

```
In [2]: import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
#Loading dataset
data = pd.read_csv('https://raw.githubusercontent.com/dphi-official/Datasets/master/titanic.csv')
```

```
In [3]: data.head()
```

Out[3]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin
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 [4]: data.describe()
```

Out[4]:

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

```
In [5]: data.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
```

```
In [6]: data['Age'] = data['Age'].fillna(np.mean(data['Age']))
data['Cabin'] = data['Cabin'].fillna(data['Cabin'].mode()[0])
data['Embarked'] = data['Embarked'].fillna(data['Embarked'].mode()[0])
```

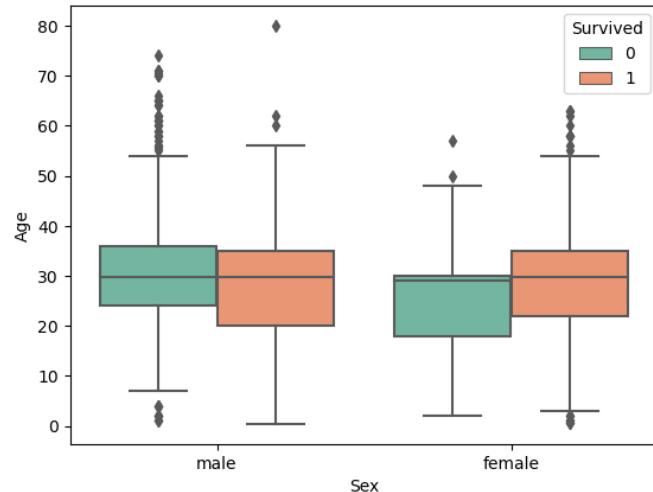
```
In [7]: data.isnull().sum()
```

```
Out[7]: PassengerId      0
Survived        0
Pclass          0
Name            0
Sex             0
Age             0
SibSp           0
Parch           0
Ticket          0
Fare            0
Cabin           0
Embarked        0
dtype: int64
```

```
In [8]: sns.boxplot(data['Sex'], data["Age"], data["Survived"], palette = 'Set2').set_titl
plt.show()
```

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning:
  Pass the following variables as keyword args: x, y, hue. 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(
```

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



In [ ]: