

expt9

April 26, 2024

```
[1]: #exp_9
import seaborn as sns
titanic = sns.load_dataset("titanic")
```

```
[2]: titanic
```

```
[2]:      survived  pclass    sex  age  sibsp  parch    fare embarked  class \
0           0        3   male  22.0     1     0   7.2500         S   Third
1           1        1  female  38.0     1     0  71.2833         C   First
2           1        3  female  26.0     0     0   7.9250         S   Third
3           1        1  female  35.0     1     0  53.1000         S   First
4           0        3   male  35.0     0     0   8.0500         S   Third
..         ...      ...    ...  ...  ...   ...   ...     ...   ...
886          0        2   male  27.0     0     0  13.0000         S  Second
887          1        1  female  19.0     0     0  30.0000         S   First
888          0        3  female   NaN     1     2  23.4500         S   Third
889          1        1   male  26.0     0     0  30.0000         C   First
890          0        3   male  32.0     0     0   7.7500         Q   Third
```

```
      who  adult_male  deck  embark_town  alive  alone
0     man         True  NaN  Southampton    no  False
1  woman        False    C   Cherbourg   yes  False
2  woman        False  NaN  Southampton   yes   True
3  woman        False    C  Southampton   yes  False
4     man         True  NaN  Southampton    no   True
..     ...         ...  ...    ...    ...
886  man         True  NaN  Southampton    no   True
887  woman        False    B  Southampton   yes   True
888  woman        False  NaN  Southampton    no  False
889  man         True    C   Cherbourg   yes   True
890  man         True  NaN  Queenstown    no   True
```

[891 rows x 15 columns]

```
[3]: titanic.head(10)
```

```
[3]:   survived  pclass    sex  age  sibsp  parch    fare embarked  class \
0         0        3   male  22.0    1     0   7.2500         S   Third
1         1        1  female  38.0    1     0  71.2833         C   First
2         1        3  female  26.0    0     0   7.9250         S   Third
3         1        1  female  35.0    1     0  53.1000         S   First
4         0        3   male  35.0    0     0   8.0500         S   Third
5         0        3   male   NaN    0     0   8.4583         Q   Third
6         0        1   male  54.0    0     0  51.8625         S   First
7         0        3   male   2.0    3     1  21.0750         S   Third
8         1        3  female  27.0    0     2  11.1333         S   Third
9         1        2  female  14.0    1     0  30.0708         C  Second
```

```
   who  adult_male deck  embark_town alive  alone
0   man          True  NaN  Southampton    no  False
1  woman         False   C   Cherbourg   yes  False
2  woman         False  NaN  Southampton   yes   True
3  woman         False   C   Southampton   yes  False
4   man          True  NaN  Southampton    no   True
5   man          True  NaN  Queenstown    no   True
6   man          True   E   Southampton    no   True
7  child         False  NaN  Southampton    no  False
8  woman         False  NaN  Southampton   yes  False
9  child         False  NaN   Cherbourg   yes  False
```

```
[4]: titanic.info
```

```
[4]: <bound method DataFrame.info of   survived  pclass    sex  age  sibsp
parch    fare embarked  class \
0         0        3   male  22.0    1     0   7.2500         S   Third
1         1        1  female  38.0    1     0  71.2833         C   First
2         1        3  female  26.0    0     0   7.9250         S   Third
3         1        1  female  35.0    1     0  53.1000         S   First
4         0        3   male  35.0    0     0   8.0500         S   Third
..      ...      ...      ...      ...      ...      ...
886        0        2   male  27.0    0     0  13.0000         S  Second
887        1        1  female  19.0    0     0  30.0000         S   First
888        0        3  female   NaN    1     2  23.4500         S   Third
889        1        1   male  26.0    0     0  30.0000         C   First
890        0        3   male  32.0    0     0   7.7500         Q   Third
```

```
   who  adult_male deck  embark_town alive  alone
0   man          True  NaN  Southampton    no  False
1  woman         False   C   Cherbourg   yes  False
2  woman         False  NaN  Southampton   yes   True
3  woman         False   C   Southampton   yes  False
4   man          True  NaN  Southampton    no   True
..      ...      ...      ...      ...      ...
```

```

886    man      True  NaN  Southampton    no    True
887  woman    False   B  Southampton    yes    True
888  woman    False  NaN  Southampton    no    False
889    man      True   C   Cherbourg    yes    True
890    man      True  NaN  Queenstown    no    True

```

```
[891 rows x 15 columns]>
```

```
[5]: titanic.describe()
```

```

[5]:      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

```

```

[6]: #Custom Columns with all rows
titanic.loc[:,["survived","alive"]]

```

```

[6]:      survived  alive
0           0    no
1           1    yes
2           1    yes
3           1    yes
4           0    no
..      ...    ...
886         0    no
887         1    yes
888         0    no
889         1    yes
890         0    no

```

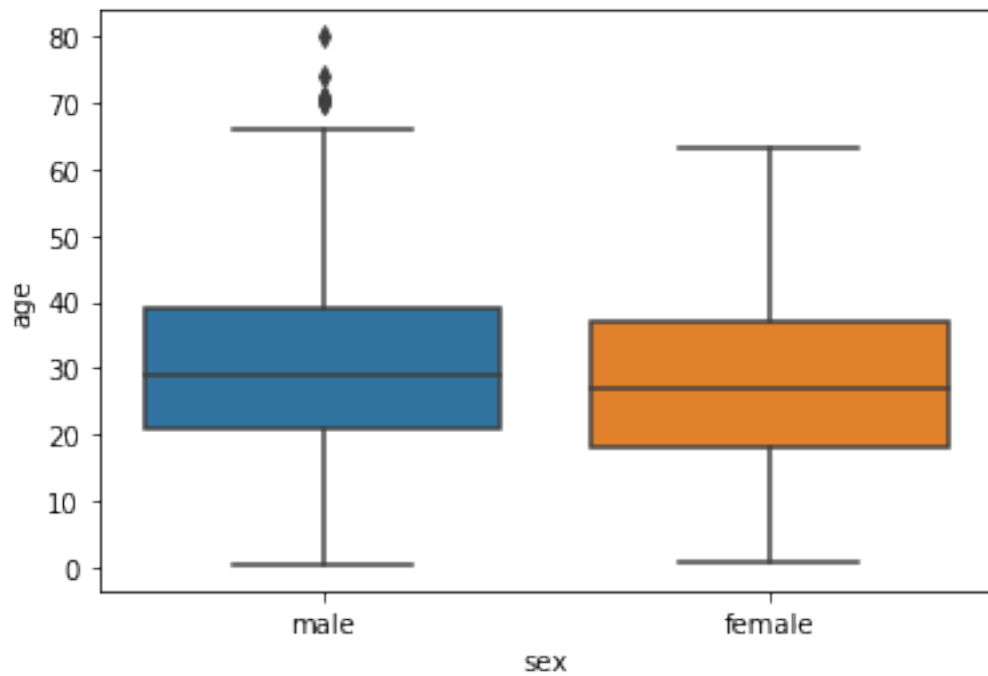
```
[891 rows x 2 columns]
```

```

[7]: #Now Plot boxplot
sns.boxplot(x="sex",y="age",data=titanic)

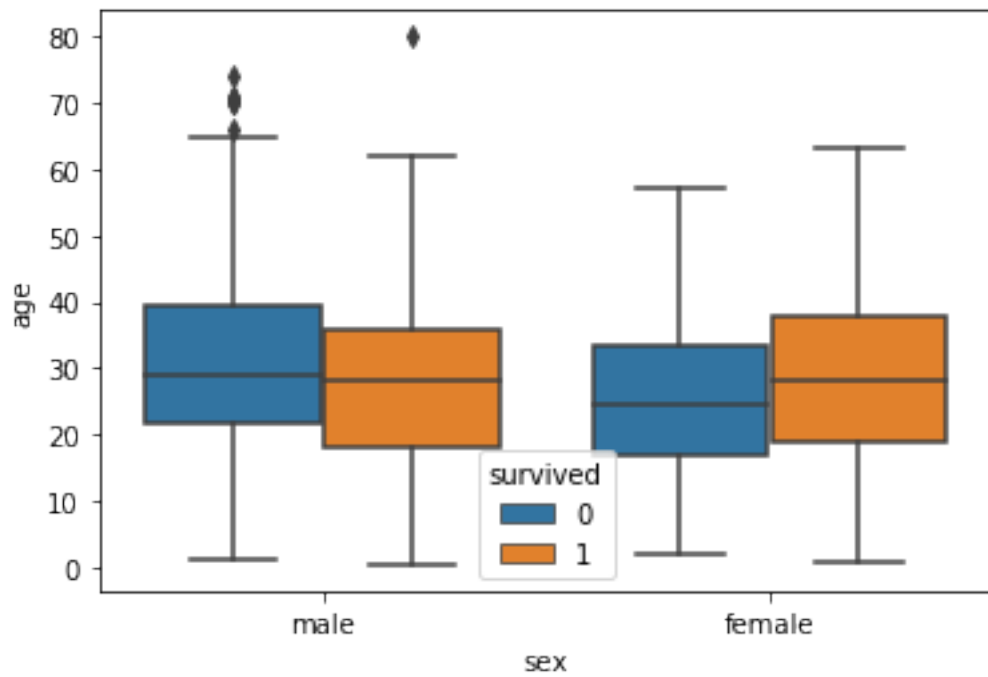
```

```
[7]: <matplotlib.axes._subplots.AxesSubplot at 0x7fabfde47e90>
```



```
[8]: sns.boxplot(x="sex",y="age",data=titanic,hue="survived")
```

```
[8]: <matplotlib.axes._subplots.AxesSubplot at 0x7fabfd34ba10>
```



[]: