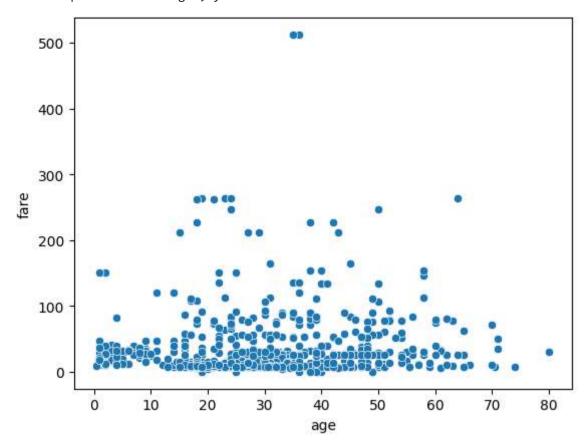
```
import pandas as pd
         import seaborn as sns
In [2]: df=sns.load_dataset('titanic')
In [3]: df
Out[3]:
              survived pclass
                                 sex age sibsp
                                                  parch
                                                            fare embarked
                                                                              class
                                                                                      who adult_male deck embark_town alive alone
                                male 22.0
           0
                     0
                                                          7.2500
                                                                              Third
                            3
                                               1
                                                      0
                                                                         S
                                                                                      man
                                                                                                  True
                                                                                                       NaN
                                                                                                              Southampton
                                                                                                                             no
                                                                                                                                 False
                              female 38.0
                     1
                                                      0 71.2833
                                                                              First woman
           1
                                                                         C
                                                                                                 False
                                                                                                                Cherbourg
                            1
                                                                                                          C
                                                                                                                                 False
                                                                                                                            yes
                            3 female 26.0
           2
                     1
                                               0
                                                      0
                                                         7.9250
                                                                         S
                                                                              Third woman
                                                                                                 False
                                                                                                       NaN
                                                                                                              Southampton
                                                                                                                            yes
                                                                                                                                  True
           3
                     1
                                                      0 53.1000
                            1 female 35.0
                                               1
                                                                         S
                                                                              First woman
                                                                                                 False
                                                                                                              Southampton
                                                                                                          C
                                                                                                                            yes
                                                                                                                                 False
           4
                     0
                                male 35.0
                                               0
                                                         8.0500
                                                                         S
                                                                              Third
                                                      0
                                                                                                  True NaN
                                                                                                             Southampton
                                                                                                                                  True
                                                                                      man
                                                                                                                             no
         886
                     0
                            2
                                      27.0
                                               0
                                                      0 13.0000
                                male
                                                                         S Second
                                                                                      man
                                                                                                       NaN
                                                                                                              Southampton
                                                                                                                                  True
                                                                                                  True
                                                                                                                             no
         887
                     1
                            1 female 19.0
                                               0
                                                      0 30.0000
                                                                         S
                                                                                                              Southampton
                                                                              First woman
                                                                                                 False
                                                                                                                                  True
                                                                                                                            yes
                     0
         888
                            3 female NaN
                                               1
                                                      2 23.4500
                                                                         S
                                                                              Third woman
                                                                                                 False
                                                                                                      NaN
                                                                                                              Southampton
                                                                                                                             no
                                                                                                                                 False
         889
                                male 26.0
                                               0
                                                      0 30.0000
                                                                              First
                                                                         C
                                                                                                  True
                                                                                                          C
                                                                                                                Cherbourg
                                                                                                                                  True
                                                                                      man
                                                                                                                            yes
         890
                     0
                                male 32.0
                                               0
                                                                              Third
                            3
                                                      0
                                                         7.7500
                                                                        Q
                                                                                      man
                                                                                                  True
                                                                                                      NaN
                                                                                                              Queenstown
                                                                                                                                  True
                                                                                                                             no
        891 rows × 15 columns
In [8]: | df.head()
Out[8]:
            survived pclass
                               sex age sibsp parch
                                                         fare embarked
                                                                        class
                                                                                  who adult_male deck embark_town alive alone
                                                       7.2500
         0
                              male 22.0
                  0
                          3
                                             1
                                                    0
                                                                      S
                                                                         Third
                                                                                  man
                                                                                             True
                                                                                                   NaN
                                                                                                         Southampton
                                                                                                                        no
                                                                                                                             False
                            female
                                    38.0
                                                      71.2833
                                                                          First woman
                                                                                             False
                                                                                                            Cherbourg
                                                                                                                             False
                                                                                                                        yes
         2
                   1
                          3 female
                                    26.0
                                             0
                                                    0
                                                       7.9250
                                                                         Third
                                                                               woman
                                                                                             False
                                                                                                   NaN
                                                                                                         Southampton
                                                                                                                              True
                                                                                                                        yes
         3
                          1 female 35.0
                                                      53.1000
                                                                          First woman
                                                                                             False
                                                                                                         Southampton
                                                                                                                             False
                                                                                                                        yes
         4
                  0
                                             0
                                                       8.0500
                              male 35.0
                                                    0
                                                                      S Third
                                                                                  man
                                                                                              True NaN
                                                                                                         Southampton
                                                                                                                         no
                                                                                                                             True
In [7]: a=df.isnull().sum();
Out[7]: survived
                           0
         pclass
                           0
                           0
         sex
                         177
         age
         sibsp
                            0
                            0
         parch
         fare
                           0
         embarked
                            2
         class
                            0
                           0
         who
                           0
         adult_male
         deck
                          688
         embark_town
                           2
                            0
         alive
                            0
         alone
         dtype: int64
In [9]: | df.drop('deck',axis=1)
Out[9]:
              survived pclass
                                      age sibsp parch
                                                            fare embarked
                                                                              class
                                                                                      who adult_male embark_town alive alone
           0
                     0
                                                          7.2500
                                                                         S
                                                                                                        Southampton
                                male 22.0
                                               1
                                                                              Third
                                                                                      man
                                                                                                  True
                                                                                                                           False
                                                                                                                       no
           1
                            1 female 38.0
                                                      0 71.2833
                                                                                                          Cherbourg
                                                                              First woman
                                                                                                 False
                                                                                                                           False
                                                                                                                      yes
           2
                            3 female 26.0
                                               0
                                                                         S
                     1
                                                          7.9250
                                                                              Third woman
                                                                                                 False
                                                                                                        Southampton
                                                                                                                      yes
                                                                                                                            True
                     1
           3
                            1 female 35.0
                                               1
                                                      0 53.1000
                                                                         S
                                                                                                        Southampton
                                                                              First woman
                                                                                                 False
                                                                                                                            False
                                                                                                                      yes
           4
                     0
                                male 35.0
                                               0
                                                      0 8.0500
                                                                         S
                                                                              Third
                            3
                                                                                      man
                                                                                                  True
                                                                                                        Southampton
                                                                                                                            True
                                                                                                                       no
                                                                                                        Southampton
         886
                     0
                            2
                                male
                                     27.0
                                               0
                                                      0 13.0000
                                                                         S Second
                                                                                                                            True
                                                                                      man
                                                                                                  True
                                                                                                                       no
         887
                     1
                            1 female 19.0
                                                      0 30.0000
                                                                         S
                                                                              First woman
                                                                                                 False
                                                                                                        Southampton
                                                                                                                            True
                                                                                                                      yes
         888
                     0
                            3 female NaN
                                                      2 23.4500
                                               1
                                                                         S
                                                                              Third woman
                                                                                                 False
                                                                                                        Southampton
                                                                                                                           False
                                                                                                                       no
                                                      0 30.0000
                                                                                                                      yes
         889
                                male 26.0
                                                                         C
                                                                              First
                                                                                      man
                                                                                                  True
                                                                                                          Cherbourg
                                                                                                                            True
                                male 32.0
         890
                     0
                            3
                                               0
                                                        7.7500
                                                                        Q
                                                                              Third
                                                                                                         Queenstown
                                                                                      man
                                                                                                  True
                                                                                                                       no
                                                                                                                            True
        891 rows × 14 columns
```

In [11]: sns.scatterplot(x='age',y='fare',data=df)

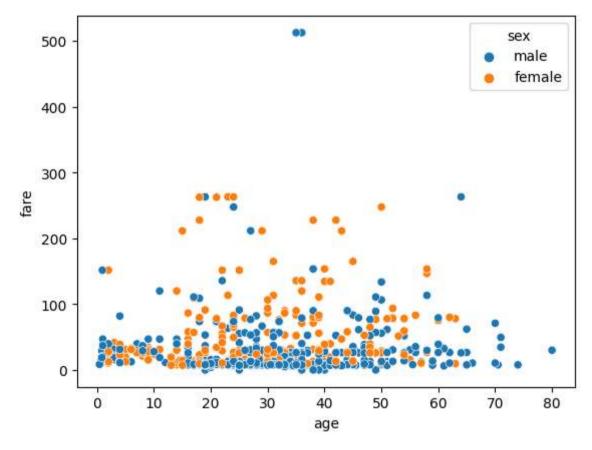
In [1]: **import** numpy as np

Out[11]: <AxesSubplot: xlabel='age', ylabel='fare'>



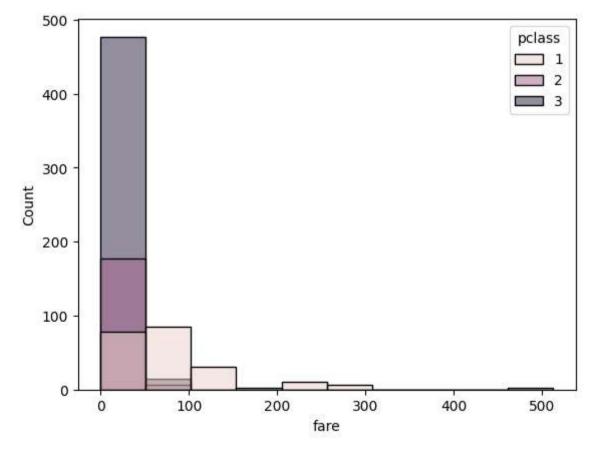
In [14]: sns.scatterplot(x='age',y='fare',data=df,hue='sex')

Out[14]: <AxesSubplot: xlabel='age', ylabel='fare'>



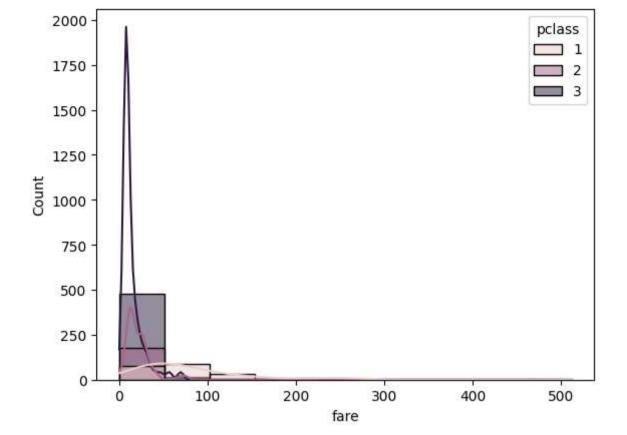
In [15]: sns.histplot(df,x='fare',hue='pclass',bins=10)

Out[15]: <AxesSubplot: xlabel='fare', ylabel='Count'>



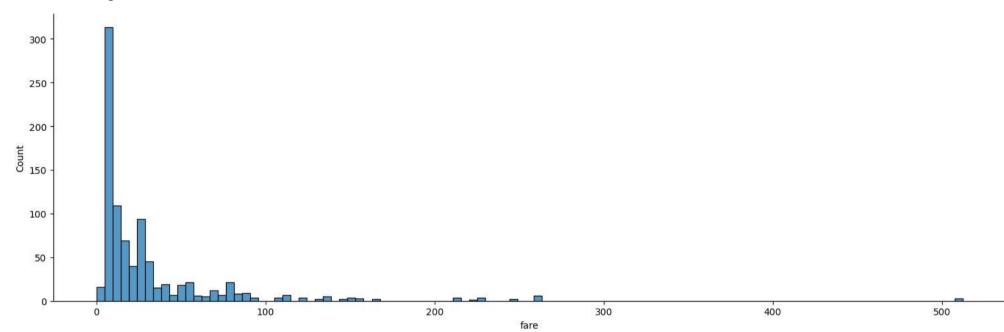
In [16]: sns.histplot(df,x='fare',hue='pclass',bins=10,kde=True)

Out[16]: <AxesSubplot: xlabel='fare', ylabel='Count'>



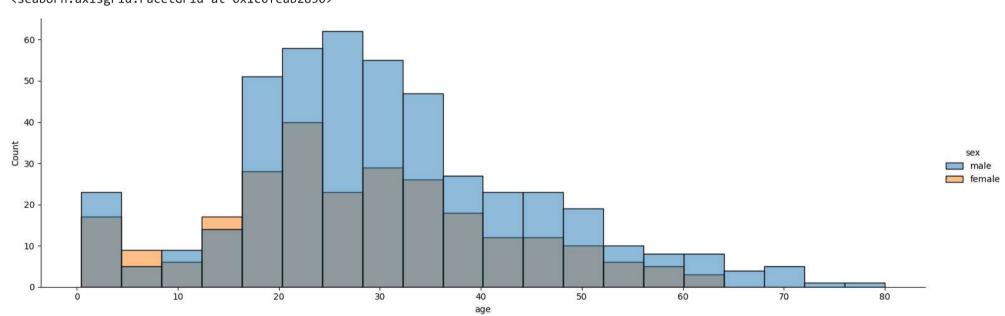
In [17]: sns.displot(df['fare'],aspect=3)

Out[17]: <seaborn.axisgrid.FacetGrid at 0x1c0fe6b0150>



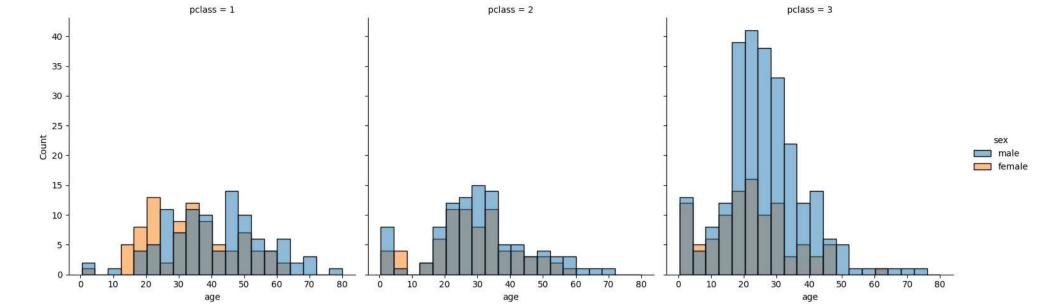
In [18]: sns.displot(df,x='age',hue='sex',aspect=3)

Out[18]: <seaborn.axisgrid.FacetGrid at 0x1c0feab2850>



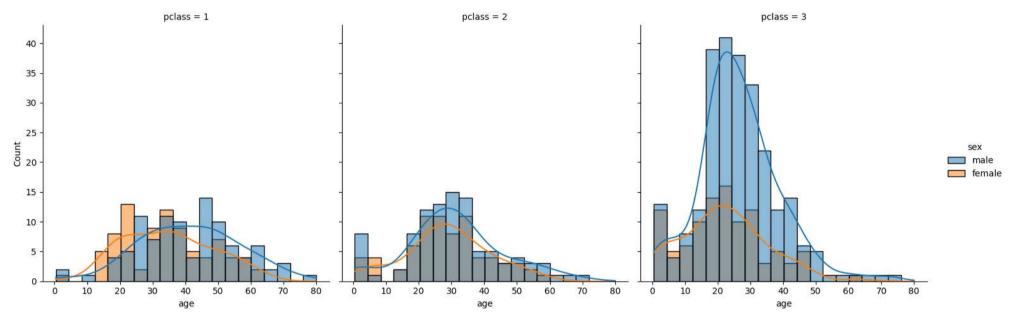
In [20]: sns.displot(df,x='age',hue='sex',col='pclass',aspect=1)

Out[20]: <seaborn.axisgrid.FacetGrid at 0x1c0feac2710>



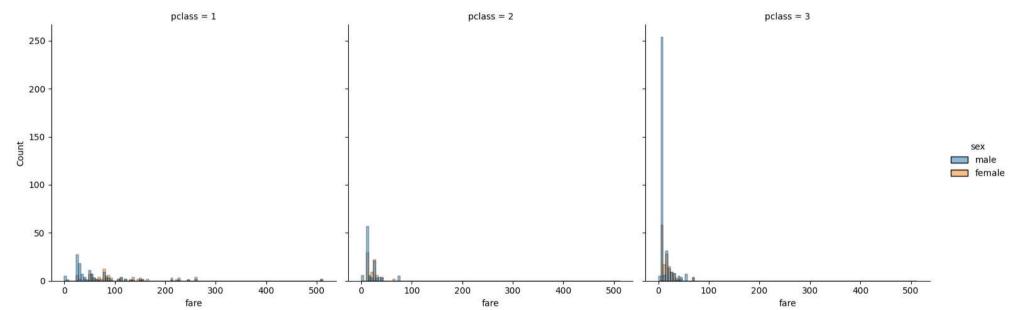
In [21]: sns.displot(df,x='age',hue='sex',col='pclass',aspect=1,kde=True)

Out[21]: <seaborn.axisgrid.FacetGrid at 0x1c0ff86cc50>



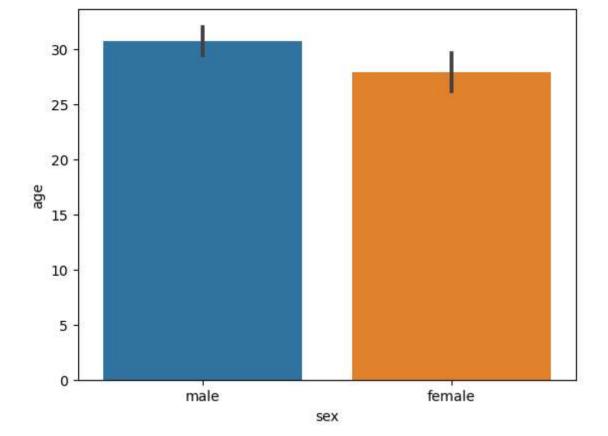
In [23]: sns.displot(df,x='fare',hue='sex',col='pclass')

Out[23]: <seaborn.axisgrid.FacetGrid at 0x1c08418b850>



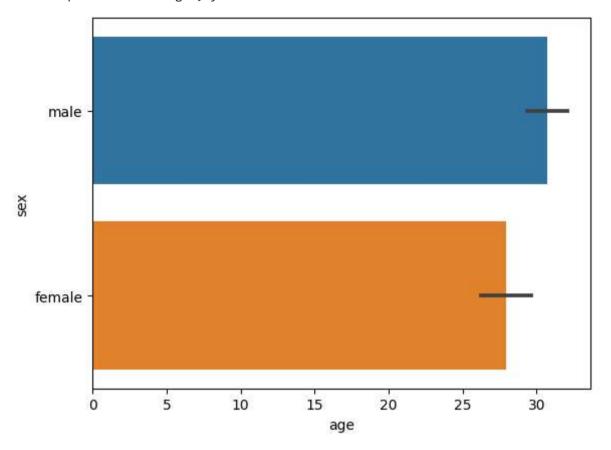
In [25]: sns.barplot(x='sex',y='age',data=df)

Out[25]: <AxesSubplot: xlabel='sex', ylabel='age'>



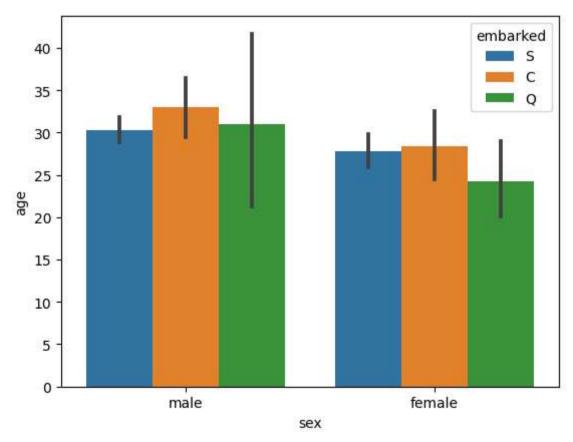
In [27]: sns.barplot(y='sex',x='age',data=df)

Out[27]: <AxesSubplot: xlabel='age', ylabel='sex'>



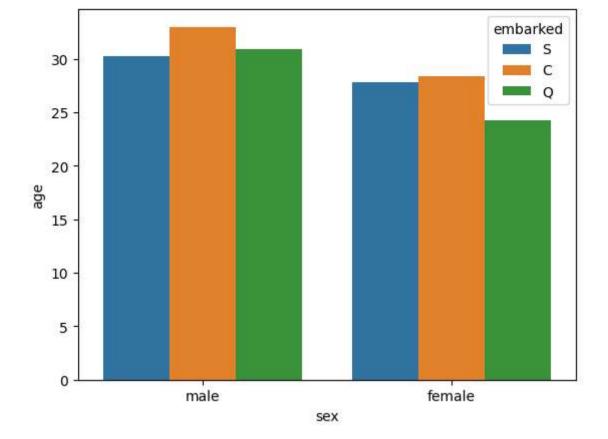
In [29]: sns.barplot(x='sex',y='age',hue='embarked',data=df)

Out[29]: <AxesSubplot: xlabel='sex', ylabel='age'>



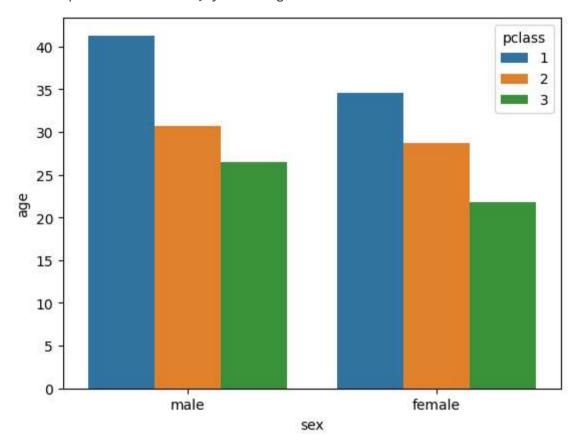
In [36]: sns.barplot(x='sex',y='age',hue='embarked',data=df,errorbar=None)

Out[36]: <AxesSubplot: xlabel='sex', ylabel='age'>



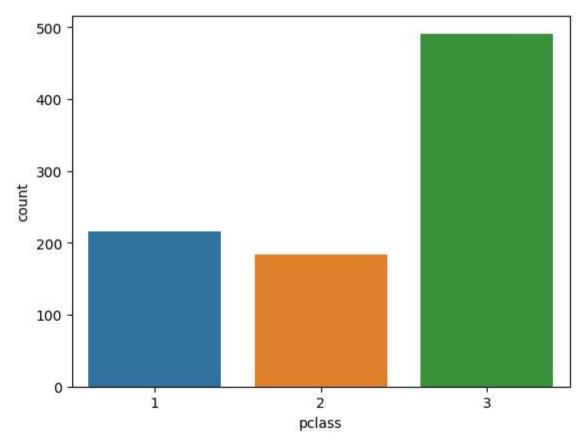
In [37]: sns.barplot(x='sex',y='age',hue='pclass',data=df,errorbar=None)

Out[37]: <AxesSubplot: xlabel='sex', ylabel='age'>



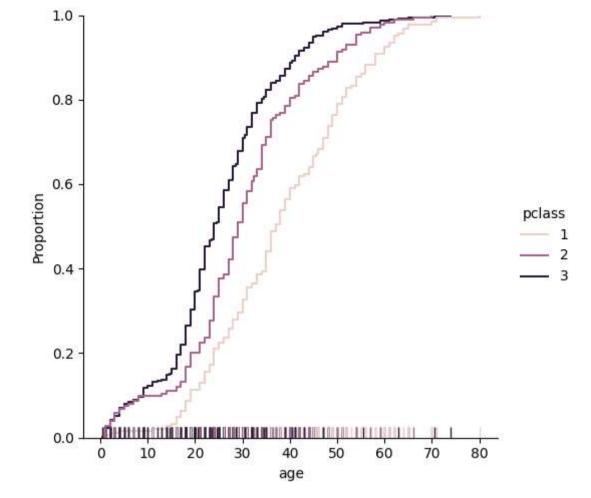
In [39]: sns.countplot(x='pclass',data=df)

Out[39]: <AxesSubplot: xlabel='pclass', ylabel='count'>



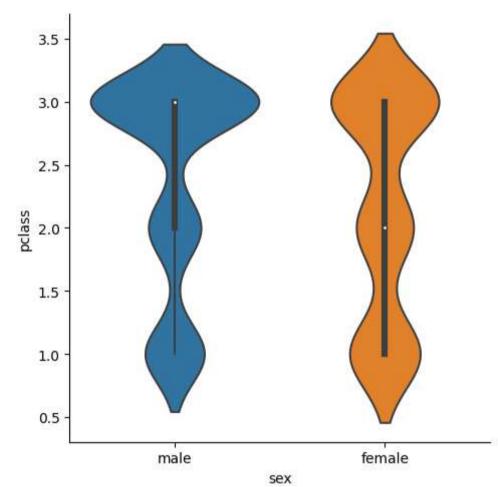
In [48]: sns.displot(data=df, kind="ecdf", x="age", hue="pclass", rug=True)

Out[48]: <seaborn.axisgrid.FacetGrid at 0x1c092663fd0>



In [44]: sns.catplot(data=df,kind='violin', x="sex", y="pclass")

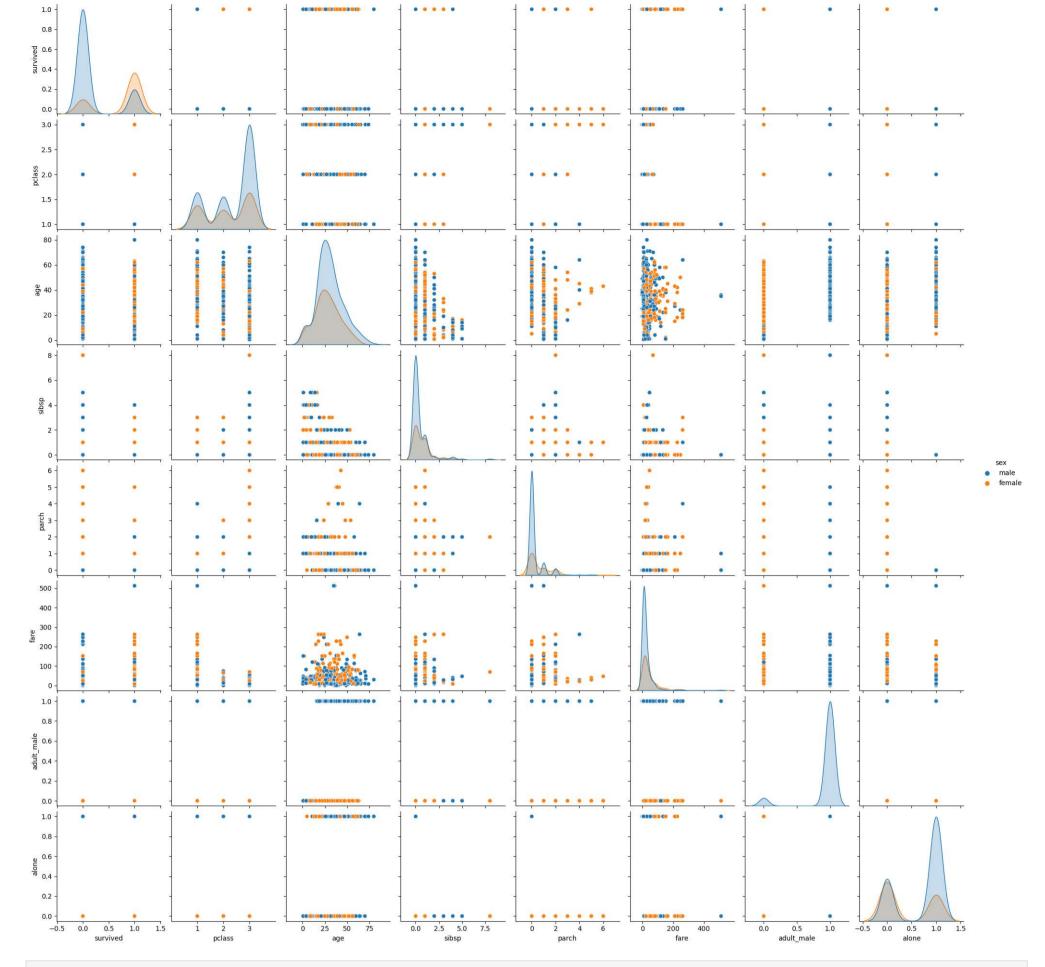
Out[44]: <seaborn.axisgrid.FacetGrid at 0x1c09089e3d0>



In []: sns.pairplot(data=df, hue="pclass")

In [41]: sns.pairplot(data=df, hue="sex")

Out[41]: <seaborn.axisgrid.PairGrid at 0x1c08b688450>



In []: