

importing required library

```
In [5]: import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
```

Load the Titanic dataset

```
In [8]: data = sns.load_dataset("titanic")
```

```
In [9]: data.head()
```

Out[9]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_n
0	0	3	male	22.0	1	0	7.2500	S	Third	man	-
1	1	1	female	38.0	1	0	71.2833	C	First	woman	F
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	F
3	1	1	female	35.0	1	0	53.1000	S	First	woman	F
4	0	3	male	35.0	0	0	8.0500	S	Third	man	-

```
In [10]: data.describe()
```

Out[10]:

	survived	pclass	age	sibsp	parch	fare
count	891.000000	891.000000	714.000000	891.000000	891.000000	891.000000
mean	0.383838	2.308642	29.699118	0.523008	0.381594	32.204208
std	0.486592	0.836071	14.526497	1.102743	0.806057	49.693429
min	0.000000	1.000000	0.420000	0.000000	0.000000	0.000000
25%	0.000000	2.000000	20.125000	0.000000	0.000000	7.910400
50%	0.000000	3.000000	28.000000	0.000000	0.000000	14.454200
75%	1.000000	3.000000	38.000000	1.000000	0.000000	31.000000
max	1.000000	3.000000	80.000000	8.000000	6.000000	512.329200

In [11]: data.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 891 entries, 0 to 890
Data columns (total 15 columns):
survived      891 non-null int64
pclass        891 non-null int64
sex           891 non-null object
age           714 non-null float64
sibsp         891 non-null int64
parch         891 non-null int64
fare          891 non-null float64
embarked      889 non-null object
class         891 non-null category
who           891 non-null object
adult_male    891 non-null bool
deck          203 non-null category
embark_town   889 non-null object
alive         891 non-null object
alone         891 non-null bool
dtypes: bool(2), category(2), float64(2), int64(4), object(5)
memory usage: 80.6+ KB
```

In [12]: data.isnull().sum()

```
Out[12]: survived      0
pclass      0
sex         0
age        177
sibsp       0
parch       0
fare        0
embarked     2
class       0
who         0
adult_male  0
deck       688
embark_town  2
alive       0
alone       0
dtype: int64
```

In [18]: data['age'] = data['age'].fillna(np.mean(data['age']))
data['deck'] = data['deck'].fillna(data['deck'].mode()[0])
data['embarked'] = data['embarked'].fillna(data['embarked'].mode()[0])

```
In [19]: data.isnull().sum()
```

```
Out[19]: survived      0  
pclass      0  
sex         0  
age         0  
sibsp       0  
parch       0  
fare        0  
embarked    0  
class       0  
who         0  
adult_male  0  
deck        0  
embark_town  2  
alive       0  
alone       0  
dtype: int64
```

Visualize

```
In [22]: sns.boxplot(data['sex'], data["age"], data["survived"], palette = 'Set  
2').set_title('Plot for distribution of age with respect to each gender a  
long with the information about whether they survived or not')  
plt.show()
```

Plot for distribution of age with respect to each gender along with the information about whether they survived or not

