

```
In [1]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
In [2]: dataset = sns.load_dataset('titanic')
```

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

```
Out[3]:
```

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

```
In [4]: sns.distplot(dataset['age'], bins=10, kde = False)
```

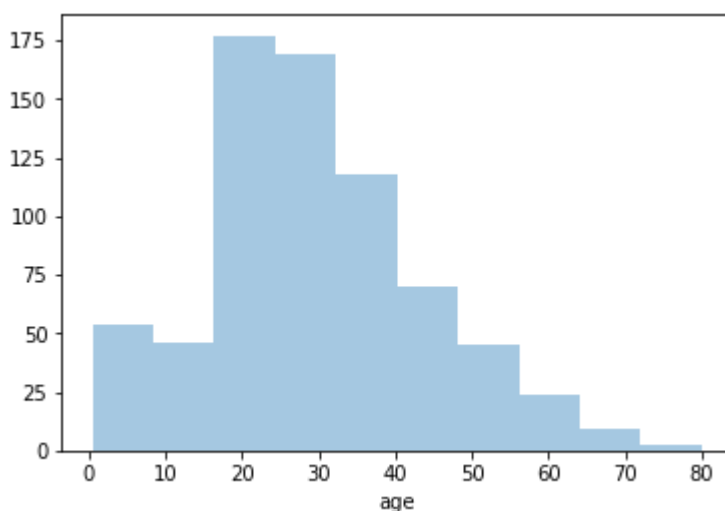
```
/home/rmdstic/anaconda3/lib/python3.7/site-packages/numpy/lib/histograms.py:824: RuntimeWarning: invalid value encountered in greater_equal
```

```
keep = (tmp_a >= first_edge)
```

```
/home/rmdstic/anaconda3/lib/python3.7/site-packages/numpy/lib/histograms.py:825: RuntimeWarning: invalid value encountered in less_equal
```

```
keep &= (tmp_a <= last_edge)
```

```
Out[4]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b3cf06a0>
```



```
In [5]: sns.distplot(dataset['age'],bins=10)
```

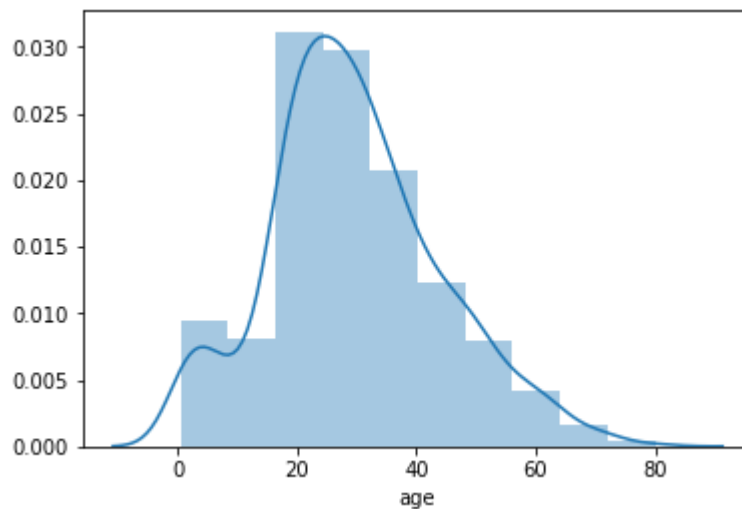
```
/home/rmdstic/anaconda3/lib/python3.7/site-packages/statsmodels/non  
parametric/kde.py:448: RuntimeWarning: invalid value encountered in  
greater
```

```
    X = X[np.logical_and(X > clip[0], X < clip[1])] # won't work for  
two columns.
```

```
/home/rmdstic/anaconda3/lib/python3.7/site-packages/statsmodels/non  
parametric/kde.py:448: RuntimeWarning: invalid value encountered in  
less
```

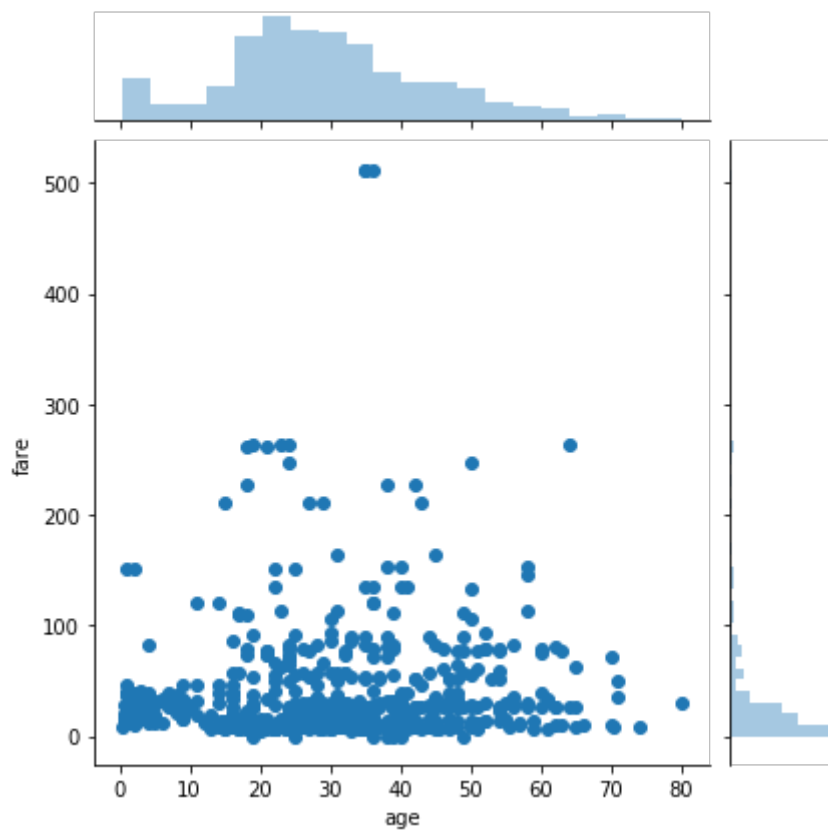
```
    X = X[np.logical_and(X > clip[0], X < clip[1])] # won't work for  
two columns.
```

```
Out[5]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b3d6e208>
```



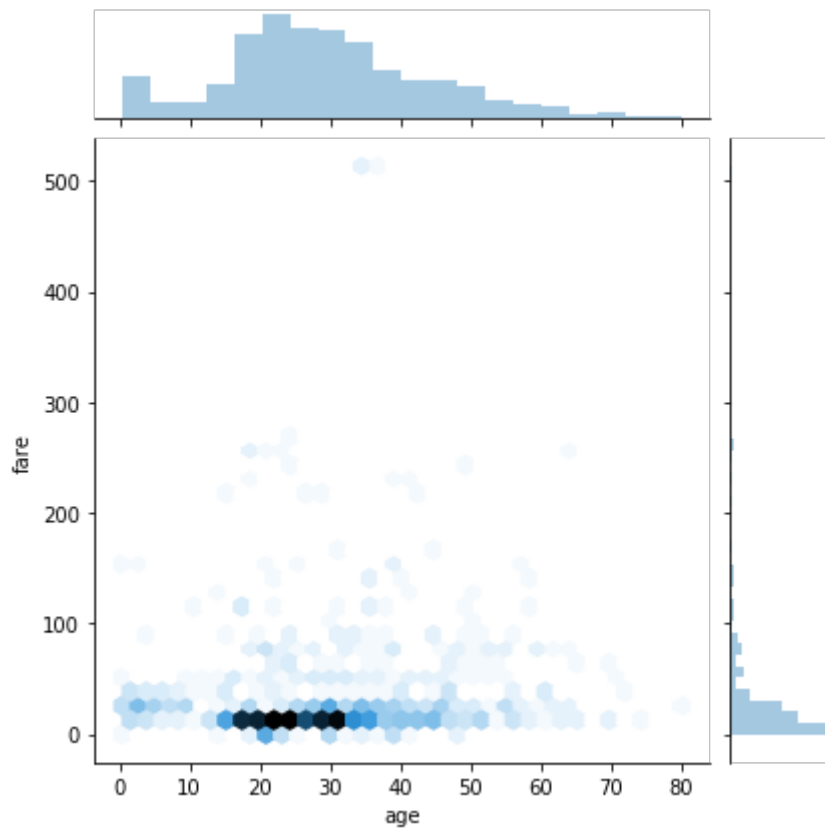
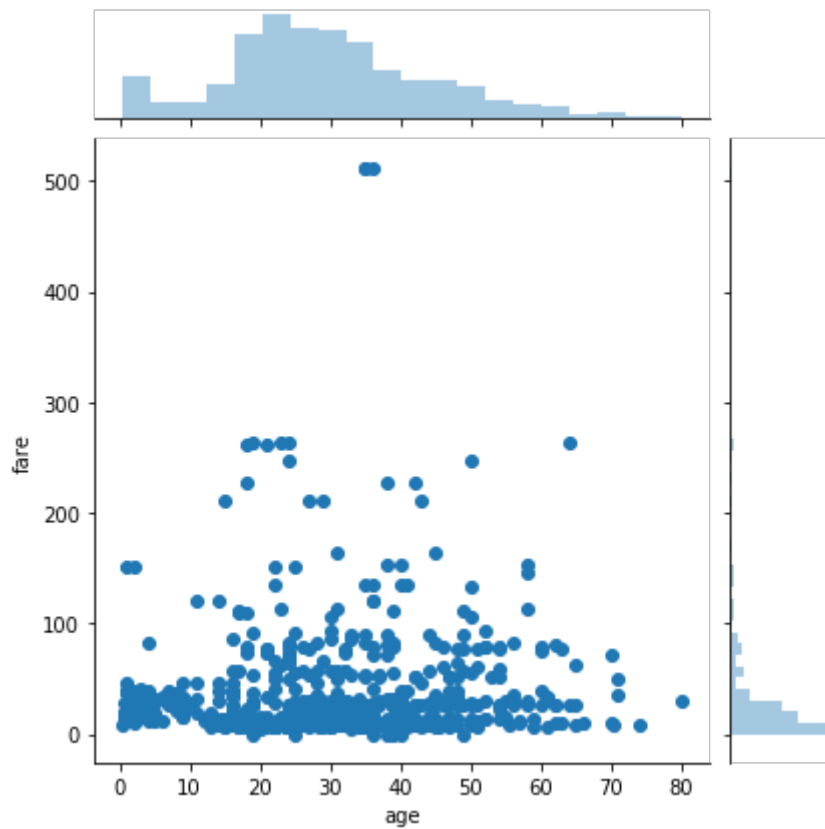
```
In [6]: sns.jointplot(x = dataset["age"], y=dataset['fare'],kind = 'scatter')
```

```
Out[6]: <seaborn.axisgrid.JointGrid at 0x7fb5b392ec88>
```



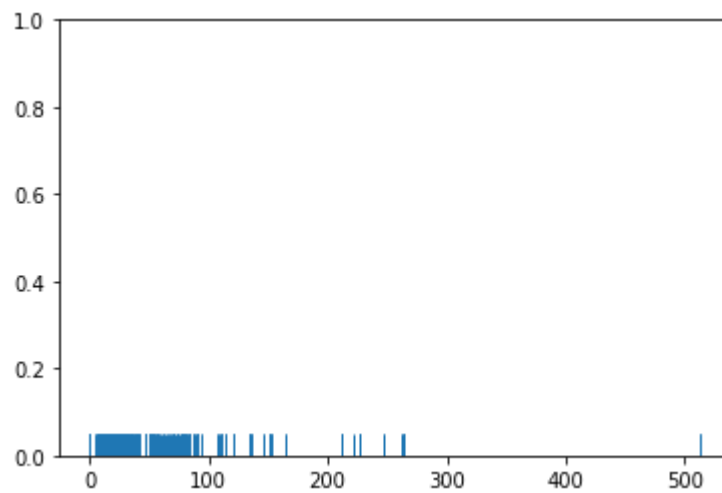
```
In [7]: sns.jointplot(x = dataset["age"], y=dataset['fare'],kind = 'scatter')  
sns.jointplot(x = dataset["age"], y=dataset['fare'],kind = 'hex')
```

Out[7]: <seaborn.axisgrid.JointGrid at 0x7fb5b3750e48>



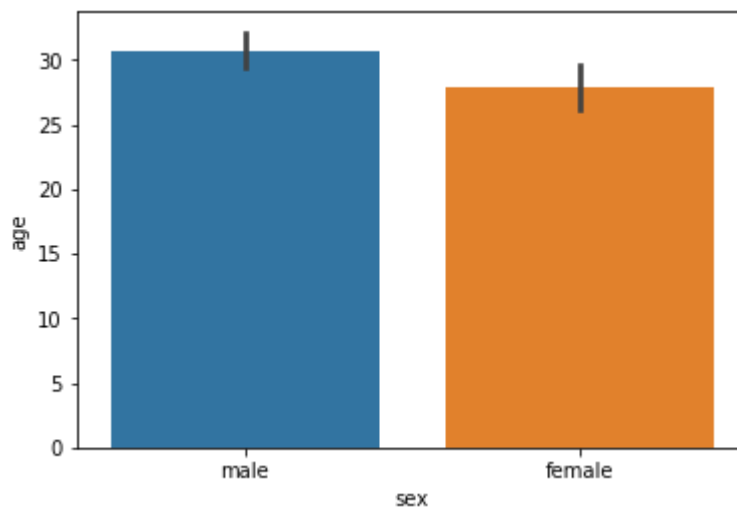
```
In [8]: sns.rugplot(dataset['fare'])
```

```
Out[8]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b34d4898>
```



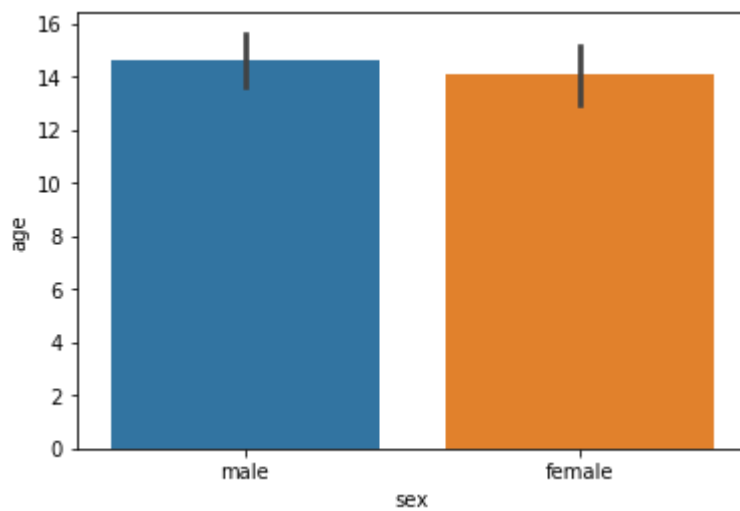
```
In [9]: sns.barplot(x= 'sex',y= "age" , data= dataset)
```

```
Out[9]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b3346d68>
```



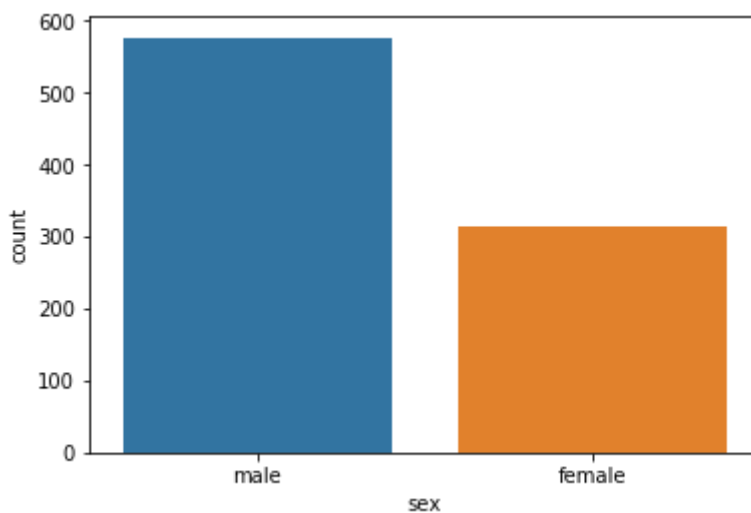
```
In [10]: sns.barplot(x= 'sex',y= "age" , data= dataset, estimator =np.std)
```

```
Out[10]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b33347b8>
```



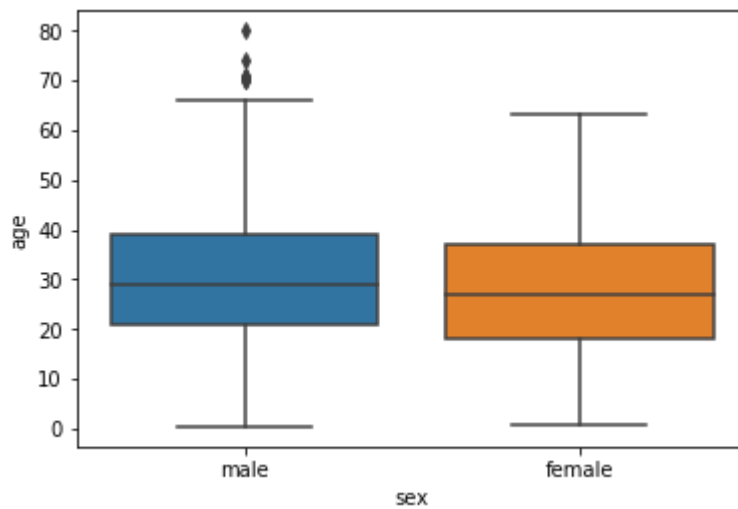
```
In [11]: sns.countplot(x ="sex", data= dataset)
```

```
Out[11]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b3290f28>
```



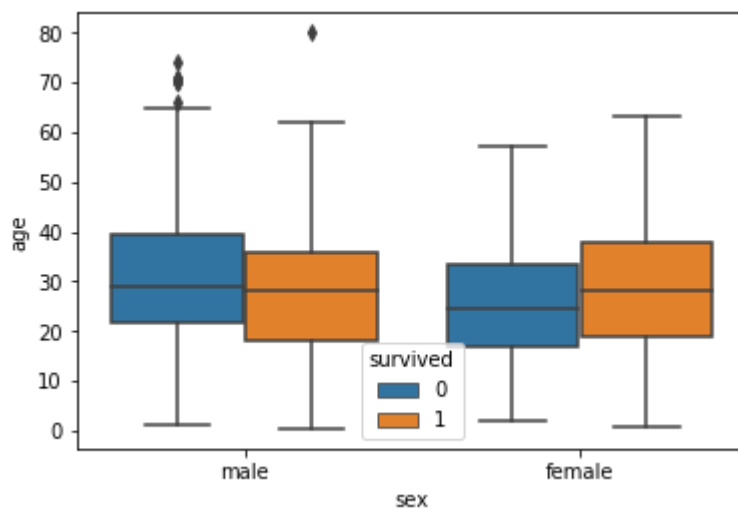
```
In [12]: sns.boxplot(x= 'sex',y= "age" , data= dataset)
```

```
Out[12]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b36b51d0>
```



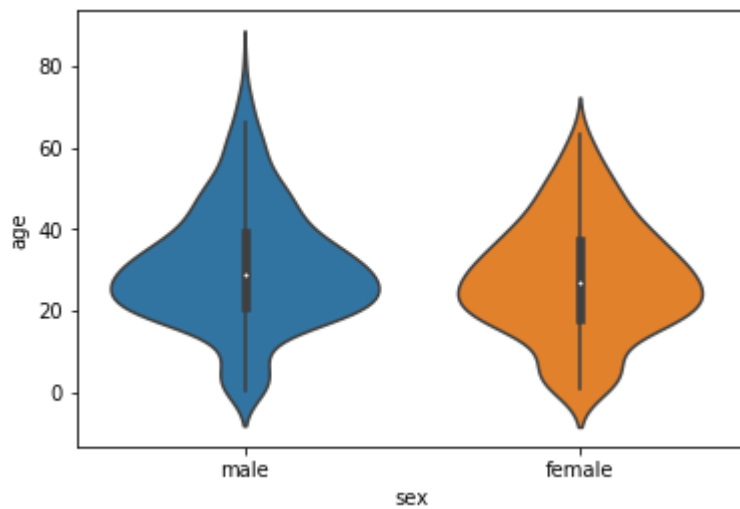
```
In [13]: sns.boxplot(x= 'sex',y= "age" , data= dataset, hue="survived")
```

```
Out[13]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b36e29b0>
```



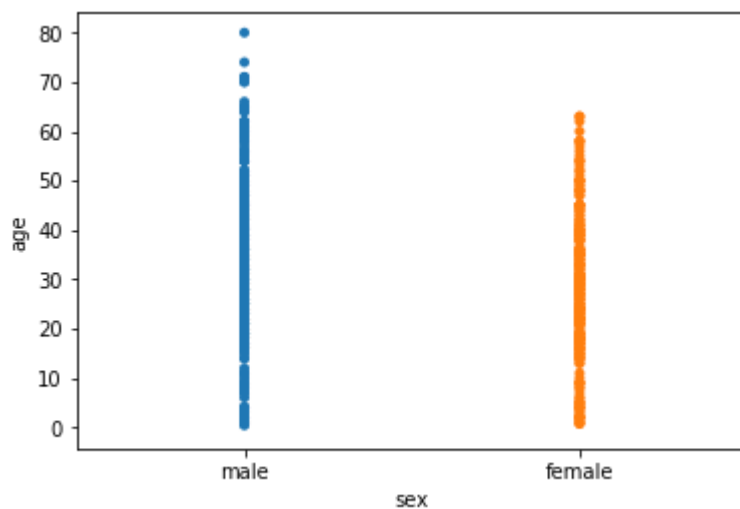
```
In [14]: sns.violinplot(x= 'sex',y= "age" , data= dataset)
```

```
Out[14]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b36497b8>
```



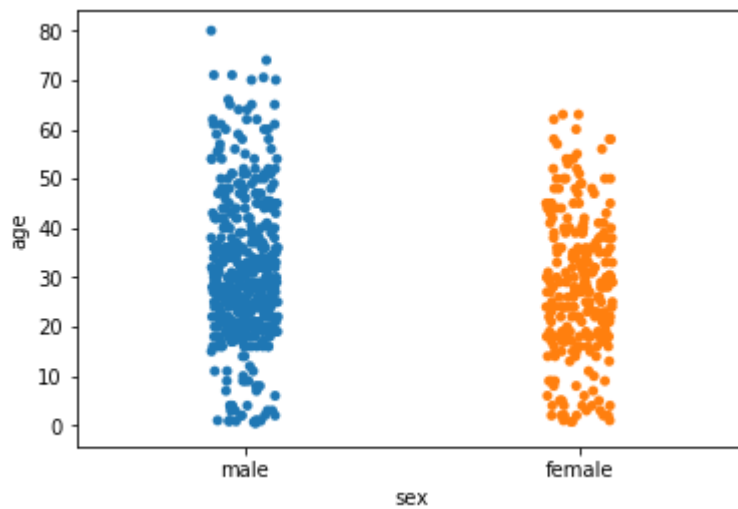
```
In [15]: sns.stripplot(x= 'sex',y= "age" , data= dataset, jitter=False)
```

```
Out[15]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b3255da0>
```



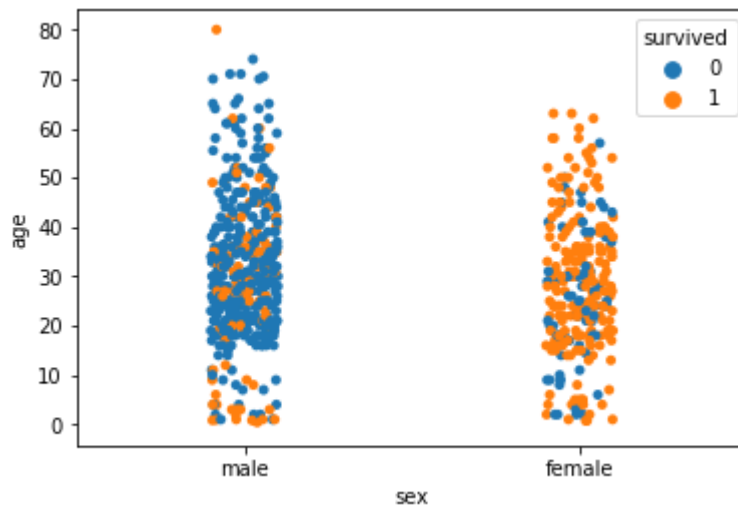

```
In [16]: sns.stripplot(x= 'sex',y= "age" , data= dataset, jitter=True)
```

```
Out[16]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b321d2e8>
```



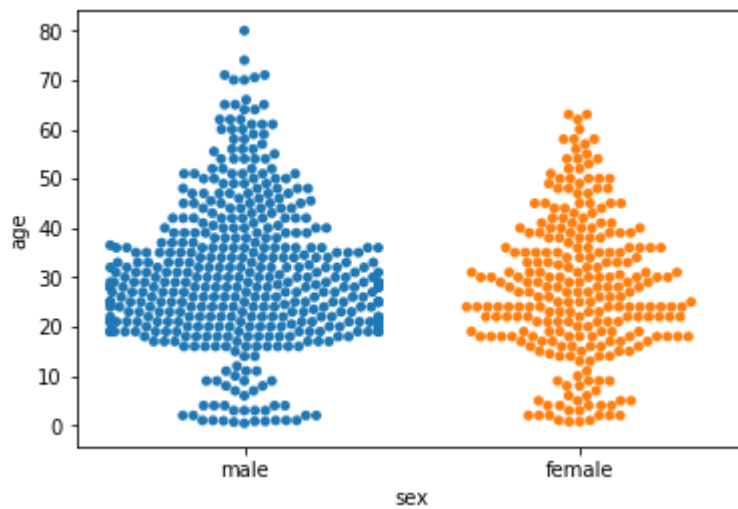
```
In [17]: sns.stripplot(x= 'sex',y= "age" , data= dataset, jitter=True ,hue="survived")
```

```
Out[17]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b31e4f98>
```



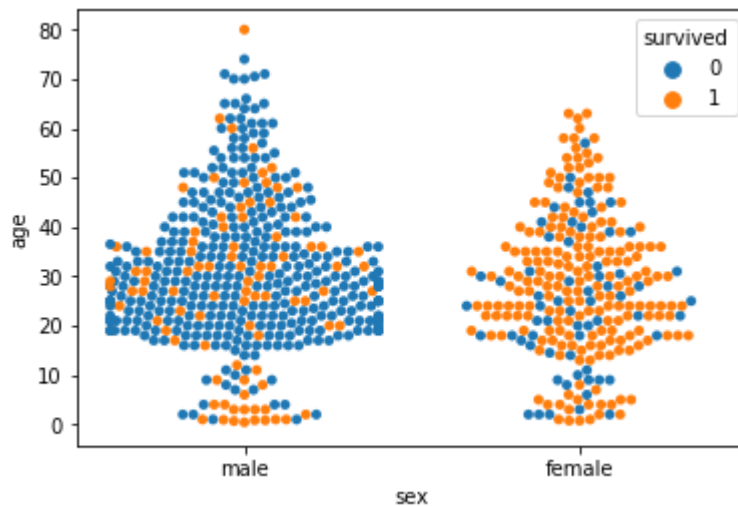
```
In [18]: sns.swarmplot(x= 'sex',y= "age" , data= dataset)
```

```
Out[18]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b31a97f0>
```



```
In [19]: sns.swarmplot(x= 'sex',y= "age" , data= dataset,hue="survived")
```

```
Out[19]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b3133860>
```



```
In [20]: dataset.head()
```

```
Out[20]:
```

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

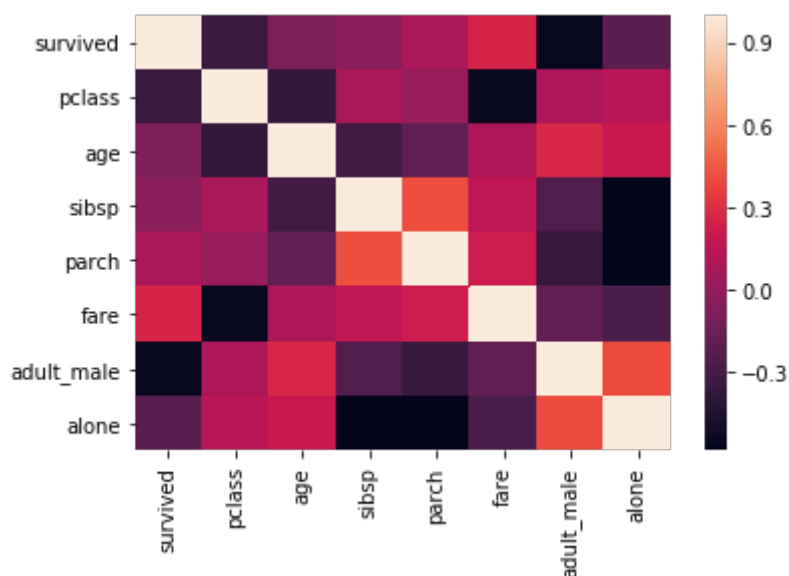
```
In [21]: dataset.corr()
```

```
Out[21]:
```

	survived	pclass	age	sibsp	parch	fare	adult_male	alone
survived	1.000000	-0.338481	-0.077221	-0.035322	0.081629	0.257307	-0.557080	-0.203367
pclass	-0.338481	1.000000	-0.369226	0.083081	0.018443	-0.549500	0.094035	0.135207
age	-0.077221	-0.369226	1.000000	-0.308247	-0.189119	0.096067	0.280328	0.198270
sibsp	-0.035322	0.083081	-0.308247	1.000000	0.414838	0.159651	-0.253586	-0.584471
parch	0.081629	0.018443	-0.189119	0.414838	1.000000	0.216225	-0.349943	-0.583398
fare	0.257307	-0.549500	0.096067	0.159651	0.216225	1.000000	-0.182024	-0.271832
adult_male	-0.557080	0.094035	0.280328	-0.253586	-0.349943	-0.182024	1.000000	0.404744
alone	-0.203367	0.135207	0.198270	-0.584471	-0.583398	-0.271832	0.404744	1.000000

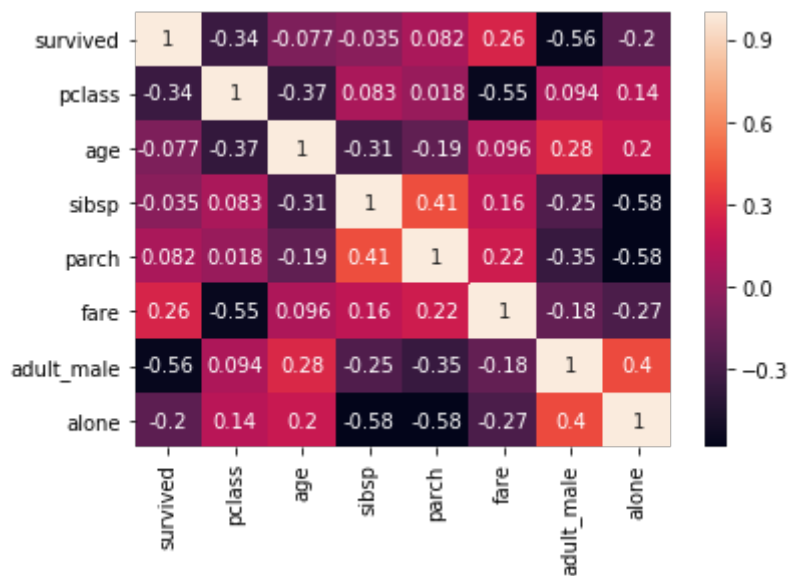
```
In [22]: corr= dataset.corr()
sns.heatmap(corr)
```

```
Out[22]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b18aee10>
```



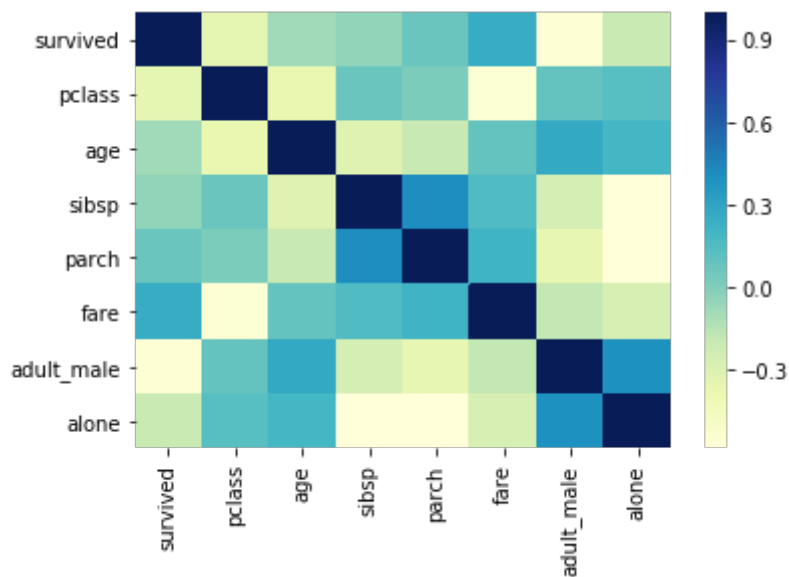
```
In [23]: corr= dataset.corr()
sns.heatmap(corr, annot =True)
```

Out[23]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b17fa208>



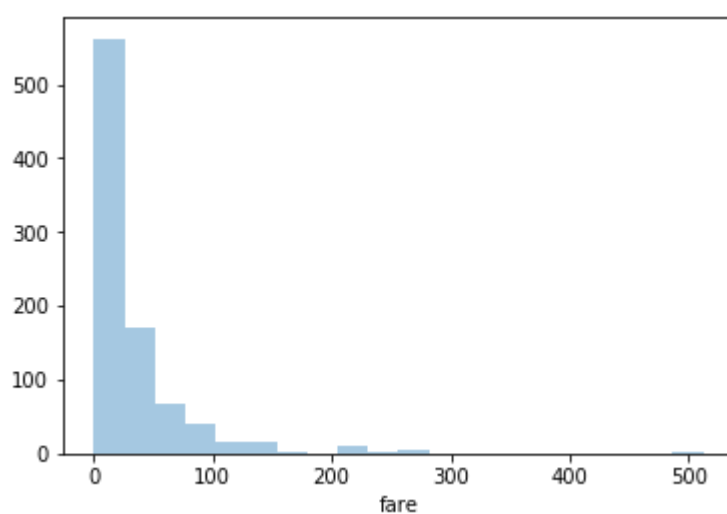
```
In [24]: corr= dataset.corr()
sns.heatmap(corr, cmap ="YlGnBu")
```

Out[24]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b06a5f98>



```
In [25]: sns.distplot(dataset['fare'],kde =False ,bins= 20)
```

```
Out[25]: <matplotlib.axes._subplots.AxesSubplot at 0x7fb5b05b6dd8>
```



```
In [ ]:
```