```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

```
df = sns.load_dataset('titanic')
```

```
df
```

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

891 rows × 15 columns

```
df.describe()
```

	survived	pclass	age	sibsp	parch	fare
count	891.000000	891.000000	714.000000	891.000000	891.000000	891.000000
mean	0.383838	2.308642	29.699118	0.523008	0.381594	32.204208
std	0.486592	0.836071	14.526497	1.102743	0.806057	49.693429
min	0.000000	1.000000	0.420000	0.000000	0.000000	0.000000
25%	0.000000	2.000000	20.125000	0.000000	0.000000	7.910400

```
df.dtypes
```

```
survived          int64
pclass            int64
sex              object
age             float64
sibsp             int64
parch             int64
fare            float64
embarked         object
class          category
who              object
adult_male         bool
deck           category
embark_town      object
alive            object
alone              bool
dtype: object
```

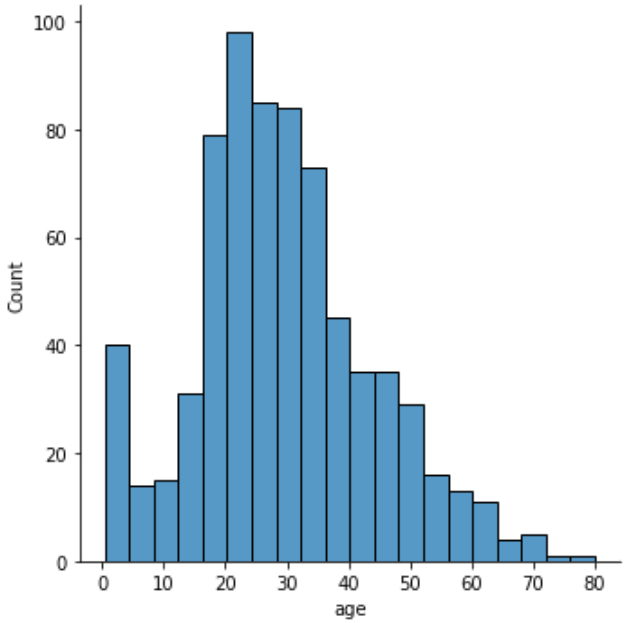
```
df.info()
```

```
<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
```

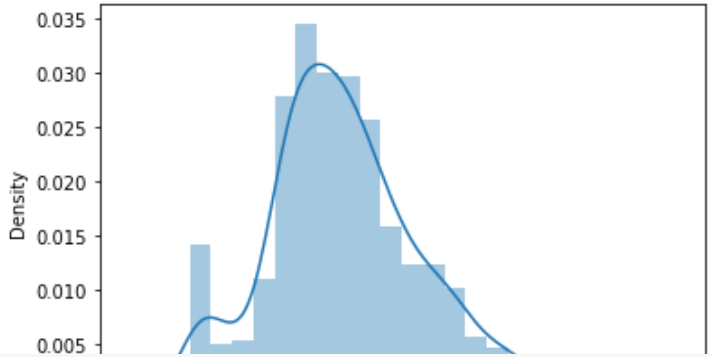
```
sns.displot(df['age'])
```

```
<seaborn.axisgrid.FacetGrid at 0x7fcf17125df0>
```



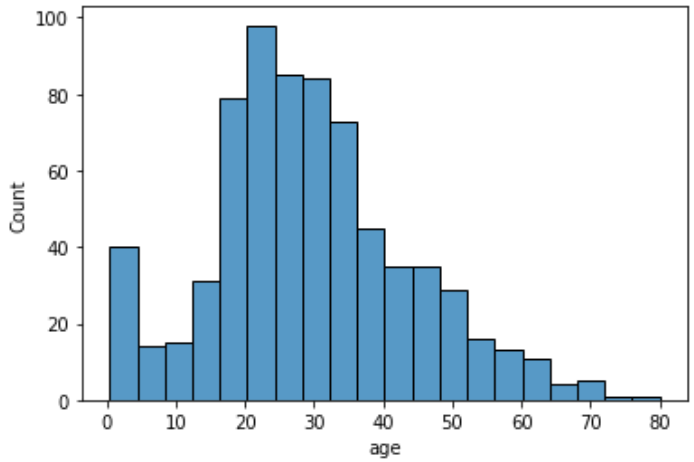

```
sns.distplot(df['age'])
```

```
/usr/local/lib/python3.9/dist-packages/seaborn/distributions.py:2619: FutureWarning: `distplot` is a deprecated function an
  warnings.warn(msg, FutureWarning)
<AxesSubplot:xlabel='age', ylabel='Density'>
```




```
sns.histplot(df['age'])
```

```
<AxesSubplot:xlabel='age', ylabel='Count'>
```

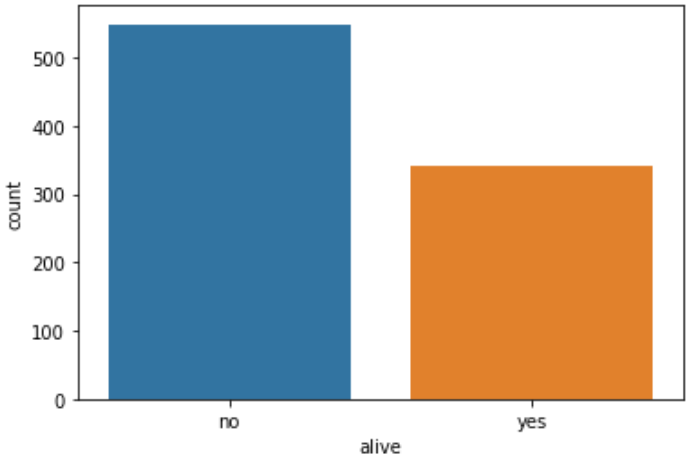



```
sns.boxplot(df['parch'])
```

```
/usr/local/lib/python3.9/dist-packages/seaborn/_decorators.py:36: FutureWarning: Pass the following variable as a keyword a
  warnings.warn(
<AxesSubplot:xlabel='parch'>
```

```
sns.countplot(x='alive',data=df)
#·Bar·graph·for·classification·of·people·who·survived
```

```
<AxesSubplot:xlabel='alive', ylabel='count'>
```

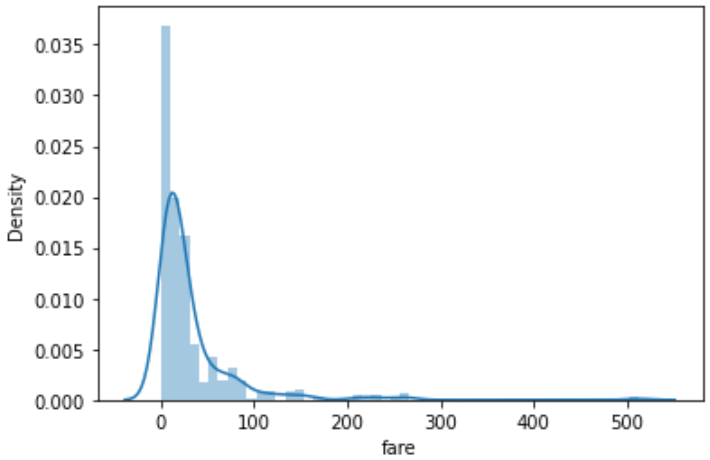



```
sns.countplot(x='alive',data=df, hue='sex')
# Bar graph for classification of people who survived wrt gender
```

```
<AxesSubplot:xlabel='alive', ylabel='count'>
```


```
sns.distplot(df['fare'])
# Distribution Plot
```

```
/usr/local/lib/python3.9/dist-packages/seaborn/distributions.py:2619: FutureWarning: `distplot` is a deprecated function an
  warnings.warn(msg, FutureWarning)
<AxesSubplot:xlabel='fare', ylabel='Density'>
```




```
sns.distplot(df['fare'],kde=False)
# Removing the kernel distribution estimation line
```

```
/usr/local/lib/python3.9/dist-packages/seaborn/distributions.py:2619: FutureWarning: `distplot` is a deprecated function an
  warnings.warn(msg, FutureWarning)
<AxesSubplot:xlabel='fare'>
```

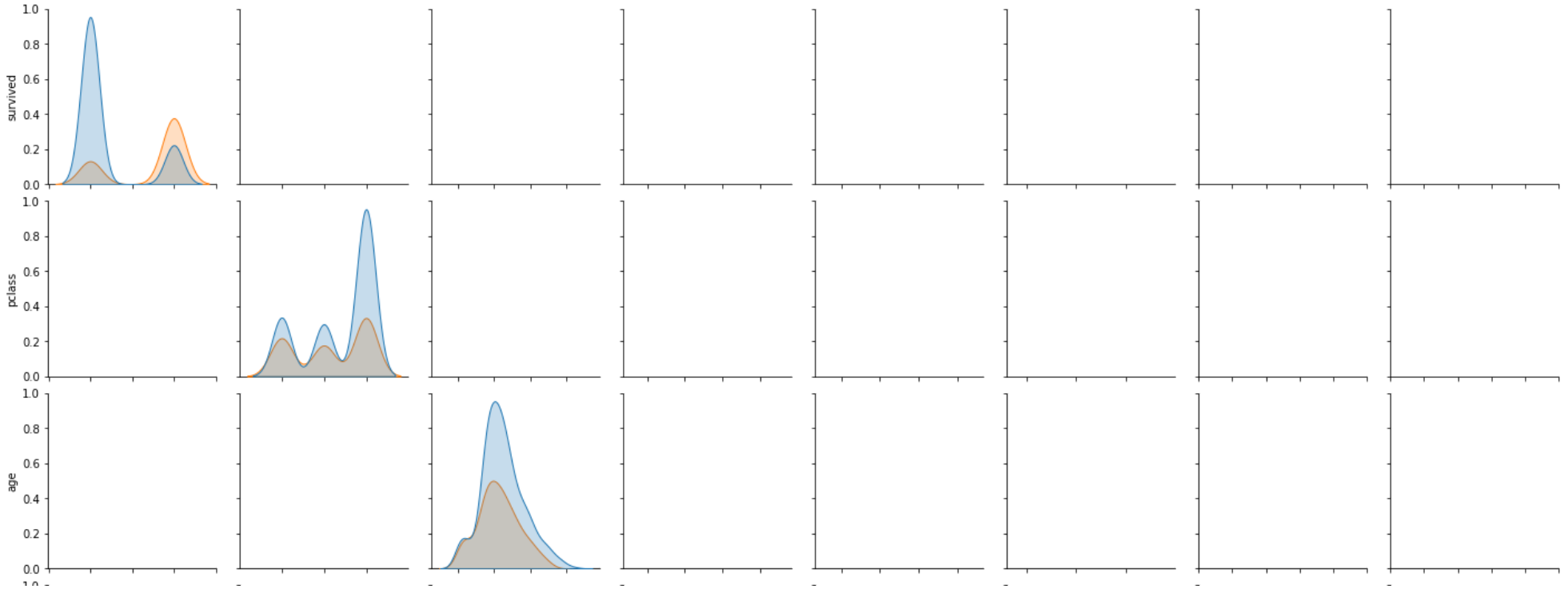

```
sns.pairplot(df, hue='sex')
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
AttributeError: 'float' object has no attribute 'sqrt'

The above exception was the direct cause of the following exception:

TypeError                                 Traceback (most recent call last)
<ipython-input-21-457f334d6e2c> in <module>
----> 1 sns.pairplot(df, hue='sex')
```

10 frames

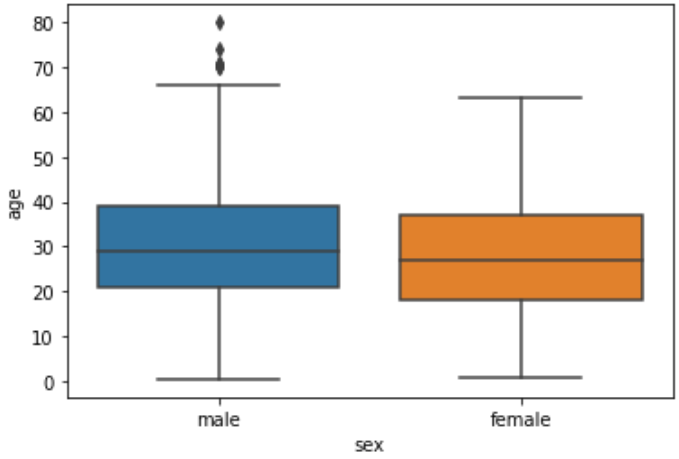
```
/usr/local/lib/python3.9/dist-packages/seaborn/_statistics.py in _define_support_univariate(self, x, weights)
     90         """Create a 1D grid of evaluation points."""
     91         kde = self._fit(x, weights)
---> 92         bw = np.sqrt(kde.covariance.squeeze())
     93         grid = self._define_support_grid(
     94             x, bw, self.cut, self.clip, self.gridsize

TypeError: loop of ufunc does not support argument 0 of type float which has no callable sqrt method
```

SEARCH STACK OVERFLOW



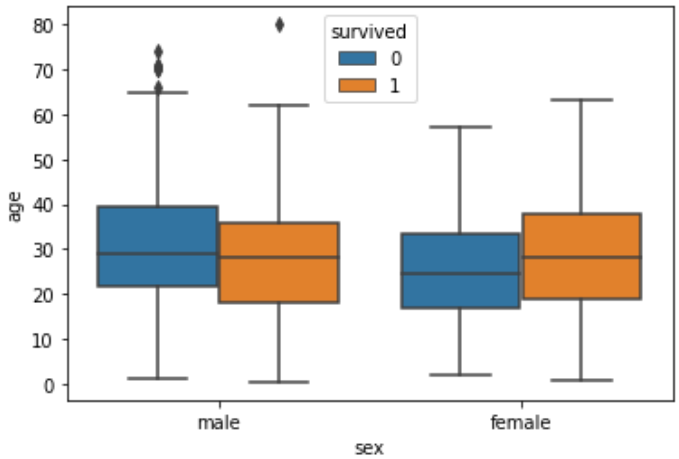
```
sns.boxplot(x='sex',y='age', data=df)
```

```
<AxesSubplot:xlabel='sex', ylabel='age'>
```




```
sns.boxplot(x='sex',y='age', data=df , hue='survived')
```

```
<AxesSubplot:xlabel='sex', ylabel='age'>
```



✓ 0s completed at 1:08 AM