The Challenge The sinking of the Titanic is one of the most infamous shipwrecks in history.

On April 15, 1912, during her maiden voyage, the widely considered "unsinkable" RMS Titanic sank after colliding with an iceberg. Unfortunately, there weren't enough lifeboats for everyone onboard, resulting in the death of 1502 out of 2224 passengers and crew.

While there was some element of luck involved in surviving, it seems some groups of people were more likely to survive than others.

In this challenge, we ask you to build a predictive model that answers the question: "what sorts of people were more likely to survive?" using passenger data (ie name, age, gender, socio-economic class, etc).

```python
import pandas as pd
from matplotlib import pyplot as plt
import numpy as np
import seaborn as sns
```

In [ ]: ```python
titanic=pd.read_csv("/content/sample_data/titanic_train.csv") #Reading the l
titanic
```

Out[2]:

| | PassengerId | Survived | Pclass | Name | Sex | Age | SibSp | Parch | Ticket | Far |
|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 1 | 0 | 3 | Braund, Mr. Owen Harris | male | 22.0 | 1 | 0 | A/5 21171 | 7.250 |
| **1** | 2 | 1 | 1 | Cumings, Mrs. John Bradley (Florence Briggs Th... | female | 38.0 | 1 | 0 | PC 17599 | 71.283 |
| **2** | 3 | 1 | 3 | Heikkinen, Miss. Laina | female | 26.0 | 0 | 0 | STON/O2. 3101282 | 7.925 |
| **3** | 4 | 1 | 1 | Futrelle, Mrs. Jacques Heath (Lily May Peel) | female | 35.0 | 1 | 0 | 113803 | 53.100 |
| **4** | 5 | 0 | 3 | Allen, Mr. William Henry | male | 35.0 | 0 | 0 | 373450 | 8.050 |
| **...** | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| **886** | 887 | 0 | 2 | Montvila, Rev. Juozas | male | 27.0 | 0 | 0 | 211536 | 13.000 |
| **887** | 888 | 1 | 1 | Graham, Miss. Margaret Edith | female | 19.0 | 0 | 0 | 112053 | 30.000 |
| **888** | 889 | 0 | 3 | Johnston, Miss. Catherine Helen "Carrie" | female | NaN | 1 | 2 | W./C. 6607 | 23.450 |
| **889** | 890 | 1 | 1 | Behr, Mr. Karl Howell | male | 26.0 | 0 | 0 | 111369 | 30.000 |
| **890** | 891 | 0 | 3 | Dooley, Mr. Patrick | male | 32.0 | 0 | 0 | 370376 | 7.750 |

891 rows × 12 columns

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In [ ]: ```python
titanic.shape
```

Out[3]: (891, 12)

survival- Survival 0 = No, 1 = Yes pclass- Ticket class 1 = 1st, 2 = 2nd, 3 = 3rd sex- Sex Age- Age in years sibsp# of siblings / spouses aboard the Titanic parch# of parents / children aboard the Titanic ticket- Ticket number fare- Passenger fare cabin- Cabin number embarked- Port of Embarkation C = Cherbourg, Q = Queenstown, S = Southampton

In [ ]: `titanic.size`

Out[4]: 10692

In [ ]: `titanic.ndim`

Out[5]: 2

In [ ]: `titanic.dtypes`

Out[6]:
```
PassengerId      int64
Survived         int64
Pclass           int64
Name            object
Sex             object
Age            float64
SibSp            int64
Parch            int64
Ticket          object
Fare           float64
Cabin           object
Embarked        object
dtype: object
```

In [ ]: `titanic.describe()`

Out[7]:

	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 [ ]: titanic.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
```

Pulling Unique Values

```
In [ ]: titanic.nunique()
```

```
Out[9]: PassengerId    891
        Survived         2
        Pclass           3
        Name           891
        Sex              2
        Age             88
        SibSp            7
        Parch            7
        Ticket         681
        Fare           248
        Cabin          147
        Embarked         3
        dtype: int64
```

```
In [ ]: titanic["Pclass"].unique()
```

```
Out[10]: array([3, 1, 2])
```

```
In [ ]: titanic["Embarked"].unique()
```

```
Out[11]: array(['S', 'C', 'Q', nan], dtype=object)
```

```
In [ ]: titanic["SibSp"].unique()
```

```
Out[12]: array([1, 0, 3, 4, 2, 5, 8])
```

```
In [ ]: titanic["Survived"].unique()
```

```
Out[13]: array([0, 1])
```

In [ ]: `titanic["Sex"].unique()`

Out[14]: `array(['male', 'female'], dtype=object)`

Check Duplicates

In [ ]: `titanic.duplicated()`

Out[15]:
```
0      False
1      False
2      False
3      False
4      False
       ...
886    False
887    False
888    False
889    False
890    False
Length: 891, dtype: bool
```

In [ ]: `titanic.duplicated().sum()` *#because we don't have any duplicate values with*

Out[16]: `0`

#check Missing Values/ Missing Value handling

In [ ]: `titanic.isnull()`

Out[17]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin
0	False	False	False	False	False	False	False	False	False	False	True
1	False	False	False	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False	False	False	True
3	False	False	False	False	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False	False	False	False	True
...	...	...	...	...	...	...	...	...	...	...	...
886	False	False	False	False	False	False	False	False	False	False	True
887	False	False	False	False	False	False	False	False	False	False	False
888	False	False	False	False	False	True	False	False	False	False	True
889	False	False	False	False	False	False	False	False	False	False	False
890	False	False	False	False	False	False	False	False	False	False	True

891 rows × 12 columns

In [ ]: `titanic.isnull().sum() #total Null values or Missing Values.`

Out[18]:
```
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 [ ]: `titanic=titanic.drop(['Cabin'],axis=1)`

In [ ]: `titanic`

Out[20]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fa
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.250
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.283
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.925
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.100
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.050
...	...	...	...	...	...	...	...	...	...	
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	211536	13.000
887	888	1	1	Graham, Miss. Margaret Edith	female	19.0	0	0	112053	30.000
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	W./C. 6607	23.450
889	890	1	1	Behr, Mr. Karl Howell	male	26.0	0	0	111369	30.000
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	370376	7.750

891 rows × 11 columns

In [ ]:
```python
age_avg=titanic.Age.mean()
print(age_avg)
```

29.69911764705882

In [ ]:
```python
titanic["Age"].replace(np.nan,age_avg,inplace=True)
```

In [ ]: `titanic.isnull().sum()`

Out[23]:
```
PassengerId    0
Survived       0
Pclass         0
Name           0
Sex            0
Age            0
SibSp          0
Parch          0
Ticket         0
Fare           0
Embarked       2
dtype: int64
```

In [ ]: `#for categorical Column(String Data)-> mode/frequency`

In [ ]: `fiq=titanic.Embarked.dropna().mode()[0]`

In [ ]: `print(fiq)`

```
S
```

In [ ]: `titanic.Embarked.replace(np.nan,fiq,inplace=True)`

In [ ]: `titanic.isnull().sum() #missing data handlings`

Out[28]:
```
PassengerId    0
Survived       0
Pclass         0
Name           0
Sex            0
Age            0
SibSp          0
Parch          0
Ticket         0
Fare           0
Embarked       0
dtype: int64
```

In [ ]: `titanic.head()`

Out[29]:

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

Checking Dead and survived

In [ ]:
```
plt.figure(dpi=50)
sns.countplot(x="Survived",data=titanic)
```

Out[30]: `<Axes: xlabel='Survived', ylabel='count'>`
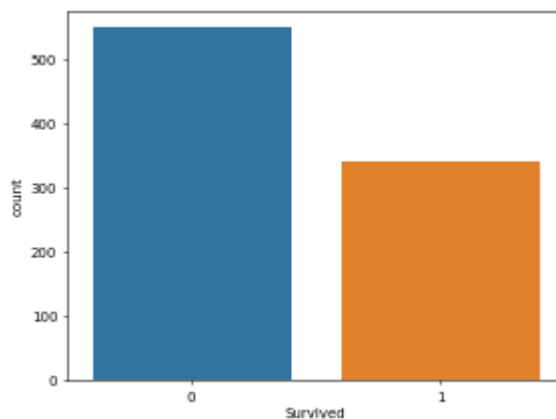
In [ ]: `titanic["Survived"].value_counts()`

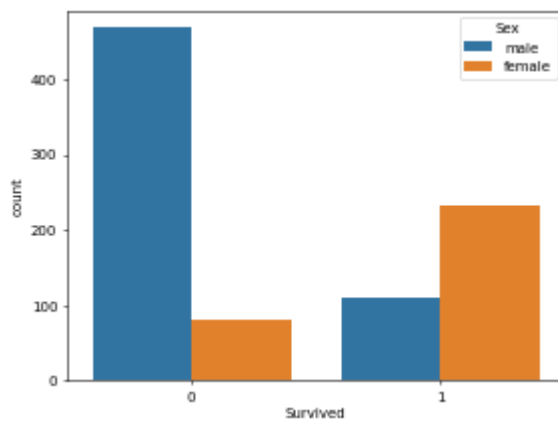Out[31]:
```
0    549
1    342
Name: Survived, dtype: int64
```

In [ ]:
```python
plt.figure(dpi=50)
sns.countplot(x="Sex",data=titanic) #according to Male and Female
```

Out[32]: <Axes: xlabel='Sex', ylabel='count'>
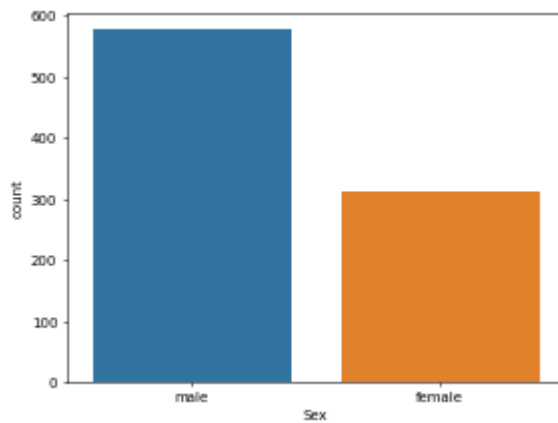
In [ ]:
```python
plt.figure(dpi=50) #according to the male female and total survival Totled
sns.countplot(x="Survived",hue="Sex",data=titanic)
```

Out[33]: <Axes: xlabel='Survived', ylabel='count'>

In [ ]:
```python
#plt.figure(dpi=50) #flitering the data
men_survival=titanic[titanic.Sex=="male"]["Survived"].count() #how many mal
print(men_survival)
```

577

In [ ]:
```python
#filetering
```

In [ ]:
```python
#survial rate for male.
```

```python
men_survival=titanic[titanic.Sex=="male"]["Survived"] #females are excluded
men_survival_rate=sum(men_survival)/len(men_survival)*100
print(sum(men_survival))
print(men_survival)
print(men_survival_rate)
```

```
109
0      0
4      0
5      0
6      0
7      0
      ..
883    0
884    0
886    0
889    1
890    0
Name: Survived, Length: 577, dtype: int64
18.890814558058924
```

In [ ]:
```python
titanic[(titanic.Sex=="male")&(titanic.Survived==1)].count() #total number
```

Out[38]:
```
PassengerId    109
Survived       109
Pclass         109
Name           109
Sex            109
Age            109
SibSp          109
Parch          109
Ticket         109
Fare           109
Embarked       109
dtype: int64
```

In [ ]:
```python
len(titanic[(titanic.Sex=="male")&(titanic.Survived==1)]) #find total survi
```

Out[39]: 109

```
In [ ]: female_survival=titanic[titanic.Sex=="female"]["Survived"] #males are exclu
        female_survival_rate=sum(female_survival)/len(female_survival)*100
        print(female_survival)
        print(sum(female_survival))
        print(female_survival_rate)
```

```
1      1
2      1
3      1
8      1
9      1
      ..
880    1
882    0
885    0
887    1
888    0
Name: Survived, Length: 314, dtype: int64
233
74.20382165605095
```

GroupBy

```
In [ ]: res=titanic.groupby("Sex")["Survived"].value_counts() #use of groupby to ge
        print(res)
```

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

```
In [ ]: res=titanic.groupby("Sex")["Survived"].value_counts(normalize=True) # give
        print(res)
```

```
Sex     Survived
female  1           0.742038
        0           0.257962
male    0           0.811092
        1           0.188908
Name: Survived, dtype: float64
```

```
In [ ]: print("percentage of Women survived",res[0]*100) #female survived
```

```
percentage of Women survived 74.20382165605095
```

```
In [ ]: print("percentage of Women not survived",res[1]*100)# female Not Survived
```

```
percentage of Women not survived 25.796178343949045
```

```
In [ ]: print("percentage of Men survived",res[2]*100) #Male Survived
```

```
percentage of Men survived 81.10918544194108
```

```
In [ ]:  print("percentage of Men notsurvived",res[3]*100) #male not survived
```
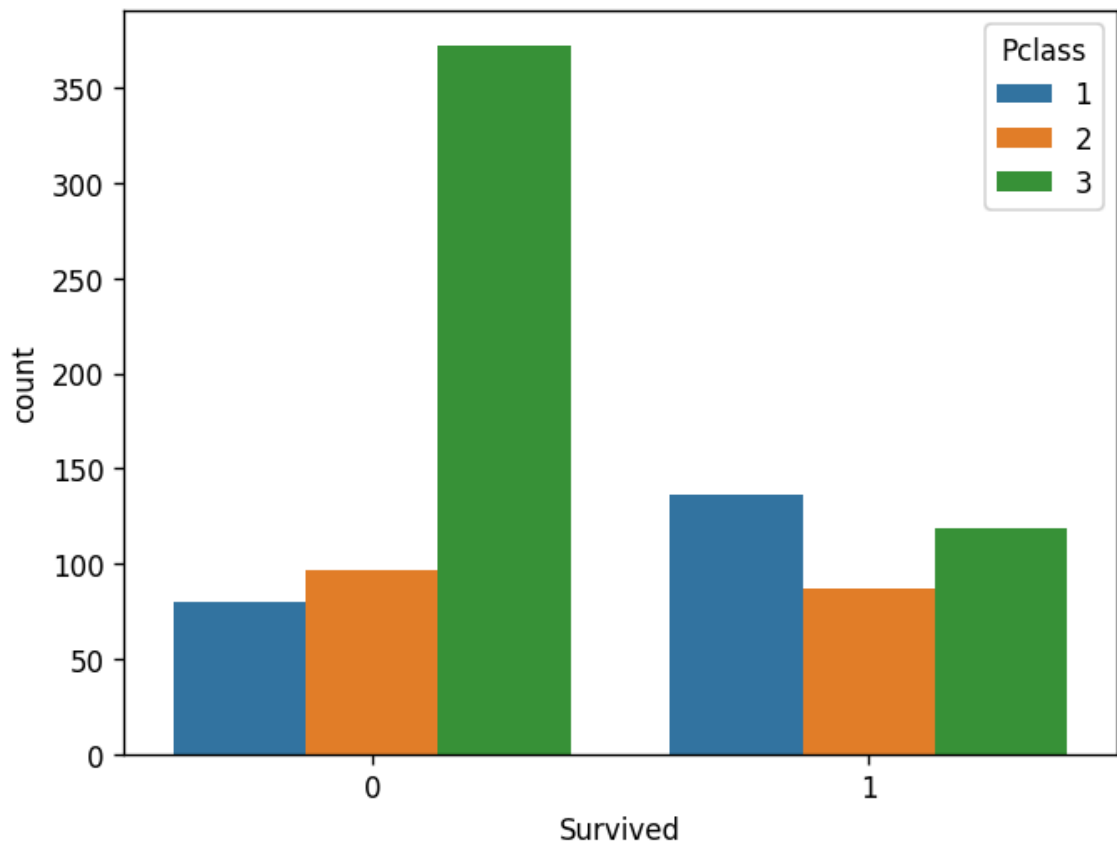
percentage of Men notsurvived 18.890814558058924

Survival Rate Based on Passanger class

Survived vs Pclass

```
In [ ]:  plt.figure(dpi=120)
         sns.countplot(x="Survived",hue="Pclass",data=titanic)
```

Out[47]: <Axes: xlabel='Survived', ylabel='count'>


```
In [ ]:  res1=titanic.groupby("Pclass")["Survived"].value_counts(normalize=True)
         print(res1)
```

```
Pclass  Survived
1       1           0.629630
        0           0.370370
2       0           0.527174
        1           0.472826
3       0           0.757637
        1           0.242363
Name: Survived, dtype: float64
```

In [ ]:
```python
res1=titanic.groupby("Pclass")["Survived"].value_counts()
print(res1)
```

```
Pclass  Survived
1       1         136
        0          80
2       0          97
        1          87
3       0         372
        1         119
Name: Survived, dtype: int64
```

In [ ]:
```python
print("percentage Not survival of class1",res1[1][0]*100)
print("percentage survival of class1",res1[1][1]*100)
```

```
percentage Not survival of class1 37.03703703703704
percentage survival of class1 62.96296296296296
```

In [ ]:
```python
print("percentage Not survival of class2",res1[2][0]*100)
print("percentage survival of class2",res1[2][1]*100)
```

```
percentage Not survival of class2 52.71739130434783
percentage survival of class2 47.28260869565217
```

In [ ]:
```python
print("percentage Not survival of class3",res1[3][0]*100)
print("percentage survival of class3",res1[3][1]*100)
```

```
percentage Not survival of class3 75.76374745417516
percentage survival of class3 24.236252545824847
```

In [ ]:
```python
total_survived=titanic[titanic.Pclass==1]["Survived"] #total people with Pc
total_survival_rate=sum(total_survived)/len(total_survived)*100 #percentage
print(len(total_survived)) #len of Pclass 1
print(sum(total_survived)) #sum of total survival people
print(total_survival_rate) #percentage of all survived people from Pclass 1
```

```
216
136
62.96296296296296
```

In [ ]:
```python
total_survived=titanic[titanic.Pclass==2]["Survived"]
total_survival_rate=sum(total_survived)/len(total_survived)*100
print(len(total_survived))
print(sum(total_survived))
print(total_survival_rate)
```
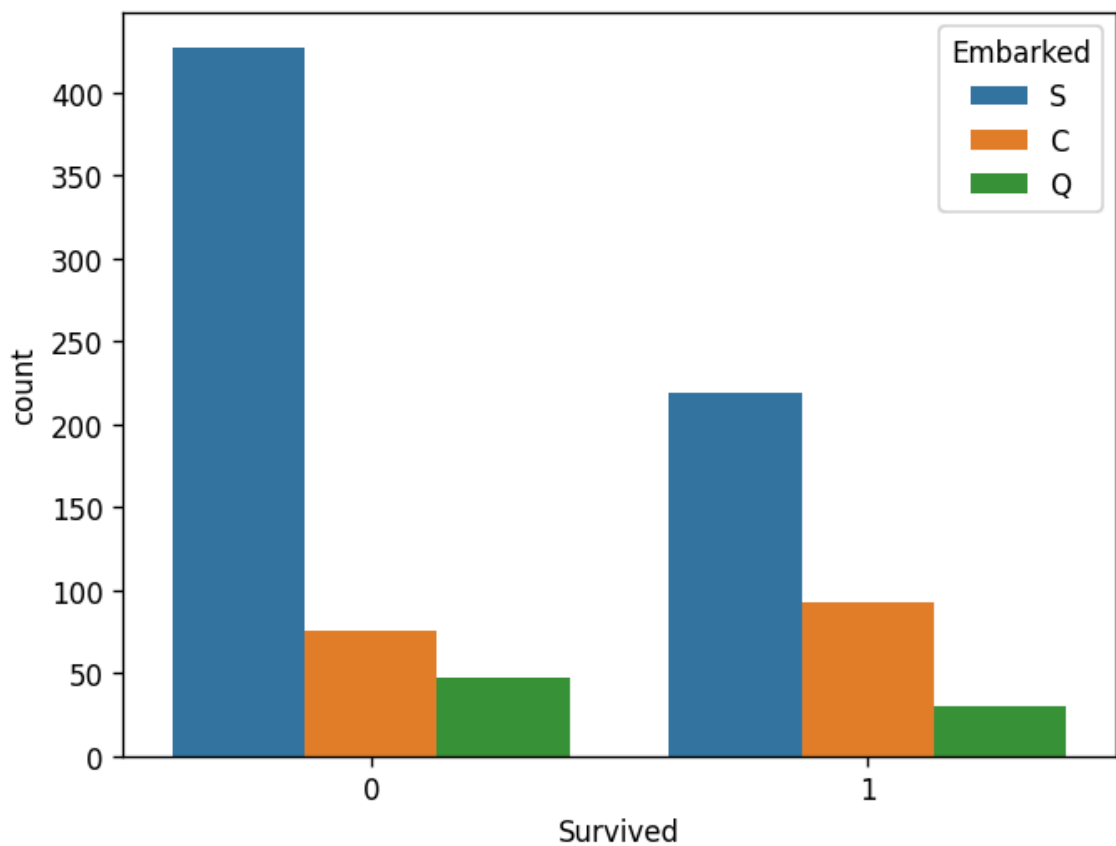
```
184
87
47.28260869565217
```

```python
In [ ]: total_survived=titanic[titanic.Pclass==3]["Survived"]
        total_survival_rate=sum(total_survived)/len(total_survived)*100
        print(len(total_survived))
        print(sum(total_survived))
        print(total_survival_rate)
```

```
491
119
24.236252545824847
```

Survival Based on Embarked

```python
In [ ]: plt.figure(dpi=120)
        sns.countplot(x="Survived",hue="Embarked",data=titanic)
```

Out[56]: <Axes: xlabel='Survived', ylabel='count'>


```python
In [ ]: titanic["Embarked"].value_counts()
```

```
Out[94]: S    646
         C    168
         Q     77
         Name: Embarked, dtype: int64
```

```
In [ ]: total_survived=titanic[titanic.Embarked=="S"]["Survived"]
        total_survival_rate=sum(total_survived)/len(total_survived)*100
        print(len(total_survived))
        print(sum(total_survived))
        print(total_survival_rate)
```

```
646
219
33.90092879256966
```

```
In [ ]: total_survived=titanic[titanic.Embarked=="C"]["Survived"]
        total_survival_rate=sum(total_survived)/len(total_survived)*100
        print(len(total_survived))
        print(sum(total_survived))
        print(total_survival_rate)
```

```
168
93
55.35714285714286
```

```
In [ ]: total_survived=titanic[titanic.Embarked=="Q"]["Survived"]
        total_survival_rate=sum(total_survived)/len(total_survived)*100
        print(len(total_survived))
        print(sum(total_survived))
        print(total_survival_rate)
```

```
77
30
38.961038961038966
```

```
In [ ]: res2=titanic.groupby("Embarked")["Survived"].value_counts()
        print(res2)
```

```
Embarked  Survived
C         1            93
          0            75
Q         0            47
          1            30
S         0           427
          1           219
Name: Survived, dtype: int64
```

```
In [ ]: res2=titanic.groupby("Embarked")["Survived"].count()
        print(res2)
```

```
Embarked
C    168
Q     77
S    646
Name: Survived, dtype: int64
```
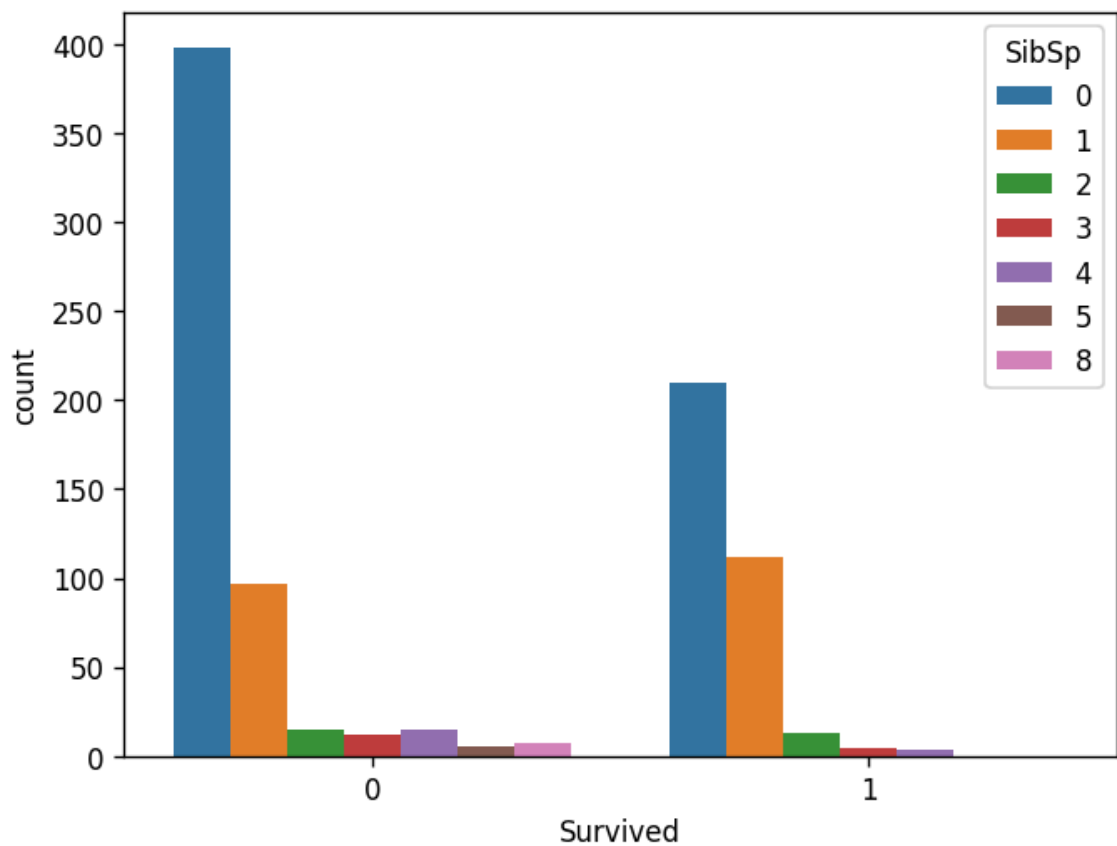
In [ ]:
```python
res2=titanic.groupby("Embarked")["Survived"].value_counts(normalize=True)
print(res2)
```

```
Embarked  Survived
C         1          0.553571
          0          0.446429
Q         0          0.610390
          1          0.389610
S         0          0.660991
          1          0.339009
Name: Survived, dtype: float64
```

Survival Based SibSp

In [ ]:
```python
plt.figure(dpi=120)
sns.countplot(x="Survived",hue="SibSp",data=titanic)
```

Out[62]: <Axes: xlabel='Survived', ylabel='count'>

In [ ]:
```python
res3=titanic.groupby("SibSp")["Survived"].value_counts()
print(res3)
```

```
SibSp  Survived
0      0           398
       1           210
1      1           112
       0            97
2      0            15
       1            13
3      0            12
       1             4
4      0            15
       1             3
5      0             5
8      0             7
Name: Survived, dtype: int64
```

In [ ]:
```python
res3=titanic.groupby("SibSp")["Survived"].value_counts(normalize=True)
print(res3)
```

```
SibSp  Survived
0      0           0.654605
       1           0.345395
1      1           0.535885
       0           0.464115
2      0           0.535714
       1           0.464286
3      0           0.750000
       1           0.250000
4      0           0.833333
       1           0.166667
5      0           1.000000
8      0           1.000000
Name: Survived, dtype: float64
```
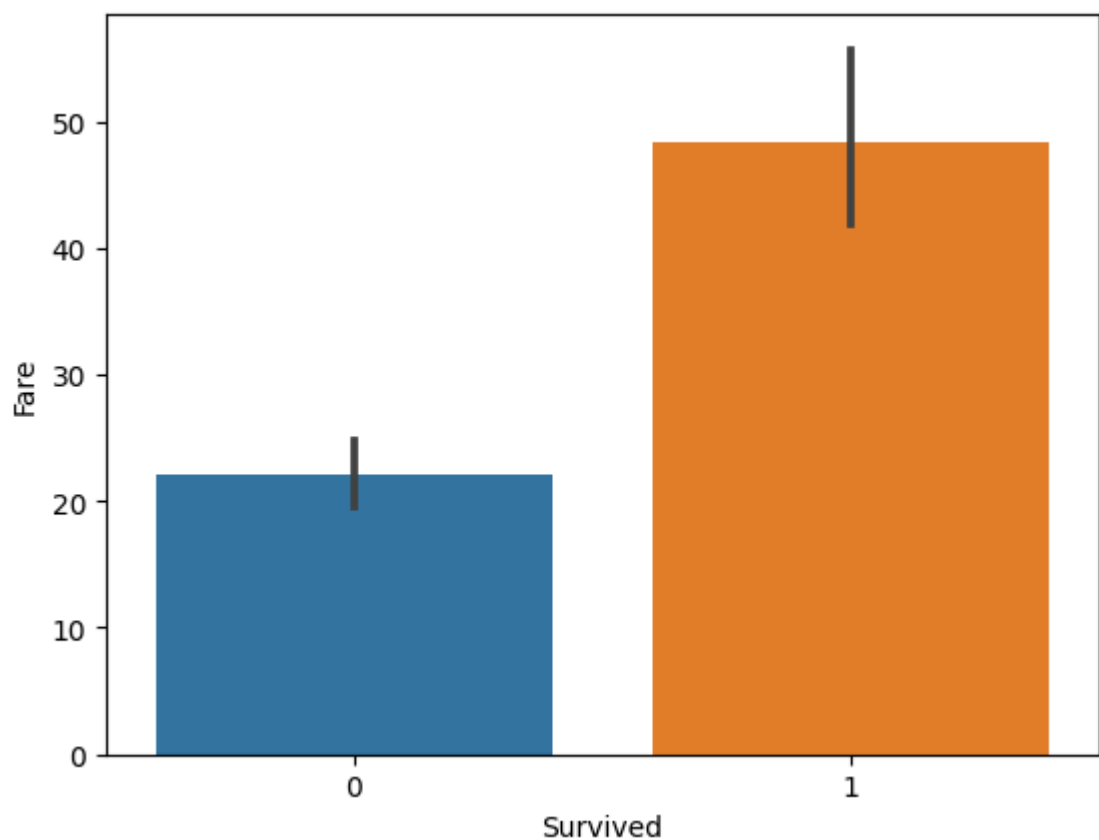
Survial based on Fare

In [ ]:
```python
plt.figure(dpi=50)
sns.countplot(x="Survived",hue="Fare",data=titanic) #count plot will not wo
```
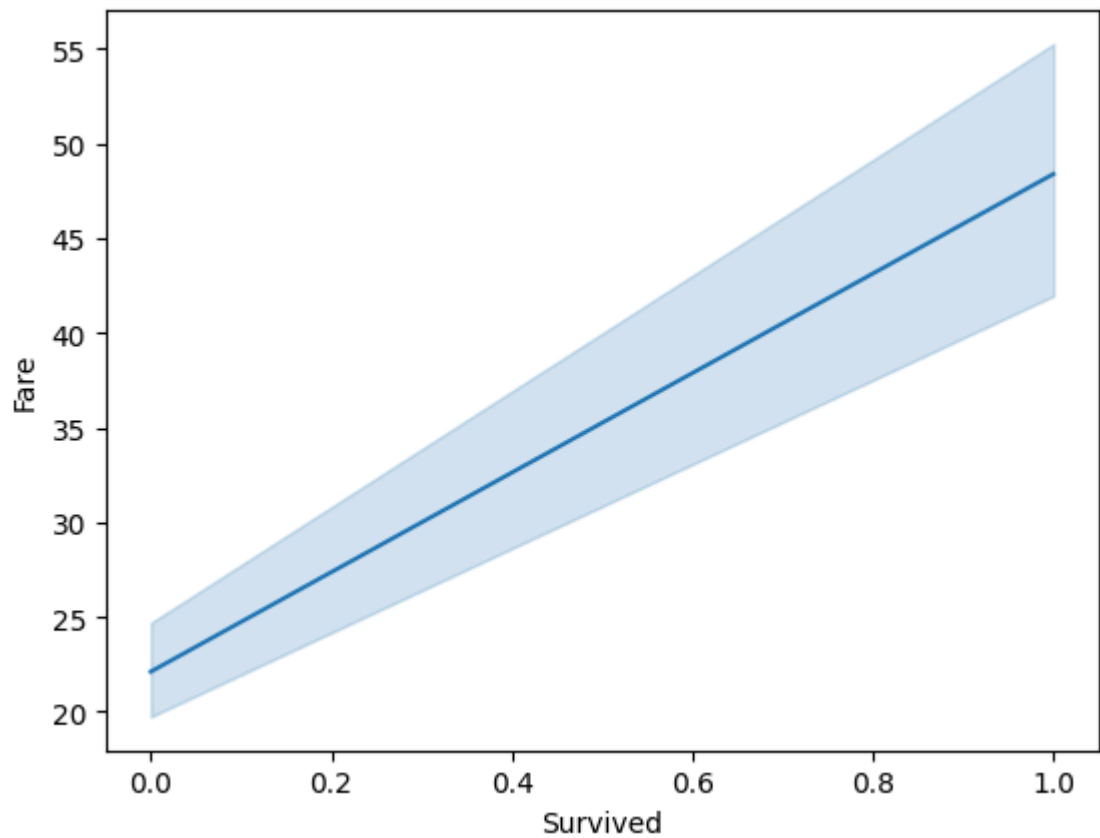
Out[65]: <Axes: xlabel='Survived', ylabel='count'>

In [ ]:
```python
plt.figure(dpi=100)
sns.barplot(x="Survived",y="Fare",data=titanic)
```
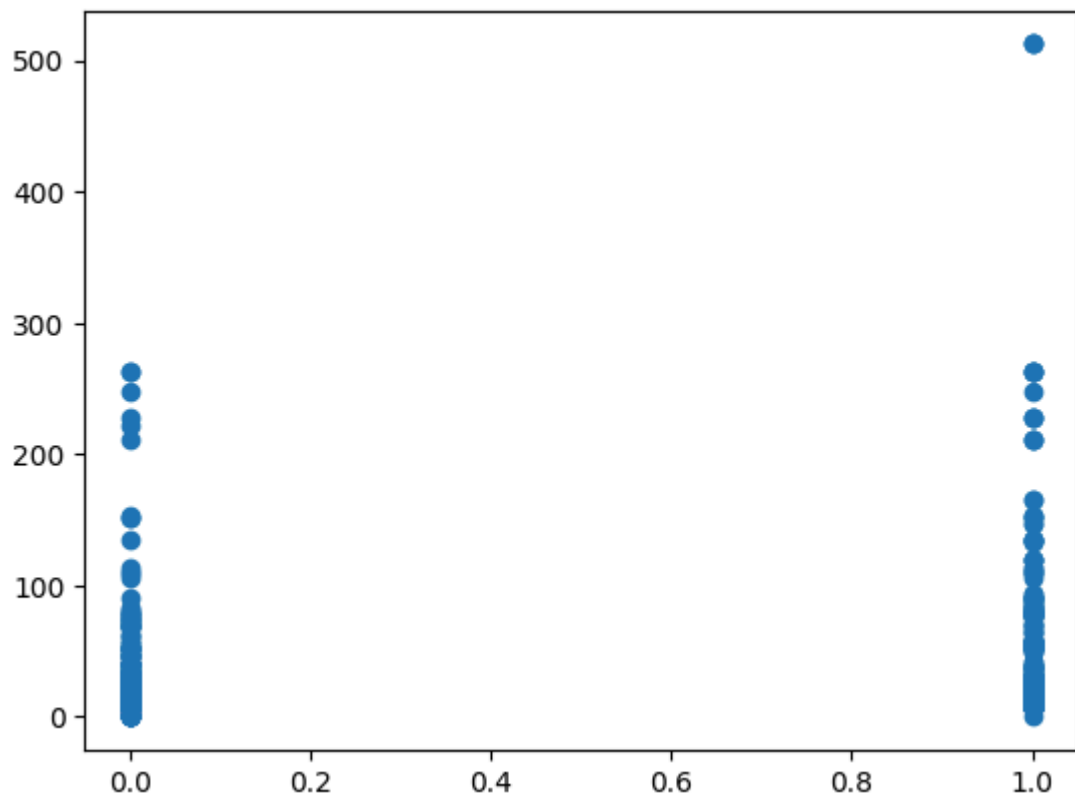
Out[66]: <Axes: xlabel='Survived', ylabel='Fare'>

In [ ]:
```python
plt.figure(dpi=100)
sns.lineplot(x="Survived",y="Fare",data=titanic)
```

Out[67]: <Axes: xlabel='Survived', ylabel='Fare'>

In [ ]:
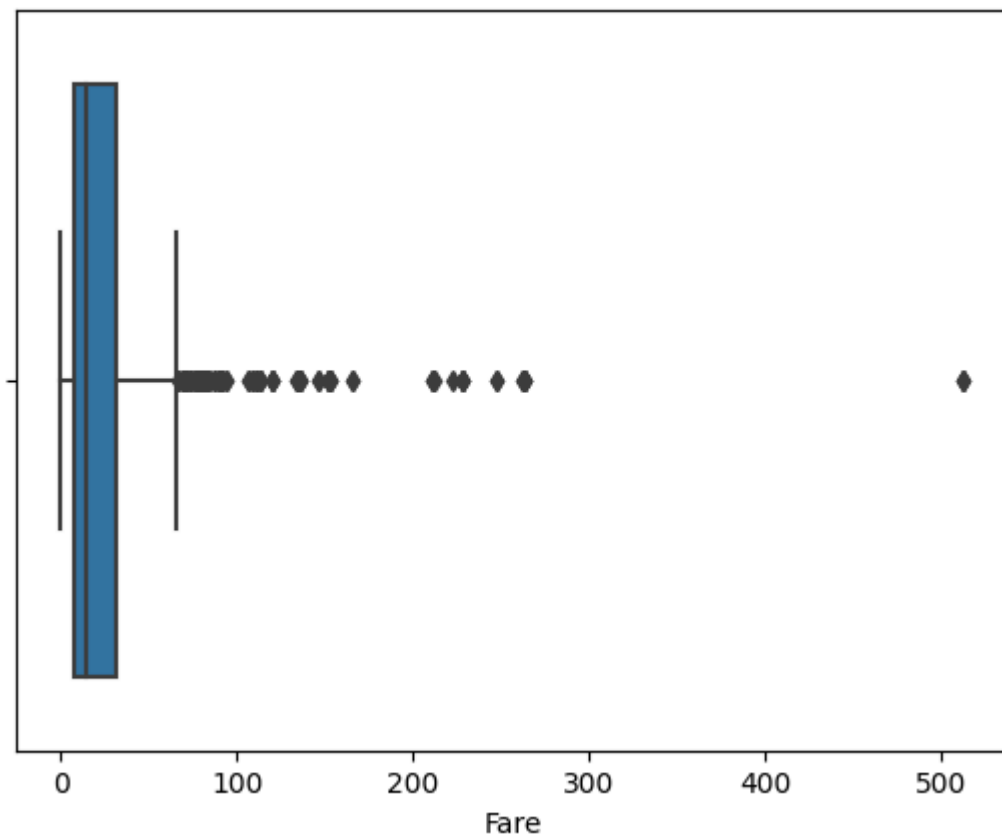```python
x=titanic["Survived"] #not workable
y=titanic["Fare"]
plt.figure(100)
plt.scatter(x,y)
```

Out[68]: <matplotlib.collections.PathCollection at 0x7ec78e414460>

In [ ]:
```
plt.figure(dpi=100)
sns.boxplot(x="Fare",data=titanic)
```
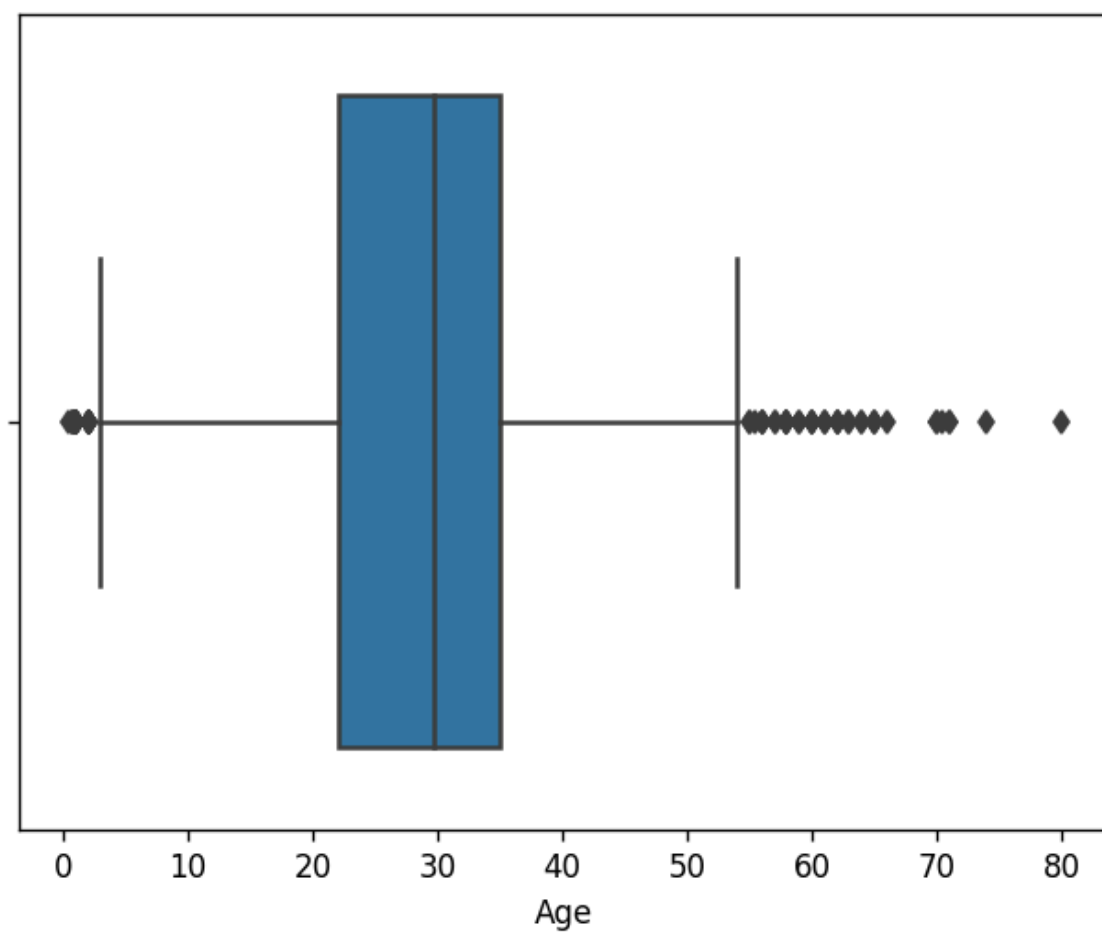
Out[69]:    <Axes: xlabel='Fare'>



#survived vs Age

In [ ]:
```
plt.figure(dpi=100)
sns.boxplot(x="Fare",data=titanic)
```

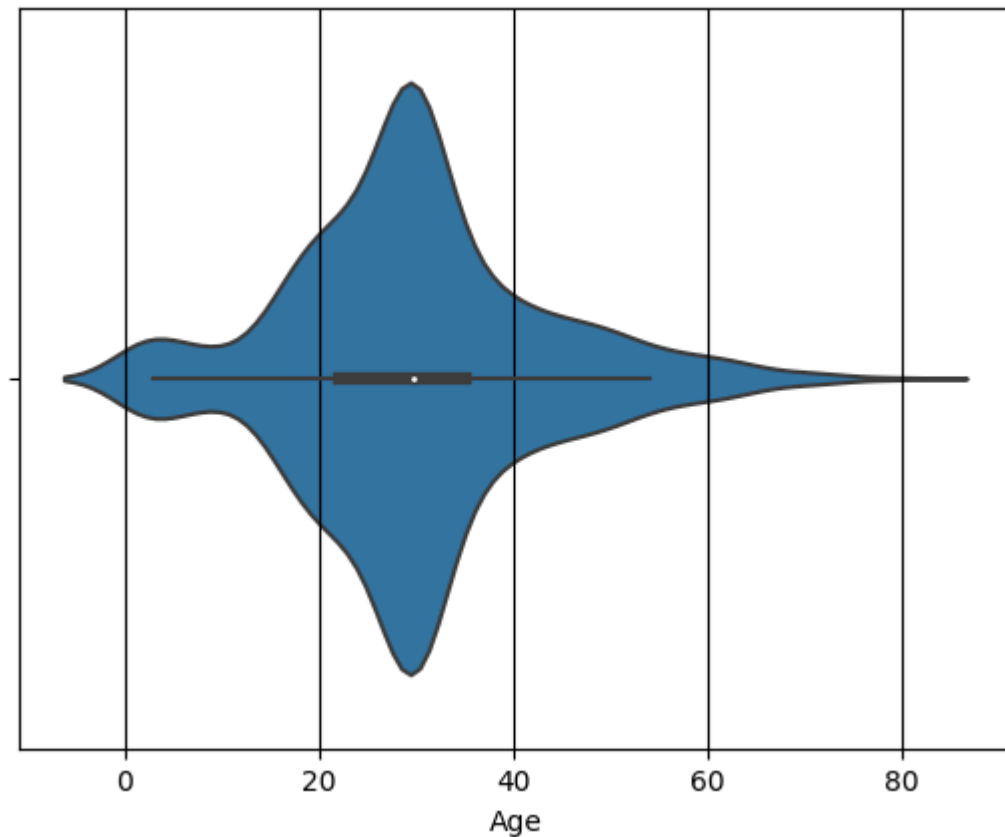Out[69]:    <Axes: xlabel='Fare'>

In [ ]: 
```python
plt.figure(dpi=120)
sns.boxplot(x="Age",data=titanic)
```

Out[70]: <Axes: xlabel='Age'>

In [ ]:
```python
plt.figure(dpi=100)
plt.grid(color="Black")
sns.violinplot(x="Age",data=titanic)
```

Out[71]: `<Axes: xlabel='Age'>`

In [ ]:
```python
titanic.describe()
```

Out[72]:

	PassengerId	Survived	Pclass	Age	SibSp	Parch	Fare
count	891.000000	891.000000	891.000000	891.000000	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	13.002015	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	22.000000	0.000000	0.000000	7.910400
50%	446.000000	0.000000	3.000000	29.699118	0.000000	0.000000	14.454200
75%	668.500000	1.000000	3.000000	35.000000	1.000000	0.000000	31.000000
max	891.000000	1.000000	3.000000	80.000000	8.000000	6.000000	512.329200

In [ ]:
```python
titanic.Age.quantile(0.25)
```

Out[73]: 22.0

In [ ]:
```python
titanic.Age.quantile(0.50)
```

Out[74]: 29.69911764705882

In [ ]:
```python
titanic.Age.quantile(0.75)
```

Out[75]: 35.0

In [ ]:
```python
titanic.groupby(["Sex","Survived"])["Age"].mean()
```

Out[76]:
```
Sex     Survived
female  0           26.023272
        1           28.979263
male    0           31.175224
        1           27.631705
Name: Age, dtype: float64
```

In [ ]:
```python
titanic.head(5)
```

Out[77]:

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

In [ ]:
```python
titanic["Survived"].value_counts(), #342 survived 549 not able to survived,
```

Out[78]:
```
(0    549
 1    342
 Name: Survived, dtype: int64,)
```

In [ ]:
```python
titanic["Survived"].value_counts().keys() #got to know about all survived a
```

Out[79]: Int64Index([0, 1], dtype='int64')

In [ ]:
```python
titanic["Pclass"].value_counts() #got to know about passanger class, most pe
```

Out[80]:
```
3    491
1    216
2    184
Name: Pclass, dtype: int64
```

In [ ]: `titanic["Sex"].value_counts()` *#got to know how many male and female were the*

Out[81]:
```
male      577
female    314
Name: Sex, dtype: int64
```

In [ ]: `(titanic["Survived"].isnull())` *#got to know if we have null value or not*

Out[82]:
```
0      False
1      False
2      False
3      False
4      False
       ...
886    False
887    False
888    False
889    False
890    False
Name: Survived, Length: 891, dtype: bool
```

In [ ]: `sum(titanic["Survived"].isnull())` *#no null value are in the Survived*

Out[83]: `0`

In [ ]: `titanic["Age"].isnull()` *#got to know if we have null value or not*

Out[84]:
```
0      False
1      False
2      False
3      False
4      False
       ...
886    False
887    False
888    False
889    False
890    False
Name: Age, Length: 891, dtype: bool
```

In [ ]: `sum(titanic["Age"].isnull())` *#got to know if we have null value or not, here*

Out[85]: `0`

In [ ]: `titanic.dropna()`

Out[86]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket
0	1	0	3	Braund, Mr. Owen Harris	male	22.000000	1	0	A/5 21171
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.000000	1	0	PC 17599
2	3	1	3	Heikkinen, Miss. Laina	female	26.000000	0	0	STON/O2. 3101282
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.000000	1	0	113803
4	5	0	3	Allen, Mr. William Henry	male	35.000000	0	0	373450
...	...	...	...	...	...	...	...	...	...
886	887	0	2	Montvila, Rev. Juozas	male	27.000000	0	0	211536
887	888	1	1	Graham, Miss. Margaret Edith	female	19.000000	0	0	112053
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	29.699118	1	2	W./C. 6607
889	890	1	1	Behr, Mr. Karl Howell	male	26.000000	0	0	111369
890	891	0	3	Dooley, Mr. Patrick	male	32.000000	0	0	370376

891 rows × 11 columns

In [ ]: