Double-click (or enter) to edit

Data Visualization. Data visualization is the graphical representation of information and data. By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to see and understand trends, outliers, and patterns in data. In the world of Big Data, data visualization tools and technologies are essential to analyze massive amounts of information and make data-driven decisions

Libraries Used: Seaborn: Seaborn is a data visualization library built on top of matplotlib and closely integrated with pandas data structures in Python

```
import seaborn as sns
df= sns.load_dataset('titanic')
df
```

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True
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
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
...	...	...	...	...	...	...	...	...	...	...	...
886	0	2	male	27.0	0	0	13.0000	S	Second	man	True
887	1	1	female	19.0	0	0	30.0000	S	First	woman	False
888	0	3	female	NaN	1	2	23.4500	S	Third	woman	False
889	1	1	male	26.0	0	0	30.0000	C	First	man	True
890	0	3	male	32.0	0	0	7.7500	Q	Third	man	True

891 rows × 15 columns

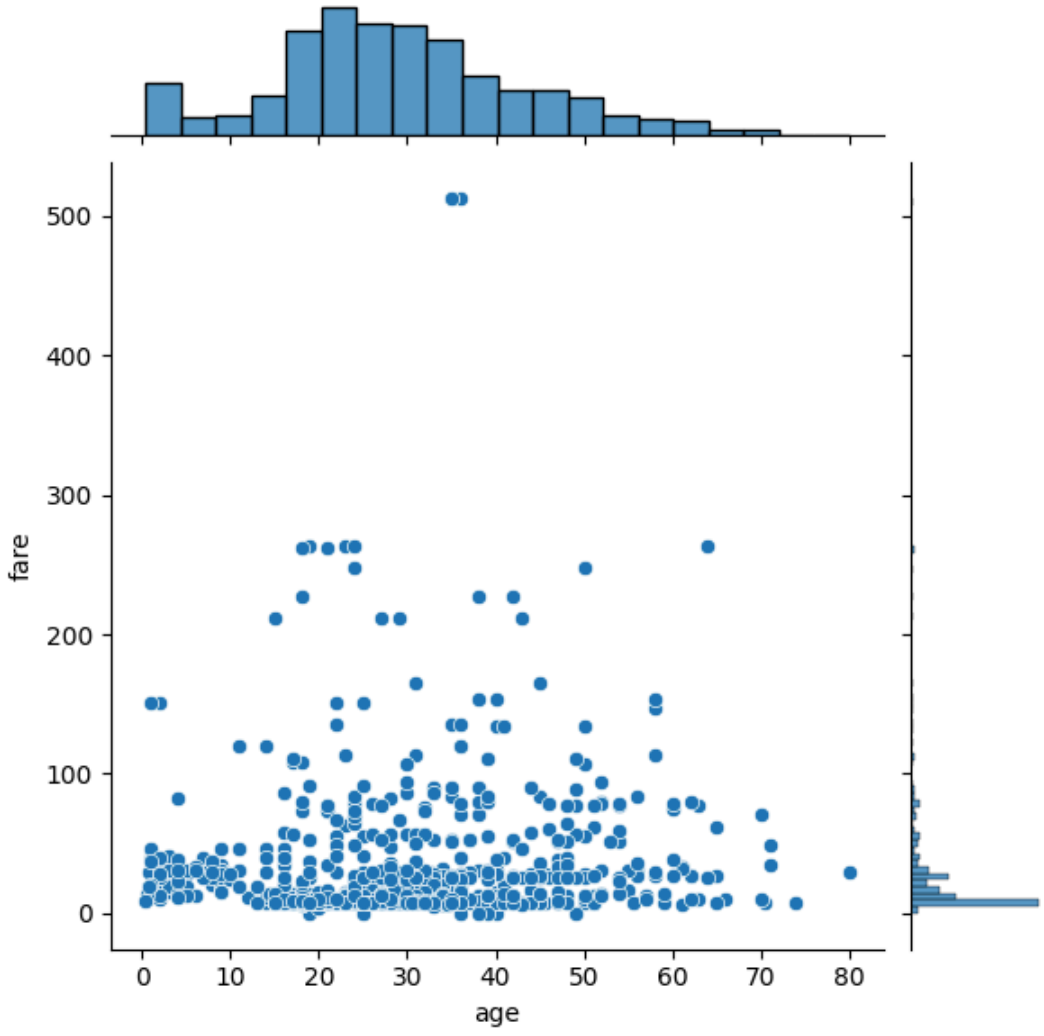
```
df=df[['survived','class','sex','age','fare']]
df
```

	survived	class	sex	age	fare
0	0	Third	male	22.0	7.2500
1	1	First	female	38.0	71.2833
2	1	Third	female	26.0	7.9250
3	1	First	female	35.0	53.1000
4	0	Third	male	35.0	8.0500
...	...	...	...	...	...
886	0	Second	male	27.0	13.0000
887	1	First	female	19.0	30.0000
888	0	Third	female	NaN	23.4500
889	1	First	male	26.0	30.0000
890	0	Third	male	32.0	7.7500

891 rows × 5 columns

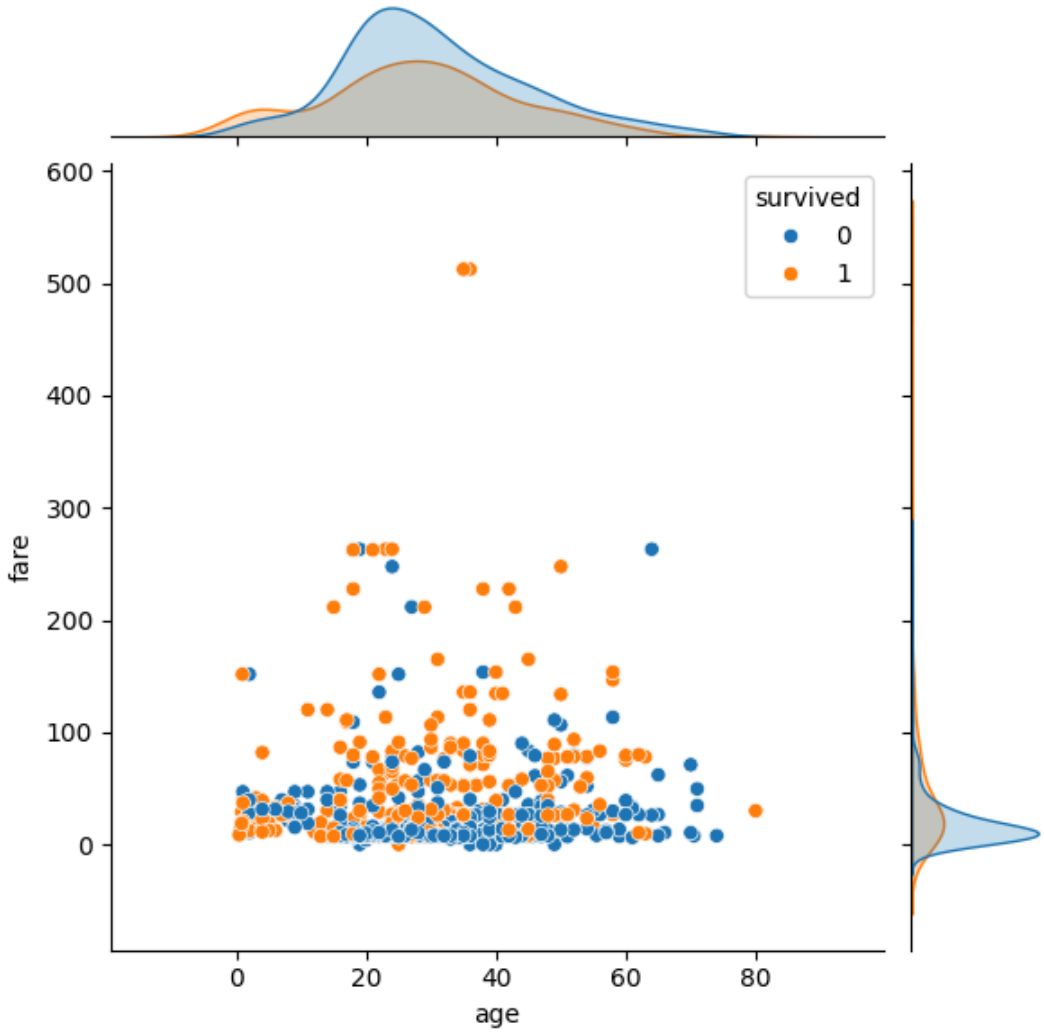
```
sns.jointplot(x='age',y='fare',data=df)
```

```
<seaborn.axisgrid.JointGrid at 0x7c36c7bc6d10>
```



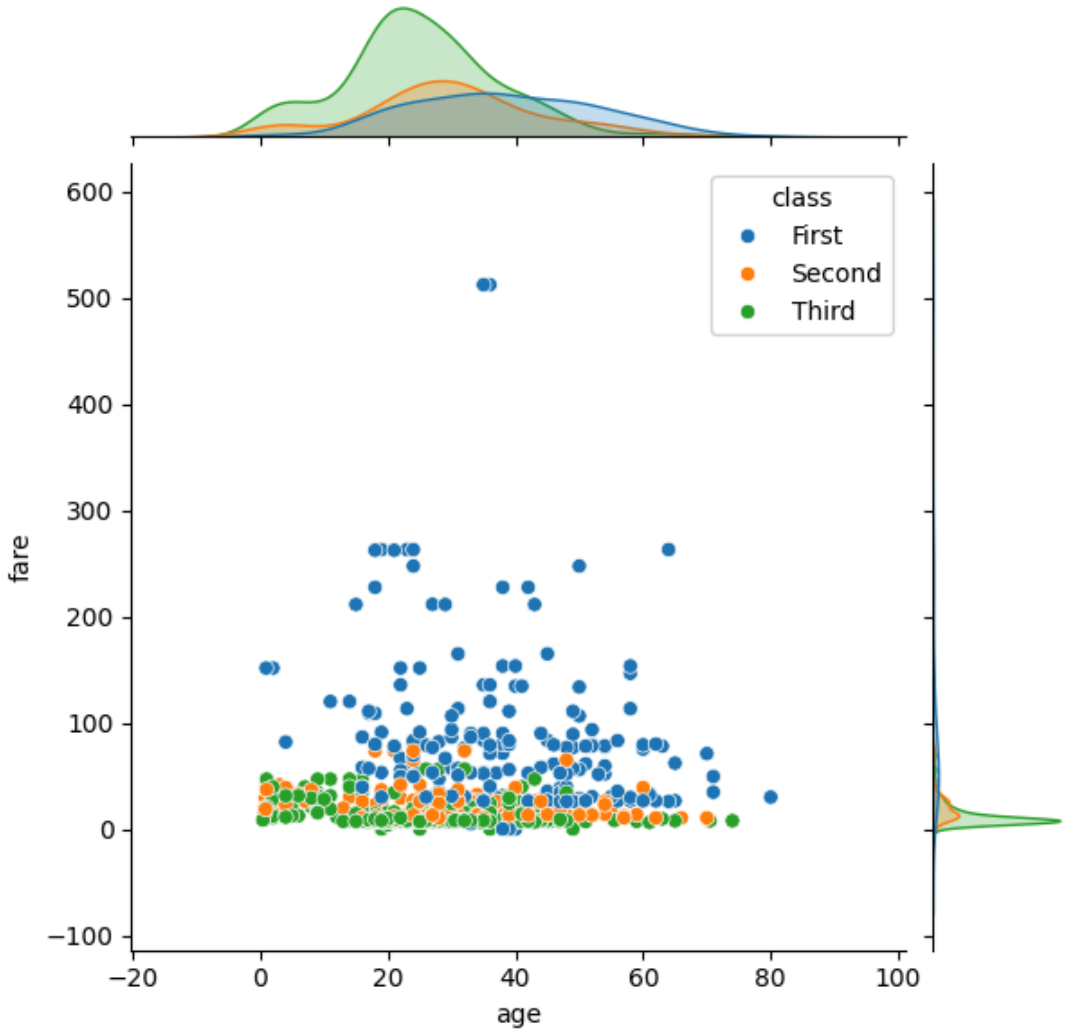

```
sns.jointplot(x='age',y='fare',data=df,hue='survived')
```

```
<seaborn.axisgrid.JointGrid at 0x7c36c5655990>
```



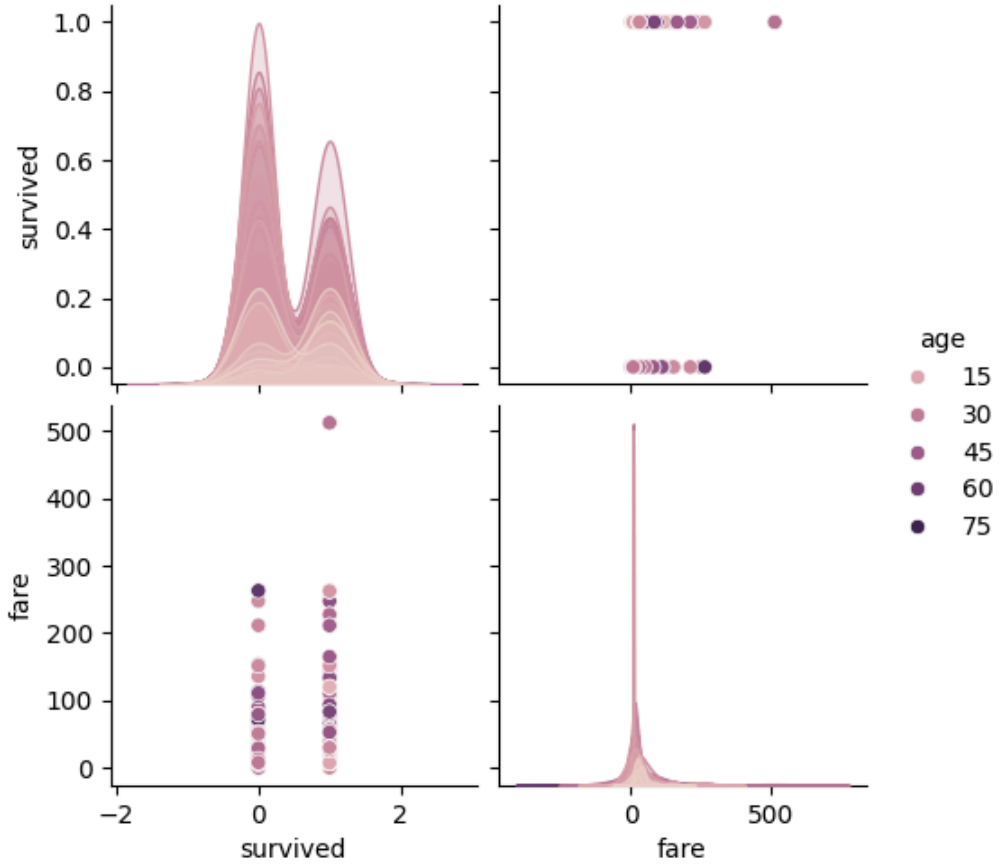

```
sns.jointplot(x='age',y='fare',data=df,hue='class')
```

```
<seaborn.axisgrid.JointGrid at 0x7c36ff76ac50>
```



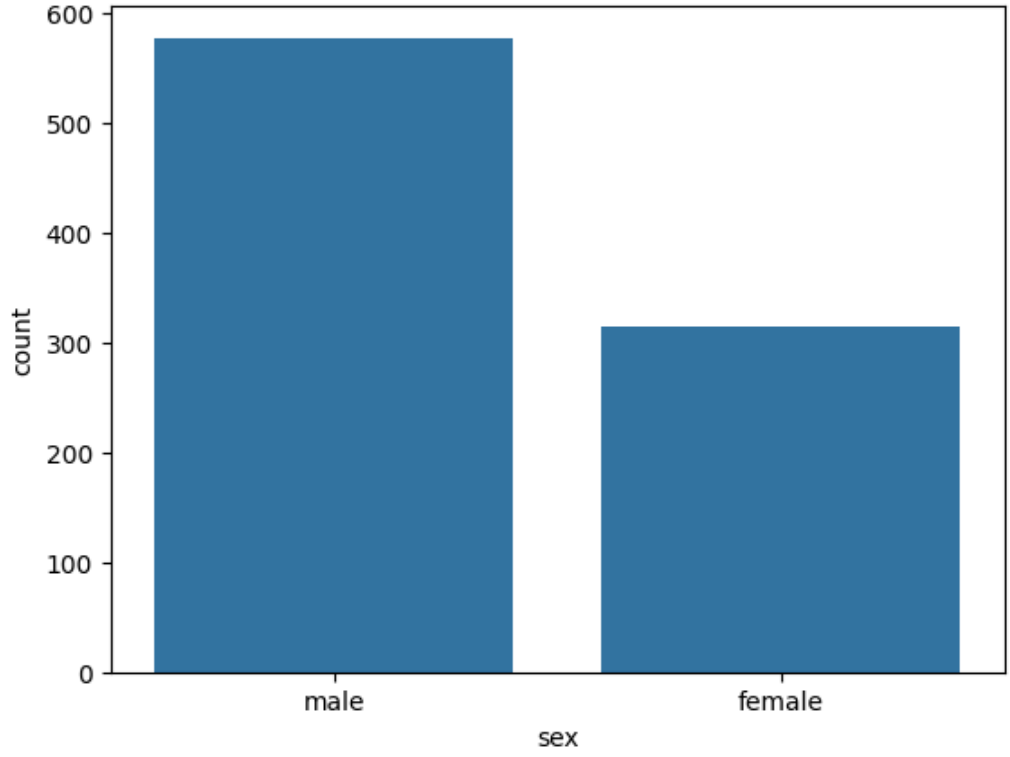

```
sns.pairplot(df,hue='age')
```

```
<seaborn.axisgrid.PairGrid at 0x7c36c1898ac0>
```



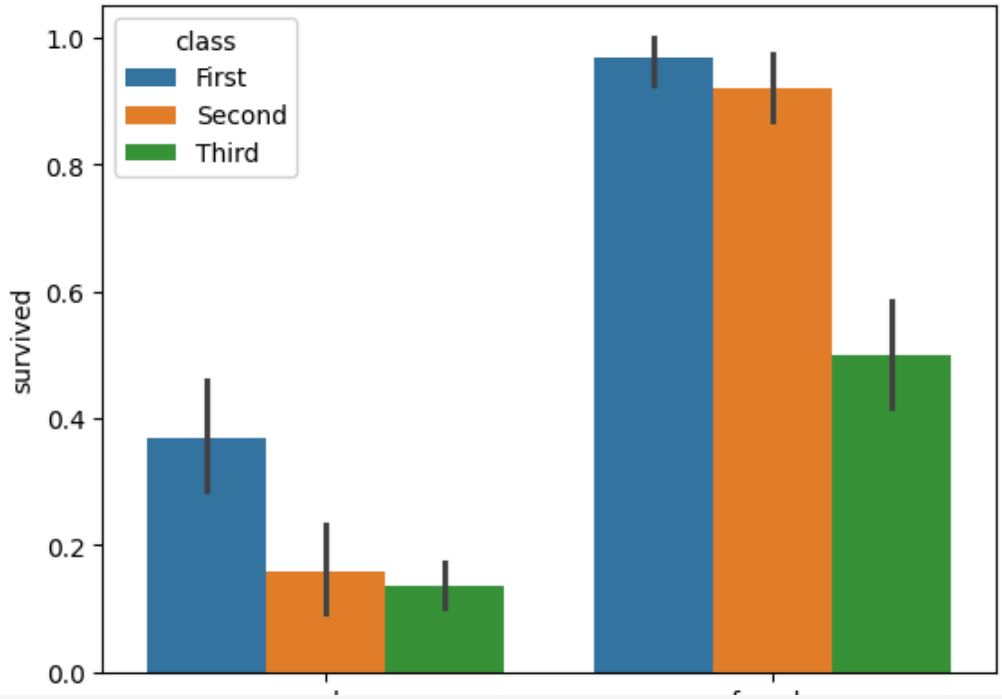

```
sns.countplot(x=df['sex'])
```

```
<Axes: xlabel='sex', ylabel='count'>
```




```
sns.barplot(x='sex',y='survived',hue = 'class',data = df)
```

```
<Axes: xlabel='sex', ylabel='survived'>
```




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

```
<Axes: xlabel='fare', ylabel='Count'>
```