

```
In [6]: import pandas as pd
import numpy as np
import plotly.express as px
import seaborn as sb

titanic = pd.read_csv(r'C:/Users/Master/Desktop/Jupyter/titanic_data.csv')

titanic.describe()
```

Out[6]:

	PassengerId	Survived	Pclass	Age	SibSp	Parch	Fare
count	891.000000	891.000000	891.000000	714.000000	891.000000	891.000000	891.000000
mean	446.000000	0.383838	2.308642	29.699118	0.523008	0.381594	32.204208
std	257.353842	0.486592	0.836071	14.526497	1.102743	0.806057	49.693429
min	1.000000	0.000000	1.000000	0.420000	0.000000	0.000000	0.000000
25%	223.500000	0.000000	2.000000	20.125000	0.000000	0.000000	7.910400
50%	446.000000	0.000000	3.000000	28.000000	0.000000	0.000000	14.454200
75%	668.500000	1.000000	3.000000	38.000000	1.000000	0.000000	31.000000
max	891.000000	1.000000	3.000000	80.000000	8.000000	6.000000	512.329200

```
In [7]: titanic
```

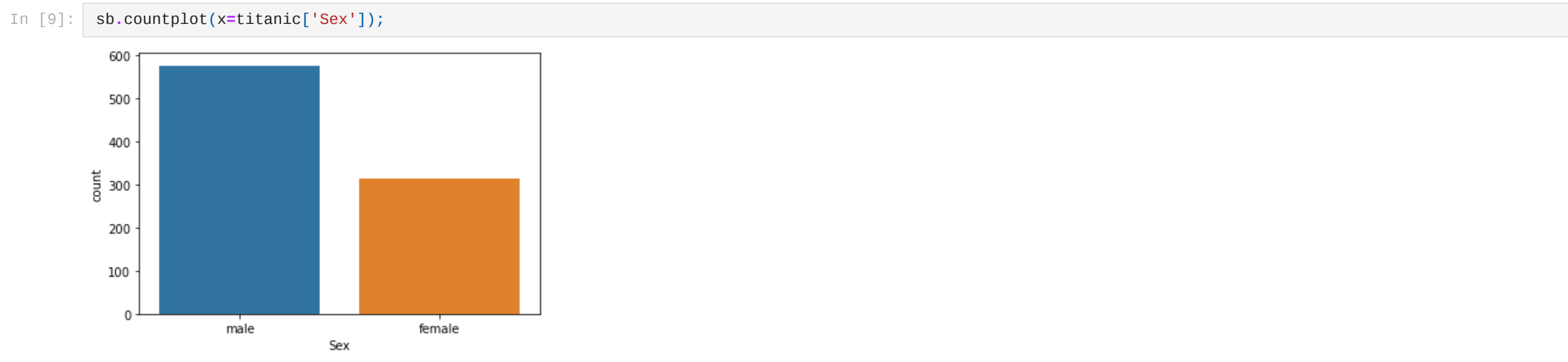
Out[7]:

	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	Cummings, 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
...	...	...	...	...	...	...	...	...	...	...	...	...
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	211536	13.0000	NaN	S
887	888	1	1	Graham, Miss. Margaret Edith	female	19.0	0	0	112053	30.0000	B42	S
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	W./C. 6607	23.4500	NaN	S
889	890	1	1	Behr, Mr. Karl Howell	male	26.0	0	0	111369	30.0000	C148	C
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	370376	7.7500	NaN	Q

891 rows × 12 columns

```
In [8]: np.unique(titanic['Sex'],return_counts=True)
```

Out[8]: (array(['female', 'male'], dtype=object), array([314, 577], dtype=int64))



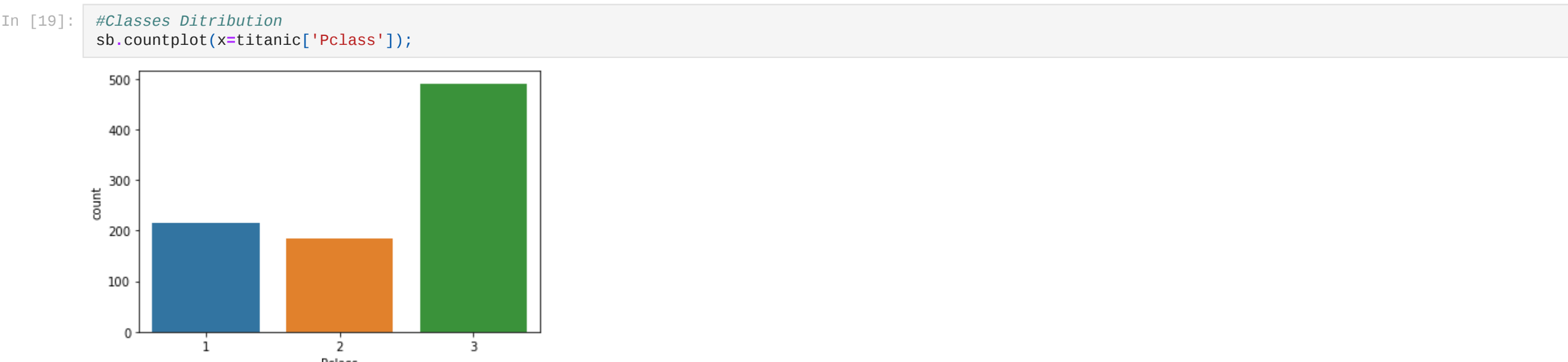
```
In [ ]:
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In [11]: titanic['Cabin'].isnull().sum()
```

Out[11]: 687

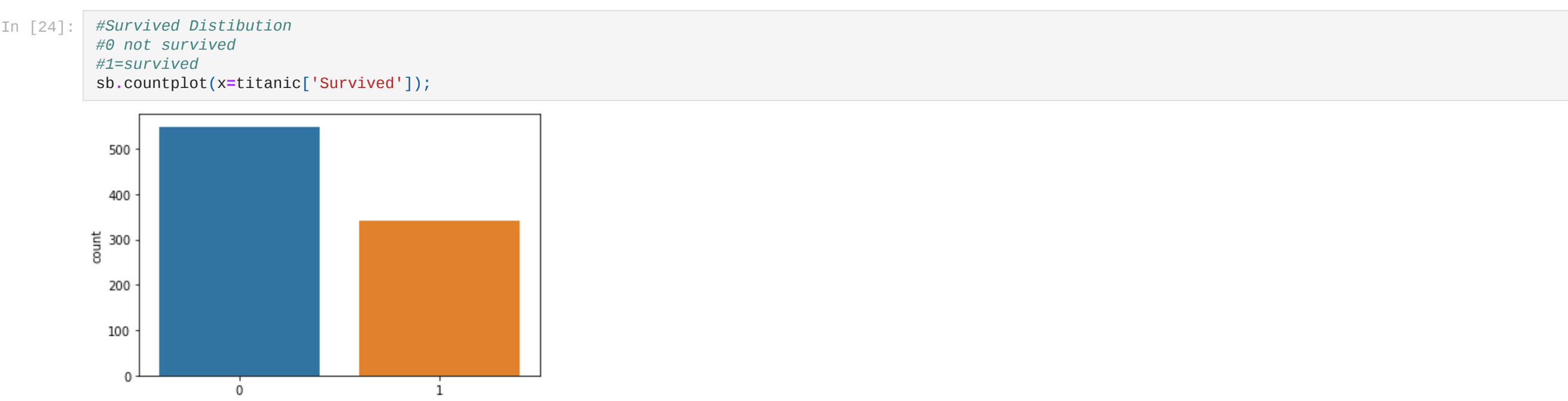
```
In [13]: np.unique(titanic['Pclass'],return_counts=True)
```

Out[13]: (array([1, 2, 3], dtype=int64), array([216, 184, 491], dtype=int64))



```
In [21]: np.unique(titanic['Survived'], return_counts=True)
```

Out[21]: (array([0, 1], dtype=int64), array([549, 342], dtype=int64))



```
In [29]: np.unique(titanic['Sex'],return_counts=True)
```

Out[29]: (array(['female', 'male'], dtype=object), array([314, 577], dtype=int64))

```
In [44]: titanic.query('Sex=="male" & Survived==0')
```

Out[44]:

	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
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	NaN	S
5	6	0	3	Moran, Mr. James	male	NaN	0	0	330877	8.4583	NaN	Q
6	7	0	1	McCarthy, Mr. Timothy J	male	54.0	0	0	17463	51.8625	E46	S
7	8	0	3	Palsson, Master. Gosta Leonard	male	2.0	3	1	349909	21.0750	NaN	S
...	...	...	...	...	...	...	...	...	...	...	...	...
881	882	0	3	Markun, Mr. Johann	male	33.0	0	0	349257	7.8958	NaN	S
883	884	0	2	Banfield, Mr. Frederick James	male	28.0	0	0	C.A./SOTON 34068	10.5000	NaN	S
884	885	0	3	Sutehall, Mr. Henry Jr	male	25.0	0	0	SOTON/OQ 392076	7.0500	NaN	S
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	211536	13.0000	NaN	S
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	370376	7.7500	NaN	Q

468 rows × 12 columns

```
In [55]: maleNOTsurvived = (468/577)*100
maleNOTsurvived
```

Out[55]: 81.10918544194108

```
In [53]: titanic.query('Sex=="female" & Survived==0')
```

Out[53]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
14	15	0	3	Vestrom, Miss. Hulda Amanda Adolfina	female	14.0	0	0	350406	7.8542	NaN	S
18	19	0	3	Vander Planke, Mrs. Julius (Emelia Maria Vande...	female	31.0	1	0	345763	18.0000	NaN	S
24	25	0	3	Palsson, Miss. Torborg Danira	female	8.0	3	1	349909	21.0750	NaN	S
38	39	0	3	Vander Planke, Miss. Augusta Maria	female	18.0	2	0	345764	18.0000	NaN	S
40	41	0	3	Ahlin, Mrs. Johan (Johanna Persdotter Larsson)	female	40.0	1	0	7546	9.4750	NaN	S
...	...	...	...	...	...	...	...	...	...	...	...	...
854	855	0	2	Carter, Mrs. Ernest Courtenay (Lilian Hughes)	female	44.0	1	0	244252	26.0000	NaN	S
863	864	0	3	Sage, Miss. Dorothy Edith "Dolly"	female	NaN	8	2	CA. 2343	69.5500	NaN	S
882	883	0	3	Dahlberg, Miss. Gerda Ulrika	female	22.0	0	0	7552	10.5167	NaN	S
885	886	0	3	Rice, Mrs. William (Margaret Norton)	female	39.0	0	5	382652	29.1250	NaN	Q
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	W./C. 6607	23.4500	NaN	S

81 rows × 12 columns

```
In [57]: womanNOTsurvived =(81/314)*100
womanNOTsurvived
```

Out[57]: 25.796178343949045

```
In [65]: firstNOTSuived = titanic.query('Pclass=="1" & Survived==0 ')
firstNOTSuived
```

Out[65]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
6	7	0	1	McCarthy, Mr. Timothy J	male	54.0	0	0	17463	51.8625	E46	S
27	28	0	1	Fortune, Mr. Charles Alexander	male	19.0	3	2	19950	263.0000	C23 C25 C27	S
30	31	0	1	Uruchurtu, Don. Manuel E	male	40.0	0	0	PC 17601	27.7208	NaN	C
34	35	0	1	Meyer, Mr. Edgar Joseph	male	28.0	1	0	PC 17604	82.1708	NaN	C
35	36	0	1	Holverson, Mr. Alexander Oskar	male	42.0	1	0	113789	52.0000	NaN	S
...	...	...	...	...	...	...	...	...	...	...	...	...
806	807	0	1	Andrews, Mr. Thomas Jr	male	39.0	0	0	112050	0.0000	A36	S
815	816	0	1	Fry, Mr. Richard	male	NaN	0	0	112058	0.0000	B102	S
822	823	0	1	Reuchlin, Jonkheer. John George	male	38.0	0	0	19972	0.0000	NaN	S
867	868	0	1	Roebling, Mr. Washington Augustus II	male	31.0	0	0	PC 17590	50.4958	A24	S
872	873	0	1	Carlsson, Mr. Frans Olof	male	33.0	0	0	695	5.0000	B51 B53 B55	S

80 rows × 12 columns

```
In [68]: np.unique(titanic['Pclass'],return_counts=True)
```

Out[68]: (array([1, 2, 3], dtype=int64), array([216, 184, 491], dtype=int64))

```
In [70]: FistNOTsurvived =(80/216)*100
FistNOTsurvived
```

Out[70]: 37.03703703703704

```
In [72]: SecondNOTSuived = titanic.query('Pclass=="2" & Survived==0 ')
SecondNOTSuived
```

Out[72]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
20	21	0	2	Fynney, Mr. Joseph J	male	35.0	0	0	239865	26.0	NaN	S
33	34	0	2	Wheadon, Mr. Edward H	male	66.0	0	0	C.A. 24579	10.5	NaN	S
41	42	0	2	Turpin, Mrs. William John Robert (Dorothy Ann ...	female	27.0	1	0	11668	21.0	NaN	S
70	71	0	2	Jenkin, Mr. Stephen Cunow	male	32.0	0	0	C.A. 33111	10.5	NaN	S
72	73	0	2	Hood, Mr. Ambrose Jr	male	21.0	0	0	S.O.C. 14879	73.5	NaN	S
...	...	...	...	...	...	...	...	...	...	...	...	...
854	855	0	2	Carter, Mrs. Ernest Courtenay (Lilian Hughes)	female	44.0	1	0	244252	26.0	NaN	S
861	862	0	2	Giles, Mr. Frederick Edward	male	21.0	1	0	28134	11.5	NaN	S
864	865	0	2	Gill, Mr. John William	male	24.0	0	0	233866	13.0	NaN	S
883	884	0	2	Banfield, Mr. Frederick James	male	28.0	0	0	C.A./SOTON 34068	10.5	NaN	S
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	211536	13.0	NaN	S

97 rows × 12 columns

```
In [74]: SecondNOTsurvived =(97/184)*100
SecondNOTsurvived
```

Out[74]: 52.71739130434783

```
In [76]: thirdNOTSuived = titanic.query('Pclass=="3" & Survived==0 ')
thirdNOTSuived
```

Out[76]:

	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
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	NaN	S
5	6	0	3	Moran, Mr. James	male	NaN	0	0	330877	8.4583	NaN	Q
7	8	0	3	Palsson, Master. Gosta Leonard	male	2.0	3	1	349909	21.0750	NaN	S
12	13	0	3	Saunderscock, Mr. William Henry	male	20.0	0	0	A/5. 2151	8.0500	NaN	S
...	...	...	...	...	...	...	...	...	...	...	...	...
882	883	0	3	Dahlberg, Miss. Gerda Ulrika	female	22.0	0	0	7552	10.5167	NaN	S
884	885	0	3	Sutehall, Mr. Henry Jr	male	25.0	0	0	SOTON/OQ 392076	7.0500	NaN	S
885	886	0	3	Rice, Mrs. William (Margaret Norton)	female	39.0	0	5	382652	29.1250	NaN	Q
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	W./C. 6607	23.4500	NaN	S
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	370376	7.7500	NaN	Q

372 rows × 12 columns

```
In [78]: thirdNOTsurvived =(97/184)*100
thirdNOTsurvived
```

Out[78]: 52.71739130434783

```
In [89]: NotSurvived = {'passager':['First Class','Second Class','Third Class'], 'NotSuived':[FistNOTsurvived,SecondNOTSuived,thirdNOTsurvived]}
dataframe = pd.DataFrame(NotSurvived)
dataframe
```

Out[89]:

	passager	NotSuived
0	First Class	37.037
1	Second Class	PassengerId Survived Pclass \ 20 ...
2	Third Class	52.7174

```
In [ ]:
```