

# EDA in Univariate Analysis

## Import Library

```
import pandas as pd
```

```
In [7]: import pandas as pd  
import seaborn as sns
```

```
In [8]: df = pd.read_csv('train.csv')
```

```
In [10]: df.sample(5)
```

Out[10]:

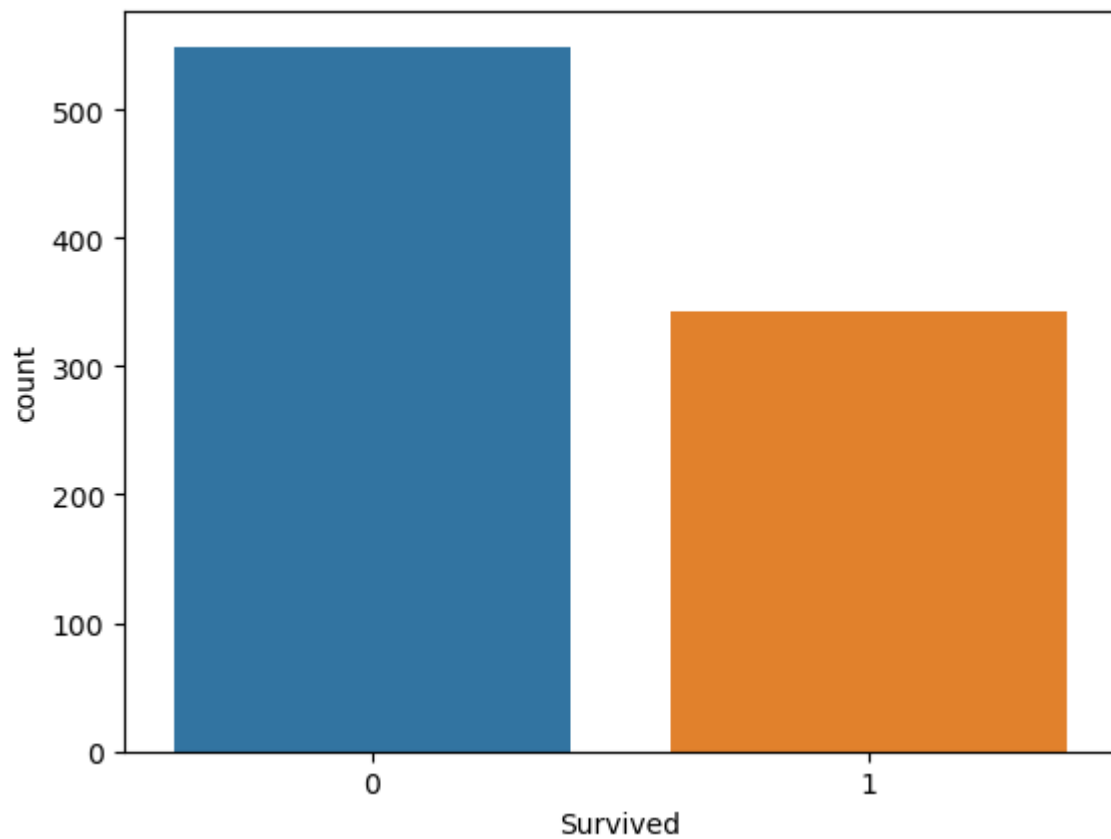
	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
628	629	0	3	Bostandyeff, Mr. Guentcho	male	26.0	0	0	349224	7.8958	NaN	
847	848	0	3	Markoff, Mr. Marin	male	35.0	0	0	349213	7.8958	NaN	
204	205	1	3	Cohen, Mr. Gurshon "Gus"	male	18.0	0	0	A/5 3540	8.0500	NaN	
146	147	1	3	Andersson, Mr. August Edvard ("Wennerstrom")	male	27.0	0	0	350043	7.7958	NaN	
655	656	0	2	Hickman, Mr. Leonard Mark	male	24.0	2	0	S.O.C. 14879	73.5000	NaN	

## 1. Categorical Data

### a. Countplot

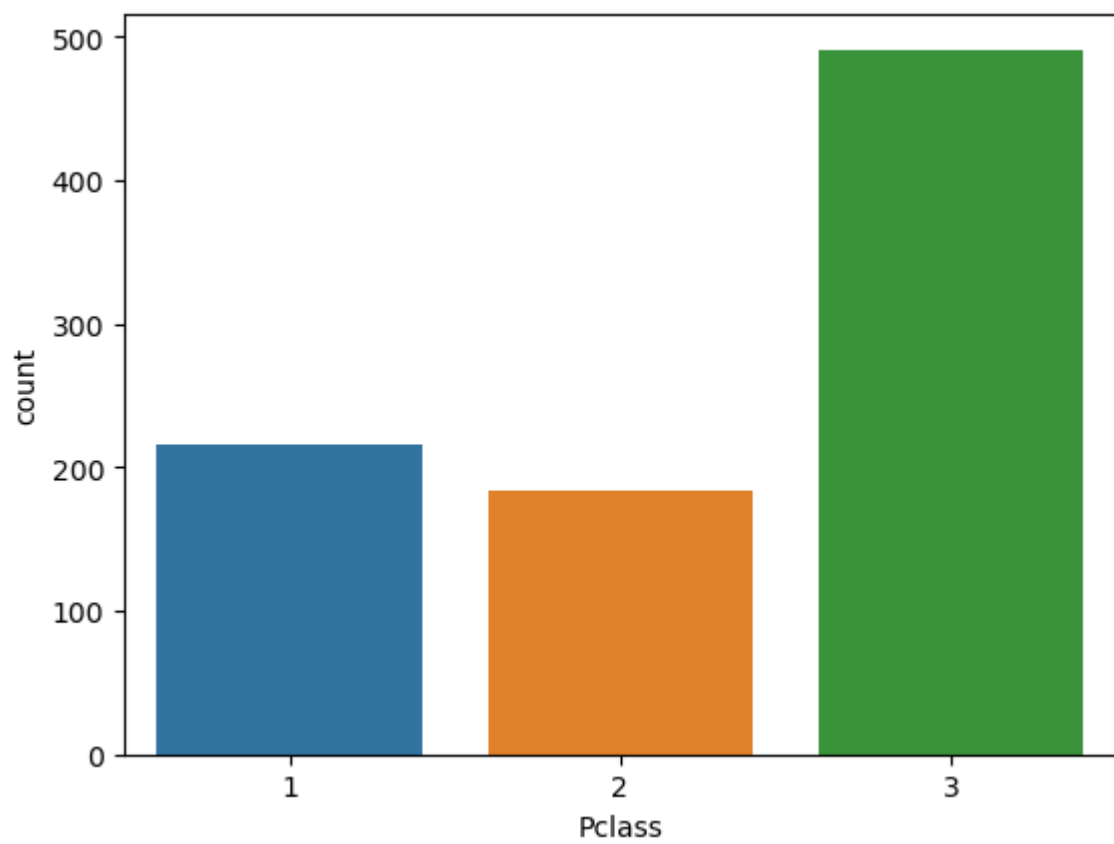
```
In [12]: sns.countplot(x='Survived', data=df)  
df['Survived'].value_counts()
```

```
Out[12]: Survived  
0      549  
1      342  
Name: count, dtype: int64
```



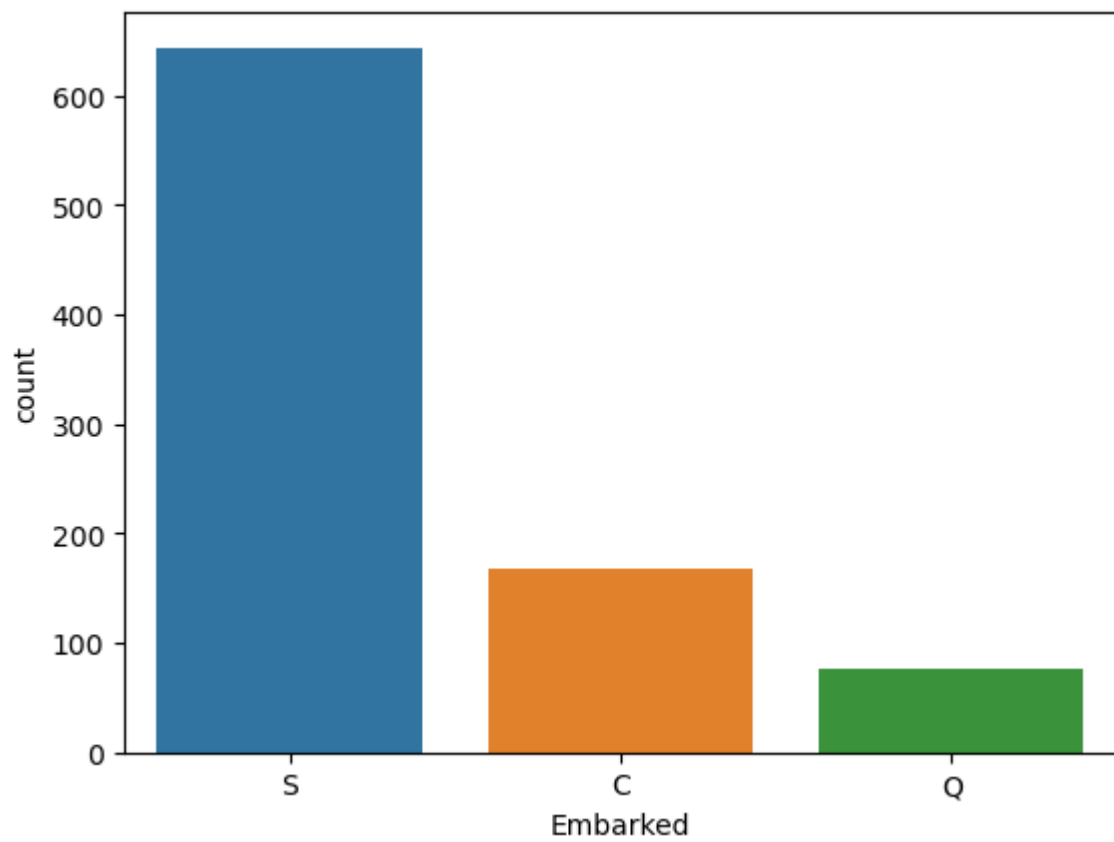
```
In [13]: sns.countplot(x='Pclass', data=df)  
df['Pclass'].value_counts()
```

```
Out[13]: Pclass  
3      491  
1      216  
2      184  
Name: count, dtype: int64
```



```
In [14]: sns.countplot(x='Embarked', data=df)  
df['Embarked'].value_counts()
```

```
Out[14]: Embarked  
S      644  
C      168  
Q       77  
Name: count, dtype: int64
```

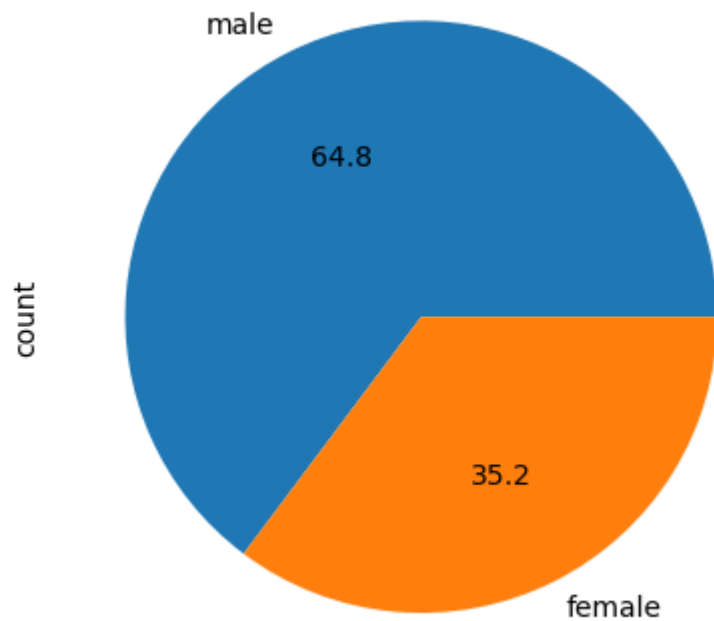


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## b. Piechart

```
In [19]: df['Sex'].value_counts().plot(kind='pie', autopct='%1f')
```

```
Out[19]: <Axes: ylabel='count'>
```



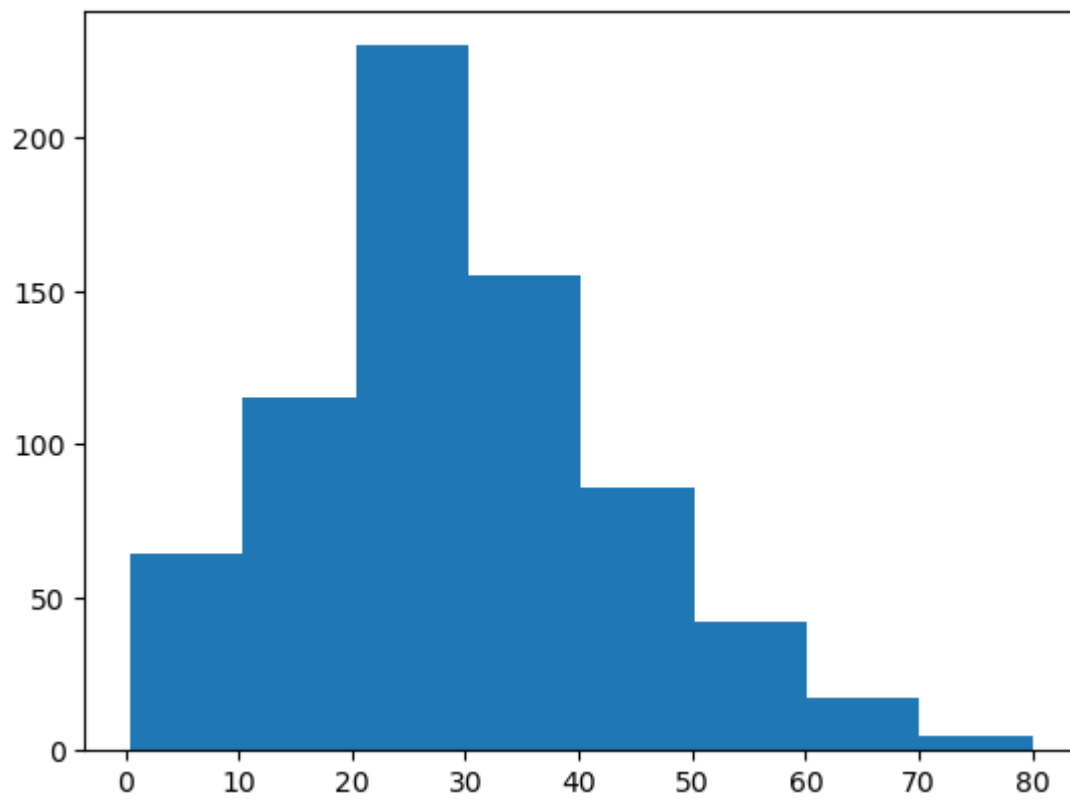
## 2. NUMERICAL DATA

### a. Histogram

```
In [20]: import matplotlib.pyplot as plt
```

```
In [29]: plt.hist(df['Age'],bins=8)
```

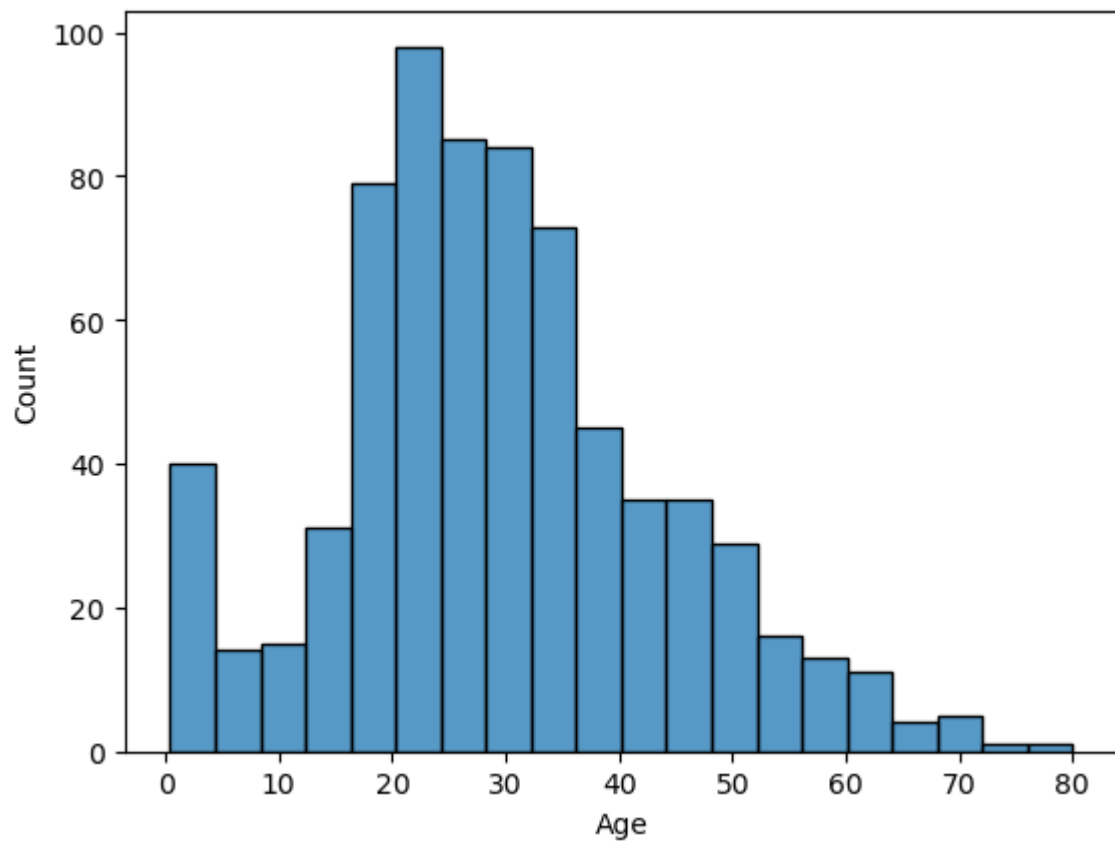
```
Out[29]: (array([ 64., 115., 230., 155.,  86.,  42.,  17.,   5.]),  
array([ 0.42 , 10.3675, 20.315 , 30.2625, 40.21  , 50.1575, 60.105 ,  
       70.0525, 80.    ]),  
<BarContainer object of 8 artists>)
```



## b. Distplot / Histplot

```
In [33]: sns.histplot(df['Age'])
```

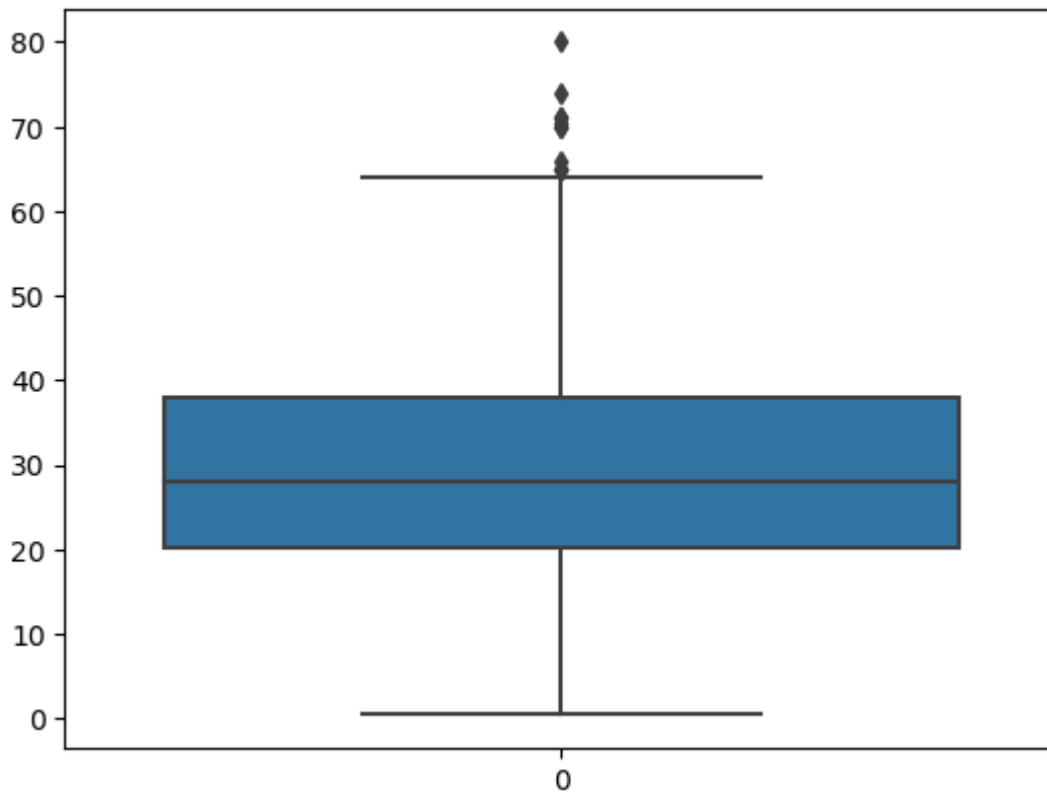
```
Out[33]: <Axes: xlabel='Age', ylabel='Count'>
```



### c. Boxplot

```
In [34]: sns.boxplot(df['Age'])
```

```
Out[34]: <Axes: >
```



```
In [35]: df['Age'].min()
```

```
Out[35]: 0.42
```

```
In [36]: df['Age'].max()
```

```
Out[36]: 80.0
```

```
In [37]: df['Age'].mean()
```

```
Out[37]: 29.69911764705882
```

```
In [38]: df['Age'].skew()
```

```
Out[38]: 0.38910778230082704
```

```
In [ ]:
```