

```
In [1]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

```
In [2]: df=pd.read_csv('train.csv')
df.head()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C123	S
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	NaN	S

```
In [3]: df.isnull().sum()
```

```
Out[3]: 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
```

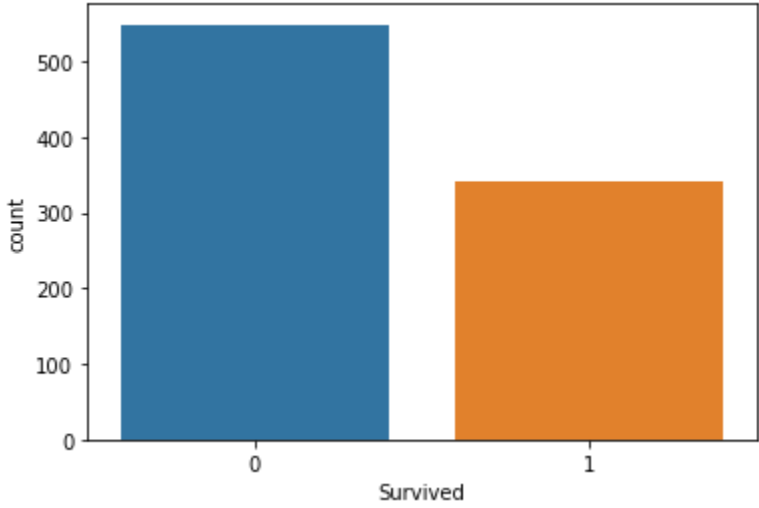
```
In [4]: df.shape
```

```
Out[4]: (891, 12)
```

```
In [5]: #Y vs X plots
sns.countplot('Survived',data=df)
plt.show()
```

C:\Users\ajays\anaconda3\lib\site-packages\seaborn_decorators.py:36: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.

```
warnings.warn(
```



OUT OF 891, ONLY 300+ COULD SURVIVE & MAJORITY COULD NOT

```
In [6]: df.groupby(['Sex','Survived'])['Survived'].count()
```

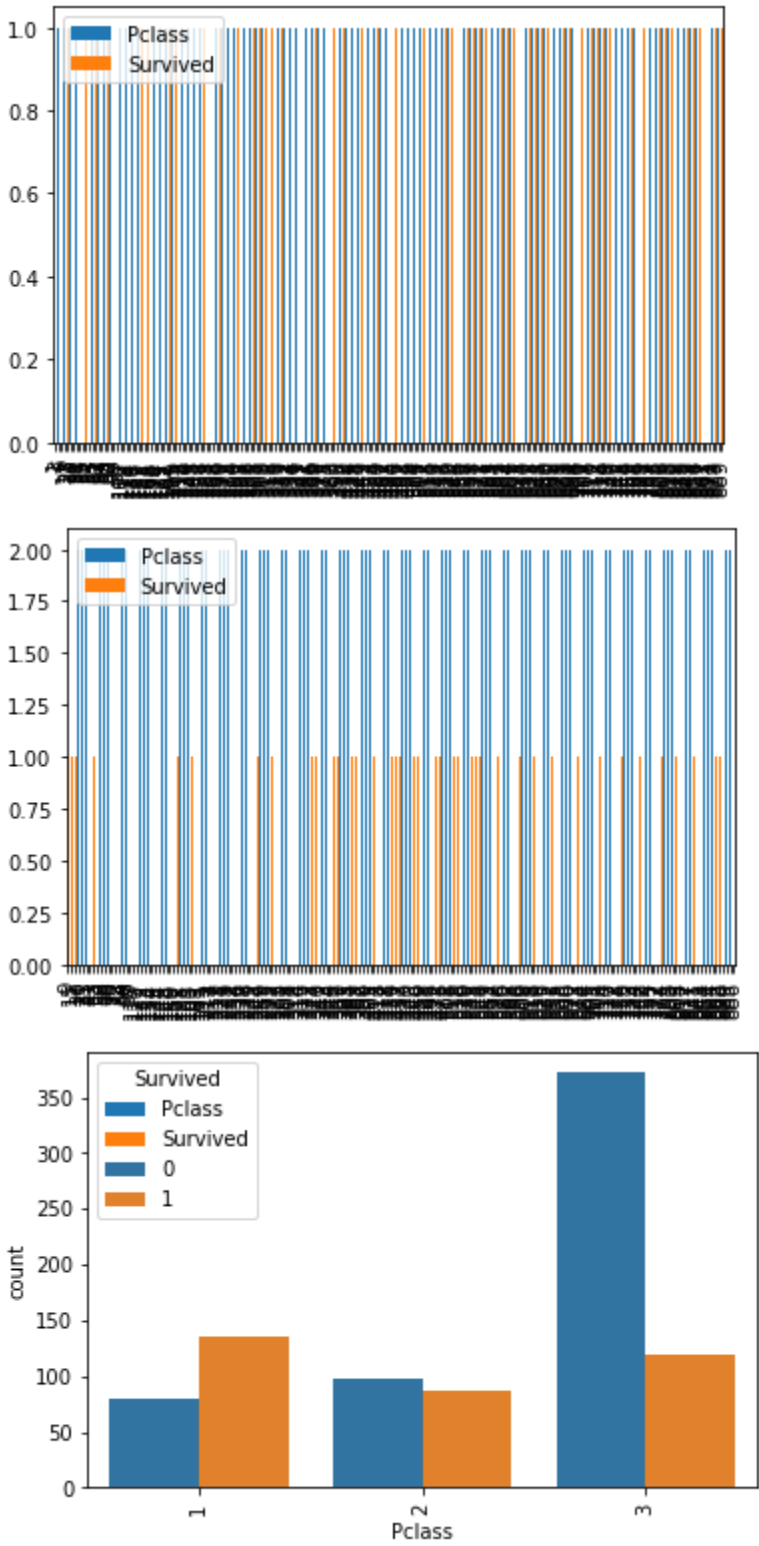
```
Out[6]: Sex      Survived
female  0           81
        1          233
male    0          468
        1          109
Name: Survived, dtype: int64
```

OUT of 314 female 233 could survive & among males out of 570+ only 109 could survive.So female survival rate is more than the males is this condition.

```
In [10]: df[['Pclass','Survived']].groupby(['Pclass']).plot.bar()
sns.countplot('Pclass', hue='Survived', data = df)
plt.show()
```

C:\Users\ajays\anaconda3\lib\site-packages\seaborn_decorators.py:36: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.

```
warnings.warn(
```



class 1 has the highest surviaval rate.In class2 survival rate is almost equal and the class3 has the very lowest survival rate.

```
In [ ]:
```