

```
In [1]: import numpy as np
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
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	NaN	Southampton	no	False
1	1	1	female	38.0	1	0	71.2833	C	First	woman	False	C	Cherbourg	yes	False
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	NaN	Southampton	yes	True
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	C	Southampton	yes	False
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	NaN	Southampton	no	True
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
886	0	2	male	27.0	0	0	13.0000	S	Second	man	True	NaN	Southampton	no	True
887	1	1	female	19.0	0	0	30.0000	S	First	woman	False	B	Southampton	yes	True
888	0	3	female	NaN	1	2	23.4500	S	Third	woman	False	NaN	Southampton	no	False
889	1	1	male	26.0	0	0	30.0000	C	First	man	True	C	Cherbourg	yes	True
890	0	3	male	32.0	0	0	7.7500	Q	Third	man	True	NaN	Queenstown	no	True

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
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	NaN	Southampton	no	False
1	1	1	female	38.0	1	0	71.2833	C	First	woman	False	C	Cherbourg	yes	False
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	NaN	Southampton	yes	True
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	C	Southampton	yes	False
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	NaN	Southampton	no	True

```
In [7]: a=df.isnull().sum();
a
```

Out[7]:

survived

0

pclass

0

sex

0

age

177

sibsp

0

parch

0

fare

0

embarked

2

class

0

who

0

adult\_male

0

deck

688

embark\_town

2

alive

0

alone

0

dtype: int64

```
In [9]: df.drop('deck',axis=1)
```

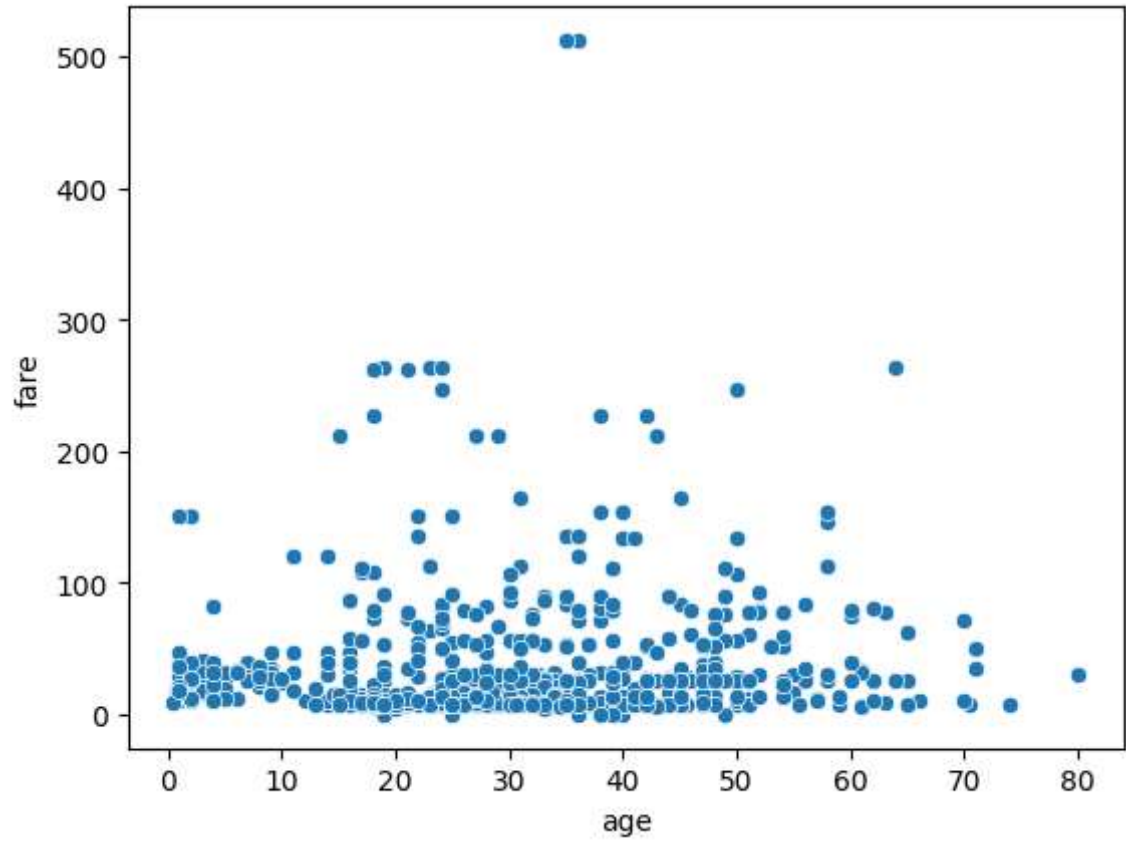
Out[9]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	embark_town	alive	alone
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	Southampton	no	False
1	1	1	female	38.0	1	0	71.2833	C	First	woman	False	Cherbourg	yes	False
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	Southampton	yes	True
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	Southampton	yes	False
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	Southampton	no	True
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
886	0	2	male	27.0	0	0	13.0000	S	Second	man	True	Southampton	no	True
887	1	1	female	19.0	0	0	30.0000	S	First	woman	False	Southampton	yes	True
888	0	3	female	NaN	1	2	23.4500	S	Third	woman	False	Southampton	no	False
889	1	1	male	26.0	0	0	30.0000	C	First	man	True	Cherbourg	yes	True
890	0	3	male	32.0	0	0	7.7500	Q	Third	man	True	Queenstown	no	True

891 rows × 14 columns

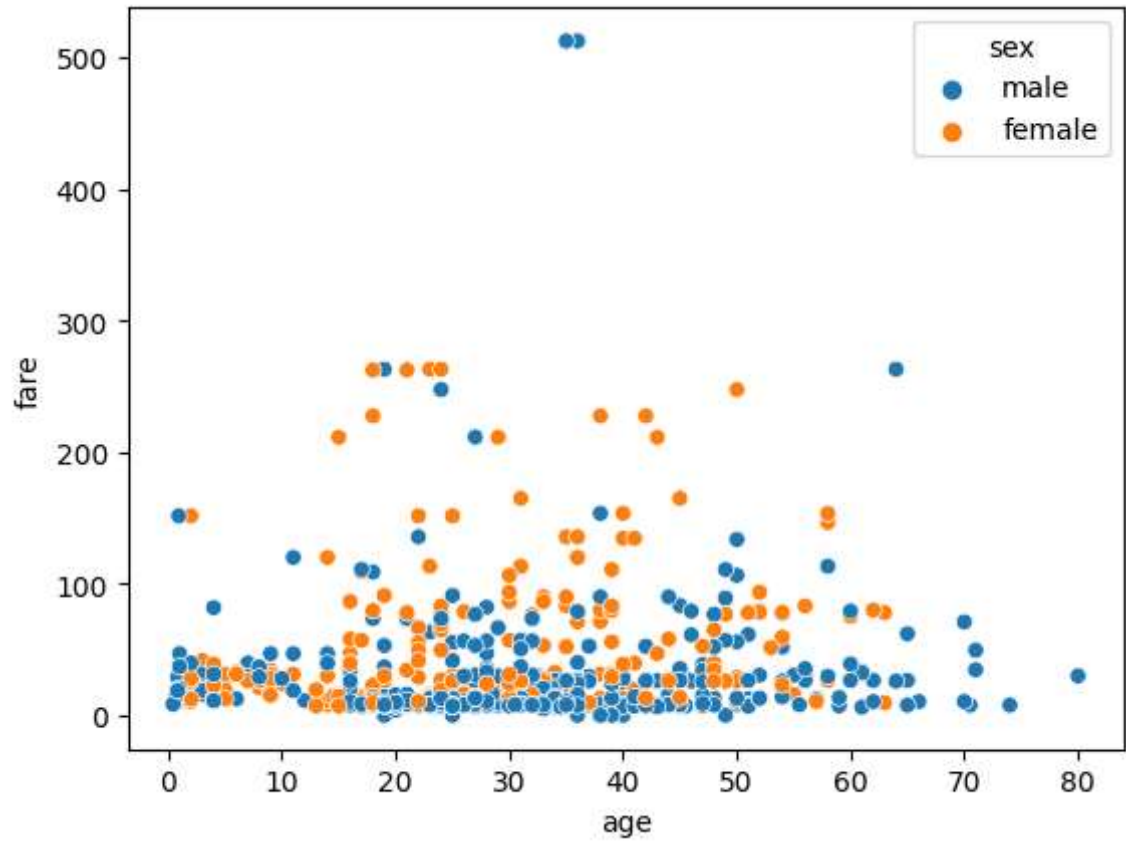
```
In [11]: sns.scatterplot(x='age',y='fare',data=df)
```

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



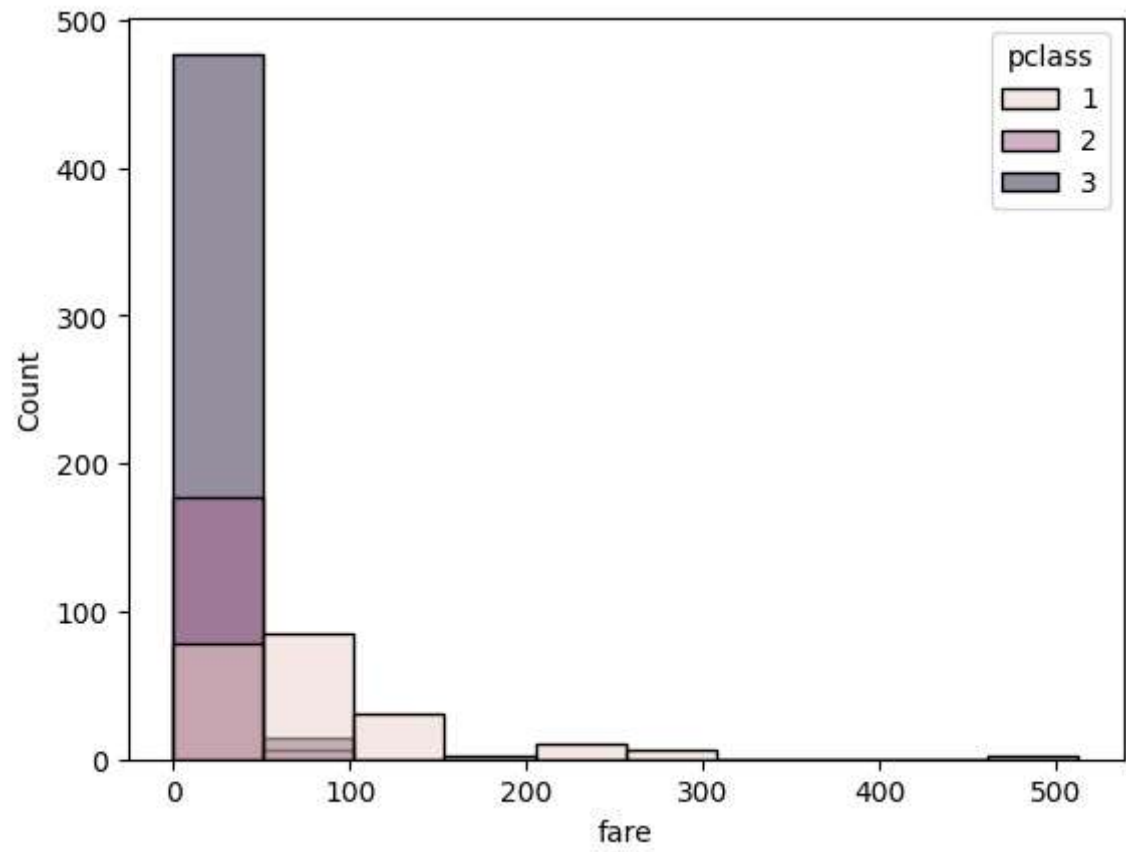
In [14]: `sns.scatterplot(x='age',y='fare',data=df,hue='sex')`

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



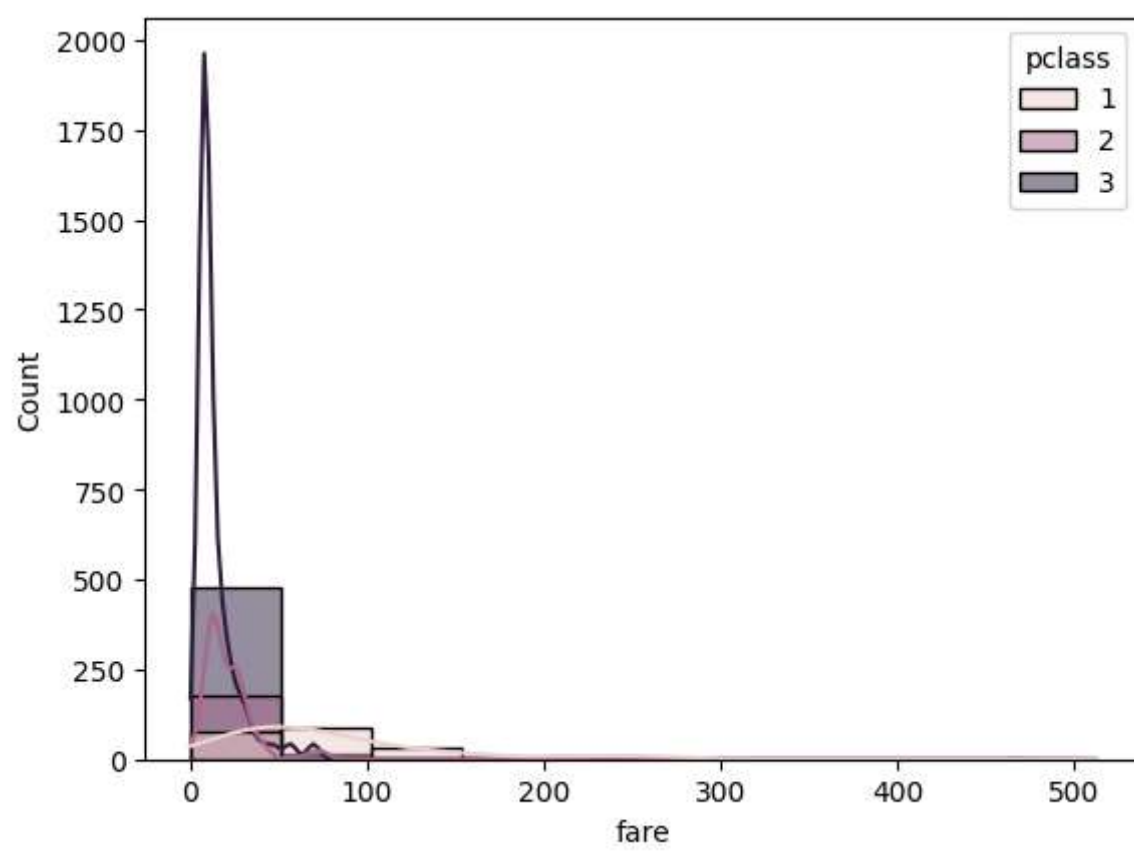
In [15]: `sns.histplot(df,x='fare',hue='pclass',bins=10)`

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



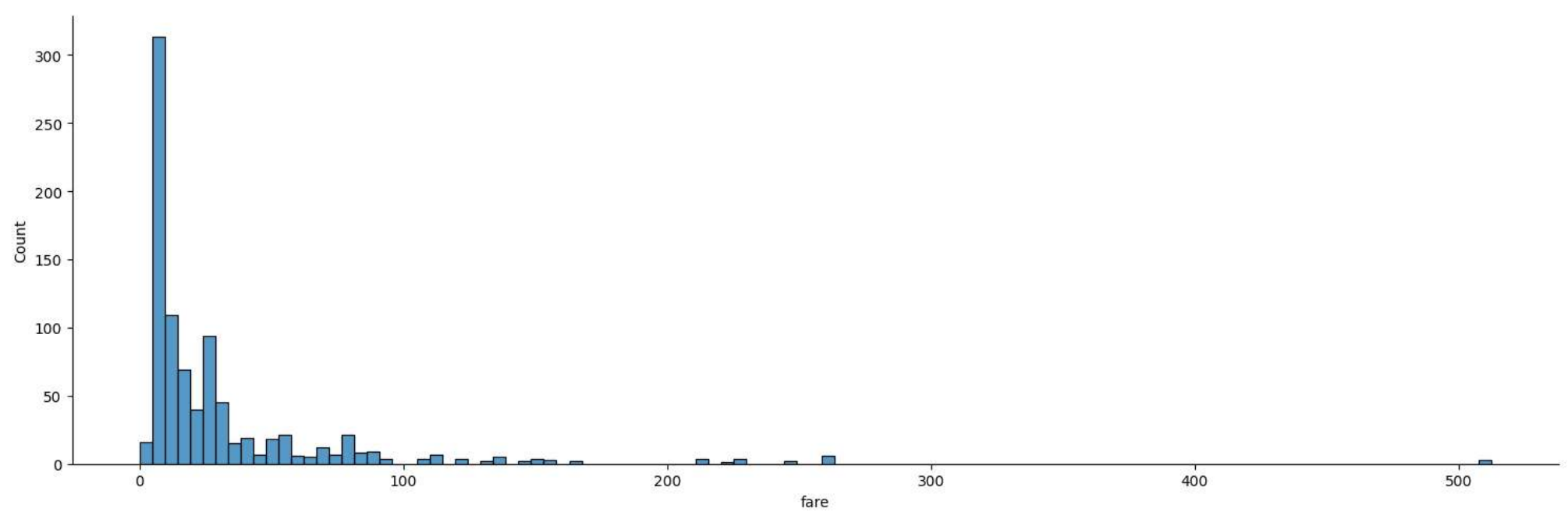
In [16]: `sns.histplot(df,x='fare',hue='pclass',bins=10,kde=True)`

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



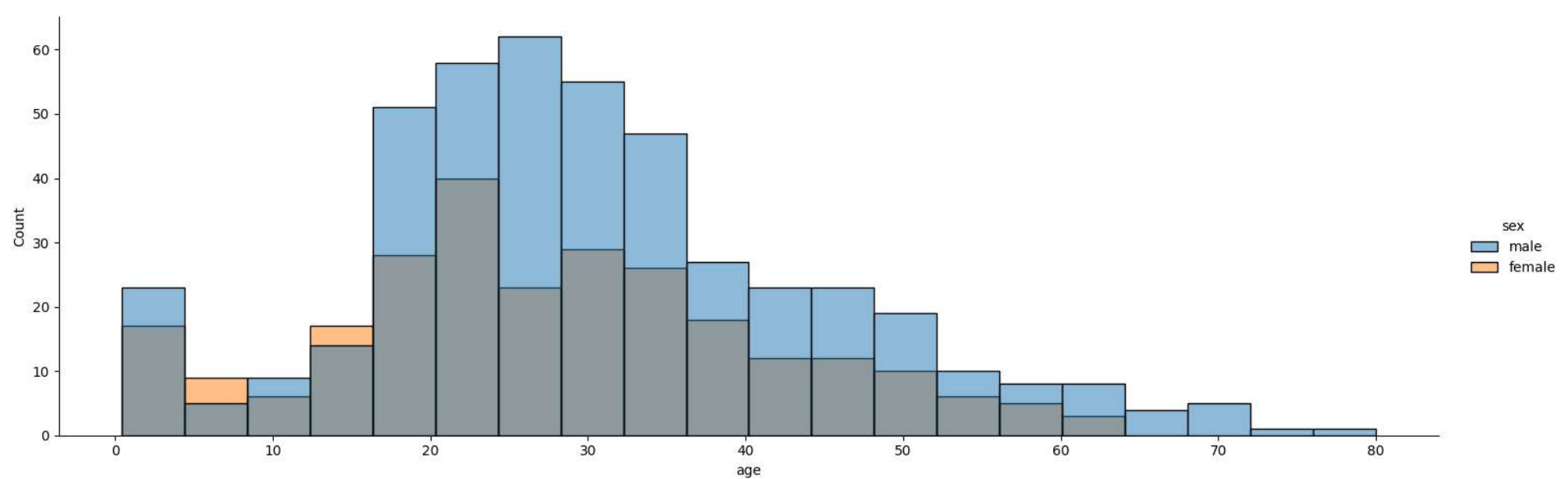
```
In [17]: sns.displot(df['fare'],aspect=3)
```

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



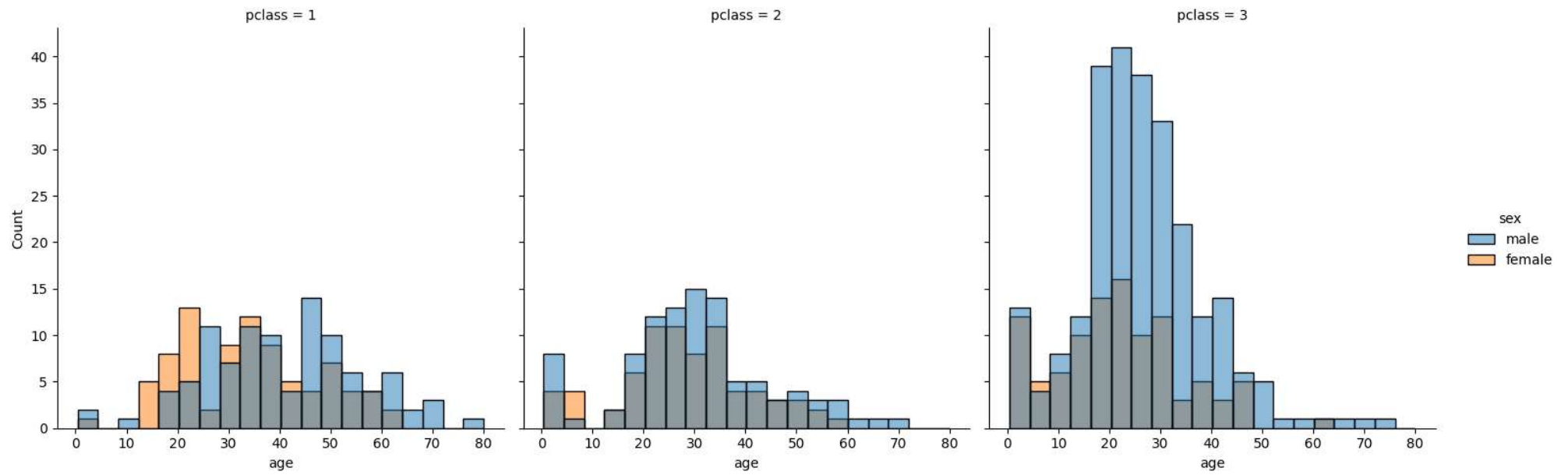
```
In [18]: sns.displot(df,x='age',hue='sex',aspect=3)
```

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



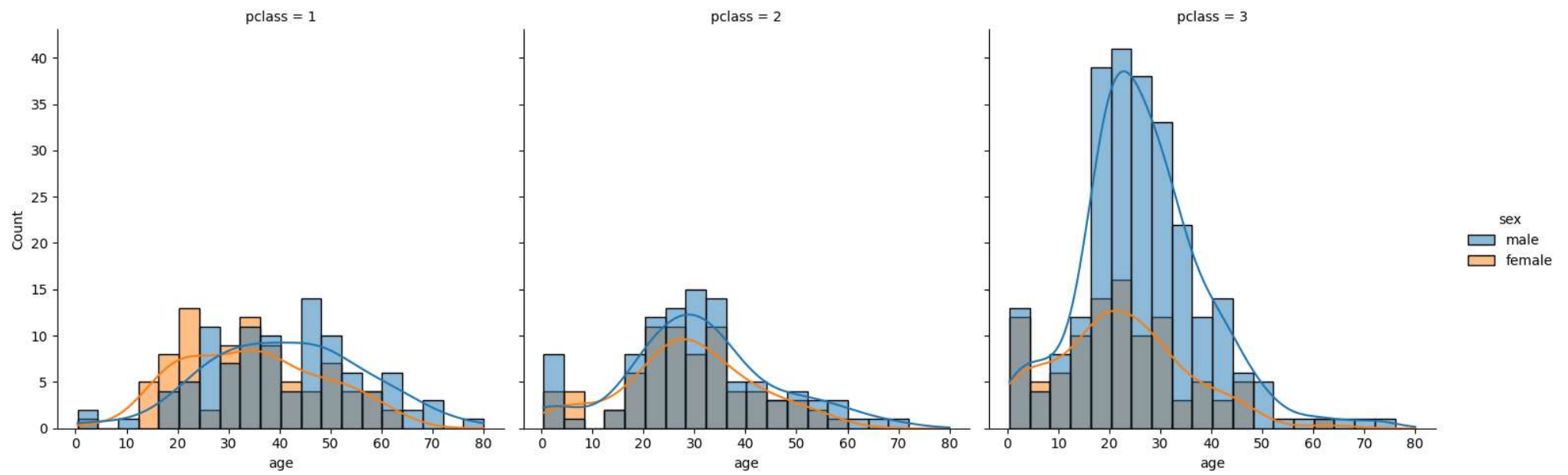
```
In [20]: sns.displot(df,x='age',hue='sex',col='pclass',aspect=1)
```

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



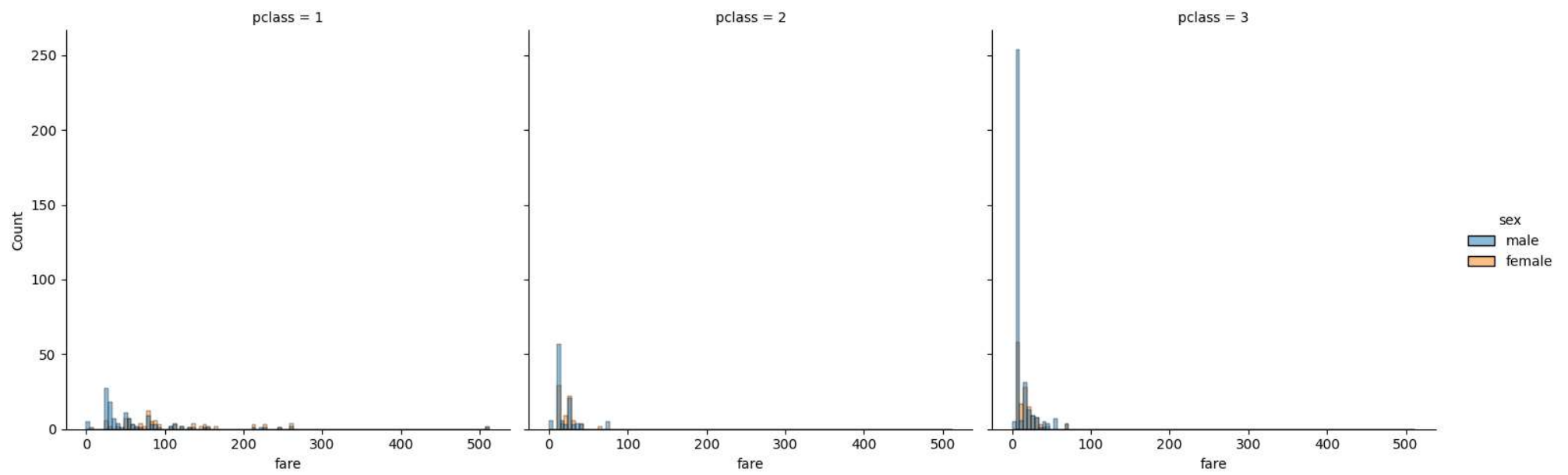
```
In [21]: sns.displot(df,x='age',hue='sex',col='pclass',aspect=1,kde=True)
```

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



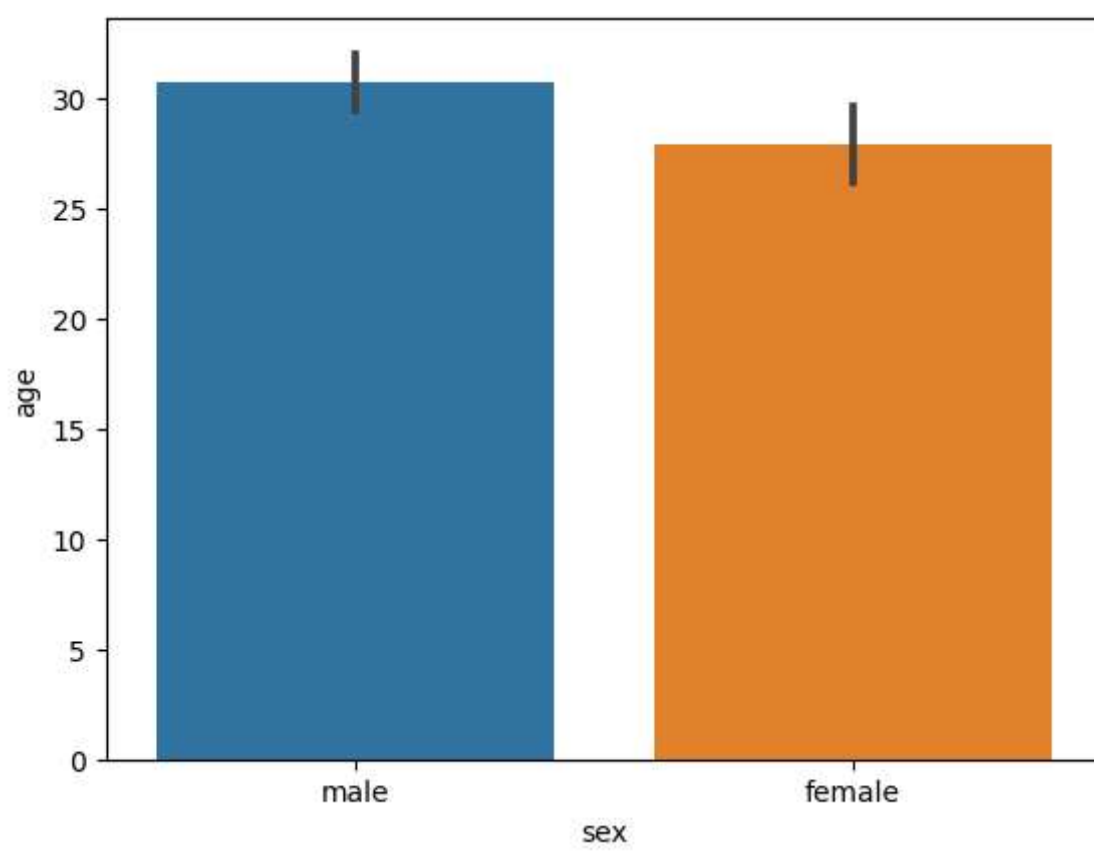
```
In [23]: sns.displot(df,x='fare',hue='sex',col='pclass')
```

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



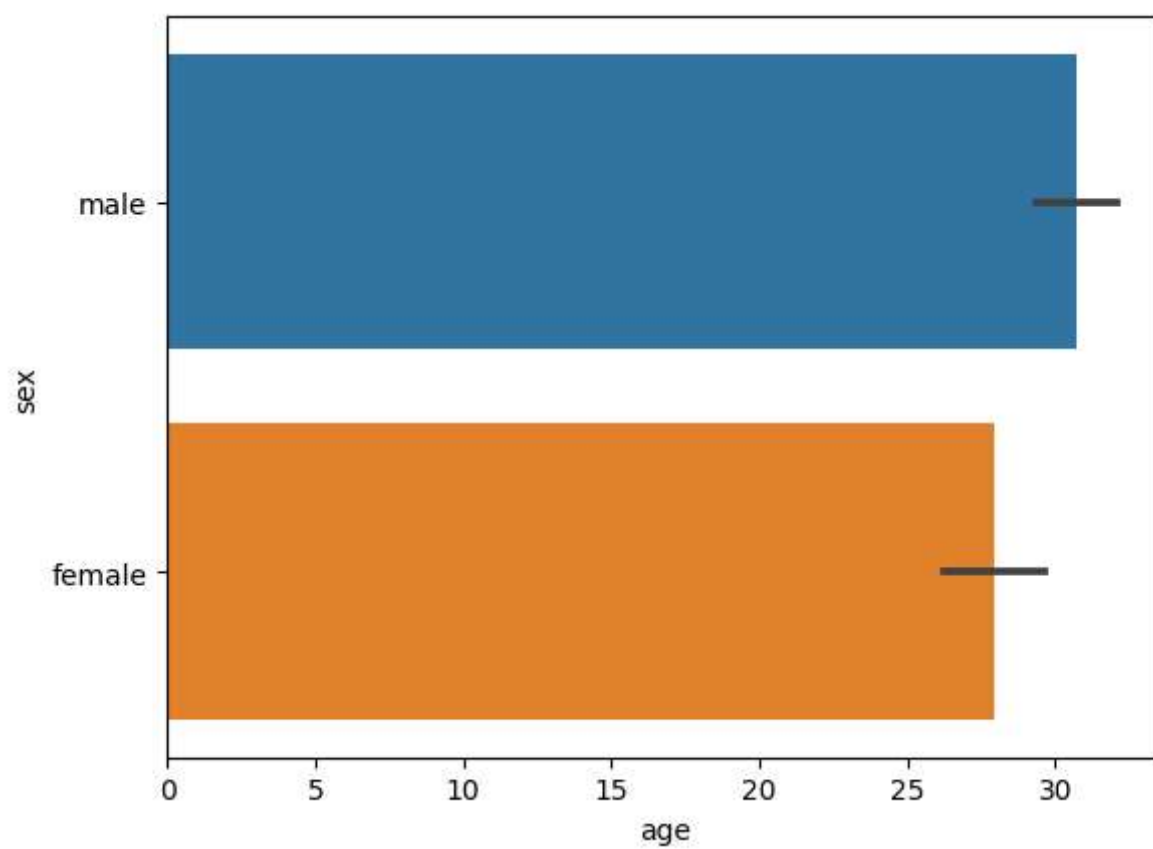
```
In [25]: sns.barplot(x='sex',y='age',data=df)
```

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



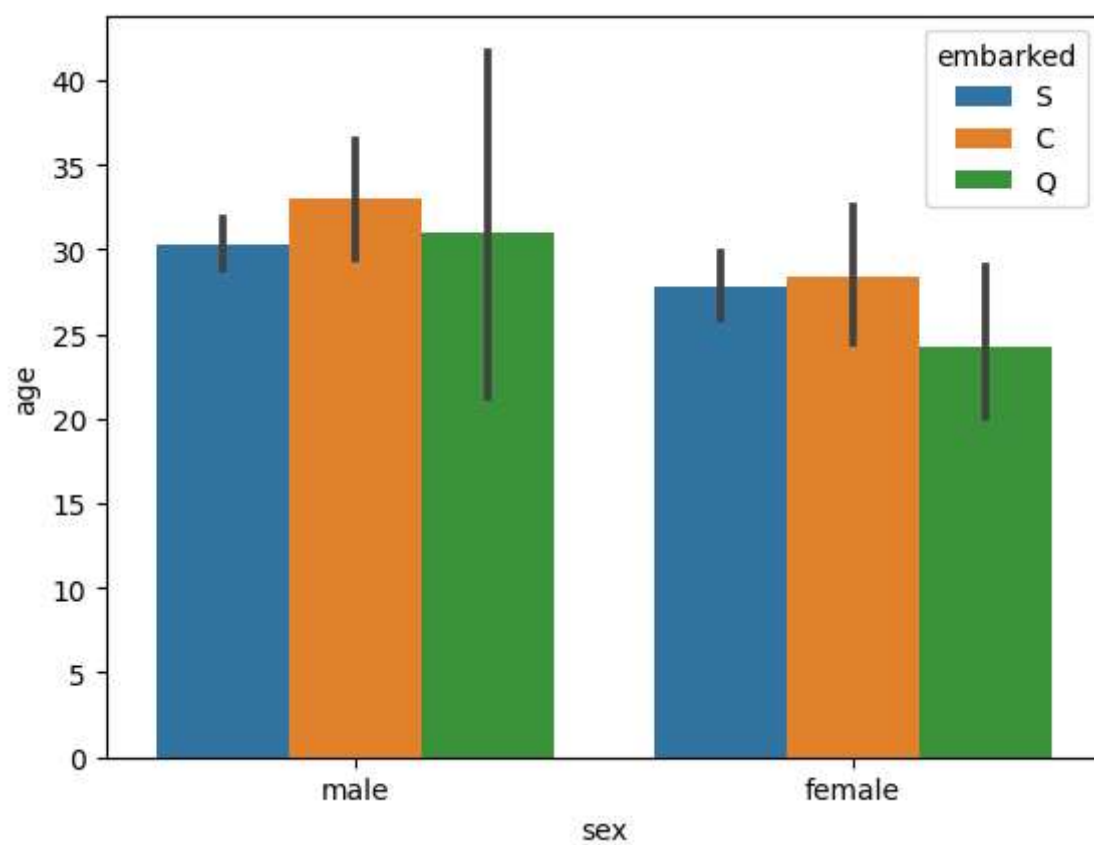
```
In [27]: sns.barplot(y='sex',x='age',data=df)
```

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



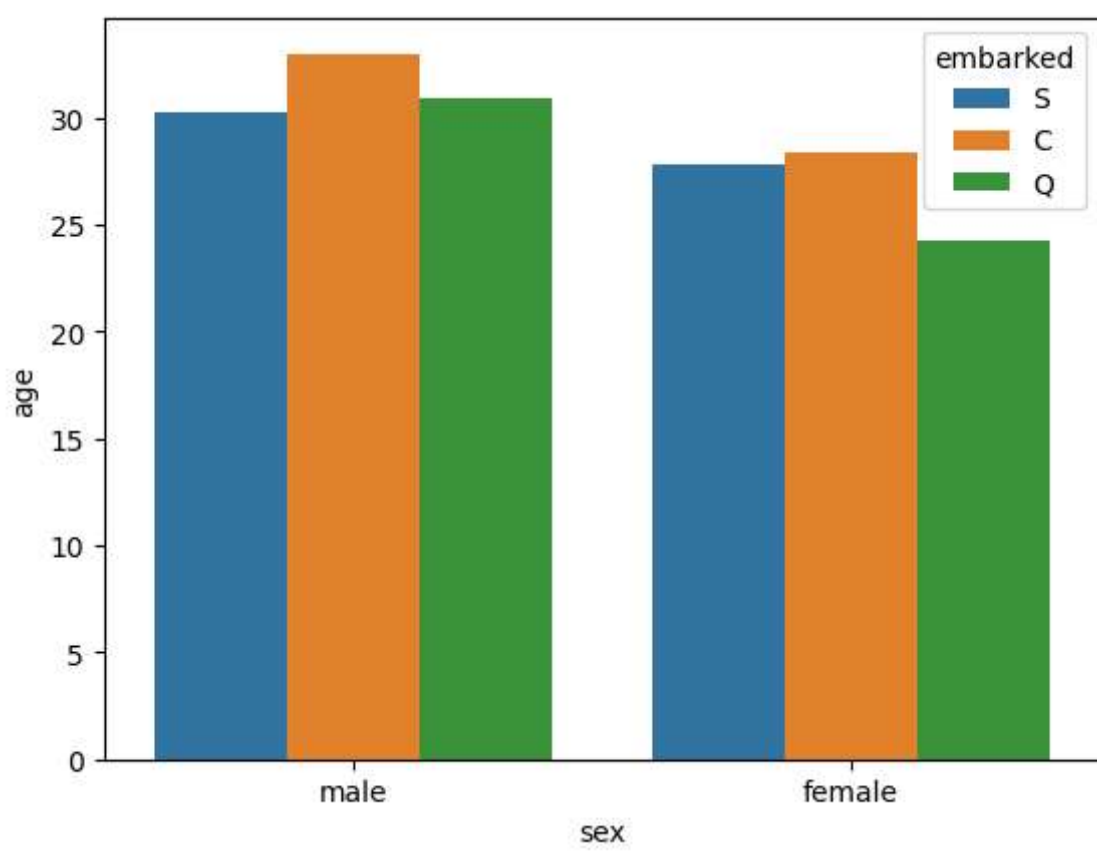
```
In [29]: sns.barplot(x='sex',y='age',hue='embarked',data=df)
```

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



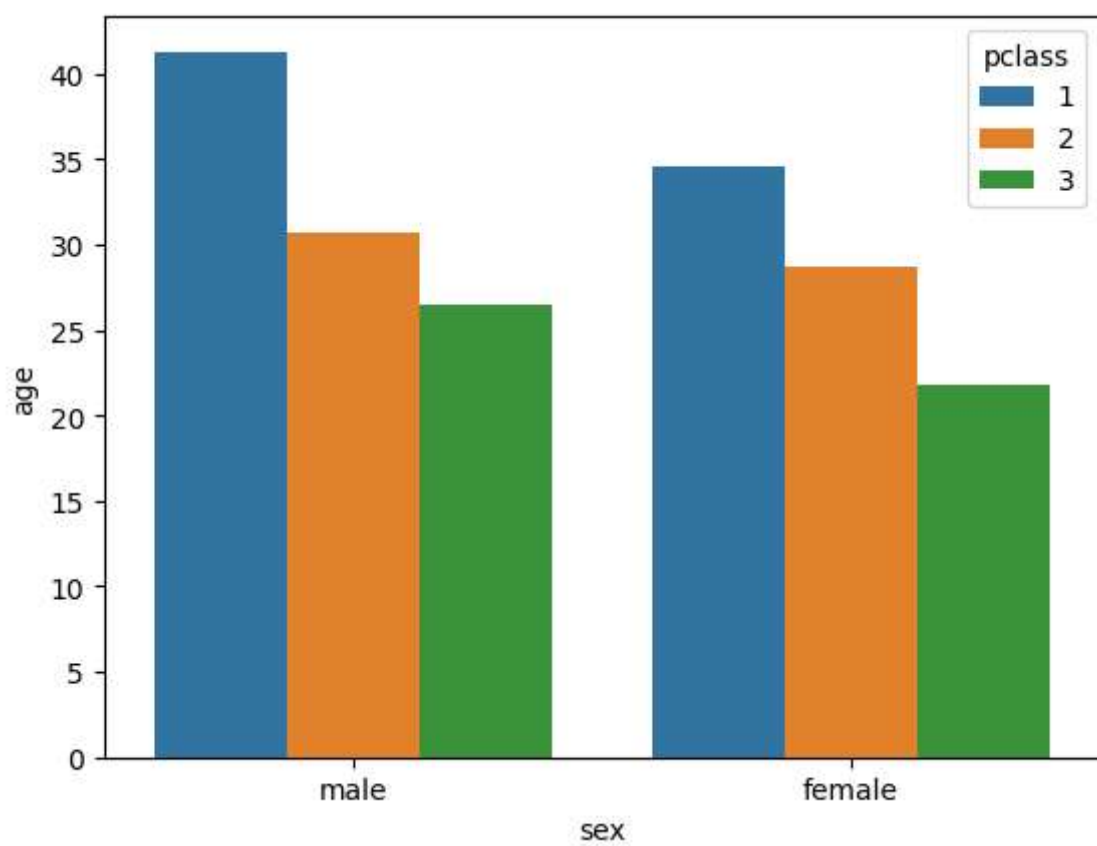
```
In [36]: sns.barplot(x='sex',y='age',hue='embarked',data=df,errorbar=None)
```

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



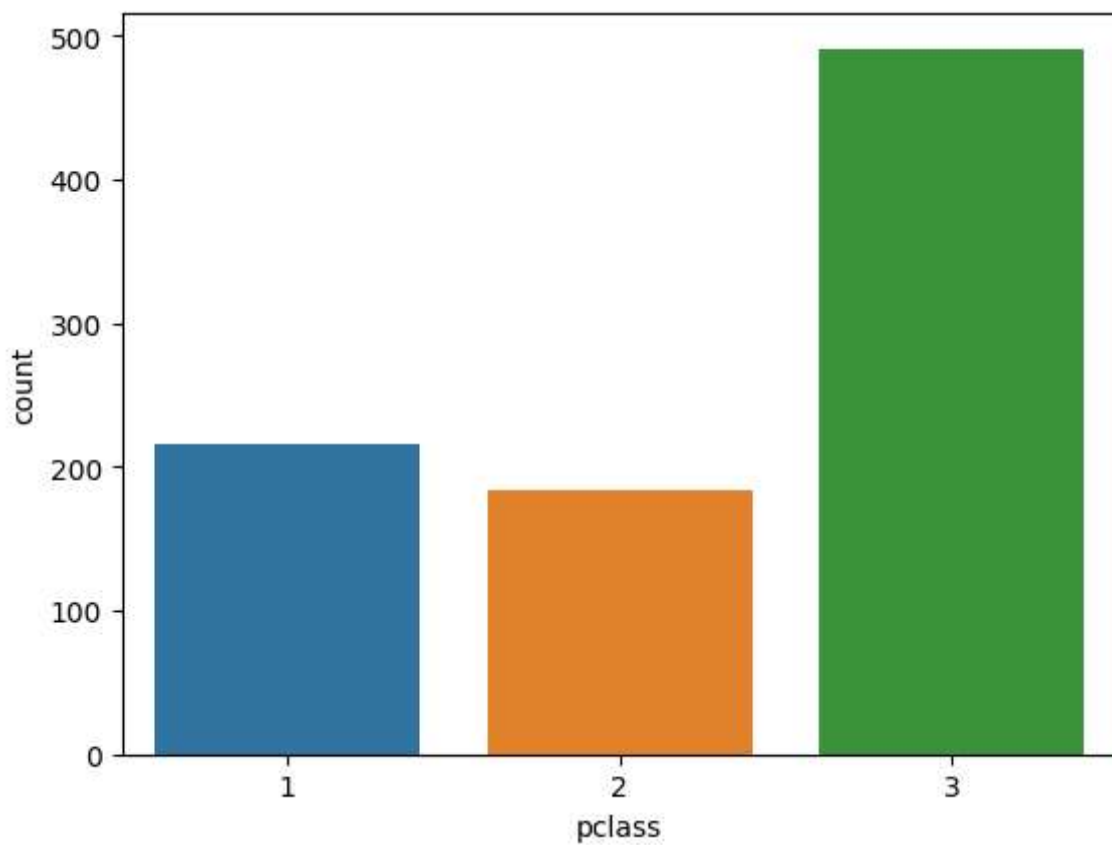
```
In [37]: sns.barplot(x='sex',y='age',hue='pclass',data=df,errorbar=None)
```

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



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

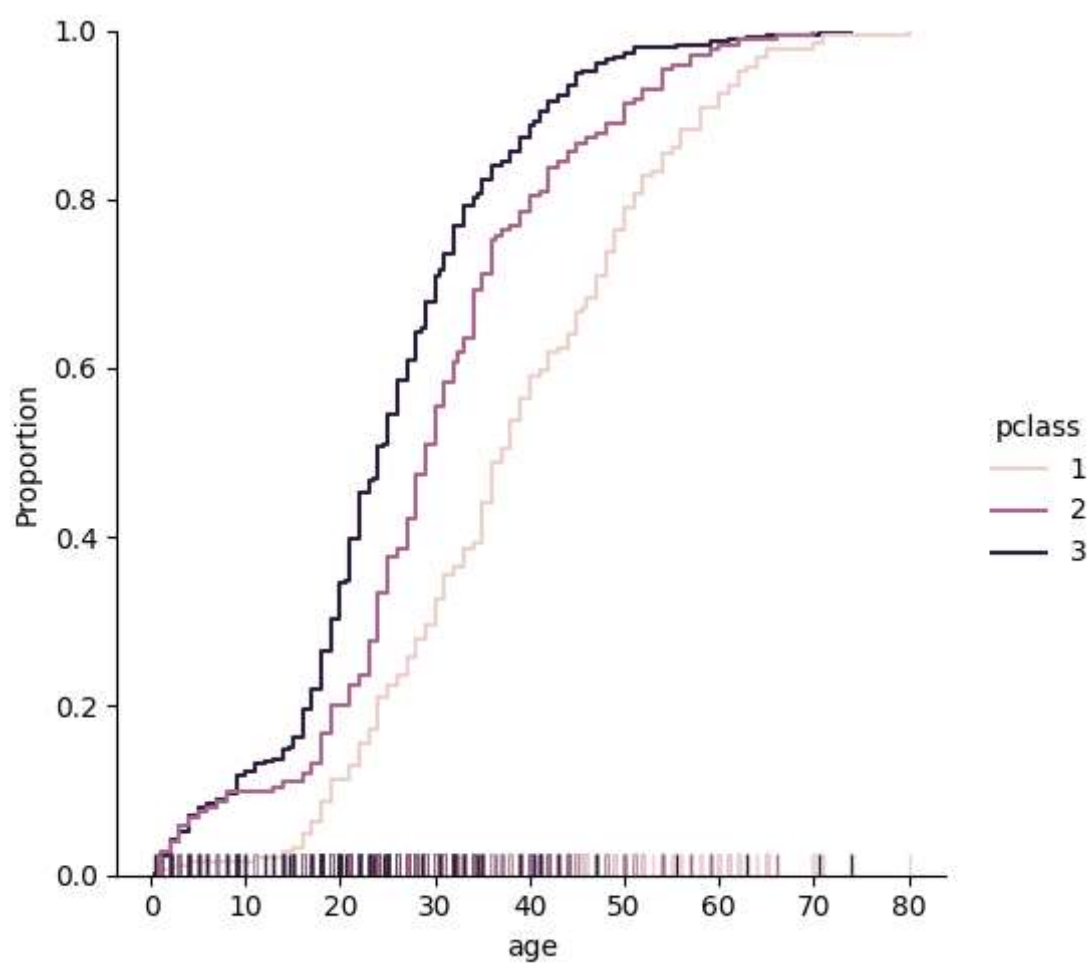
```
Out[39]: <AxesSubplot: xlabel='pclass', ylabel='count'>
```



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

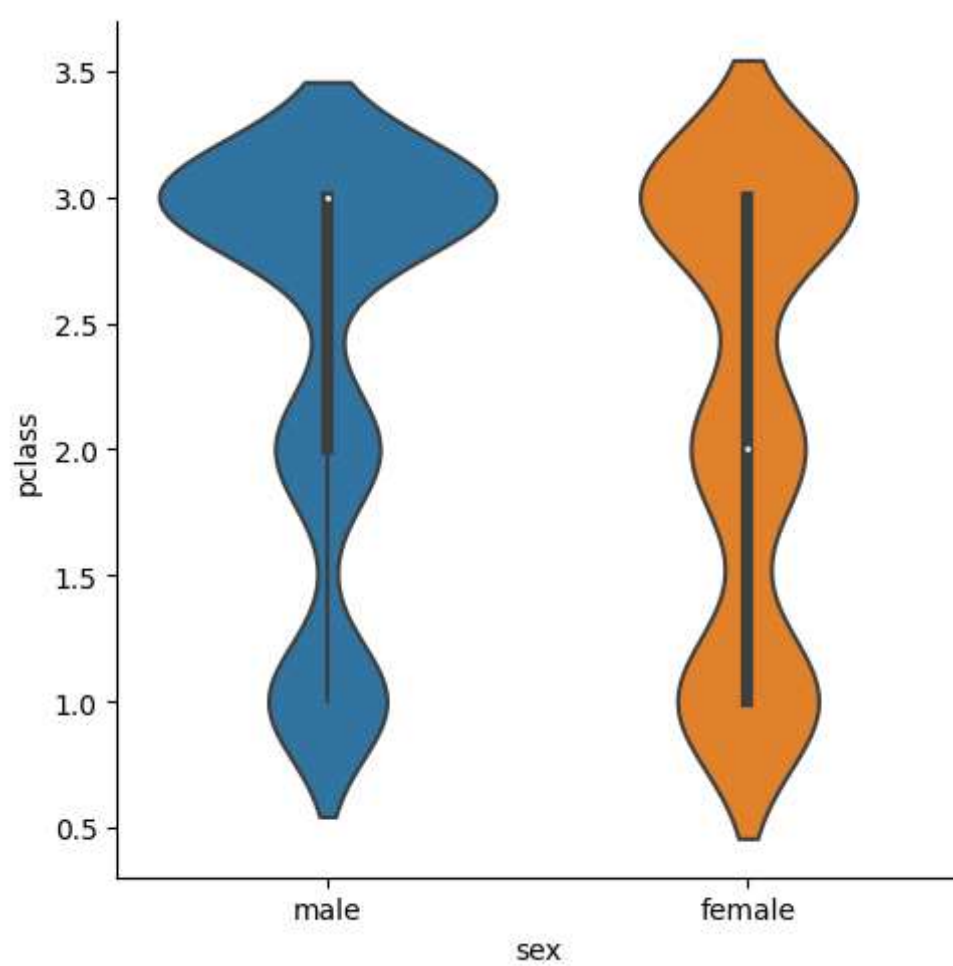
```
Out[48]: <seaborn.axisgrid.FacetGrid at 0x1c092663fd0>
```





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

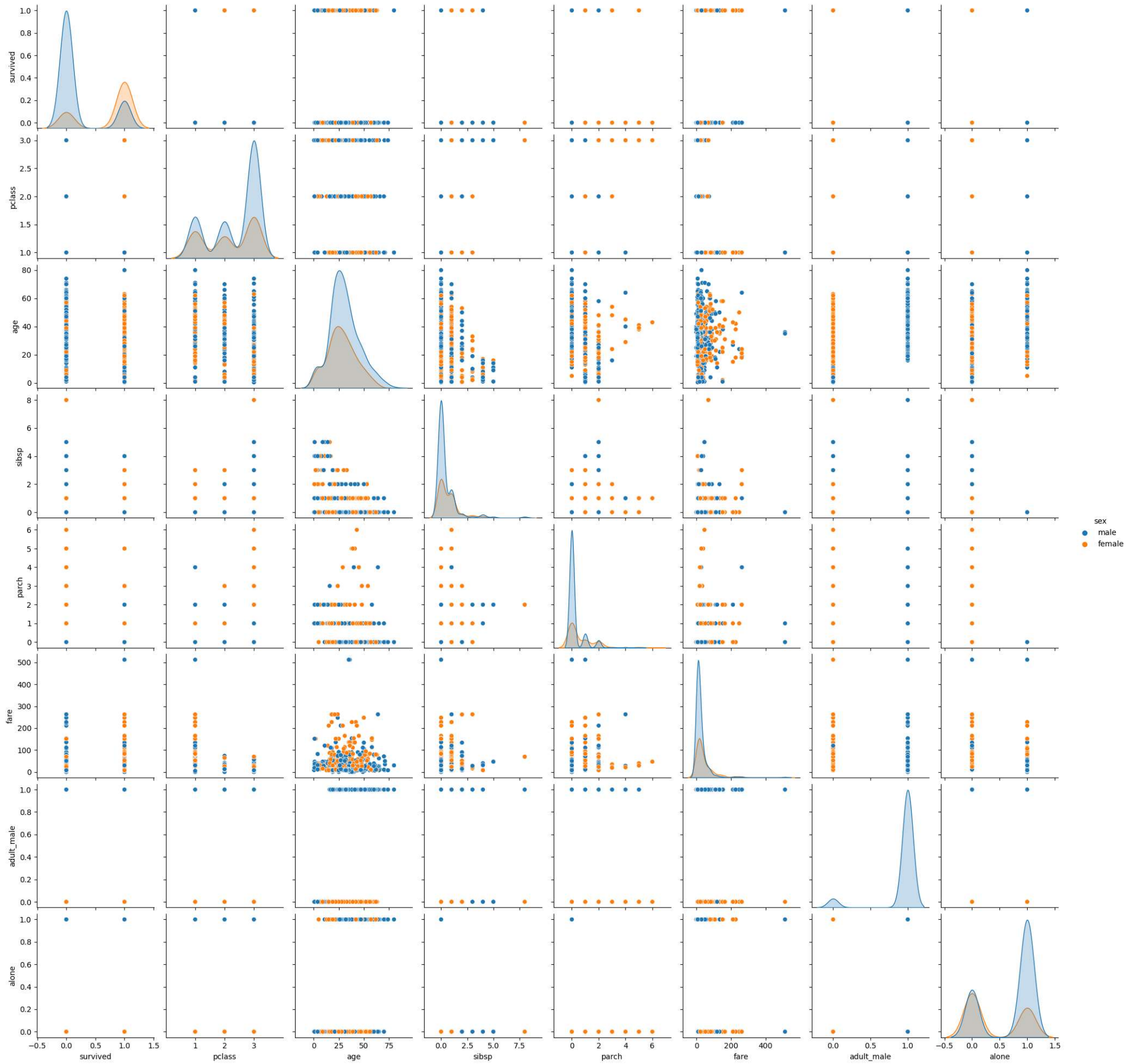
```
Out[44]: <seaborn.axisgrid.FacetGrid at 0x1c09089e3d0>
```



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

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

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



In [ ]: