HashPrep Report

v0.1.0a4

2 Critical 17 Warnings

Overview

DATASET STATISTICS

Variables	12
Observations	891
Missing cells	866 (8.1%)
Duplicate rows	0 (0.0%)
Memory	315.0 KiB
Avg record size	362.1 B

VARIABLE TYPES

Numeric	3
Categorical	6
Text	3

Alerts

MISSING

- 77.1% missing values in 'Cabin'
- Missingness in 'Age' correlates with 6 columns (Pclass, Parch, Embarked)
- Missingness in 'Cabin' correlates with 6 columns (Pclass, Fare, Survived)

HIGH CARDINALITY

- Column 'Name' has 891 unique values (100.0% of rows)
- Column 'Ticket' has 681 unique values (76.4% of rows)
- Column 'Cabin' has 147 unique values (16.5% of rows)

OUTLIERS

- Column 'SibSp' has 12 potential outliers (1.3% of non-missing values)
- Column 'Parch' has 10 potential outliers (1.1% of non-missing values)
- Column 'Fare' has 11 potential outliers (1.2% of non-missing values)

ZEROS

- Column 'Survived' has 61.6% zero values
- Column 'SibSp' has 68.2% zero values
- Column 'Parch' has 76.1% zero values

SKEWNESS

- Column 'SibSp' is highly skewed (skewness: 3.70)

- Column 'Fare' is highly skewed (skewness: 4.79)

UNIFORM

- 'PassengerId' is uniformly distributed and monotonic

UNIQUE

- 'PassengerId' has unique values
- 'Name' has unique values

CONSTANT LENGTH

- 'Embarked' has constant length (1 chars for 100.0% of values)

HIGH CORRELATION

- Categorical columns 'Survived' and 'Sex' highly associated (Cramer's V: 0.540)

Reproduction

Analysis started	Analysis finished	Duration	Software version
`2026-02-08T11:25:25`	`2026-02-08T11:25:35`	`10.71 seconds`	`hashprep v0.1.0a4`

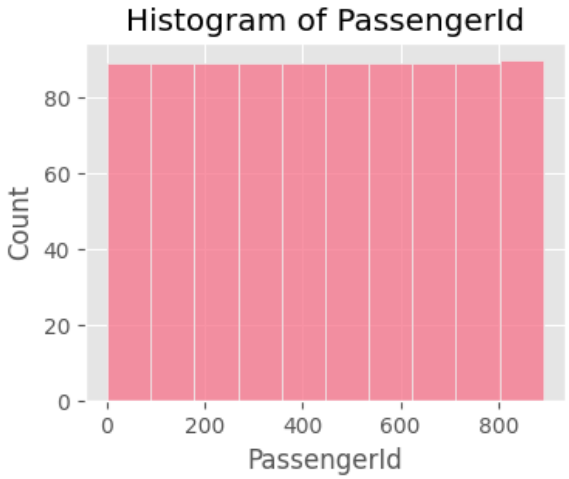
Variables

PassengerId Numeric Unique

DISTINCT	MISSING	MEAN	RANGE
891	**0**	**446**	**1 – 891**
100.0%	0.0%		

QUANTILE STATISTICS

Minimum	1
5th percentile	45.5
Q1 (25%)	223.5
Median (50%)	446
Q3 (75%)	668.5
95th percentile	846.5
Maximum	891
Range	890
IQR	445



DESCRIPTIVE STATISTICS

Mean	446
Std deviation	257.354
Variance	66231
CV	0.577027
Skewness	0
Kurtosis	-1.2
MAD	223
Sum	397386
Monotonicity	Increasing

COMMON VALUES

VALUE	COUNT	%
891	1	0.1%
1	1	0.1%
2	1	0.1%
3	1	0.1%
4	1	0.1%
5	1	0.1%
6	1	0.1%
7	1	0.1%
8	1	0.1%
9	1	0.1%

EXTREME VALUES

MINIMUM

1 2 3 4 5 6 7 8 9 10

MAXIMUM

882 883 884 885 886 887 888 889 890 891

VALUE COUNTS

Zeros	0 (0.0%)
Negative	0 (0.0%)
Infinite	0 (0.0%)

Survived Categorical

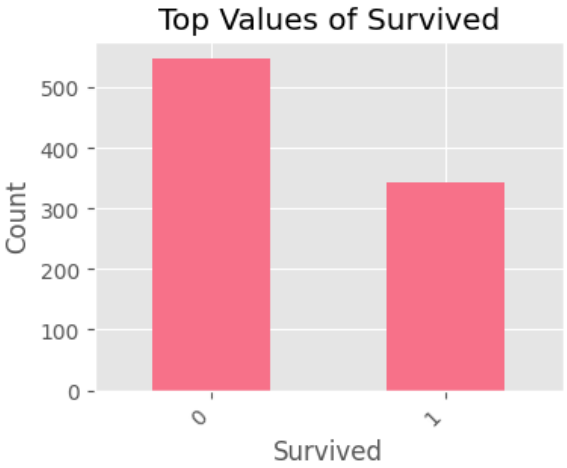
DISTINCT	MISSING	MEMORY	LENGTH
2	0	7.1 KiB	1 – 1
0.2%	0.0%		chars

LENGTH STATISTICS

Min length	1
Max length	1
Mean length	1.00
Median length	1.00

CHARACTER STATISTICS

Total characters	891
Distinct characters	2
Distinct categories	1



COMMON VALUES

VALUE	COUNT	%
0	549	61.6%
1	342	38.4%

Pclass Categorical

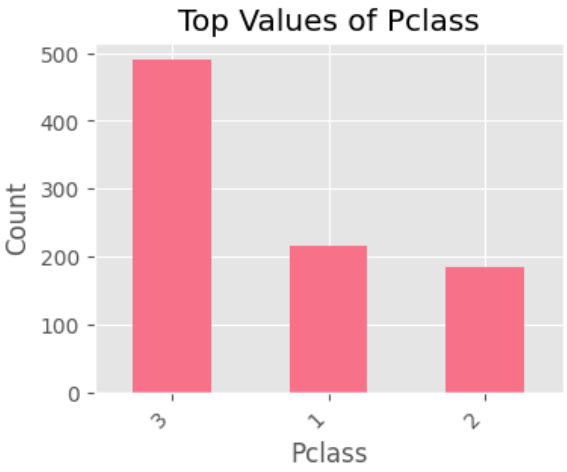
DISTINCT	MISSING	MEMORY	LENGTH
3	0	7.1 KiB	1 – 1
0.3%	0.0%		chars

LENGTH STATISTICS

Min length	1
Max length	1
Mean length	1.00
Median length	1.00

CHARACTER STATISTICS

Total characters	891
Distinct characters	3
Distinct categories	1



COMMON VALUES

VALUE	COUNT	%
3	491	55.1%
1	216	24.2%
2	184	20.7%

Name Text Unique

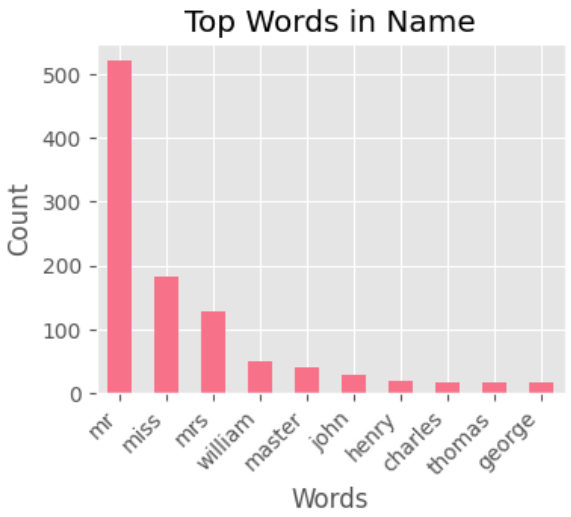
DISTINCT	MISSING	MEMORY	LENGTH
891	0	73.2 KiB	12 – 82
100.0%	0.0%		chars

LENGTH STATISTICS

Min length	12
Max length	82
Mean length	26.97
Median length	25.00

CHARACTER STATISTICS

Total characters	24026
Distinct characters	60
Distinct categories	7



Sex Categorical

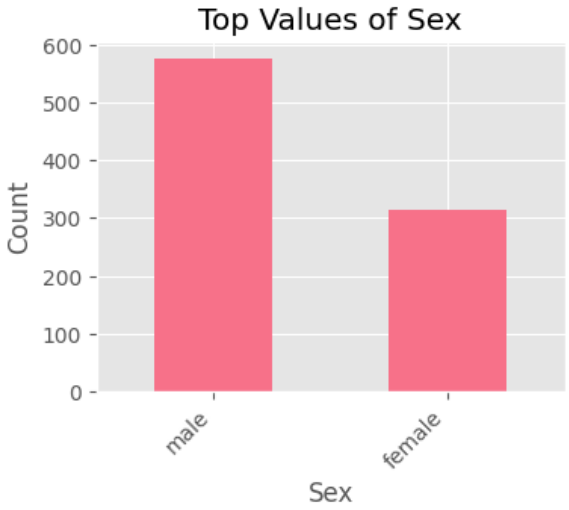
DISTINCT	MISSING	MEMORY	LENGTH
2	0	53.8 KiB	4 – 6
0.2%	0.0%		chars

LENGTH STATISTICS

Min length	4
Max length	6
Mean length	4.70
Median length	4.00

CHARACTER STATISTICS

Total characters	4192
Distinct characters	5
Distinct categories	1



COMMON VALUES

VALUE	COUNT	%
male	577	64.8%
female	314	35.2%

Age

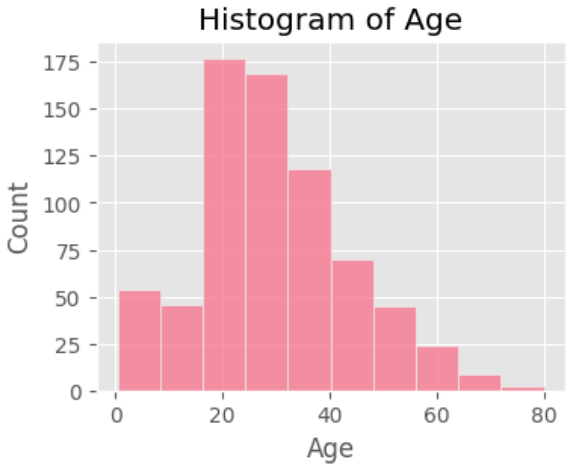
Numeric

19.9% missing

DISTINCT	MISSING	MEAN	RANGE
88	177	29.7	0.42 – 80
12.3%	19.9%		

QUANTILE STATISTICS

Minimum	0.42
5th percentile	4
Q1 (25%)	20.125
Median (50%)	28
Q3 (75%)	38
95th percentile	56
Maximum	80
Range	79.58
IQR	17.875



DESCRIPTIVE STATISTICS

Mean	29.6991
Std deviation	14.5265
Variance	211.019
CV	0.489122
Skewness	0.389108
Kurtosis	0.178274
MAD	9
Sum	21205.2
Monotonicity	None

COMMON VALUES

VALUE	COUNT	%
24.0	30	4.2%
22.0	27	3.8%
18.0	26	3.6%
28.0	25	3.5%
30.0	25	3.5%
19.0	25	3.5%
21.0	24	3.4%
25.0	23	3.2%
36.0	22	3.1%
29.0	20	2.8%

EXTREME VALUES

MINIMUM

0.42 0.67 0.75 0.75 0.83 0.83 0.92 1 1 1

MAXIMUM

65 65 66 70 70 70.5 71 71 74 80

VALUE COUNTS

Zeros	0 (0.0%)
Negative	0 (0.0%)
Infinite	0 (0.0%)

SibSp Categorical

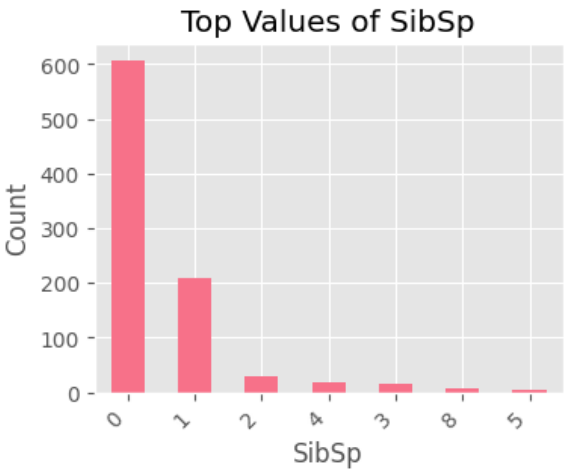
DISTINCT	MISSING	MEMORY	LENGTH
7	0	7.1 KiB	1 – 1
0.8%	0.0%		chars

LENGTH STATISTICS

Min length	1
Max length	1
Mean length	1.00
Median length	1.00

CHARACTER STATISTICS

Total characters	891
Distinct characters	7
Distinct categories	1



COMMON VALUES

VALUE	COUNT	%
0	608	68.2%
1	209	23.5%
2	28	3.1%
4	18	2.0%
3	16	1.8%
8	7	0.8%
5	5	0.6%

Parch Categorical

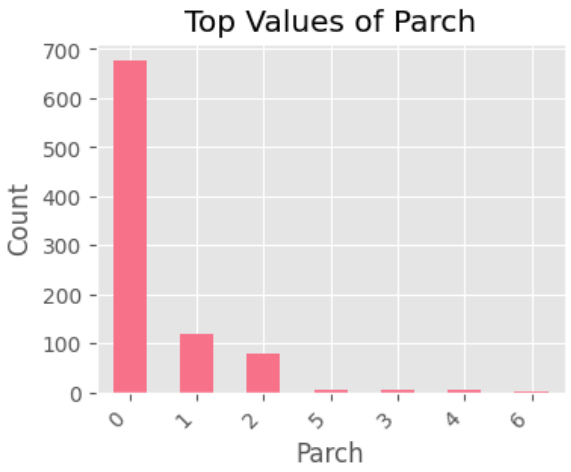
DISTINCT	MISSING	MEMORY	LENGTH
7	0	7.1 KiB	1 – 1
0.8%	0.0%		chars

LENGTH STATISTICS

Min length	1
Max length	1
Mean length	1.00
Median length	1.00

CHARACTER STATISTICS

Total characters	891
Distinct characters	7
Distinct categories	1



COMMON VALUES

VALUE	COUNT	%
0	678	76.1%
1	118	13.2%
2	80	9.0%
5	5	0.6%
3	5	0.6%
4	4	0.4%
6	1	0.1%

Ticket Text

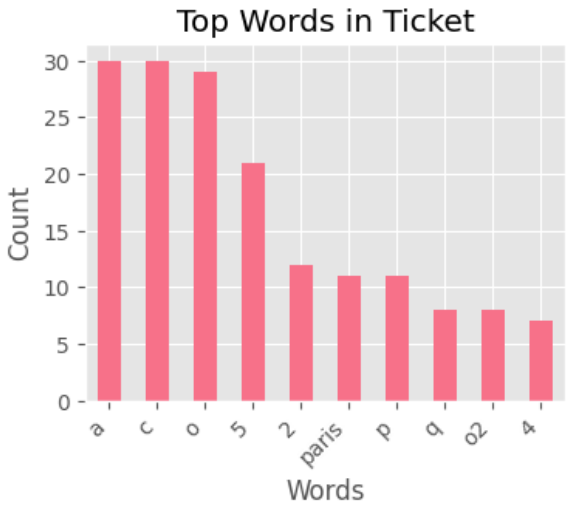
DISTINCT	MISSING	MEMORY	LENGTH
681	0	55.6 KiB	3 – 18
76.4%	0.0%		chars

LENGTH STATISTICS

Min length	3
Max length	18
Mean length	6.75
Median length	6.00

CHARACTER STATISTICS

Total characters	6015
Distinct characters	35
Distinct categories	5



Fare Numeric

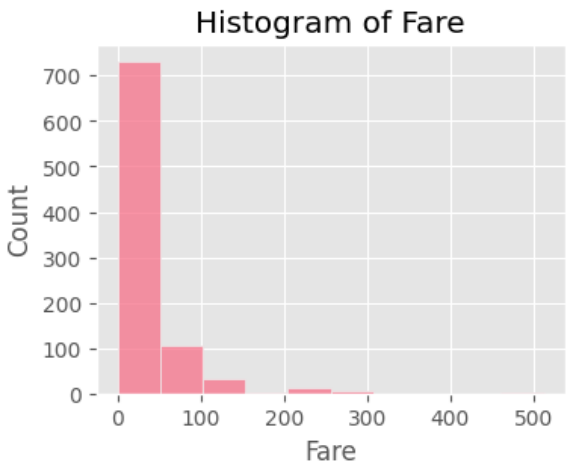
DISTINCT	MISSING	MEAN	RANGE
248	**0**	**32.2**	**0 – 512.3**
27.8%	0.0%		

QUANTILE STATISTICS

Minimum	0
5th percentile	7.225
Q1 (25%)	7.9104
Median (50%)	14.4542
Q3 (75%)	31
95th percentile	112.079
Maximum	512.329
Range	512.329
IQR	23.0896

DESCRIPTIVE STATISTICS

Mean	32.2042
Std deviation	49.6934
Variance	2469.44
CV	1.54307
Skewness	4.78732
Kurtosis	33.3981
MAD	6.9042
Sum	28693.9
Monotonicity	None



COMMON VALUES

VALUE	COUNT	%
8.05	43	4.8%
13.0	42	4.7%
7.8958	38	4.3%
7.75	34	3.8%
26.0	31	3.5%
10.5	24	2.7%
7.925	18	2.0%
7.775	16	1.8%
7.2292	15	1.7%
26.55	15	1.7%

EXTREME VALUES

MINIMUM

0 0 0 0 0 0 0 0 0 0

MAXIMUM

247.5 262.4 262.4 263 263 263 263 512.3 512.3 512.3

VALUE COUNTS

Zeros	15 (1.7%)
Negative	0 (0.0%)
Infinite	0 (0.0%)

Cabin Text 77.1% missing

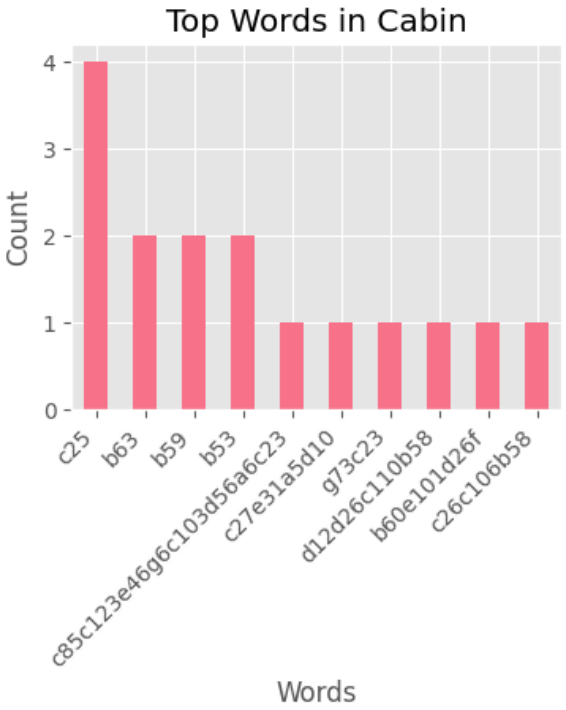
DISTINCT	MISSING	MEMORY	LENGTH
147	687	33.7 KiB	1 – 15
72.1%	77.1%		chars

LENGTH STATISTICS

Min length	1
Max length	15
Mean length	3.59
Median length	3.00

CHARACTER STATISTICS

Total characters	732
Distinct characters	19
Distinct categories	3



Embarked Categorical 0.2% missing

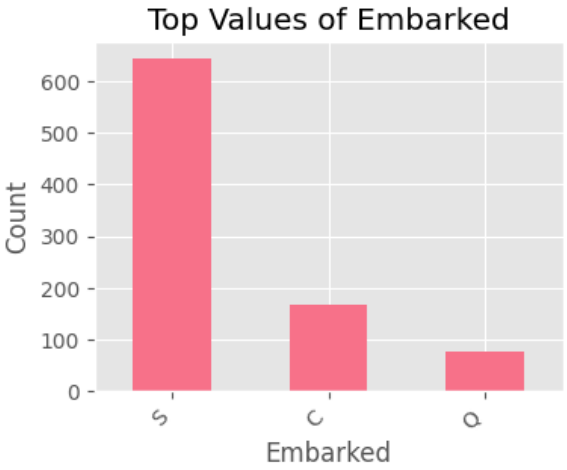
DISTINCT	MISSING	MEMORY	LENGTH
3	2	50.5 KiB	1 – 1
0.3%	0.2%		chars

LENGTH STATISTICS

Min length	1
Max length	1
Mean length	1.00
Median length	1.00

CHARACTER STATISTICS

Total characters	889
Distinct characters	3
Distinct categories	1

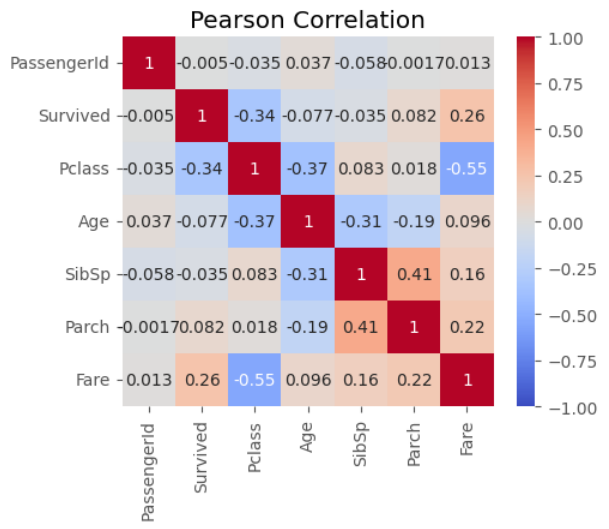


COMMON VALUES

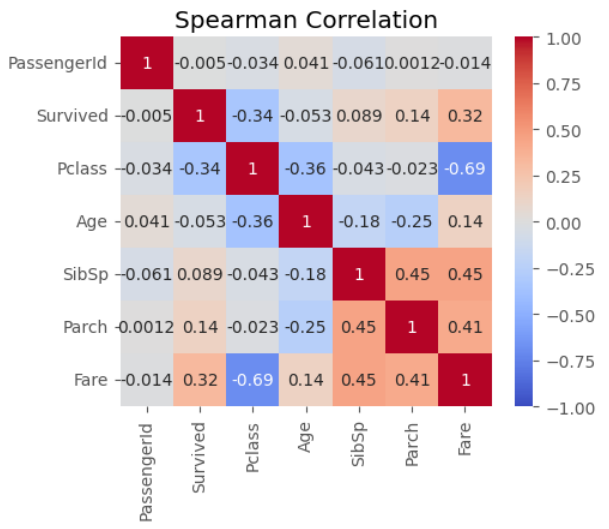
VALUE	COUNT	%
S	644	72.4%
C	168	18.9%
Q	77	8.7%

Correlations

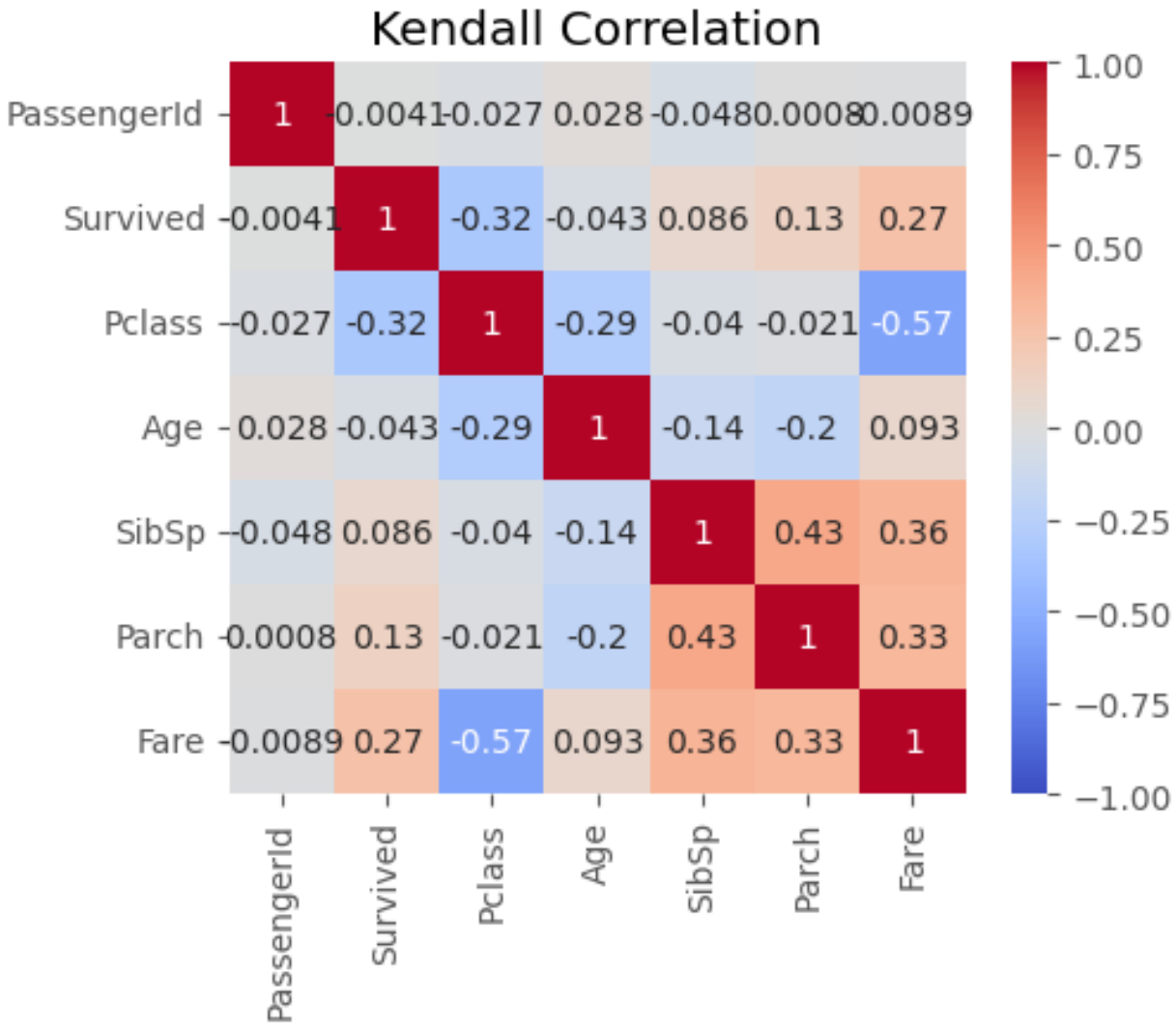
PEARSON



SPEARMAN

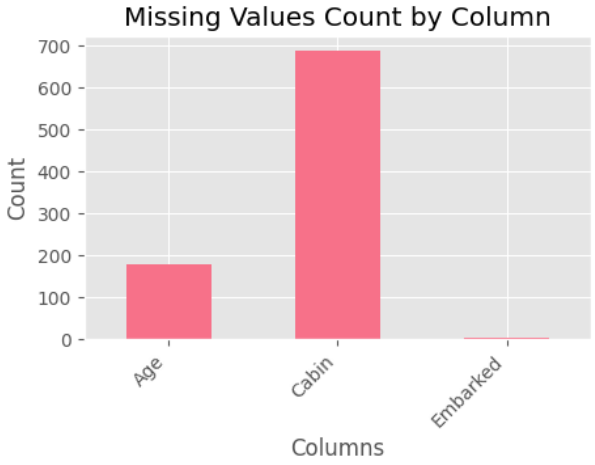


KENDALL

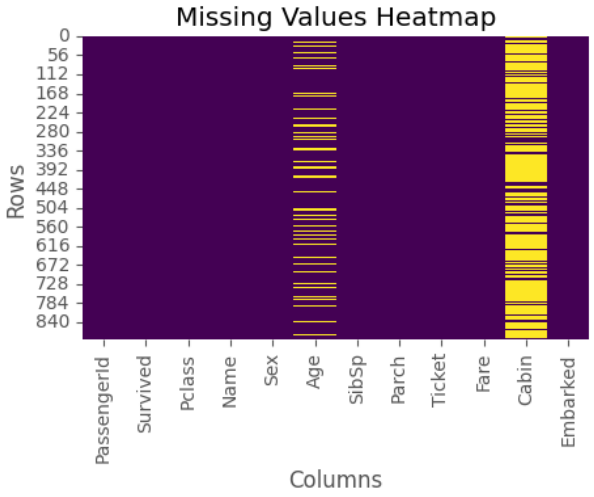


Missing Values

MISSING COUNT PER COLUMN



MISSING PATTERN MATRIX



Sample Data

Head (first 5 rows)

PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	None	S
2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Thayer)	female	38.0	1	0	PC 17599	71.2833	C85	C
3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	None	S
4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C123	S
5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	None	S

Random Sample (10 rows)

PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
710	1	3	Moubarek, Master. Halim Gonios ("William George")	male	NaN	1	1	2661	15.2458	None	C
440	0	2	Kvillner, Mr. Johan Henrik Johannesson	male	31.0	0	0	C.A. 18723	10.5000	None	S
841	0	3	Alhomaki, Mr. Ilmari Rudolf	male	20.0	0	0	SOTON/O2 3101287	7.9250	None	S
721	1	2	Harper, Miss. Annie Jessie "Nina"	female	6.0	0	1	248727	33.0000	None	S
40	1	3	Nicola-Yarred, Miss. Jamila	female	14.0	1	0	2651	11.2417	None	C
291	1	1	Barber, Miss. Ellen "Nellie"	female	26.0	0	0	19877	78.8500	None	S
301	1	3	Kelly, Miss. Anna Katherine "Annie Kate"	female	NaN	0	0	9234	7.7500	None	Q
334	0	3	Vander Planke, Mr. Leo Edmondus	male	16.0	2	0	345764	18.0000	None	S
209	1	3	Carr, Miss. Helen "Ellen"	female	16.0	0	0	367231	7.7500	None	Q
137	1	1	Newsom, Miss. Helen Monypeny	female	19.0	0	2	11752	26.2833	D47	S

Tail (last 5 rows)

PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	211536	13.00	None	S
888	1	1	Graham, Miss. Margaret Edith	female	19.0	0	0	112053	30.00	B42	S
889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	W./C. 6607	23.45	None	S
890	1	1	Behr, Mr. Karl Howell	male	26.0	0	0	111369	30.00	C148	C
891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	370376	7.75	None	Q