bank transfer (automatic)', 'Credit card (automatic)']

OnlineSecurity: Unique values: ['No', 'Yes', 'No internet service']

StreamingTV: Unique values: ['No', 'Yes', 'No internet service']

Churn: Unique values: ['No', 'Yes']

DeviceProtection: Unique values: ['No', 'Yes', 'No internet service']

Contract: Unique values: ['Month-to-month', 'One year', 'Two year']

Dependents: Unique values: ['No', 'Yes']

PhoneService: Unique values: ['No', 'Yes']

OnlineBackup: Unique values: ['Yes', 'No', 'No internet service']

duplicates: 0 duplicate rows found out of 7043 rows (0.00%).

outliers: {'tenure': '0 out of 7043 rows (0.00%) are outliers.', 'MonthlyCharges': '0 out of 7043 rows (0.00%) are outliers.', 'TotalCharges': '0 out of 7043 rows (0.00%) are outliers.'}