In [6]:
```python
import pandas as pd
import numpy as np

df= pd.read_csv("C:\\Users\\Admin\\Downloads\\train-200907-141856 (1).csv")
```

In [7]:
```python
df.head ()
```

Out[7]:

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

In [9]:
```python
df['Name']
```

Out[9]:
```
0                               Braund, Mr. Owen Harris
1       Cumings, Mrs. John Bradley (Florence Briggs Th...
2                                Heikkinen, Miss. Laina
3         Futrelle, Mrs. Jacques Heath (Lily May Peel)
4                              Allen, Mr. William Henry
                             ...
886                                Montvila, Rev. Juozas
887                        Graham, Miss. Margaret Edith
888            Johnston, Miss. Catherine Helen "Carrie"
889                              Behr, Mr. Karl Howell
890                                 Dooley, Mr. Patrick
Name: Name, Length: 891, dtype: object
```

In [10]:
```python
df['Name'].head()
```

Out[10]:
```
0                               Braund, Mr. Owen Harris
1       Cumings, Mrs. John Bradley (Florence Briggs Th...
```

```
2                          Heikkinen, Miss. Laina
3         Futrelle, Mrs. Jacques Heath (Lily May Peel)
4                          Allen, Mr. William Henry
Name: Name, dtype: object
```

In [11]:
```python
df['Age'].max()
```

Out[11]: 80.0

In [12]:
```python
df['Age'].mean()
```

Out[12]: 29.69911764705882

In [13]:
```python
df['Fare'].mean()
```

Out[13]: 32.2042079685746

In [14]:
```python
df.loc[0:15,'Name']
```

Out[14]:
```
0                          Braund, Mr. Owen Harris
1      Cumings, Mrs. John Bradley (Florence Briggs Th...
2                          Heikkinen, Miss. Laina
3         Futrelle, Mrs. Jacques Heath (Lily May Peel)
4                          Allen, Mr. William Henry
5                                 Moran, Mr. James
6                          McCarthy, Mr. Timothy J
7                    Palsson, Master. Gosta Leonard
8      Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)
9               Nasser, Mrs. Nicholas (Adele Achem)
10              Sandstrom, Miss. Marguerite Rut
11                     Bonnell, Miss. Elizabeth
12              Saundercock, Mr. William Henry
13                     Andersson, Mr. Anders Johan
14              Vestrom, Miss. Hulda Amanda Adolfina
15                     Hewlett, Mrs. (Mary D Kingcome)
Name: Name, dtype: object
```

In [15]:
```python
df.loc[0:15,'Name':'Embarked']
```

Out[15]:

	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C123	S
4	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	NaN	S
5	Moran, Mr. James	male	NaN	0	0	330877	8.4583	NaN	Q

	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
6	McCarthy, Mr. Timothy J	male	54.0	0	0	17463	51.8625	E46	S
7	Palsson, Master. Gosta Leonard	male	2.0	3	1	349909	21.0750	NaN	S
8	Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)	female	27.0	0	2	347742	11.1333	NaN	S
9	Nasser, Mrs. Nicholas (Adele Achem)	female	14.0	1	0	237736	30.0708	NaN	C
10	Sandstrom, Miss. Marguerite Rut	female	4.0	1	1	PP 9549	16.7000	G6	S
11	Bonnell, Miss. Elizabeth	female	58.0	0	0	113783	26.5500	C103	S
12	Saundercock, Mr. William Henry	male	20.0	0	0	A/5. 2151	8.0500	NaN	S
13	Andersson, Mr. Anders Johan	male	39.0	1	5	347082	31.2750	NaN	S
14	Vestrom, Miss. Hulda Amanda Adolfina	female	14.0	0	0	350406	7.8542	NaN	S
15	Hewlett, Mrs. (Mary D Kingcome)	female	55.0	0	0	248706	16.0000	NaN	S

In [17]:
```python
df.iloc[0:15,0:4]
```

Out[17]:

	PassengerId	Survived	Pclass	Name
0	1	0	3	Braund, Mr. Owen Harris
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...
2	3	1	3	Heikkinen, Miss. Laina
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)
4	5	0	3	Allen, Mr. William Henry
5	6	0	3	Moran, Mr. James
6	7	0	1	McCarthy, Mr. Timothy J
7	8	0	3	Palsson, Master. Gosta Leonard
8	9	1	3	Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)
9	10	1	2	Nasser, Mrs. Nicholas (Adele Achem)
10	11	1	3	Sandstrom, Miss. Marguerite Rut
11	12	1	1	Bonnell, Miss. Elizabeth
12	13	0	3	Saundercock, Mr. William Henry
13	14	0	3	Andersson, Mr. Anders Johan
14	15	0	3	Vestrom, Miss. Hulda Amanda Adolfina

In [20]:
```python
df[df['Age']==df['Age'].max()]
```

Out[20]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarke
630	631	1	1	Barkworth, Mr. Algernon Henry Wilson	male	80.0	0	0	27042	30.0	A23	

In [21]:
```python
df.sort_values(by='Age',ascending=True).head()
```

Out[21]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	E
803	804	1	3	Thomas, Master. Assad Alexander	male	0.42	0	1	2625	8.5167	NaN	
755	756	1	2	Hamalainen, Master. Viljo	male	0.67	1	1	250649	14.5000	NaN	
644	645	1	3	Baclini, Miss. Eugenie	female	0.75	2	1	2666	19.2583	NaN	
469	470	1	3	Baclini, Miss. Helene Barbara	female	0.75	2	1	2666	19.2583	NaN	
78	79	1	2	Caldwell, Master. Alden Gates	male	0.83	0	2	248738	29.0000	NaN	

In [23]:
```python
df.sort_values(by=['Name','Age'],ascending=[True,False]).head()
```

Out[23]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embar
845	846	0	3	Abbing, Mr. Anthony	male	42.0	0	0	C.A. 5547	7.55	NaN	
746	747	0	3	Abbott, Mr. Rossmore Edward	male	16.0	1	1	C.A. 2673	20.25	NaN	
279	280	1	3	Abbott, Mrs. Stanton (Rosa Hunt)	female	35.0	1	1	C.A. 2673	20.25	NaN	

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embark
308	309	0	2	Abelson, Mr. Samuel	male	30.0	1	0	P/PP 3381	24.00	NaN	
874	875	1	2	Abelson, Mrs. Samuel (Hannah Wizosky)	female	28.0	1	0	P/PP 3381	24.00	NaN	

In [25]:
```python
new={'male':0,'female':1}
df['Sex']=df['Sex'].map(new)
df.head()
```

Out[25]:

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

In [26]:
```python
old={'male':0,'female':1}
df.replace({'Sex':old})
df.head()
```

Out[26]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embar
0	1	0	3	Braund, Mr. Owen Harris	0	22.0	1	0	A/5 21171	7.2500	NaN	

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

In [27]:
```python
df.groupby(by='Survived')['Age'].describe()
```

Out[27]:

Survived	count	mean	std	min	25%	50%	75%	max
0	424.0	30.626179	14.172110	1.00	21.0	28.0	39.0	74.0
1	290.0	28.343690	14.950952	0.42	19.0	28.0	36.0	80.0

In [29]:
```python
pd.crosstab(df["Sex"],df['Survived'], normalize=True)
```

Out[29]:

Survived	0	1
Sex		
0	0.525253	0.122334
1	0.090909	0.261504

In [ ]: