

## Overview

OverviewAlerts23Reproduction

Dataset statistics

Number of variables	21
Number of observations	7043
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	1.1 MiB
Average record size in memory	168.0 B

Variable types

Categorical	14
Boolean	5
Numeric	2

## Variables

customerID  
Categorical

DISTINCT

7043

DISTINCT (%)

100.0%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

HIGH CARDINALITY

UNIFORM

UNIQUE

0515-VPNCW 1

4657-FWVEY 1

5640-CAXOA 1

3990-QYKBE 1

0526-SXDJP 1

Other values (7038) 7038

Toggle details

gender  
Categorical

DISTINCT

2

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

Male 3655

Female 3408

Toggle details

SeniorCitizen  
Categorical

DISTINCT

2

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

0 5901

1 1142

Toggle details

Partner  
Boolean

DISTINCT

2

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

7.0 KiB

False 3641

True 3402

Toggle details

Dependents  
Boolean

DISTINCT

2

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

7.0 KiB

False 4933

True 2110

Toggle details

tenure  
Real number (R<sub>64</sub>)

DISTINCT

73

DISTINCT (%)

1.0%

MISSING

0

MISSING (%)

0.0%

INFINITE

0

INFINITE (%)

0.0%

MEAN

32.37114866

Minimum 0

Maximum 72

Zeros (%) 11

Zeros (%) 0.2%

Negative 0

Negative (%) 0.0%

Memory size 55.1 KiB

Toggle details

PhoneService  
Boolean

DISTINCT

2

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

7.0 KiB

True 6361

False 692

Toggle details

MultipleLines  
Categorical

DISTINCT

3

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

No 3390

Yes 2421

No phone service 682

Toggle details

InternetService  
Categorical

DISTINCT

3

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

Fiber optic 3090

DSL 2421

No 1526

Toggle details

OnlineSecurity  
Categorical

DISTINCT

3

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

No 3498

Yes 2019

No internet service 1526

Toggle details

OnlineBackup  
Categorical

DISTINCT

3

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

No 3088

Yes 2429

No internet service 1526

Toggle details

DeviceProtection  
Categorical

DISTINCT

3

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

No 3095

Yes 2422

No internet service 1526

Toggle details

TechSupport  
Categorical

DISTINCT

3

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

No 3473

Yes 2044

No internet service 1526

Toggle details

StreamingTV  
Categorical

DISTINCT

3

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

No 2810

Yes 2707

No internet service 1526

Toggle details

StreamingMovies  
Categorical

DISTINCT

3

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

No 2785

Yes 2732

No internet service 1526

Toggle details

Contract  
Categorical

DISTINCT

3

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

Month-to-month 3678

Two year 1595

One year 1413

Toggle details

PaperlessBilling  
Boolean

DISTINCT

2

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

7.0 KiB

True 4171

False 2872

Toggle details

PaymentMethod  
Categorical

DISTINCT

4

DISTINCT (%)

0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

Electronic check 2365

Mailed check 1612

Bank transfer (automatic) 1584

Credit card (automatic) 1522

Toggle details

MonthlyCharges  
Real number (R<sub>64</sub>)

DISTINCT

1585

DISTINCT (%)

22.5%

MISSING

0

MISSING (%)

0.0%

INFINITE

0

INFINITE (%)

0.0%

MEAN

64.76169246

Minimum 18.25

Maximum 118.75

Zeros 0

Zeros (%) 0.0%

Negative 0

Negative (%) 0.0%

Memory size 55.1 KiB

Toggle details

TotalCharges  
Categorical

DISTINCT

6531

DISTINCT (%)

92.7%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

55.1 KiB

20.2 11

19.75 9

19.65 8

19.9 8

Other values (6526) 6996

Toggle details

Churn  
Boolean

DISTINCT

2

DISTINCT (%)

< 0.1%

MISSING

0

MISSING (%)

0.0%

MEMORY SIZE

7.0 KiB

False 6174

True 1869

Toggle details

## Interactions

tenureMonthlyCharges

MonthlyChargestenure

## Correlations

Spearman's ρPearson's rKendall's τCramér's V (pc)PhiK (ϕk)

Toggle correlation descriptions

## Missing values

CountMatrix

A simple visualization of nullity by column.

## Sample

First rows

customerID	gender	SeniorCitizen	Partner	Dependents	tenure	PhoneService	MultipleLines	InternetService	OnlineSecurity
0 7590-VHVEG	Female	0	Yes	No	1	No	No phone service	DSL	No
1 5575-GHVE	Male	0	No	No	34	Yes	No	DSL	Yes
2 3668-QPYBK	Male	0	No	No	2	Yes	No	DSL	Yes
3 7795-CFOCW	Male	0	No	No	45	No	No phone service	DSL	Yes
4 9237-HQITU	Female	0	No	No	2	Yes	No	Fiber optic	No
5 9305-CDSKC	Female	0	No	No	8	Yes	Yes	Fiber optic	No
6 1452-KIOVK	Male	0	No	Yes	22	Yes	Yes	Fiber optic	No
7 6713-OKOMC	Female	0	No	No	10	No	No phone service	DSL	Yes
8 7892-POOKP	Female	0	Yes	No	28	Yes	Yes	Fiber optic	No
9 6388-TAGBU	Male	0	No	Yes	62	Yes	No	DSL	Yes

Last rows

customerID	gender	SeniorCitizen	Partner	Dependents	tenure	PhoneService	MultipleLines	InternetService	OnlineSecurity
7033 9767-FFLEM	Male	0	No	No	38	Yes	No	Fiber optic	Yes
7034 0639-TSQQW	Female	0	No	No	67	Yes	Yes	Fiber optic	Yes
7035 8456-QDAVC	Female	0	No	No	19	Yes	No	Fiber optic	Yes
7036 7750-EYXWZ	Female	0	No	No	12	No	No phone service	DSL	Yes
7037 2569-WGERO	Female	0	No	No	72	Yes	No	No	Yes
7038 6640-RESVB	Female	0	Yes	Yes	24	Yes	Yes	DSL	Yes
7039 2234-XADUH	Female	0	Yes	Yes	72	Yes	Yes	Fiber optic	Yes
7040 4801-JZAZL	Female	0	Yes	Yes	11	No	No phone service	DSL	Yes
7041 8361-LTMKD	Male	1	Yes	No	4	Yes	Yes	Fiber optic	Yes
7042 3186-AJIEK	Male	0	No	No	66	Yes	No	Fiber optic	Yes

Report generated with [pandas-profiling](#).