

Overview

Data Structures			Data Types			Job Informations		
Divisions	Metrics	Values	Divisions	Metrics	Values	Divisions	Metrics	Values
size	observations	6,499	data type	numerics	2	dataset	dataset	.
size	variables	21	data type	integers	2	dataset	dataset type	data.frame
size	values	136,479	data type	factors/ordered	2	dataset	target	Total.Charges
size	memory size (MB)	1	data type	characters	15	job	samples	6,499 / 6,499 (100%)
uplicated	duplicate observation	0	data type	Dates	0	job	created	2023-10-02 23:08:06.466492
missing	complete observation	6,499	data type	POSIXcts	0	job	created by	dlookr
missing	missing observation	0	data type	others	0			
missing	missing variables	0						
missing	missing values	0						

Univariate Analysis

Descriptive Statistics

Descriptive statistics and visualization of individual variables

Variables	Missing (%)	Distincts (Ratio)	Zeros	Negatives	Outliers
▶ CustomerID character	0 (0)	6499 (1)	-	-	-
▶ Gender character	0 (0)	2 (0)	-	-	-
▶ Senior.Citizen integer	0 (0)	2 (0)	5443	0	1056
▶ Partner character	0 (0)	2 (0)	-	-	-
▶ Dependents character	0 (0)	2 (0)	-	-	-
▶ Tenure integer	0 (0)	73 (0.011)	9	0	0
▶ Phone.Service character	0 (0)	2 (0)	-	-	-
▶ Multiple.Lines character	0 (0)	3 (0)	-	-	-
▶ Internet.Service character	0 (0)	3 (0)	-	-	-
▶ Online.Security character	0 (0)	3 (0)	-	-	-

1–10 of 21 rows

Previous123Next

Normality Test

Normality test results of numeric variables

Variables	Mean	Min	Q1	Median	Q3	Max	Balance
▶ Senior.Citizen	0.16	0	0	0	0	1	👉 Right-Skewed
▶ Tenure	32.37	0	9	29	55	72	👉 Balanced
▶ Monthly.Charges	64.73	18.25	35.4	70.35	89.85	118.75	👉 Balanced
▶ Total.Charges	2281.71	18.8	399.8	1397.1	3778.1	8684.8	👉 Balanced

Bivariate Analysis

Compare Numerical Variables

Relationship between two numerical variables

First Variable	Second Variable	Correlation Coefficient
▶ Senior.Citizen	Tenure	0.0157321649302435
▶ Senior.Citizen	Monthly.Charges	0.220095525628418
▶ Senior.Citizen	Total.Charges	0.102776042643932
▶ Tenure	Monthly.Charges	0.248948871375713
▶ Tenure	Total.Charges	0.825186026322613
▶ Monthly.Charges	Total.Charges	0.651502546716341

Compare Categorical Variables

Relationship between two categorical variables

First Variable	Second Variable	Degree of Freedom	Statistic	P-Value
▶ Paperless.Billing	Payment.Method	8	414.257314617376	1.66740713937286e-84

Multivariate Analysis

Correlation Analysis

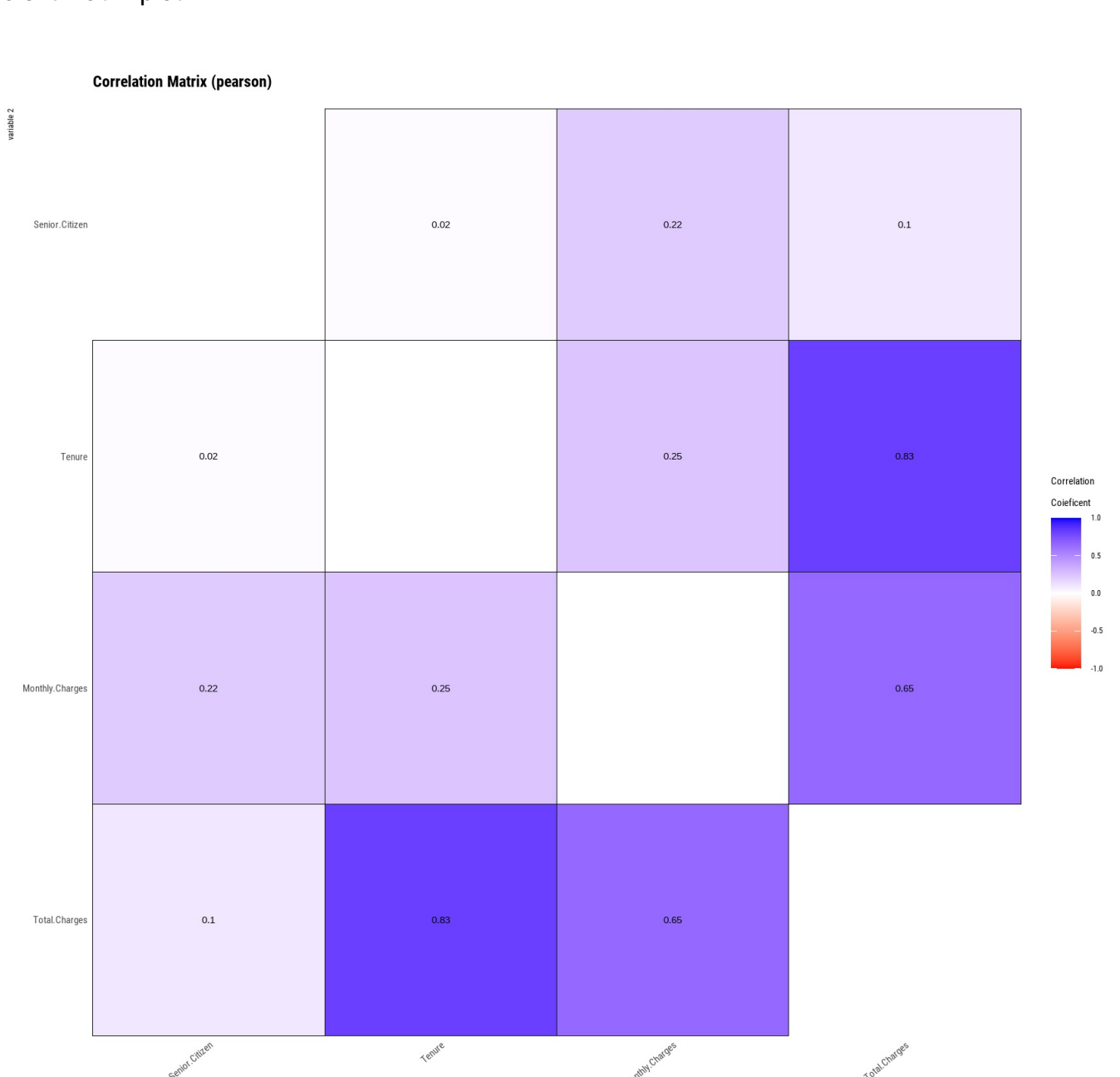
Correlation Matrix

Correlation coefficient matrix of numeric variables

First Variable	Second Variable			
	Senior.Citizen	Tenure	Monthly.Charges	Total.Charges
Senior.Citizen		0.0157321649302435	0.220095525628418	0.102776042643932
Tenure	0.0157321649302435		0.248948871375713	0.825186026322613
Monthly.Charges	0.220095525628418	0.248948871375713		0.651502546716341
Total.Charges	0.102776042643932	0.825186026322613	0.651502546716341	

Correlation Plot

Correlation coefficient matrix plot



Target based Analysis

Target Variable and Numeric Variables

Relationship between two numerical variables by level of target variable

Variable	Target Variable
▶ Senior.Citizen	Total.Charges
▶ Tenure	Total.Charges
▶ Monthly.Charges	Total.Charges

Target Variable and Categorical Variables

Relationship between two categorical variables by level of target variable

Variable	Target Variable
▶ Paperless.Billing	Total.Charges
▶ Payment.Method	Total.Charges