Data_visualizaion_8

February 18, 2026

[5]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np
import warnings
warnings.filterwarnings('ignore')
```

[8]:
```
sns.__version__
```

[8]:
```
'0.13.2'
```

[9]:
```
df = sns.load_dataset('titanic')
```

[11]:
```
df.head()
```

[11]:
```
   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
```

[12]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 891 entries, 0 to 890
Data columns (total 15 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   survived     891 non-null    int64
 1   pclass       891 non-null    int64
```

```
 2   sex          891 non-null    object
 3   age          714 non-null    float64
 4   sibsp        891 non-null    int64
 5   parch        891 non-null    int64
 6   fare         891 non-null    float64
 7   embarked     889 non-null    object
 8   class        891 non-null    category
 9   who          891 non-null    object
 10  adult_male   891 non-null    bool
 11  deck         203 non-null    category
 12  embark_town  889 non-null    object
 13  alive        891 non-null    object
 14  alone        891 non-null    bool
dtypes: bool(2), category(2), float64(2), int64(4), object(5)
memory usage: 80.7+ KB
```

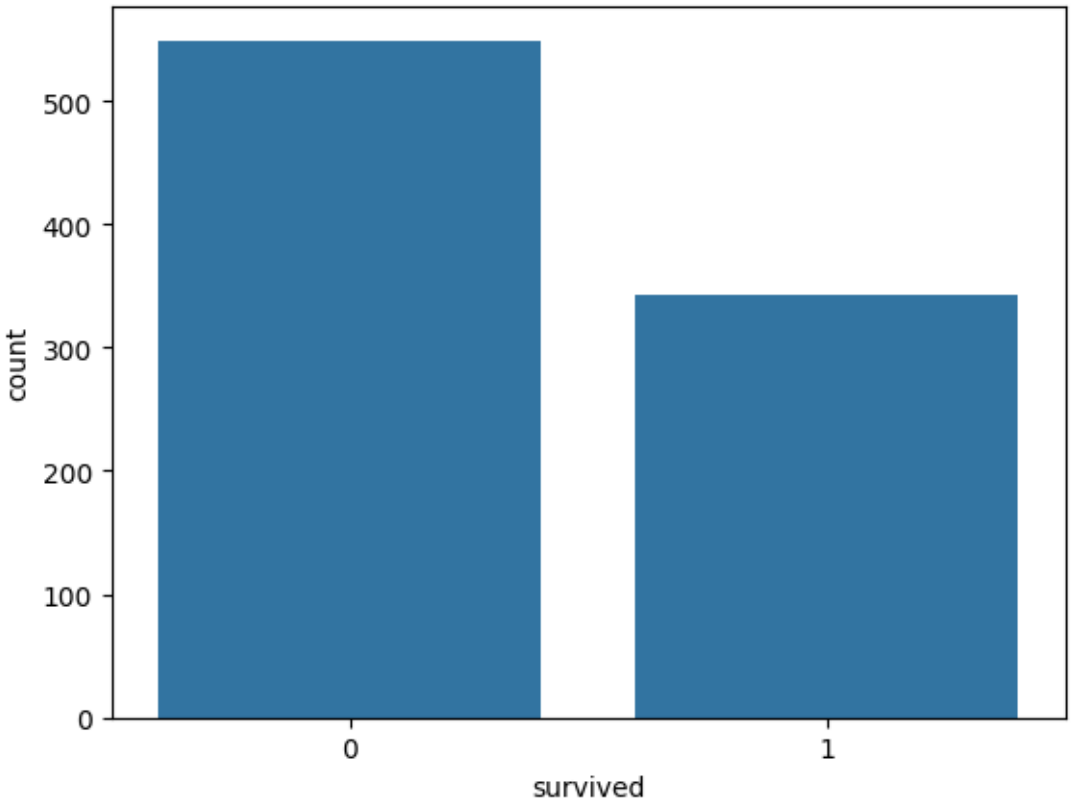
[13]:
```
df.shape
```

[13]:
```
(891, 15)
```

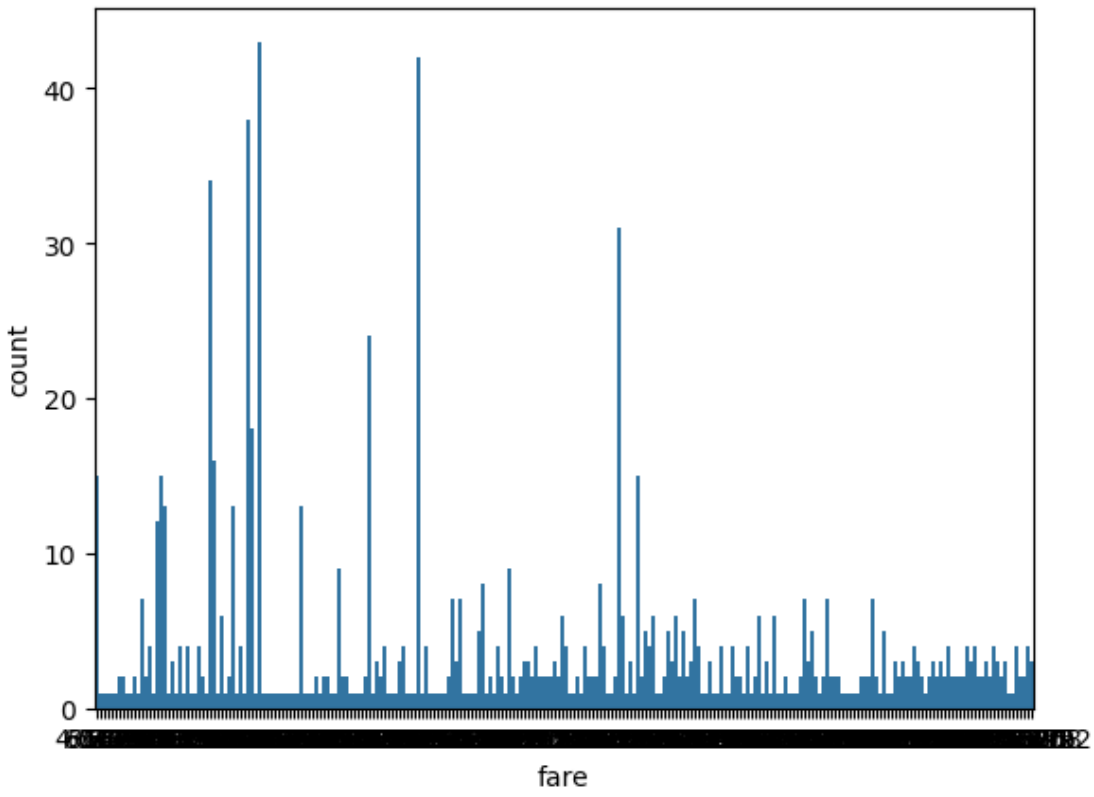
[15]:
```
print("Number of people survived:-",df['survived'].value_counts()[1])
print("Number of people not survived:-",df['survived'].value_counts()[0])
```

```
Number of people survived:- 342
Number of people not survived:- 549
```

[16]:
```
sns.countplot(data=df, x='survived')
plt.show()
```

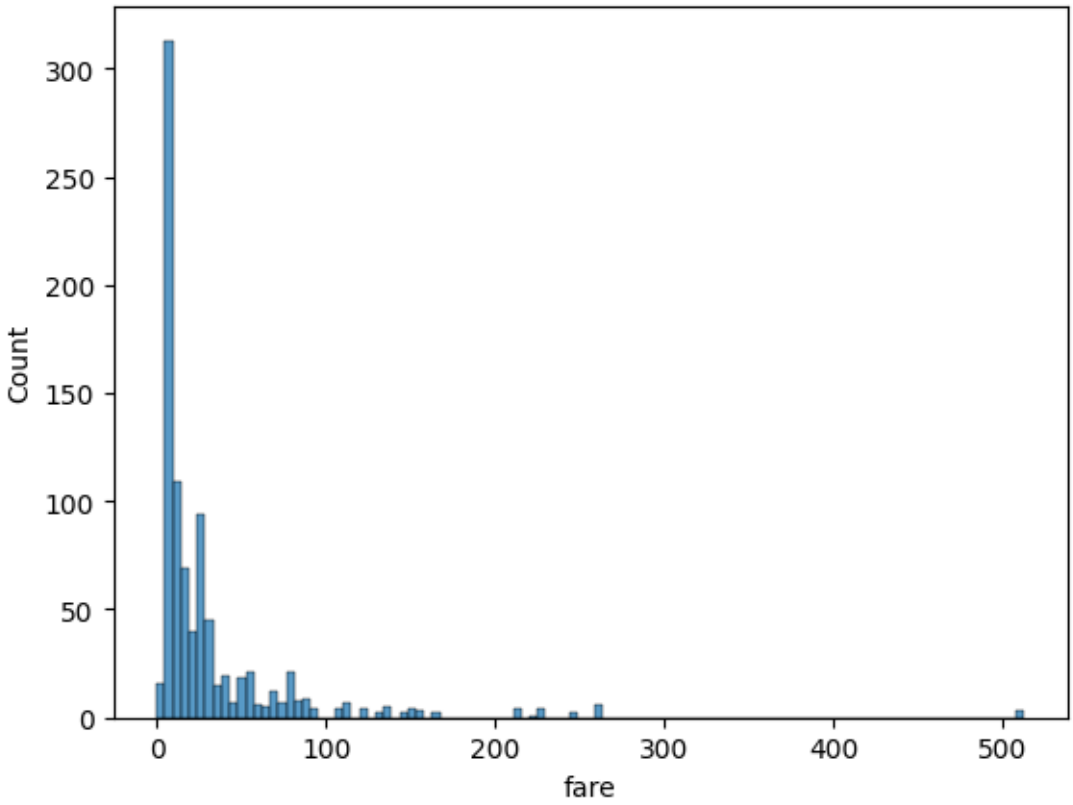


[17]:
```
sns.countplot(data = df, x = 'fare')
plt.show()
```

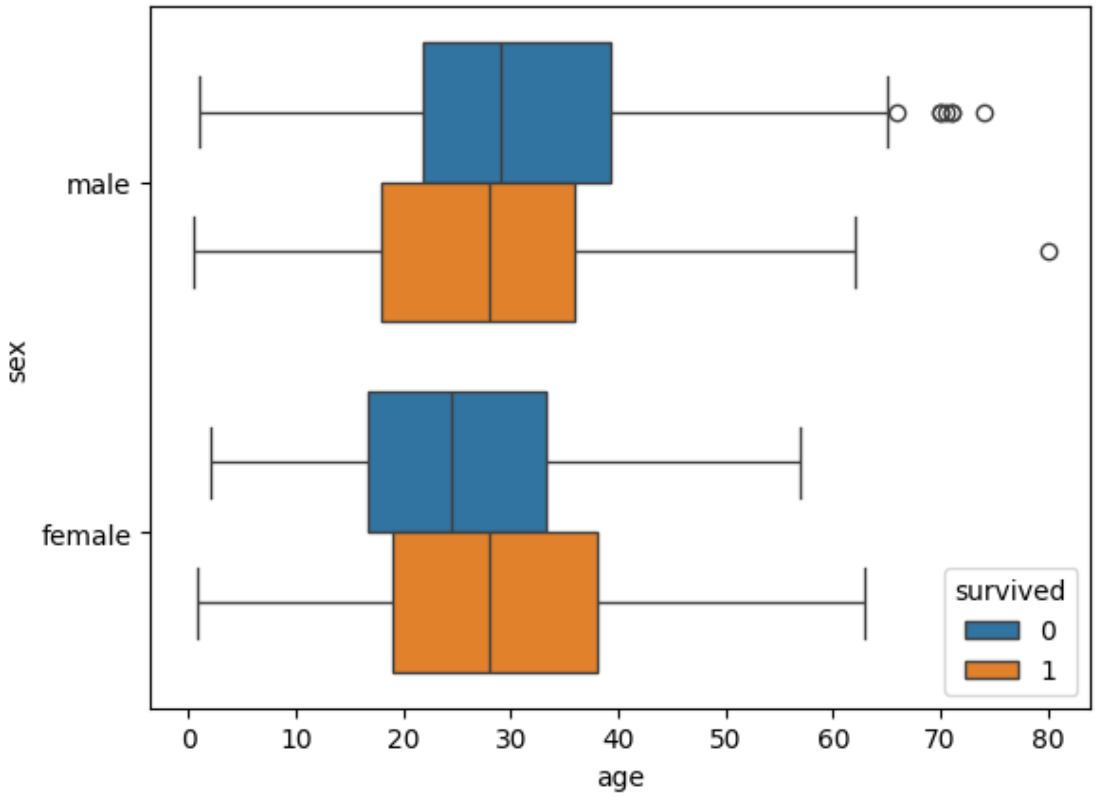


[21]:
```
sns.histplot(df['fare'])
plt.show
```

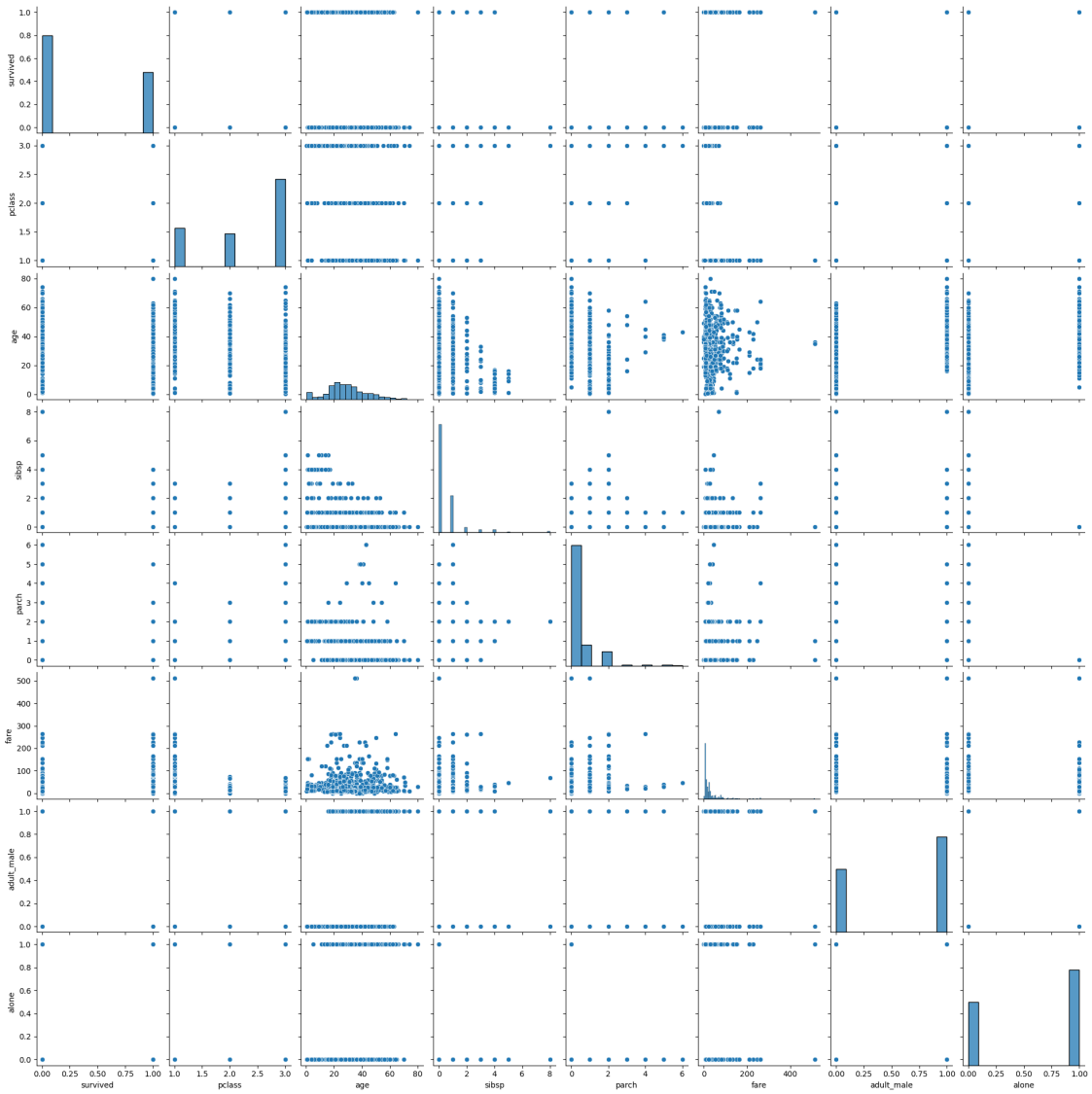
[21]:
```
<function matplotlib.pyplot.show(close=None, block=None)>
```



[22]:
```
sns.boxplot(data = df, x = 'age', y = 'sex', hue = 'survived')
plt.show()
```

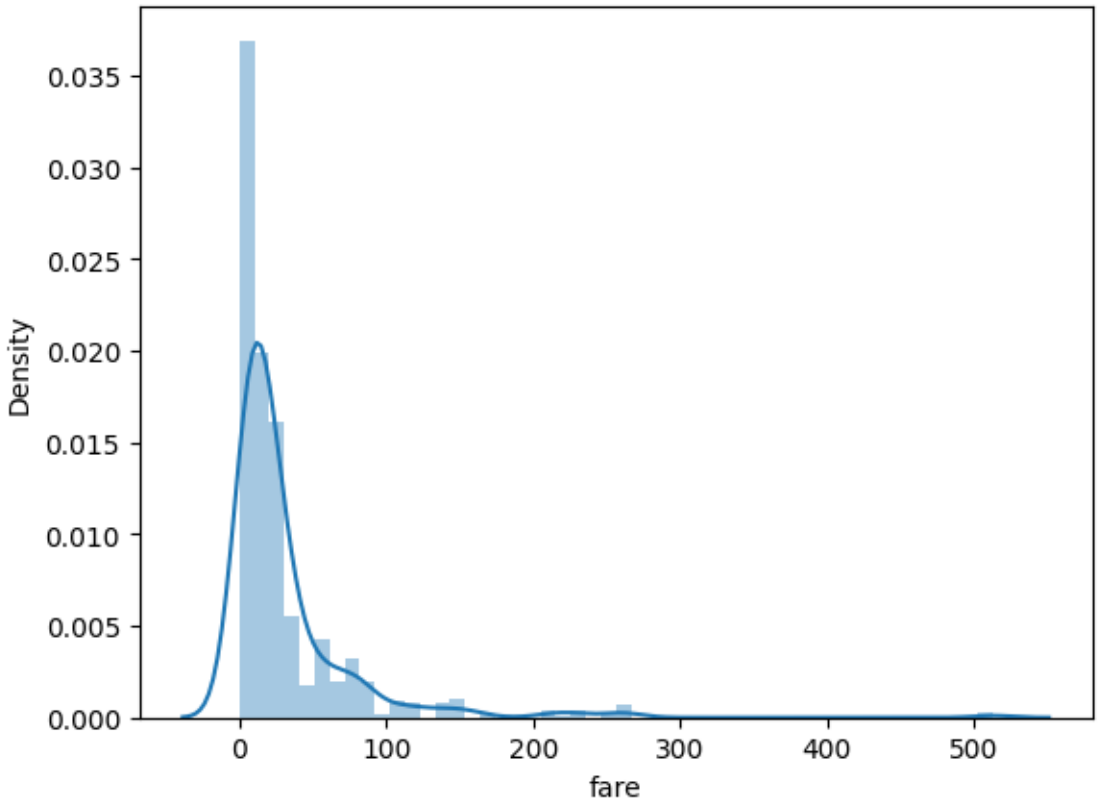


[24]:
```
sns.pairplot(df)
plt.show()
```



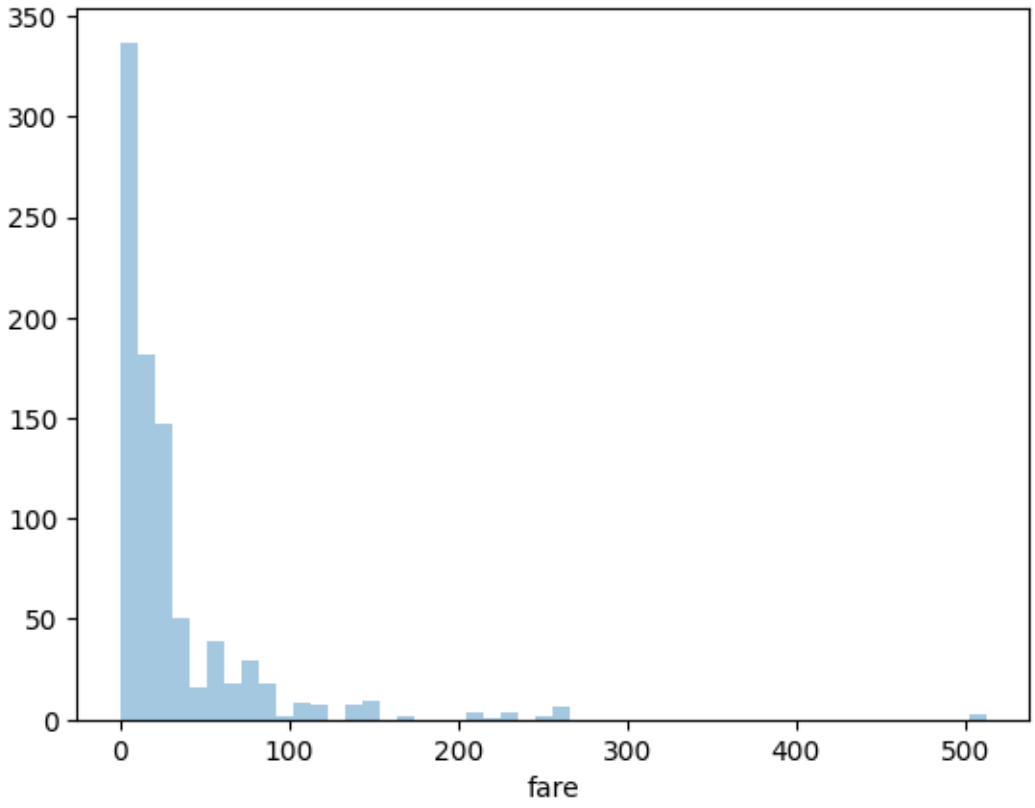
[25]:
```
sns.distplot(df['fare'])
```

[25]: <Axes: xlabel='fare', ylabel='Density'>



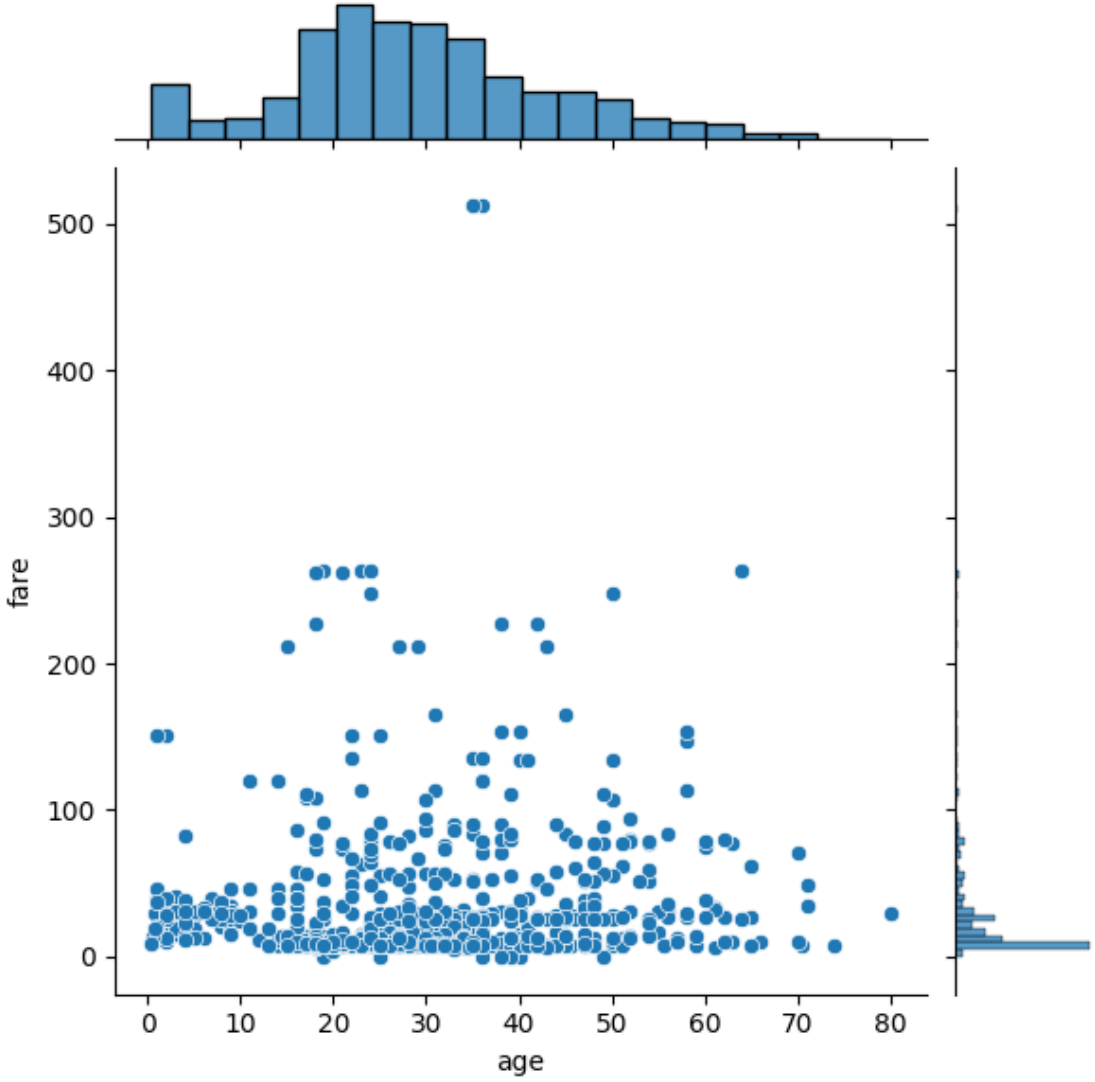
[27]:
```
sns.distplot(df['fare'], kde = False)
```

[27]:
```
<Axes: xlabel='fare'>
```



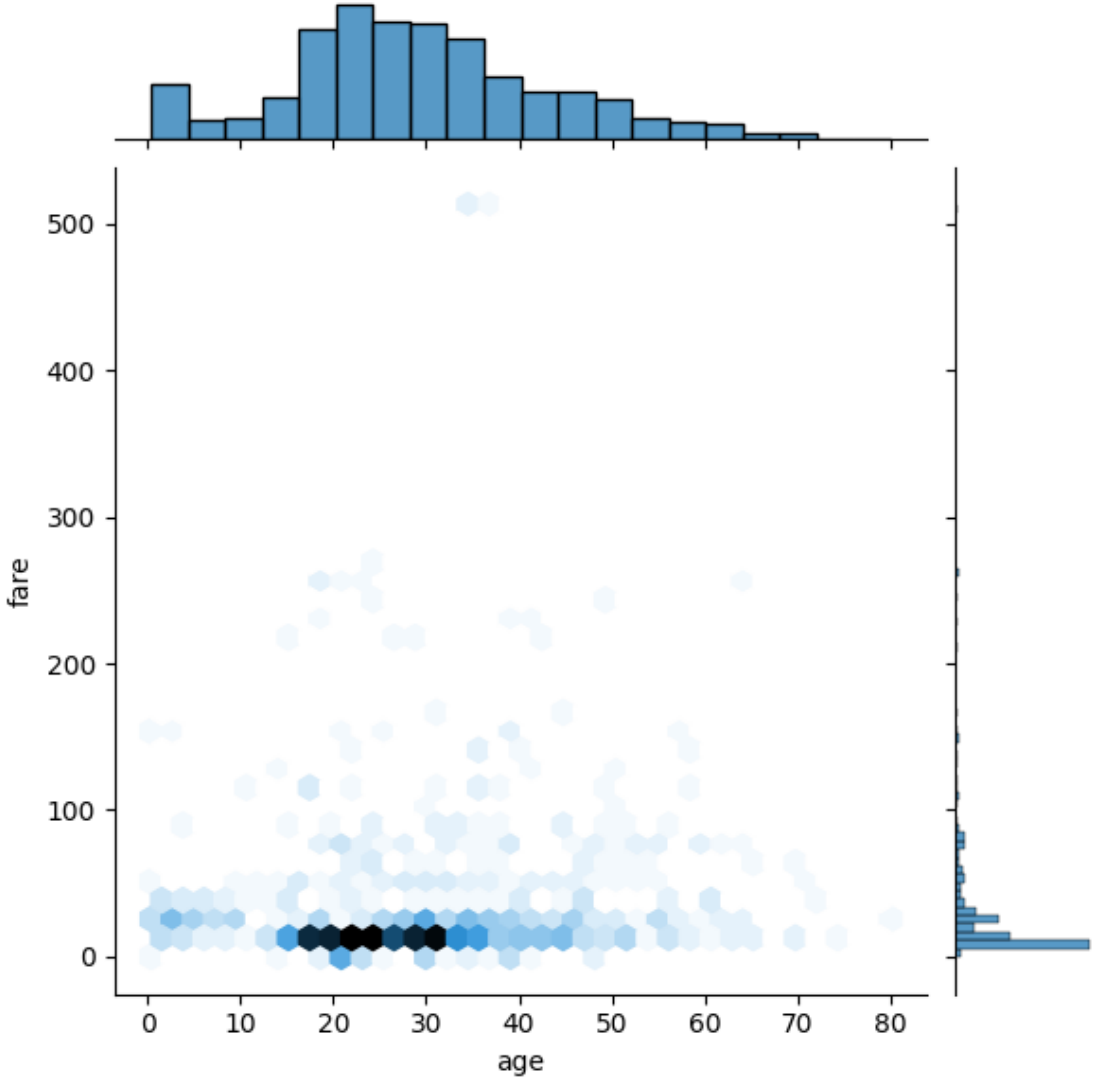
[30]:
```
sns.jointplot(x = 'age', y = 'fare', data = df)
```

[30]: <seaborn.axisgrid.JointGrid at 0x73e23b9d4d00>



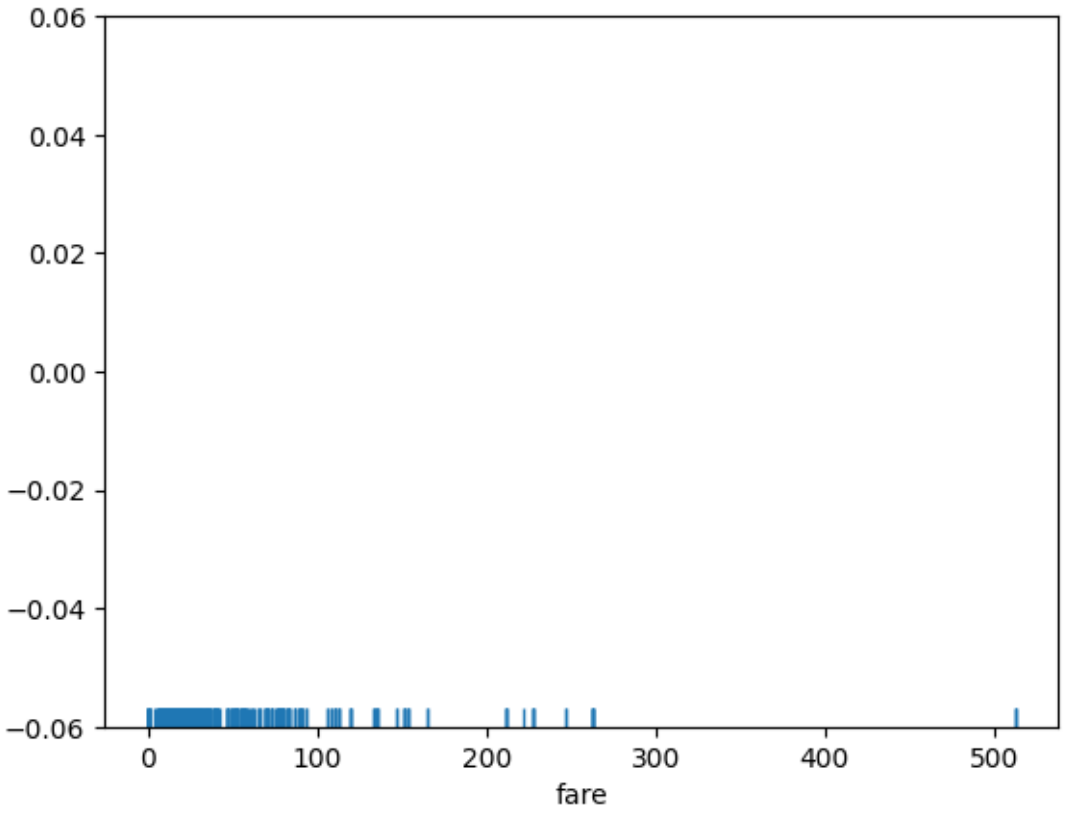
[34]:
```
sns.jointplot(x = 'age', y = 'fare', data = df, kind = 'hex')
```

[34]: <seaborn.axisgrid.JointGrid at 0x73e237f55300>



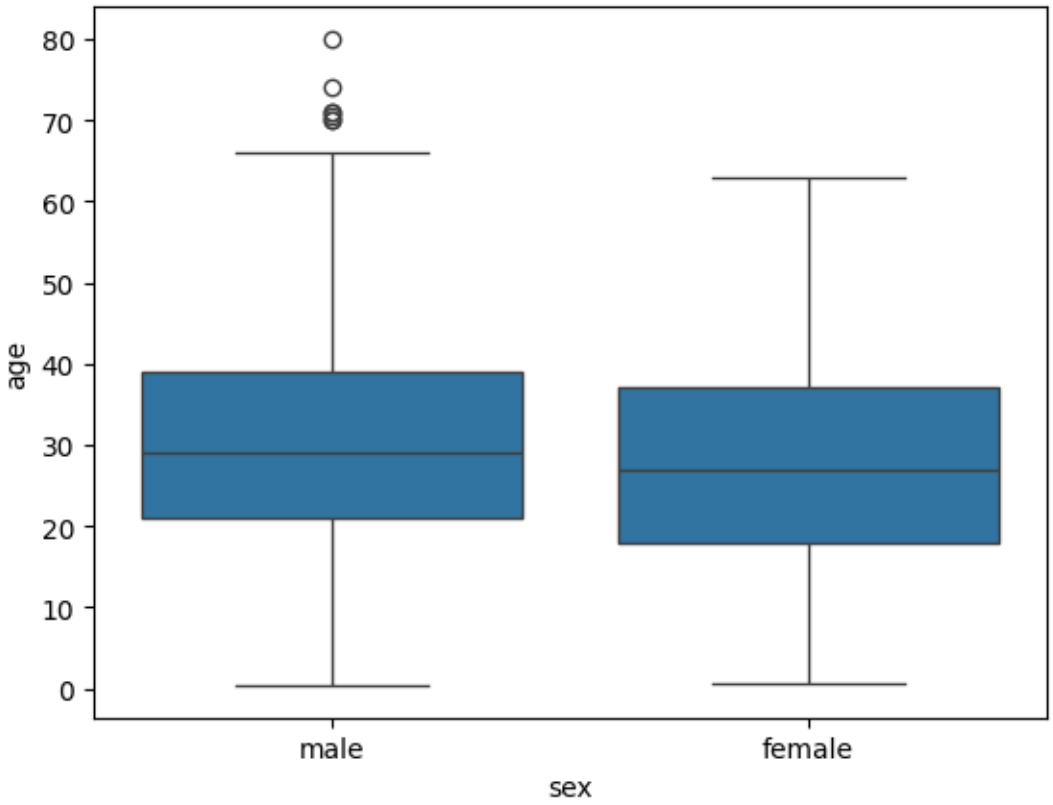
[36]:
```
sns.rugplot(df['fare'])
```

[36]: <Axes: xlabel='fare'>



[37]:
```
sns.boxplot(x = 'sex', y = 'age', data = df)
```

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


80
70
60
50
40
30
20
10
0
age
male
female
sex

[ ]: