

# Data analysis of Titanic

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt

titanic_data = pd.read_csv("train.csv")
titanic_data.isnull().sum()
```

```
PassengerId      0
Survived          0
Pclass           0
Name             0
Sex              0
Age            177
SibSp            0
Parch            0
Ticket           0
Fare             0
Cabin          687
Embarked         2
dtype: int64
```

```
titanic_data.head()
```

	PassengerId	Survived	Pclass	\
0	1	0	3	
1	2	1	1	
2	3	1	3	
3	4	1	1	
4	5	0	3	

		Name	Sex	Age
SibSp	\			
0		Braund, Mr. Owen Harris	male	22.0
1				
1		Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0
1				
2		Heikkinen, Miss. Laina	female	26.0
0				
3		Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0
1				
4		Allen, Mr. William Henry	male	35.0
0				

	Parch	Ticket	Fare	Cabin	Embarked
0	0	A/5 21171	7.2500	NaN	S
1	0	PC 17599	71.2833	C85	C

2	0	STON/O2.	3101282	7.9250	NaN	S
3	0		113803	53.1000	C123	S
4	0		373450	8.0500	NaN	S

```
titanic_data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 891 entries, 0 to 890
Data columns (total 12 columns):
#   Column          Non-Null Count  Dtype
---  -
0   PassengerId     891 non-null    int64
1   Survived        891 non-null    int64
2   Pclass          891 non-null    int64
3   Name            891 non-null    object
4   Sex             891 non-null    object
5   Age            714 non-null    float64
6   SibSp          891 non-null    int64
7   Parch          891 non-null    int64
8   Ticket          891 non-null    object
9   Fare           891 non-null    float64
10  Cabin          204 non-null    object
11  Embarked       889 non-null    object
dtypes: float64(2), int64(5), object(5)
memory usage: 83.7+ KB
```

## Gender

```
titanic_data.describe()
```

	PassengerId	Survived	Pclass	Age	SibSp	\
count	891.000000	891.000000	891.000000	714.000000	891.000000	
mean	446.000000	0.383838	2.308642	29.699118	0.523008	
std	257.353842	0.486592	0.836071	14.526497	1.102743	
min	1.000000	0.000000	1.000000	0.420000	0.000000	
25%	223.500000	0.000000	2.000000	20.125000	0.000000	
50%	446.000000	0.000000	3.000000	28.000000	0.000000	
75%	668.500000	1.000000	3.000000	38.000000	1.000000	
max	891.000000	1.000000	3.000000	80.000000	8.000000	

	Parch	Fare
count	891.000000	891.000000
mean	0.381594	32.204208
std	0.806057	49.693429
min	0.000000	0.000000
25%	0.000000	7.910400
50%	0.000000	14.454200

```
75%      0.000000    31.000000
max      6.000000   512.329200
```

```
titanic_data['Sex'].info()
```

```
<class 'pandas.core.series.Series'>
RangeIndex: 891 entries, 0 to 890
Series name: Sex
Non-Null Count  Dtype
-----
891 non-null    object
dtypes: object(1)
memory usage: 7.1+ KB

titanic_data.Sex.shape
(891,)
```

There are total 889 people in the titanic

```
titanic_data['PassengerId'].max(numeric_only = True)
```

```
891
```

```
titanic_data['Age'].describe()
```

```
count    714.000000
mean      29.699118
std       14.526497
min        0.420000
25%       20.125000
50%       28.000000
75%       38.000000
max       80.000000
Name: Age, dtype: float64
```

```
titanic_data['Age'].describe().shape
```

```
(8,)
```

**Before filling the Null or empty cells**

```
titanic_data["Age"].sort_values(ascending = False, na_position =
'last')
```

```

630      80.0
851      74.0
493      71.0
96       71.0
116      70.5
...
859      NaN
863      NaN
868      NaN
878      NaN
888      NaN
Name: Age, Length: 891, dtype: float64

titanic_data.shape

(891, 12)

mean_value = titanic_data['Age'].mean()

mean_value

29.69911764705882

titanic_data['Age'].fillna(value =mean_value, inplace = True)

titanic_data['Age'].dtypes

dtype('float64')

titanic_data['Age'].isnull().sum()

0

```

**After filling the mean values to the null or empty position so of column Age**

```

titanic_data["Age"].sort_values(ascending = False, na_position =
'last')

630      80.00
851      74.00
96       71.00
493      71.00
116      70.50
...
831       0.83
469       0.75
644       0.75
755       0.67
803       0.42
Name: Age, Length: 891, dtype: float64

type(mean_value)

```

```

numpy.float64
titanic_data["Age"].dtypes
dtype('float64')
titanic_data["Age"].isnull().sum()
0

```

***There is no null cell in column "Age"***

```

titanic_data.head(2)

```

	PassengerId	Survived	Pclass	\
0	1	0	3	
1	2	1	1	

	SibSp	\	Name	Sex	Age
0			Braund, Mr. Owen Harris	male	22.0
1					
1			Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0
1					

	Parch	Ticket	Fare	Cabin	Embarked
0	0	A/5 21171	7.2500	NaN	S
1	0	PC 17599	71.2833	C85	C

```

titanic_data = titanic_data.set_index('PassengerId')
titanic_data['Cabin'].isnull().sum()
687

## titanic_data['Cabin'] = titanic_data['Cabin'].replace(value = None,
to_replace = 'NaN', regex = True)

## df3 = titanic_data.drop_duplicates(ignore_index = True)

```

Checking the Ticket colum to remove unwanted

```

titanic_data['Ticket'].isnull().sum()
0

titanic_data['Ticket'] = titanic_data['Ticket'].replace(value = '',
to_replace = '[^0-9]', regex = True)

titanic_data['Ticket']

```

```

PassengerId
1      521171
2      17599
3      23101282
4      113803
5      373450
...
887     211536
888     112053
889       6607
890     111369
891     370376
Name: Ticket, Length: 891, dtype: object

```

```
titanic_data.info()
```

```

<class 'pandas.core.frame.DataFrame'>
Index: 891 entries, 1 to 891
Data columns (total 11 columns):
#   Column      Non-Null Count  Dtype
---  -
0   Survived    891 non-null    int64
1   Pclass      891 non-null    int64
2   Name        891 non-null    object
3   Sex         891 non-null    object
4   Age         891 non-null    float64
5   SibSp       891 non-null    int64
6   Parch       891 non-null    int64
7   Ticket      891 non-null    object
8   Fare        891 non-null    float64
9   Cabin       204 non-null    object
10  Embarked    889 non-null    object
dtypes: float64(2), int64(4), object(5)
memory usage: 83.5+ KB

```

```
titanic_data = titanic_data.drop('Cabin', axis = 1)
```

```
titanic_data
```

PassengerId	Survived	Pclass \
1	0	3
2	1	1
3	1	3
4	1	1
5	0	3
...	...	...
887	0	2
888	1	1
889	0	3

```
890          1      1
891          0      3
```

	Name	Sex
\ PassengerId		
1	Braund, Mr. Owen Harris	male
2	Cumings, Mrs. John Bradley (Florence Briggs Th...	female
3	Heikkinen, Miss. Laina	female
4	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female
5	Allen, Mr. William Henry	male
...	...	...
887	Montvila, Rev. Juozas	male
888	Graham, Miss. Margaret Edith	female
889	Johnston, Miss. Catherine Helen "Carrie"	female
890	Behr, Mr. Karl Howell	male
891	Dooley, Mr. Patrick	male

	Age	SibSp	Parch	Ticket	Fare	Embarked
PassengerId						
1	22.000000	1	0	521171	7.2500	S
2	38.000000	1	0	17599	71.2833	C
3	26.000000	0	0	23101282	7.9250	S
4	35.000000	1	0	113803	53.1000	S
5	35.000000	0	0	373450	8.0500	S
...	...	...	...	...	...	...
887	27.000000	0	0	211536	13.0000	S
888	19.000000	0	0	112053	30.0000	S
889	29.699118	1	2	6607	23.4500	S
890	26.000000	0	0	111369	30.0000	C
891	32.000000	0	0	370376	7.7500	Q

```
[891 rows x 10 columns]
```

```
titanic_data.isnull().sum()
```

```
Survived    0
Pclass      0
Name        0
```

```
Sex      0
Age      0
SibSp    0
Parch    0
Ticket   0
Fare     0
Embarked  2
dtype: int64
```

```
titanic_data = titanic_data.dropna()
```

```
titanic_data.isnull().sum()
```

```
Survived    0
Pclass      0
Name        0
Sex         0
Age         0
SibSp       0
Parch       0
Ticket      0
Fare        0
Embarked    0
dtype: int64
```

```
titanic_data.dtypes
```

```
Survived    int64
Pclass      int64
Name        object
Sex         object
Age         float64
SibSp       int64
Parch       int64
Ticket      object
Fare        float64
Embarked    object
dtype: object
```

```
titanic_data['Age'].astype(str)
```

```
PassengerId
1          22.0
2          38.0
3          26.0
4          35.0
5          35.0
...
887        27.0
888        19.0
889    29.69911764705882
```



```
890          26.0
891          32.0
Name: Age, Length: 889, dtype: object
```

```
titanic_data['Age'].astype(int)
```

```
PassengerId
```

```
1      22
2      38
3      26
4      35
5      35
```

```
..
887    27
888    19
889    29
890    26
891    32
```

```
Name: Age, Length: 889, dtype: int32
```

```
titanic_data['Pclass'].max()
```

```
3
```

```
len(titanic_data)
```

```
889
```

```
titanic_data.groupby('PassengerId')
# titanic_data
```

```
<pandas.core.groupby.generic.DataFrameGroupBy object at
0x0000029E0655AD10>
```

```
import plotly.express as px
```

```
titanic_data['Name_len']=titanic_data['Name'].str.len()
titanic_data
```

```
C:\Users\Administrator\AppData\Local\Temp\
ipykernel_14856\195138915.py:1: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
```

```
See the caveats in the documentation:
```

```
https://pandas.pydata.org/pandas-docs/stable/user\_guide/indexing.html#
returning-a-view-versus-a-copy
```

```
titanic_data['Name_len']=titanic_data['Name'].str.len()
```

```
Survived  Pclass  \
PassengerId
1          0        3
```

2	1	1
3	1	3
4	1	1
5	0	3
...	...	...
887	0	2
888	1	1
889	0	3
890	1	1
891	0	3

	Name	Sex
\ PassengerId		
1	Braund, Mr. Owen Harris	male
2	Cumings, Mrs. John Bradley (Florence Briggs Th...	female
3	Heikkinen, Miss. Laina	female
4	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female
5	Allen, Mr. William Henry	male
...	...	...
887	Montvila, Rev. Juozas	male
888	Graham, Miss. Margaret Edith	female
889	Johnston, Miss. Catherine Helen "Carrie"	female
890	Behr, Mr. Karl Howell	male
891	Dooley, Mr. Patrick	male

	Age	SibSp	Parch	Ticket	Fare	Embarked
Name_len PassengerId						
1	22.000000	1	0	521171	7.2500	S
23						
2	38.000000	1	0	17599	71.2833	C
51						
3	26.000000	0	0	23101282	7.9250	S
22						
4	35.000000	1	0	113803	53.1000	S
44						
5	35.000000	0	0	373450	8.0500	S

```

24
...
...
887      27.000000      0      0      211536      13.0000      S
21
888      19.000000      0      0      112053      30.0000      S
28
889      29.699118      1      2       6607      23.4500      S
40
890      26.000000      0      0      111369      30.0000      C
21
891      32.000000      0      0      370376       7.7500      Q
19

```

```
[889 rows x 11 columns]
```

```
titanic_data.sort_values('Fare', ascending = False)
```

Sex \ PassengerId	Survived	Pclass	Name
259 female	1	1	Ward, Miss. Anna
738 male	1	1	Lesurer, Mr. Gustave J
680 male	1	1	Cardeza, Mr. Thomas Drake Martinez
342 female	1	1	Fortune, Miss. Alice Elizabeth
28 male	0	1	Fortune, Mr. Charles Alexander
...	...	...	...
...			
816 male	0	1	Fry, Mr. Richard
467 male	0	2	Campbell, Mr. William
807 male	0	1	Andrews, Mr. Thomas Jr
482 male	0	2	Frost, Mr. Anthony Wood "Archie"
598 male	0	3	Johnson, Mr. Alfred

Name_len PassengerId	Age	SibSp	Parch	Ticket	Fare	Embarked
259	35.000000	0	0	17755	512.3292	C

16						
738	35.000000	0	0	17755	512.3292	C
22						
680	36.000000	0	1	17755	512.3292	C
34						
342	24.000000	3	2	19950	263.0000	S
30						
28	19.000000	3	2	19950	263.0000	S
30						
...	...	...	...	...	...	...
...						
816	29.699118	0	0	112058	0.0000	S
16						
467	29.699118	0	0	239853	0.0000	S
21						
807	39.000000	0	0	112050	0.0000	S
22						
482	29.699118	0	0	239854	0.0000	S
32						
598	49.000000	0	0		0.0000	S
19						

[889 rows x 11 columns]

```
px.scatter(titanic_data,x='Age',y='Fare', color='Fare',
           title="Relations ship between Age and Fare")
```

```
{"config":{"plotlyServerURL":"https://plot.ly"},"data":
[{"hovertemplate":"Age=%{x}<br>Fare=%{marker.color}<extra></
extra>","legendgroup":"","marker":{"color":
[7.25,71.2833,7.925,53.1,8.05,8.4583,51.8625,21.075,11.1333,30.0708,16
.7,26.55,8.05,31.275,7.8542,16,29.125,13,18,7.225,26,13,8.0292,35.5,21
.075,31.3875,7.225,263,7.8792,7.8958,27.7208,146.5208,7.75,10.5,82.170
8,52,7.2292,8.05,18,11.2417,9.475,21,7.8958,41.5792,7.8792,8.05,15.5,7
.75,21.6792,17.8,39.6875,7.8,76.7292,26,61.9792,35.5,10.5,7.2292,27.75
,46.9,7.2292,83.475,27.9,27.7208,15.2458,10.5,8.1583,7.925,8.6625,10.5
,46.9,73.5,14.4542,56.4958,7.65,7.8958,8.05,29,12.475,9,9.5,7.7875,47.
1,10.5,15.85,34.375,8.05,263,8.05,8.05,7.8542,61.175,20.575,7.25,8.05,
34.6542,63.3583,23,26,7.8958,7.8958,77.2875,8.6542,7.925,7.8958,7.65,7
.775,7.8958,24.15,52,14.4542,8.05,9.825,14.4583,7.925,7.75,21,247.5208
,31.275,73.5,8.05,30.0708,13,77.2875,11.2417,7.75,7.1417,22.3583,6.975
,7.8958,7.05,14.5,26,13,15.0458,26.2833,53.1,9.2167,79.2,15.2458,7.75,
15.85,6.75,11.5,36.75,7.7958,34.375,26,13,12.525,66.6,8.05,14.5,7.3125
,61.3792,7.7333,8.05,8.6625,69.55,16.1,15.75,7.775,8.6625,39.6875,20.5
25,55,27.9,25.925,56.4958,33.5,29.125,11.1333,7.925,30.6958,7.8542,25.
4667,28.7125,13,0,69.55,15.05,31.3875,39,22.025,50,15.5,26.55,15.5,7.8
958,13,13,7.8542,26,27.7208,146.5208,7.75,8.4042,7.75,13,9.5,69.55,6.4
958,7.225,8.05,10.4625,15.85,18.7875,7.75,31,7.05,21,7.25,13,7.75,113.
275,7.925,27,76.2917,10.5,8.05,13,8.05,7.8958,90,9.35,10.5,7.25,13,25.
4667,83.475,7.775,13.5,31.3875,10.5,7.55,26,26.25,10.5,12.275,14.4542,
```

15.5,10.5,7.125,7.225,90,7.775,14.5,52.5542,26,7.25,10.4625,26.55,16.1  
,20.2125,15.2458,79.2,86.5,512.3292,26,7.75,31.3875,79.65,0,7.75,10.5,  
39.6875,7.775,153.4625,135.6333,31,0,19.5,29.7,7.75,77.9583,7.75,0,29.  
125,20.25,7.75,7.8542,9.5,8.05,26,8.6625,9.5,7.8958,13,7.75,78.85,91.0  
792,12.875,8.85,7.8958,27.7208,7.2292,151.55,30.5,247.5208,7.75,23.25,  
0,12.35,8.05,151.55,110.8833,108.9,24,56.9292,83.1583,262.375,26,7.895  
8,26.25,7.8542,26,14,164.8667,134.5,7.25,7.8958,12.35,29,69.55,135.633  
3,6.2375,13,20.525,57.9792,23.25,28.5,153.4625,18,133.65,7.8958,66.6,1  
34.5,8.05,35.5,26,263,13,13,13,13,13,16.1,15.9,8.6625,9.225,35,7.2292,  
17.8,7.225,9.5,55,13,7.8792,7.8792,27.9,27.7208,14.4542,7.05,15.5,7.25  
,75.25,7.2292,7.75,69.3,55.4417,6.4958,8.05,135.6333,21.075,82.1708,7.  
25,211.5,4.0125,7.775,227.525,15.7417,7.925,52,7.8958,73.5,46.9,13,7.7  
292,12,120,7.7958,7.925,113.275,16.7,7.7958,7.8542,26,10.5,12.65,7.925  
,8.05,9.825,15.85,8.6625,21,7.75,18.75,7.775,25.4667,7.8958,6.8583,90,  
0,7.925,8.05,32.5,13,13,24.15,7.8958,7.7333,7.875,14.4,20.2125,7.25,26  
,26,7.75,8.05,26.55,16.1,26,7.125,55.9,120,34.375,18.75,263,10.5,26.25  
,9.5,7.775,13,8.1125,81.8583,19.5,26.55,19.2583,30.5,27.75,19.9667,27.  
75,89.1042,8.05,7.8958,26.55,51.8625,10.5,7.75,26.55,8.05,38.5,13,8.05  
,7.05,0,26.55,7.725,19.2583,7.25,8.6625,27.75,13.7917,9.8375,52,21,7.0  
458,7.5208,12.2875,46.9,0,8.05,9.5875,91.0792,25.4667,90,29.7,8.05,15.  
9,19.9667,7.25,30.5,49.5042,8.05,14.4583,78.2667,15.1,151.55,7.7958,8.  
6625,7.75,7.6292,9.5875,86.5,108.9,26,26.55,22.525,56.4958,7.75,8.05,2  
6.2875,59.4,7.4958,34.0208,10.5,24.15,26,7.8958,93.5,7.8958,7.225,57.9  
792,7.2292,7.75,10.5,221.7792,7.925,11.5,26,7.2292,7.2292,22.3583,8.66  
25,26.25,26.55,106.425,14.5,49.5,71,31.275,31.275,26,106.425,26,26,13.  
8625,20.525,36.75,110.8833,26,7.8292,7.225,7.775,26.55,39.6,227.525,79  
.65,17.4,7.75,7.8958,13.5,8.05,8.05,24.15,7.8958,21.075,7.2292,7.8542,  
10.5,51.4792,26.3875,7.75,8.05,14.5,13,55.9,14.4583,7.925,30,110.8833,  
26,40.125,8.7125,79.65,15,79.2,8.05,8.05,7.125,78.2667,7.25,7.75,26,24  
.15,33,0,7.225,56.9292,27,7.8958,42.4,8.05,26.55,15.55,7.8958,30.5,41.  
5792,153.4625,31.275,7.05,15.5,7.75,8.05,65,14.4,16.1,39,10.5,14.4542,  
52.5542,15.7417,7.8542,16.1,32.3208,12.35,77.9583,7.8958,7.7333,30,7.0  
542,30.5,0,27.9,13,7.925,26.25,39.6875,16.1,7.8542,69.3,27.9,56.4958,1  
9.2583,76.7292,7.8958,35.5,7.55,7.55,7.8958,23,8.4333,7.8292,6.75,73.5  
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```

titanic\_data

PassengerId	Survived	Pclass	\
1	0	3	
2	1	1	
3	1	3	
4	1	1	
5	0	3	
...	...	...	
887	0	2	
888	1	1	
889	0	3	
890	1	1	
891	0	3	

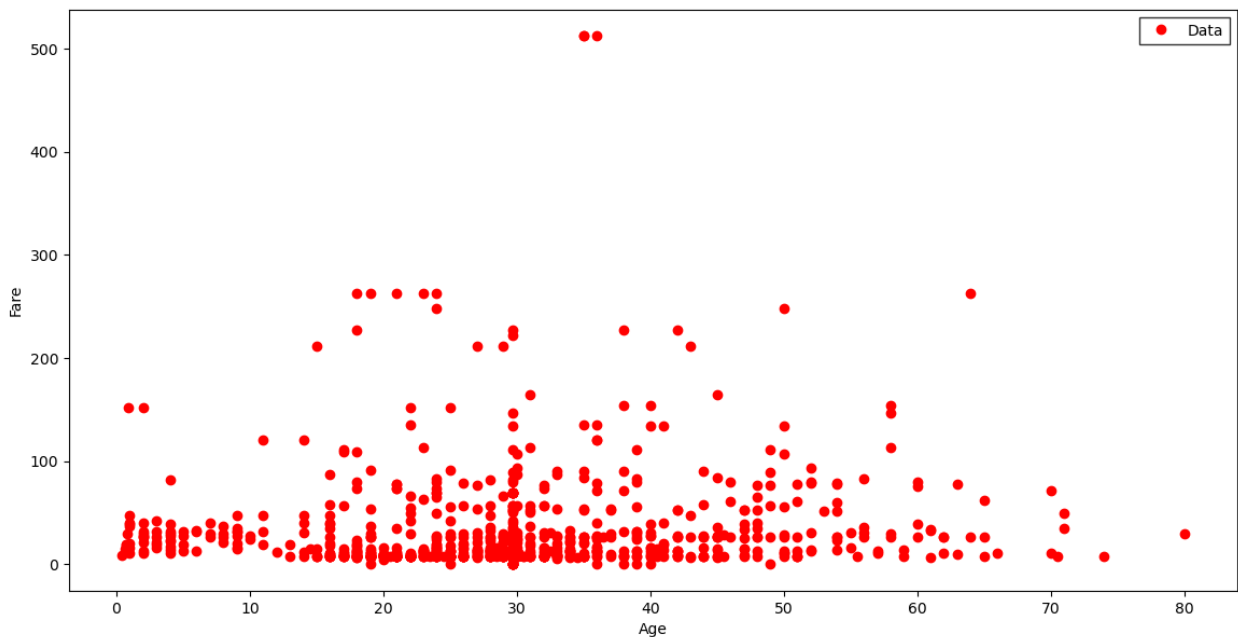
PassengerId	Name	Sex
1	Braund, Mr. Owen Harris	male
2	Cumings, Mrs. John Bradley (Florence Briggs Th...	female
3	Heikkinen, Miss. Laina	female
4	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female
5	Allen, Mr. William Henry	male
...	...	...
887	Montvila, Rev. Juozas	male
888	Graham, Miss. Margaret Edith	female
889	Johnston, Miss. Catherine Helen "Carrie"	female
890	Behr, Mr. Karl Howell	male
891	Dooley, Mr. Patrick	male

Name_len	Age	SibSp	Parch	Ticket	Fare	Embarked
PassengerId						
1	22.000000	1	0	521171	7.2500	S
23						
2	38.000000	1	0	17599	71.2833	C
51						

3	26.000000	0	0	23101282	7.9250	S
22						
4	35.000000	1	0	113803	53.1000	S
44						
5	35.000000	0	0	373450	8.0500	S
24						
...	...	...	...	...	...	...
...						
887	27.000000	0	0	211536	13.0000	S
21						
888	19.000000	0	0	112053	30.0000	S
28						
889	29.699118	1	2	6607	23.4500	S
40						
890	26.000000	0	0	111369	30.0000	C
21						
891	32.000000	0	0	370376	7.7500	Q
19						

[889 rows x 11 columns]

```
plt.figure(figsize = (14,7))
plt.plot(titanic_data["Age"], titanic_data["Fare"], 'o', label =
"Data", lw = 1, color = "red")
plt.xlabel("Age")
plt.ylabel("Fare")
plt.legend(loc = 'upper right', fancybox = False, edgecolor = 'Black')
plt.show()
```

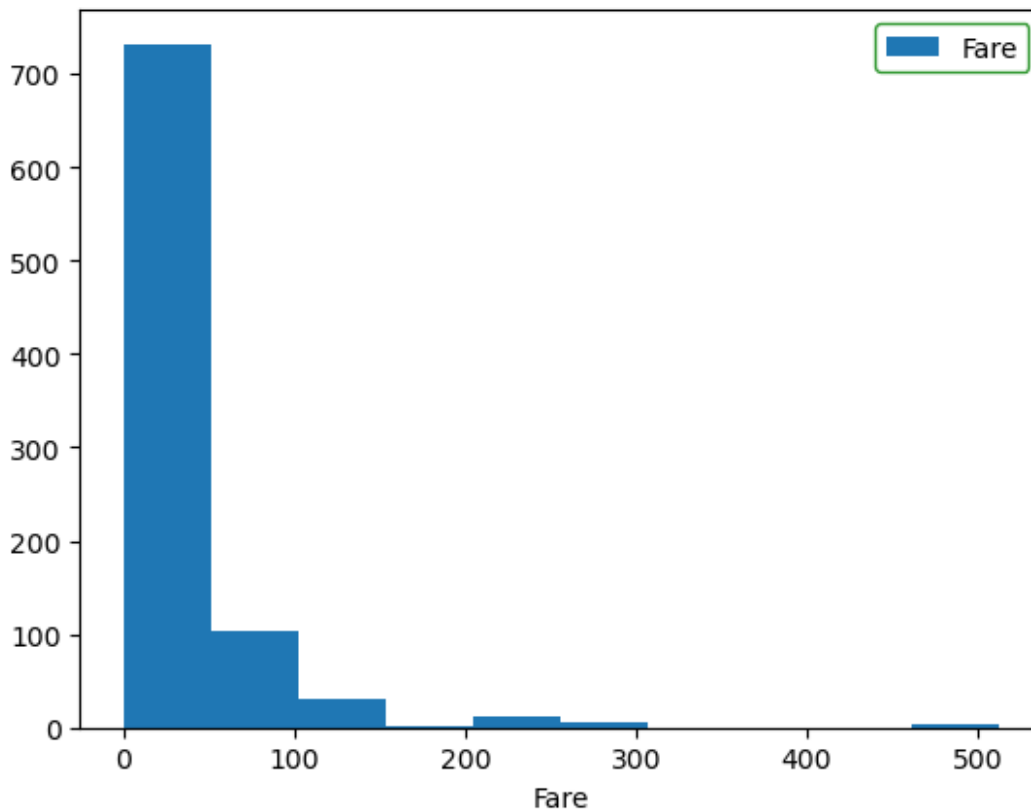


```
titanic_data.sort_values(by = "Fare", ascending = False).head(2)
```

SibSp \ PassengerId	Survived	Pclass	Name	Sex	Age
259	1	1	Ward, Miss. Anna	female	35.0
738	1	1	Lesurer, Mr. Gustave J	male	35.0

PassengerId	Parch	Ticket	Fare	Embarked	Name_len
259	0	17755	512.3292	C	16
738	0	17755	512.3292	C	22

```
plt.hist(titanic_data["Fare"], label = "Fare")
plt.xlabel("Fare")
plt.ylabel("")
plt.legend(edgecolor = 'green')
plt.show()
```



```
titanic_data['Survived'].count()
```

## Finding Number of female died

```
died_and_female_count =
titanic_data.loc[(titanic_data['Survived']==0 ) & (titanic_data['Sex']
== 'female')]
died_and_female_count
```

	Survived	Pclass	\
PassengerId			
15	0	3	
19	0	3	
25	0	3	
39	0	3	
41	0	3	
...	...	...	
855	0	2	
864	0	3	
883	0	3	
886	0	3	
889	0	3	

	Name	Sex
\		
PassengerId		
15	Vestrom, Miss. Hulda Amanda Adolfina	female
19	Vander Planke, Mrs. Julius (Emelia Maria Vande...	female
25	Palsson, Miss. Torborg Danira	female
39	Vander Planke, Miss. Augusta Maria	female
41	Ahlin, Mrs. Johan (Johanna Persdotter Larsson)	female
...	...	...
855	Carter, Mrs. Ernest Courtenay (Lilian Hughes)	female
864	Sage, Miss. Dorothy Edith "Dolly"	female
883	Dahlberg, Miss. Gerda Ulrika	female
886	Rice, Mrs. William (Margaret Norton)	female
889	Johnston, Miss. Catherine Helen "Carrie"	female

Name_len PassengerId	Age	SibSp	Parch	Ticket	Fare	Embarked
15	14.000000	0	0	350406	7.8542	S
36						
19	31.000000	1	0	345763	18.0000	S
55						
25	8.000000	3	1	349909	21.0750	S
29						
39	18.000000	2	0	345764	18.0000	S
34						
41	40.000000	1	0	7546	9.4750	S
46						
...	...	...	...	...	...	...
..						
855	44.000000	1	0	244252	26.0000	S
45						
864	29.699118	8	2	2343	69.5500	S
33						
883	22.000000	0	0	7552	10.5167	S
28						
886	39.000000	0	5	382652	29.1250	Q
36						
889	29.699118	1	2	6607	23.4500	S
40						

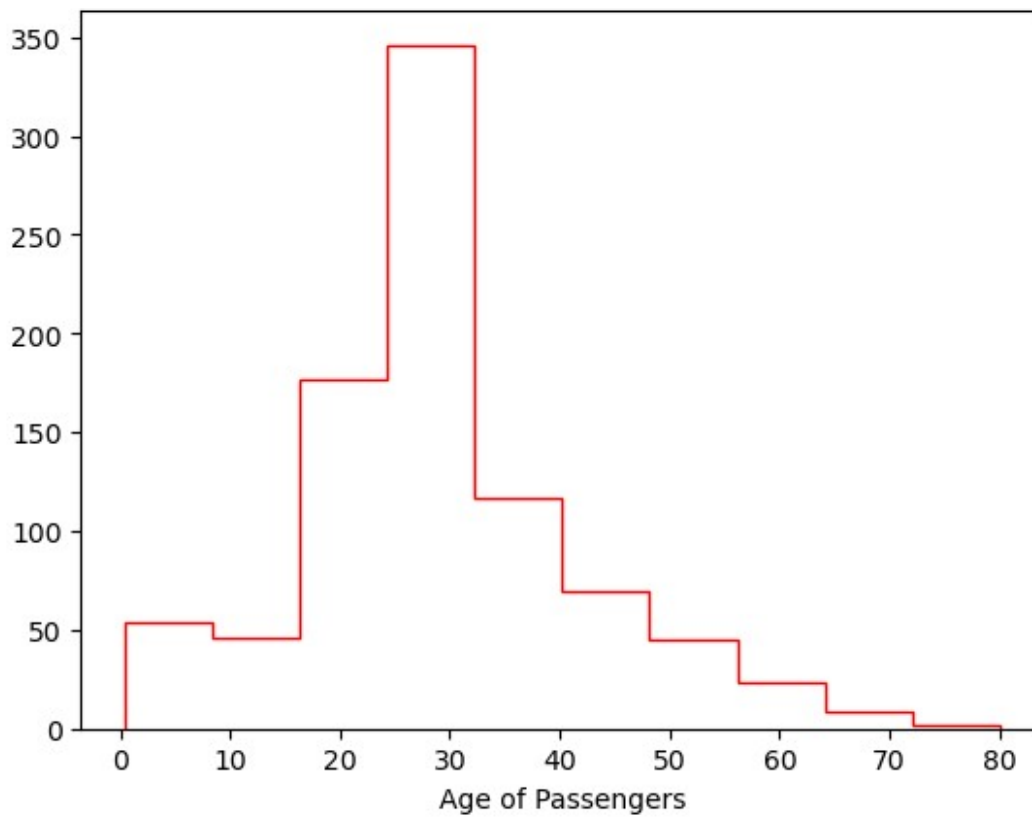
[81 rows x 11 columns]

```
died_and_female_count['Sex'].count()
```

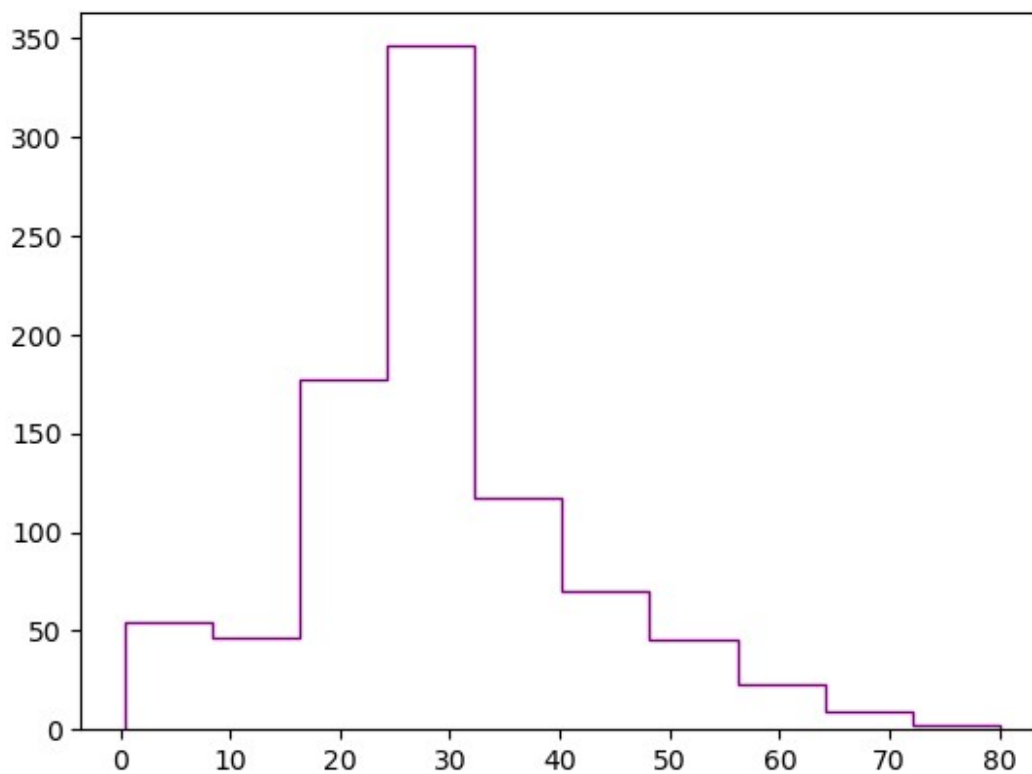
81

```
plt.hist(titanic_data['Age'], histtype = "step", color = 'red')
plt.xlabel('Age of Passengers')
plt.show()
```

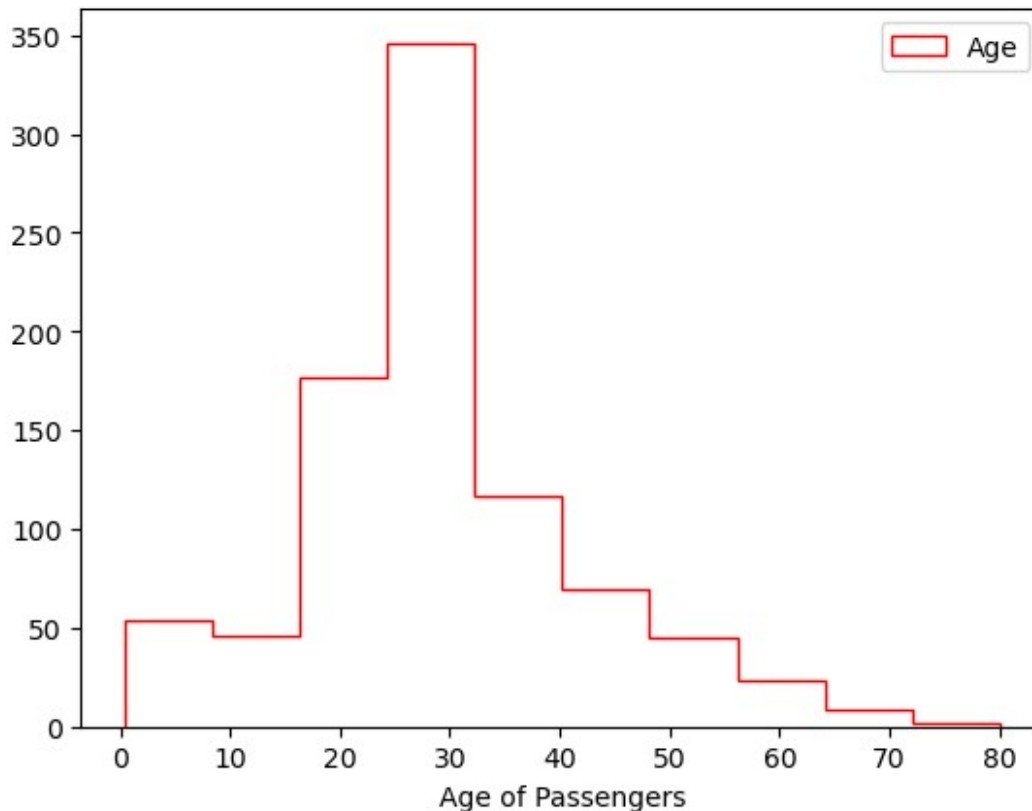




```
plt.hist(titanic_data['Age'], histtype = "step", color = 'purple')  
plt.show()
```



```
plt.hist(titanic_data['Age'], histtype = "step", color = 'red', label =  
"Age")  
plt.xlabel('Age of Passengers')  
plt.legend()  
plt.show()
```



```
import plotly.express as px

px.bar(titanic_data, 'Fare', width = 1000, color = 'Fare')

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