Seaborn Exercises

January 18, 2018

1 Seaborn Exercises

Time to practice your new seaborn skills! Try to recreate the plots below (don't worry about color schemes, just the plot itself.

1.1 The Data

We will be working with a famous titanic data set for these exercises. Later on in the Machine Learning section of the course, we will revisit this data, and use it to predict survival rates of passengers. For now, we'll just focus on the visualization of the data with seaborn:

```
In [19]: import seaborn as sns
         import matplotlib.pyplot as plt
         %matplotlib inline

In [27]: sns.set_style('whitegrid')

In [28]: titanic = sns.load_dataset('titanic')

In [40]: titanic.head()
```

Out[40]:

	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	

	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

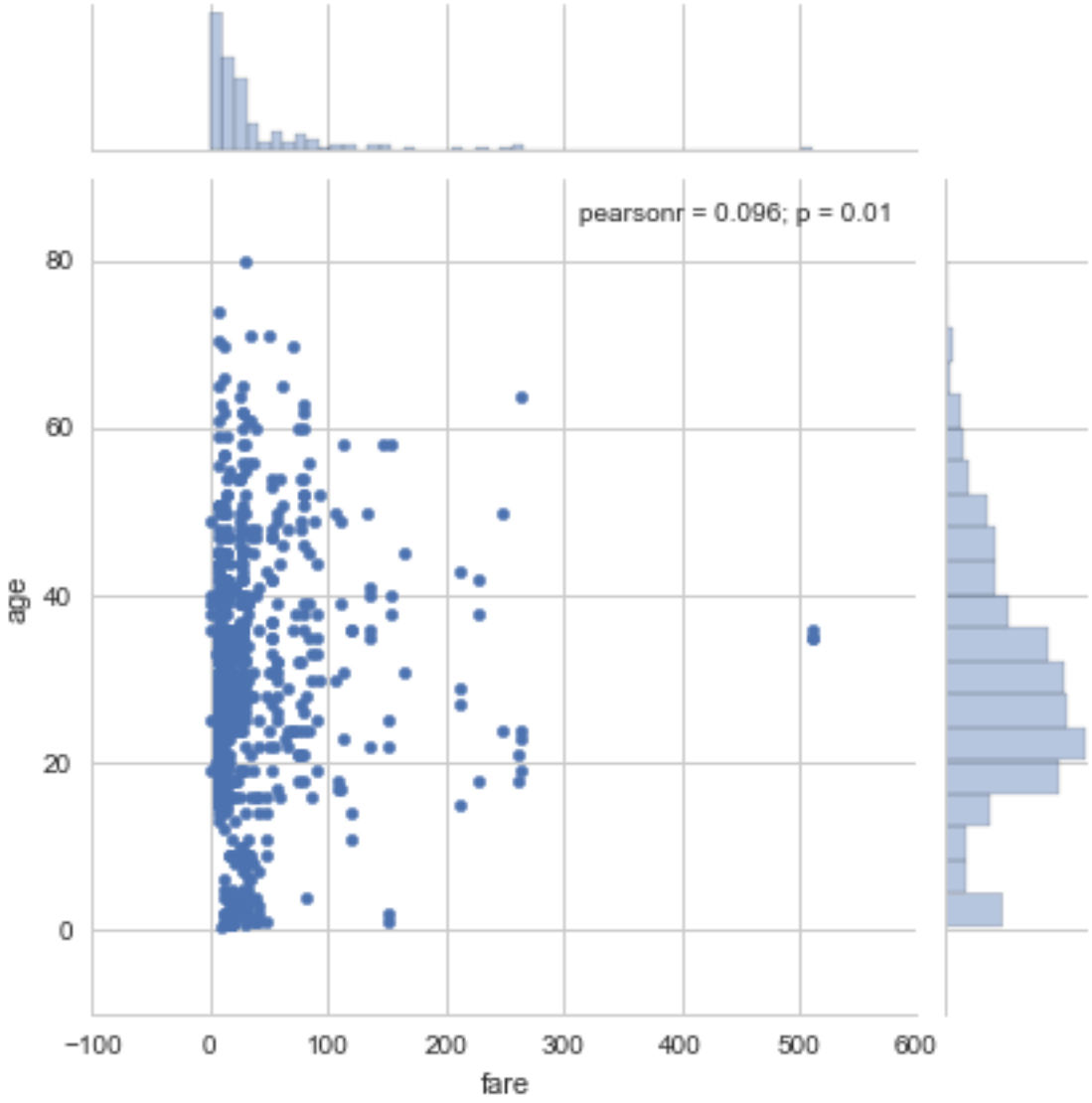
2 Exercises

** Recreate the plots below using the titanic dataframe. There are very few hints since most of the plots can be done with just one or two lines of code and a hint would basically give away the solution. Keep careful attention to the x and y labels for hints.**

*** Note! In order to not lose the plot image, make sure you don't code in the cell that is directly above the plot, there is an extra cell above that one which won't overwrite that plot! ***

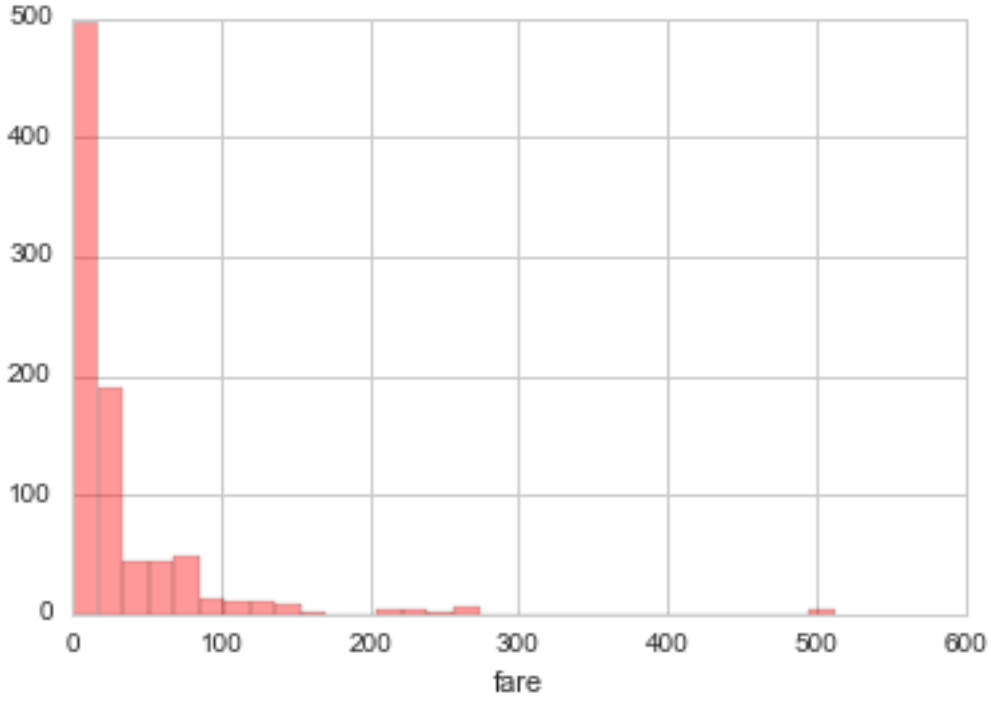
```
In [41]: sns.jointplot(x='fare',y='age',data=titanic)
```

```
Out[41]: <seaborn.axisgrid.JointGrid at 0x11d0389e8>
```



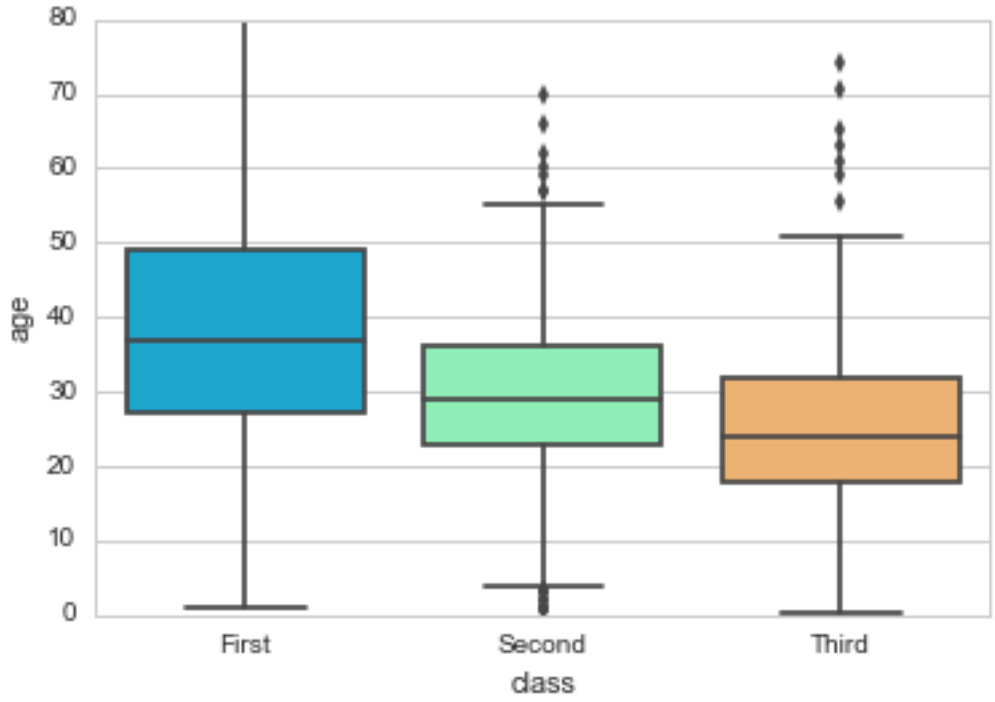

```
In [44]: sns.distplot(titanic['fare'],bins=30,kde=False,color='red')
```

Out[44]: <matplotlib.axes._subplots.AxesSubplot at 0x11fc5ca90>



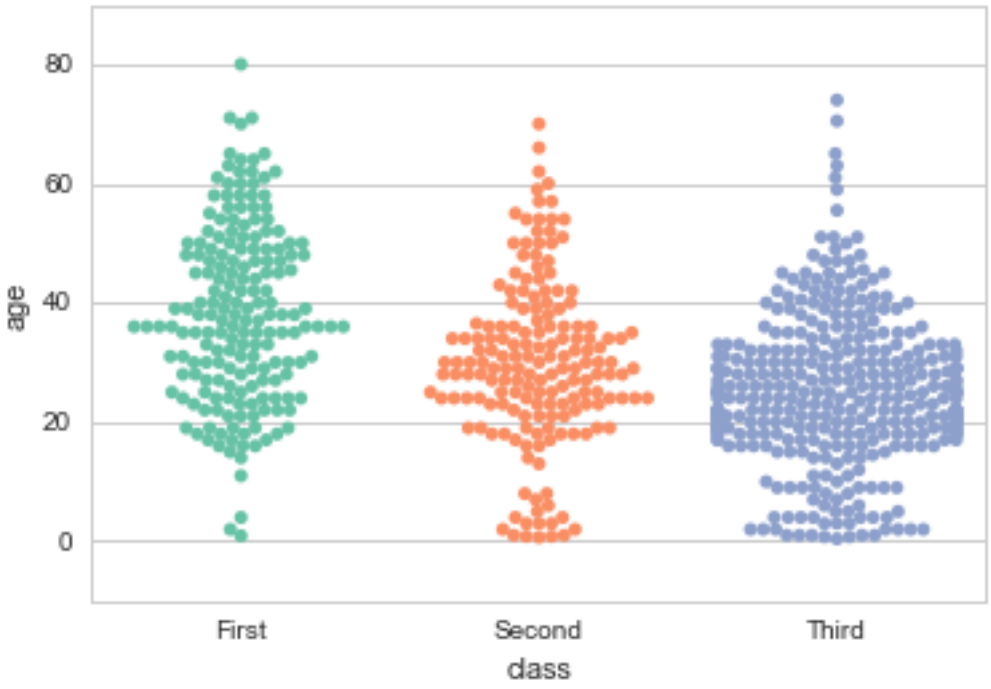
In [45]: sns.boxplot(x='class',y='age',data=titanic,palette='rainbow')

Out[45]: <matplotlib.axes._subplots.AxesSubplot at 0x11f23da90>



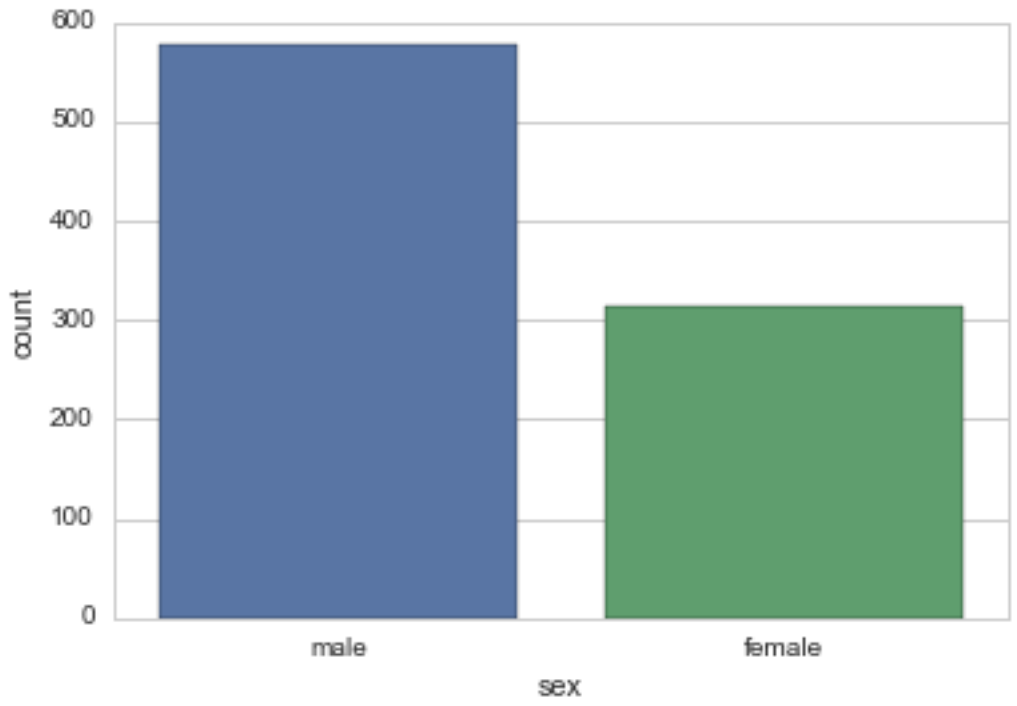
In [46]:
```
sns.swarmplot(x='class',y='age',data=titanic,palette='Set2')
```

Out[46]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x11f215320>
```



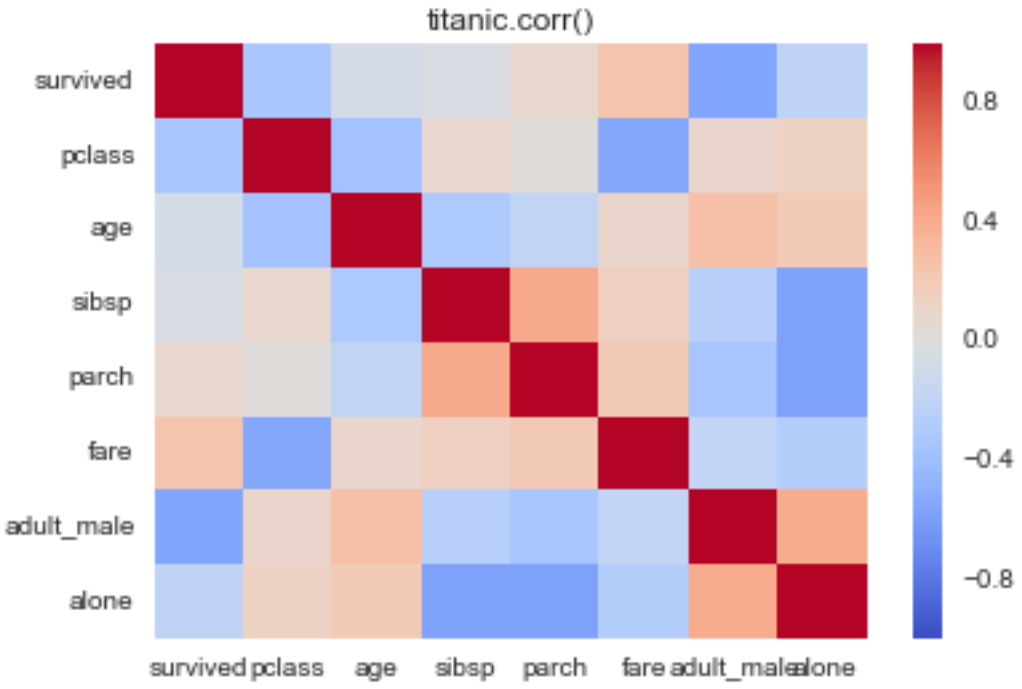
In [47]:
```
sns.countplot(x='sex',data=titanic)
```

Out[47]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x11f207ef0>
```



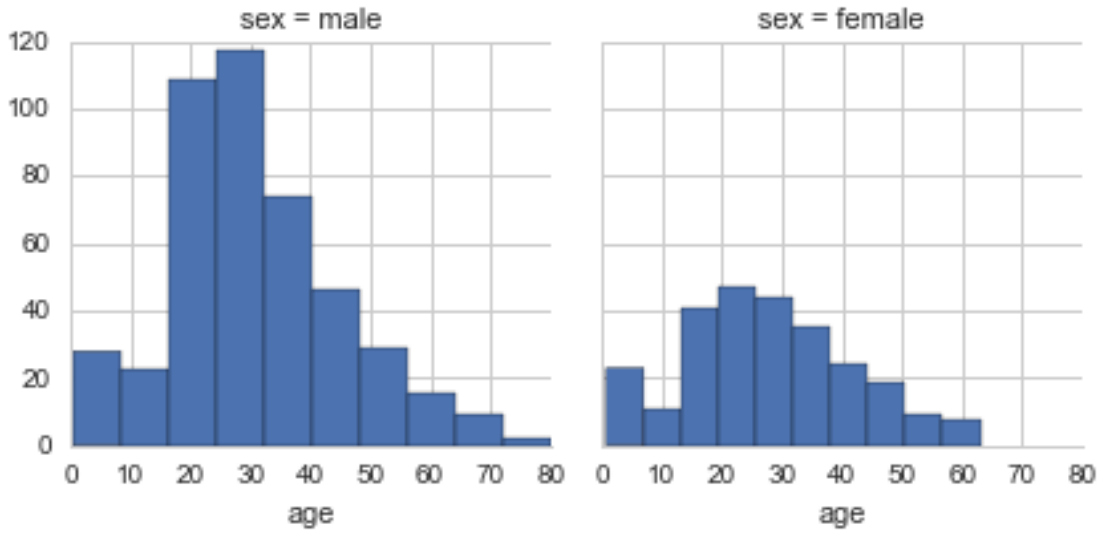

```
In [48]: sns.heatmap(titanic.corr(),cmap='coolwarm')
         plt.title('titanic.corr()')
```

```
Out[48]: <matplotlib.text.Text at 0x11d72da58>
```



```
In [49]: g = sns.FacetGrid(data=titanic,col='sex')
         g.map(plt.hist,'age')

Out[49]: <seaborn.axisgrid.FacetGrid at 0x11d81c240>
```



3 Great Job!

3.0.1 That is it for now! We'll see a lot more of seaborn practice problems in the machine learning section!