```
[9]: import pandas as pd
      import numpy as np
      import matplotlib.pyplot as plt
      import seaborn as sns
      df=sns.load_dataset('titanic')
 []: df=pd.read_csv('titanic-train.csv')
[10]: cols=df.columns
      cols
[10]: Index(['survived', 'pclass', 'sex', 'age', 'sibsp', 'parch', 'fare',
             'embarked', 'class', 'who', 'adult_male', 'deck', 'embark_town',
             'alive', 'alone'],
            dtype='object')
[11]: df.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
                    891 non-null object
     sex
                    714 non-null float64
     age
                    891 non-null int64
     sibsp
     parch
                    891 non-null int64
                    891 non-null float64
     fare
                    889 non-null object
     embarked
     class
                    891 non-null category
                    891 non-null object
     who
     adult_male
                    891 non-null bool
     deck
                    203 non-null category
                    889 non-null object
     embark_town
     alive
                    891 non-null object
                    891 non-null bool
     alone
     dtypes: bool(2), category(2), float64(2), int64(4), object(5)
     memory usage: 80.6+ KB
```

## [12]: df.describe()

```
[12]:
               survived
                              pclass
                                                         sibsp
                                                                     parch
                                                                                   fare
                                              age
             891.000000
                         891.000000
                                      714.000000
                                                   891.000000
                                                                891.000000
                                                                             891.000000
      count
      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%
                            3.000000
               0.000000
                                        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
```

## [14]: df.isnull().sum()

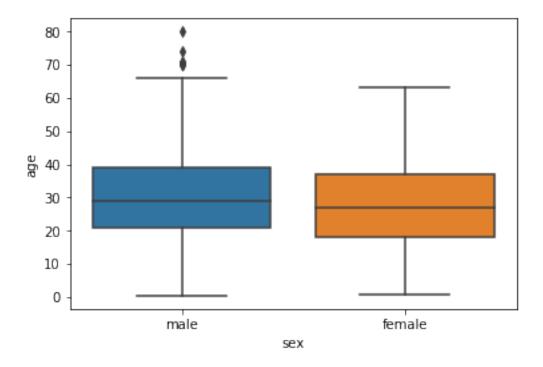
```
[14]: survived
                         0
                          0
      pclass
      sex
                          0
                       177
      age
      sibsp
                          0
      parch
                          0
      fare
                          0
      embarked
    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

## [15]: sns.boxplot(df['sex'],df['age'])

C:\Users\dell\Anaconda3\lib\site-packages\seaborn\\_decorators.py:43:
FutureWarning: Pass the following variables as keyword args: x, y. 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.

FutureWarning

[15]: <matplotlib.axes.\_subplots.AxesSubplot at 0xb655f60>



[16]: sns.boxplot(df['sex'],df['age'],df['survived'])

C:\Users\dell\Anaconda3\lib\site-packages\seaborn\\_decorators.py:43: 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.

FutureWarning

[16]: <matplotlib.axes.\_subplots.AxesSubplot at 0xb717e48>

