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.

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 [2]:
```
import seaborn as sns
import matplotlib.pyplot as plt
%matplotlib inline
```

In [3]:
```
sns.set_style('whitegrid')
```

In [4]:
```
titanic = sns.load_dataset('titanic')
```

In [8]:
```
titanic.head()
```

Out[8]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	de
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	Na
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	Na
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	Na

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.

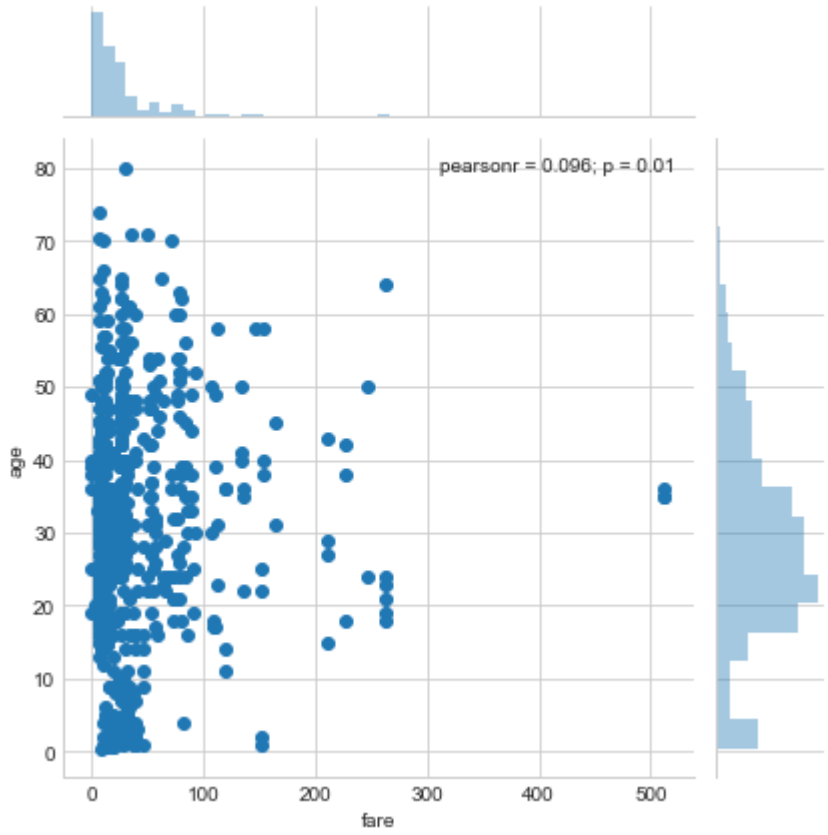
Note! In order to not lose the plot image, make sure you don't code in the cell that is directly above the plot, there is an extra cell above that one which won't overwrite that plot!

In [6]:
```
# CODE HERE
# REPLICATE EXERCISE PLOT IMAGE BELOW
# BE CAREFUL NOT TO OVERWRITE CELL BELOW
# THAT WOULD REMOVE THE EXERCISE PLOT IMAGE!
```

In [7]:
```
sns.jointplot(x='fare',y='age',data=titanic)
```

```
C:\Users\q21\Anaconda3\lib\site-packages\matplotlib\axes\_axes.py:6462: UserWar
ning: The 'normed' kwarg is deprecated, and has been replaced by the 'density'
kwarg.
  warnings.warn("The 'normed' kwarg is deprecated, and has been "
C:\Users\q21\Anaconda3\lib\site-packages\matplotlib\axes\_axes.py:6462: UserWar
ning: The 'normed' kwarg is deprecated, and has been replaced by the 'density'
kwarg.
  warnings.warn("The 'normed' kwarg is deprecated, and has been "
```

Out[7]:
```
<seaborn.axisgrid.JointGrid at 0xa0530b8>
```

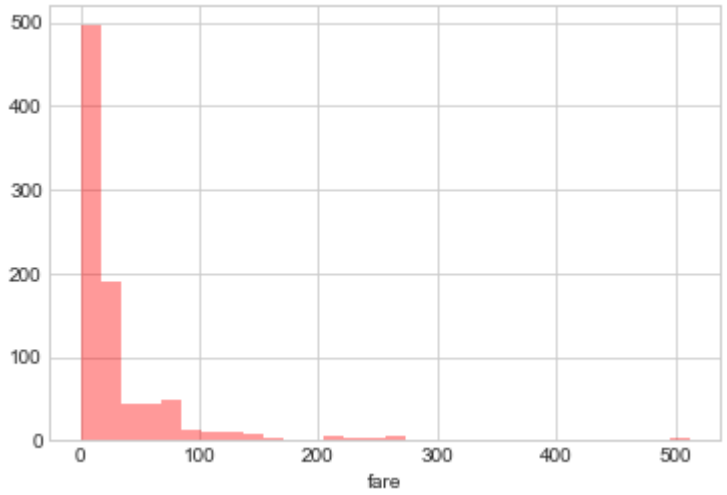


In [43]:
```
# CODE HERE
# REPLICATE EXERCISE PLOT IMAGE BELOW
# BE CAREFUL NOT TO OVERWRITE CELL BELOW
# THAT WOULD REMOVE THE EXERCISE PLOT IMAGE!
```

In [9]:
```
sns.distplot(titanic['fare'],bins=30,kde=False,color='red')
```

```
C:\Users\q21\Anaconda3\lib\site-packages\matplotlib\axes\_axes.py:6462: UserWar
ning: The 'normed' kwarg is deprecated, and has been replaced by the 'density'
kwarg.
  warnings.warn("The 'normed' kwarg is deprecated, and has been "
```

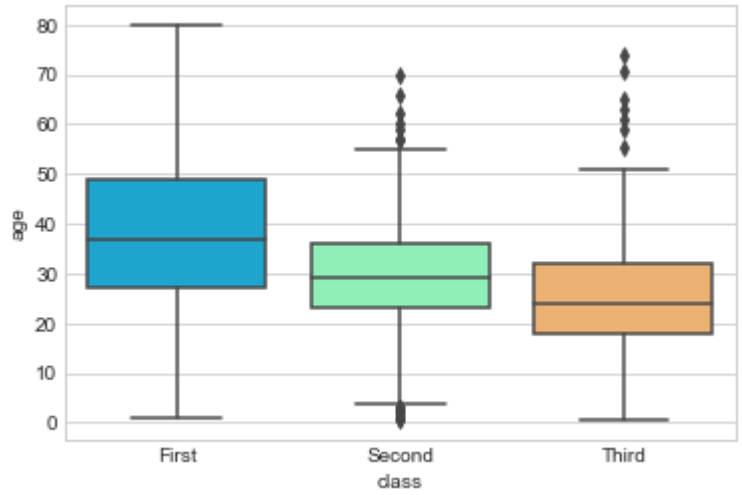
Out[9]: <matplotlib.axes._subplots.AxesSubplot at 0xb564a58>



In [ ]:
```
# CODE HERE
# REPLICATE EXERCISE PLOT IMAGE BELOW
# BE CAREFUL NOT TO OVERWRITE CELL BELOW
# THAT WOULD REMOVE THE EXERCISE PLOT IMAGE!
```

In [10]:
```
sns.boxplot(x='class',y='age',data=titanic,palette='rainbow')
```

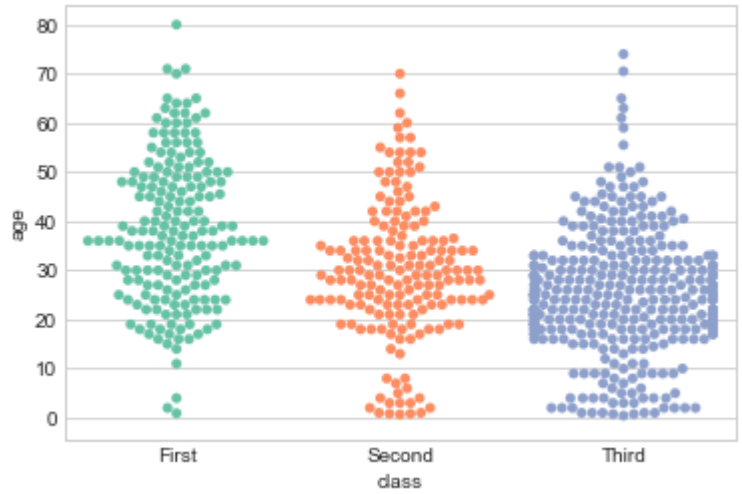
Out[10]: <matplotlib.axes._subplots.AxesSubplot at 0xb6b2a20>



In [ ]:
```
# CODE HERE
# REPLICATE EXERCISE PLOT IMAGE BELOW
# BE CAREFUL NOT TO OVERWRITE CELL BELOW
# THAT WOULD REMOVE THE EXERCISE PLOT IMAGE!
```

In [11]:
```
sns.swarmplot(x='class',y='age',data=titanic,palette='Set2')
```

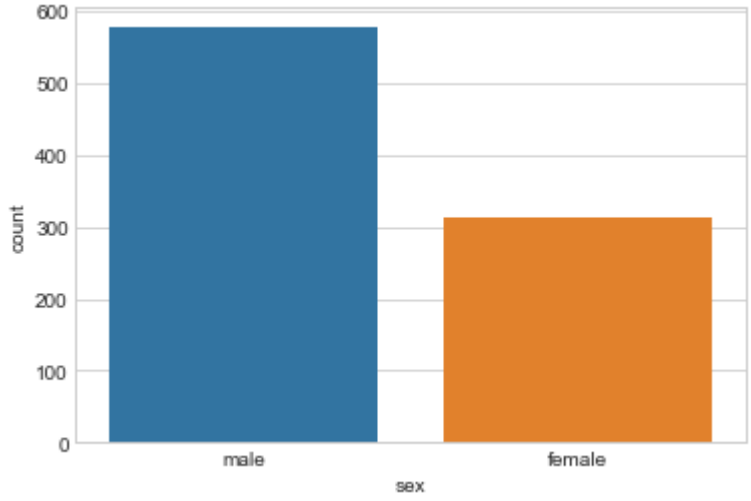
Out[11]:
```
<matplotlib.axes._subplots.AxesSubplot at 0xb770ef0>
```



In [ ]:
```
# CODE HERE
# REPLICATE EXERCISE PLOT IMAGE BELOW
# BE CAREFUL NOT TO OVERWRITE CELL BELOW
# THAT WOULD REMOVE THE EXERCISE PLOT IMAGE!
```

In [12]:
```
sns.countplot(x='sex',data=titanic)
```

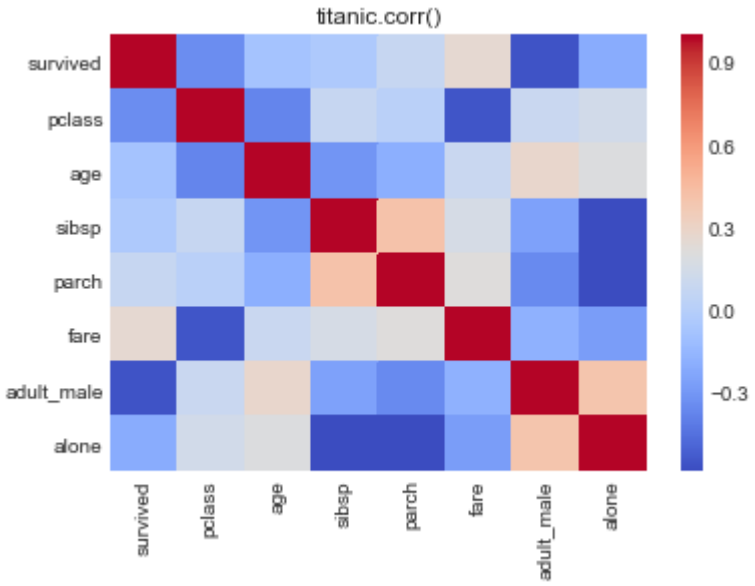
Out[12]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x6602dd8>
```



In [ ]:
```
# CODE HERE
# REPLICATE EXERCISE PLOT IMAGE BELOW
# BE CAREFUL NOT TO OVERWRITE CELL BELOW
# THAT WOULD REMOVE THE EXERCISE PLOT IMAGE!
```

In [13]:
```
sns.heatmap(titanic.corr(),cmap='coolwarm')
plt.title('titanic.corr()')
```

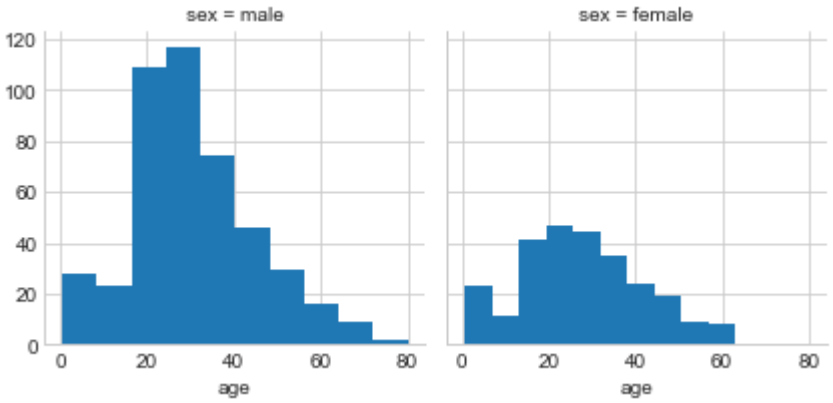
Out[13]:
```
Text(0.5,1,'titanic.corr()')
```



In [ ]:
```
# CODE HERE
# REPLICATE EXERCISE PLOT IMAGE BELOW
# BE CAREFUL NOT TO OVERWRITE CELL BELOW
# THAT WOULD REMOVE THE EXERCISE PLOT IMAGE!
```

In [14]:
```
g = sns.FacetGrid(data=titanic,col='sex')
g.map(plt.hist,'age')
```

Out[14]:
```
<seaborn.axisgrid.FacetGrid at 0x65e80f0>
```



Great Job!

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