PRACTICAL NO : 08

DATA VISUALIZATION 1

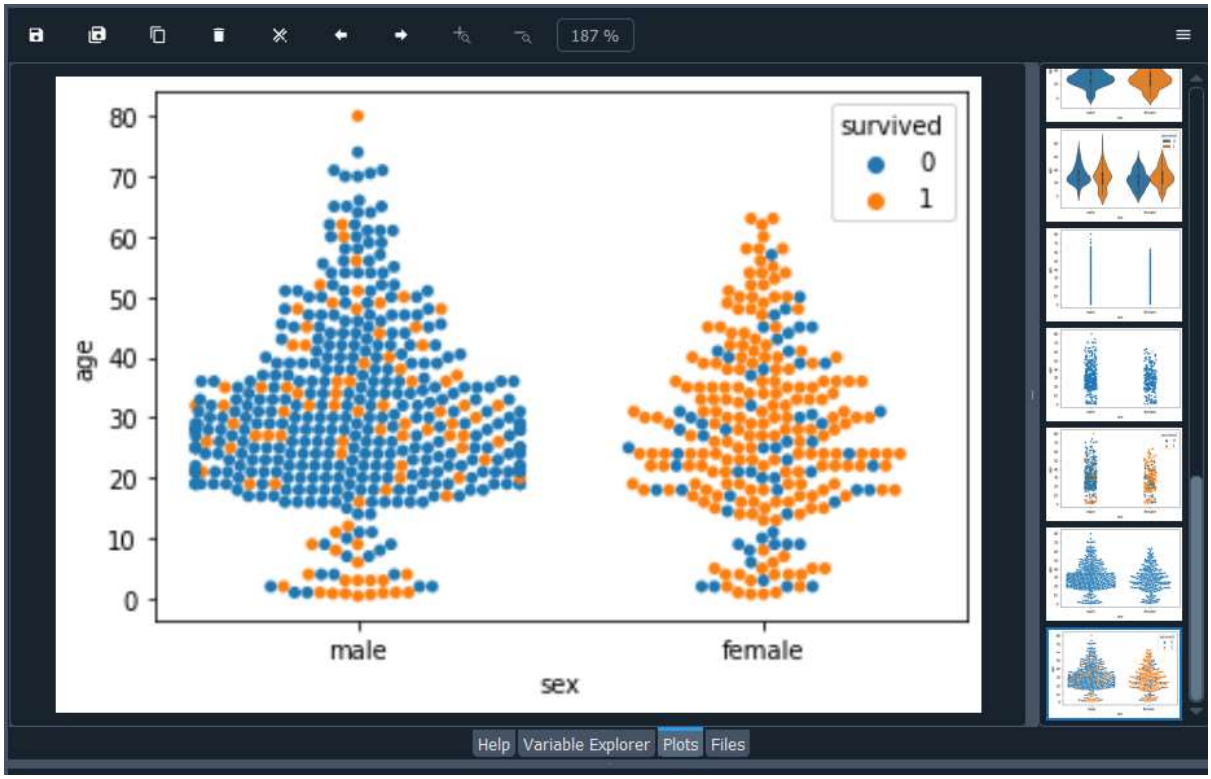
CODE :

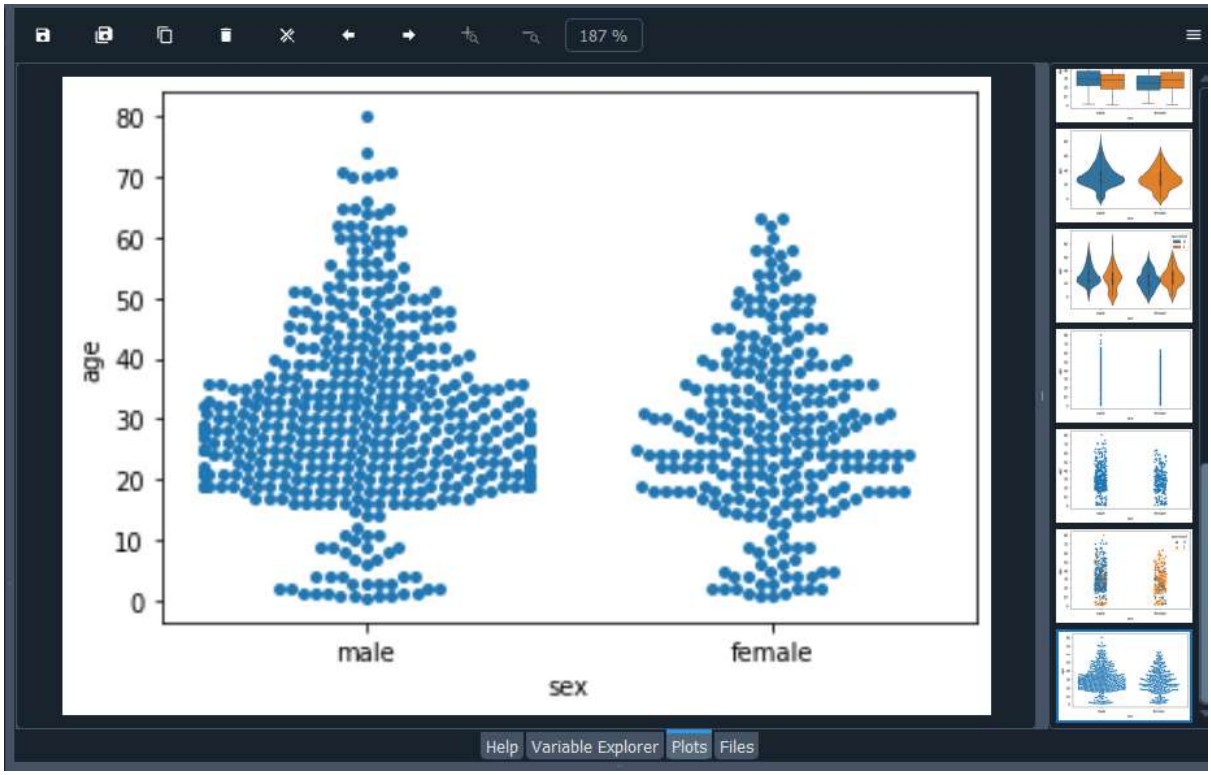
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
dataset=sns.load_dataset('titanic')
print(dataset)
dataset.head()

import seaborn as sns
sns.distplot(x = dataset['age'], bins = 10)

sns.distplot(dataset['age'], bins = 10,kde=False)

import seaborn as sns
sns.jointplot(x = dataset['age'], y = dataset['fare'], kind ='scatter')

sns.jointplot(x = dataset['age'], y = dataset['fare'], kind = 'hex')

sns.rugplot(dataset['fare'])

sns.barplot(x='sex', y='age', data=dataset)
```

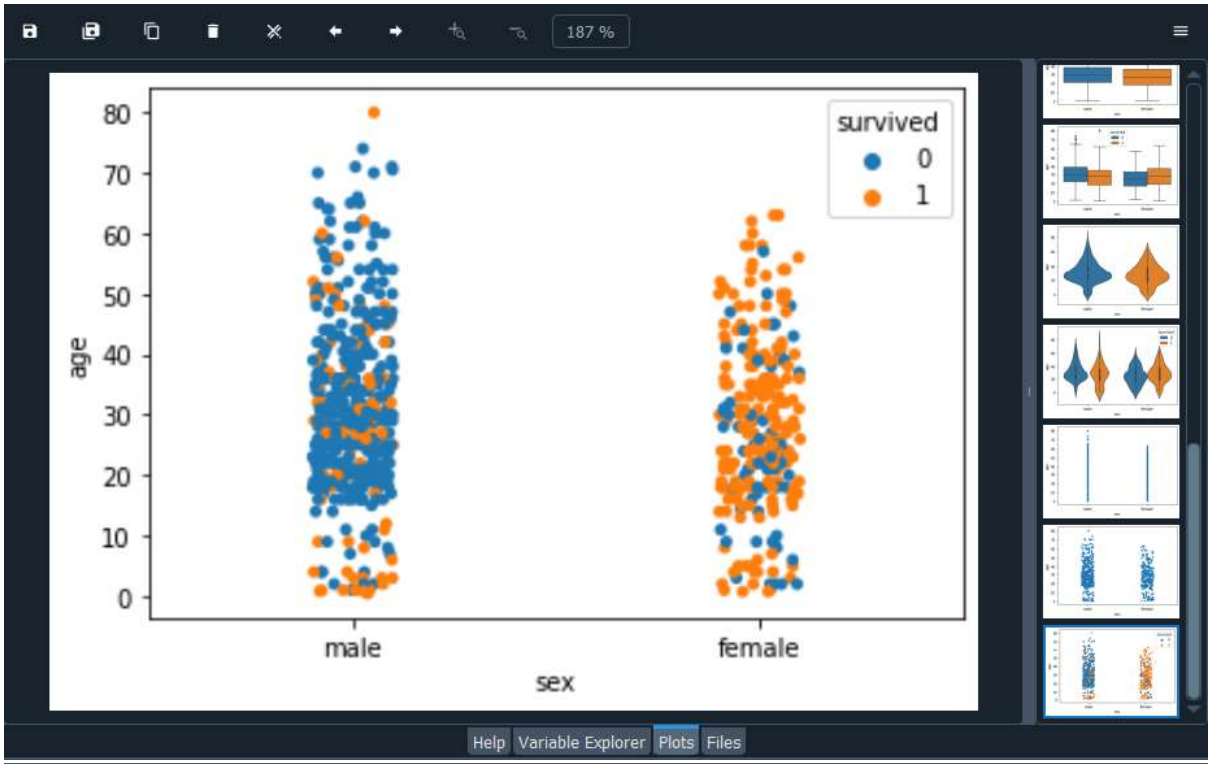
```
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
sns.barplot(x='sex', y='age', data=dataset, estimator=np.std)

sns.countplot(x='sex', data=dataset)

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

sns.boxplot(x='sex', y='age', data=dataset, hue="survived")

sns.violinplot(x='sex', y='age', data=dataset)

sns.violinplot(x='sex', y='age', data=dataset, hue='survived')

sns.stripplot(x='sex', y='age', data=dataset, jitter=False)

sns.stripplot(x='sex', y='age', data=dataset, jitter=True)

sns.stripplot(x='sex', y='age', data=dataset, jitter=True, hue='survived')

sns.swarmplot(x='sex', y='age', data=dataset)

sns.swarmplot(x='sex', y='age', data=dataset, hue='survived')

import pandas as pd
```

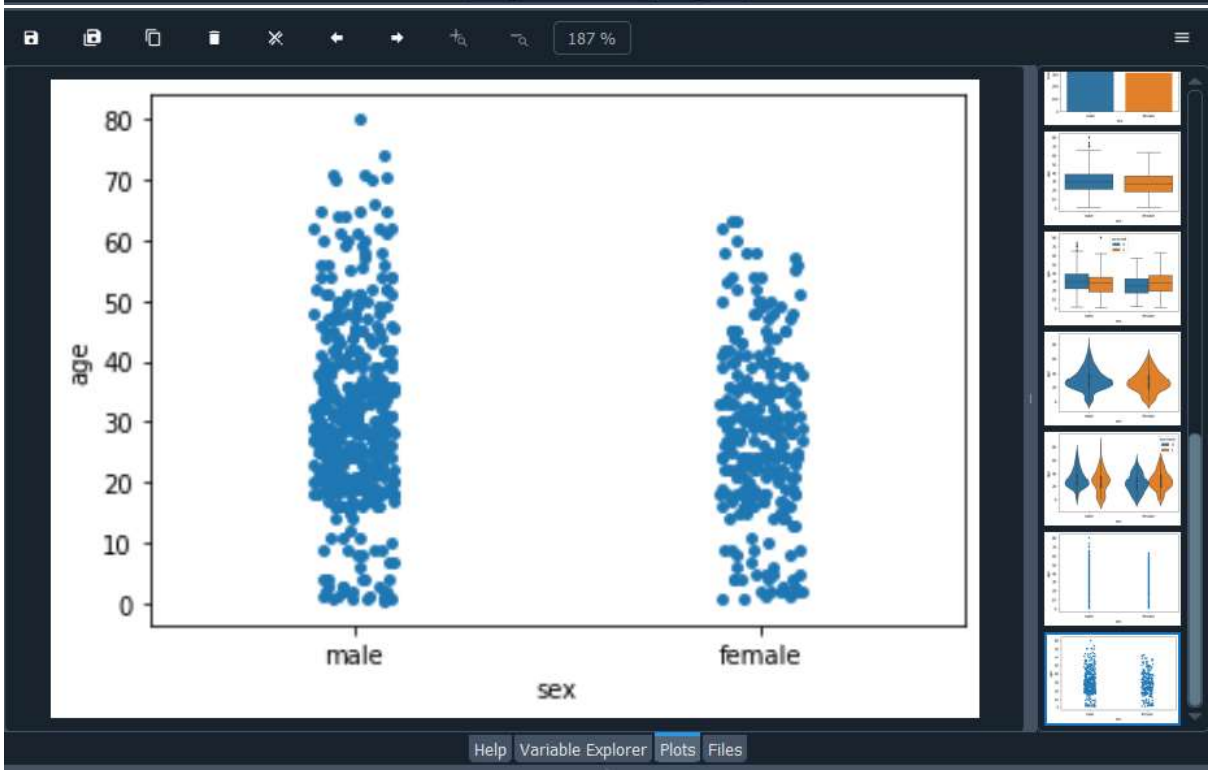
```
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
dataset = sns.load_dataset('titanic')
dataset.head()

import seaborn as sns
dataset = sns.load_dataset('titanic')
sns.histplot(dataset['fare'], kde=False,bins=10)
```

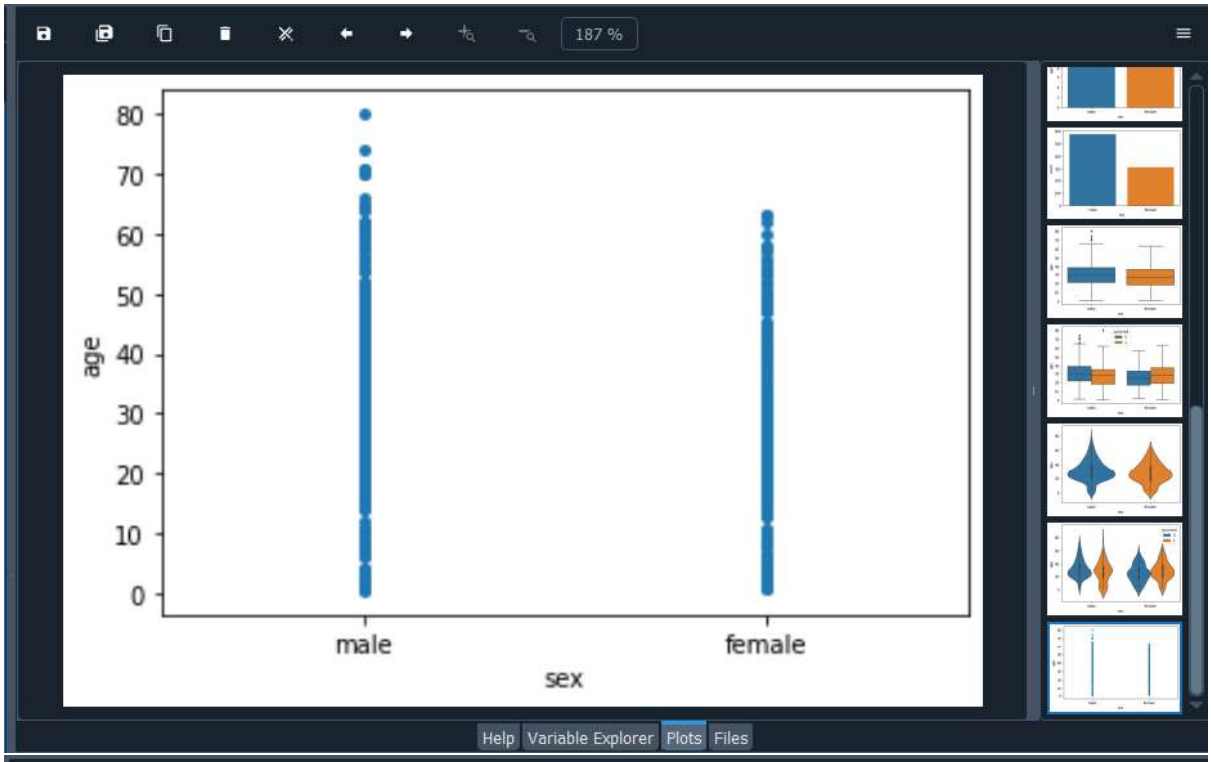
OUTPUT :

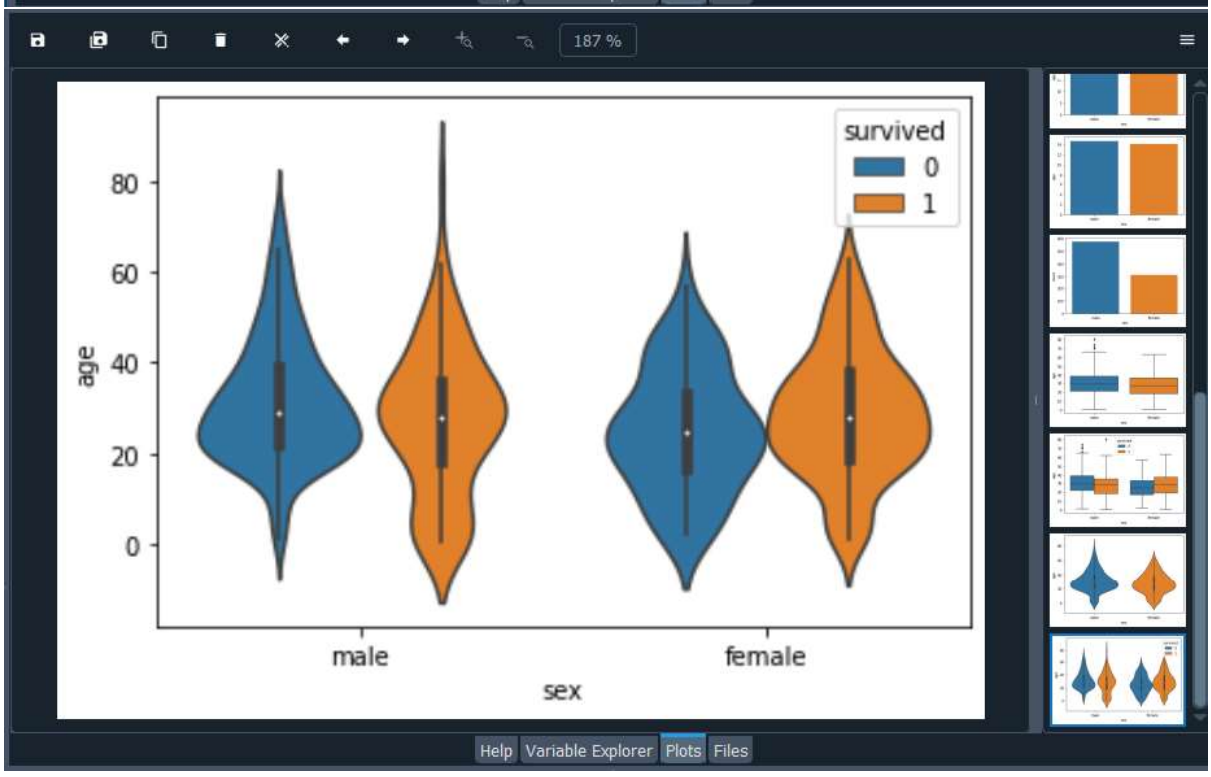

187 %
survived
0
1
80
70
60
50
40
30
20
10
0
age
male
female
sex
Help
Variable Explorer
Plots
Files

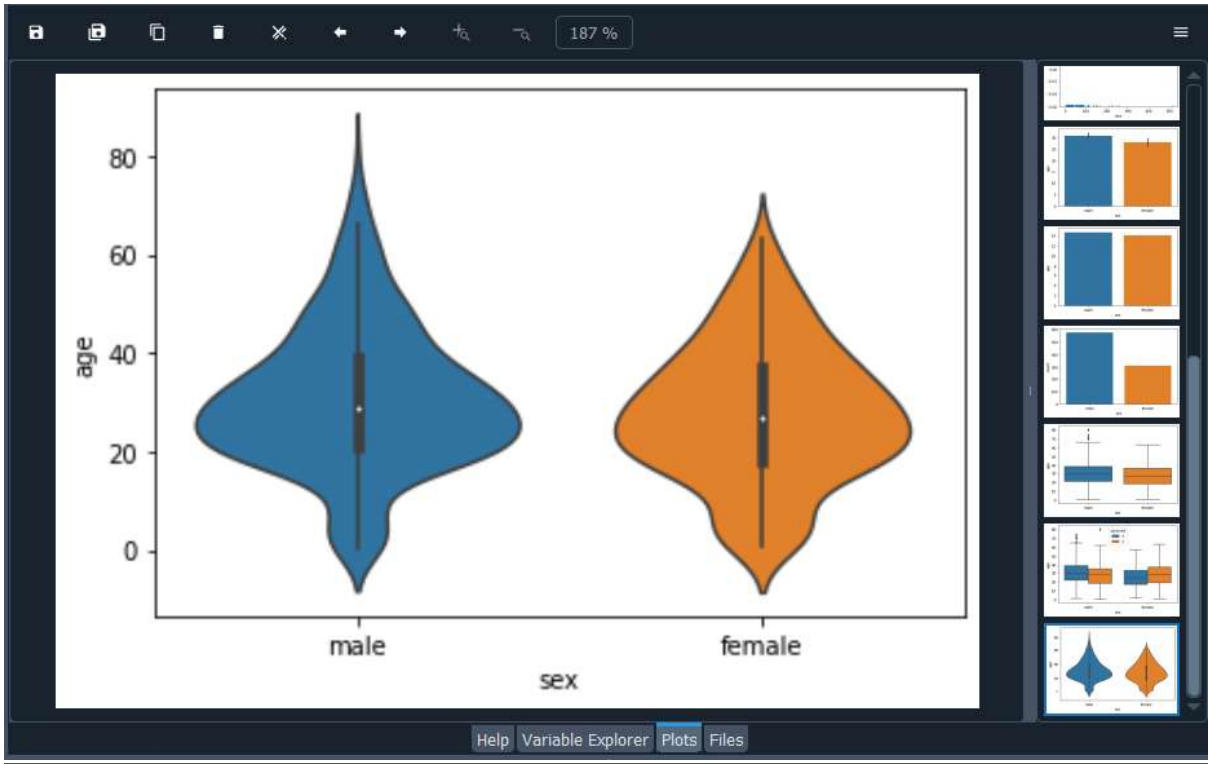

187 %
80
70
60
50
40
30
20
10
0
age
male
female
sex
Help
Variable Explorer
Plots
Files


187 %
survived
0
1
80
70
60
50
40
30
20
10
0
age
male
female
sex
Help
Variable Explorer
Plots
Files

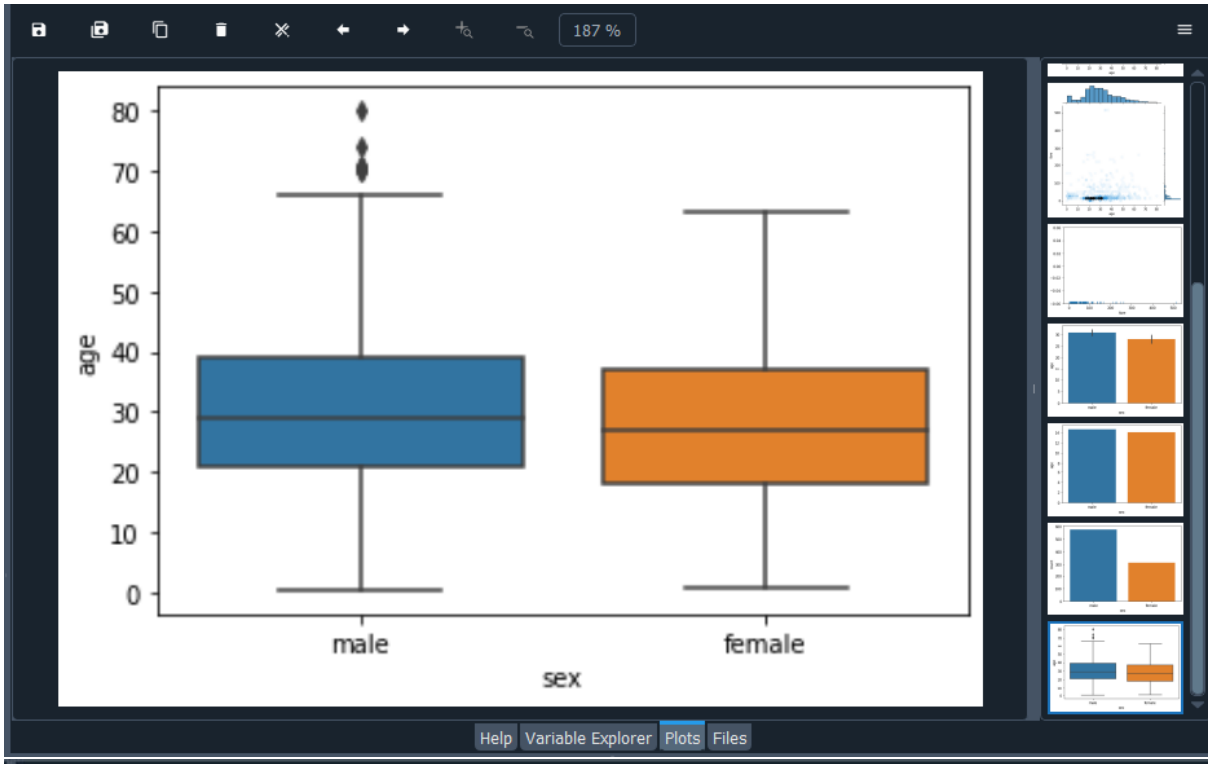

187 %
80
70
60
50
40
30
20
10
0
age
male
female
sex
Help
Variable Explorer
Plots
Files

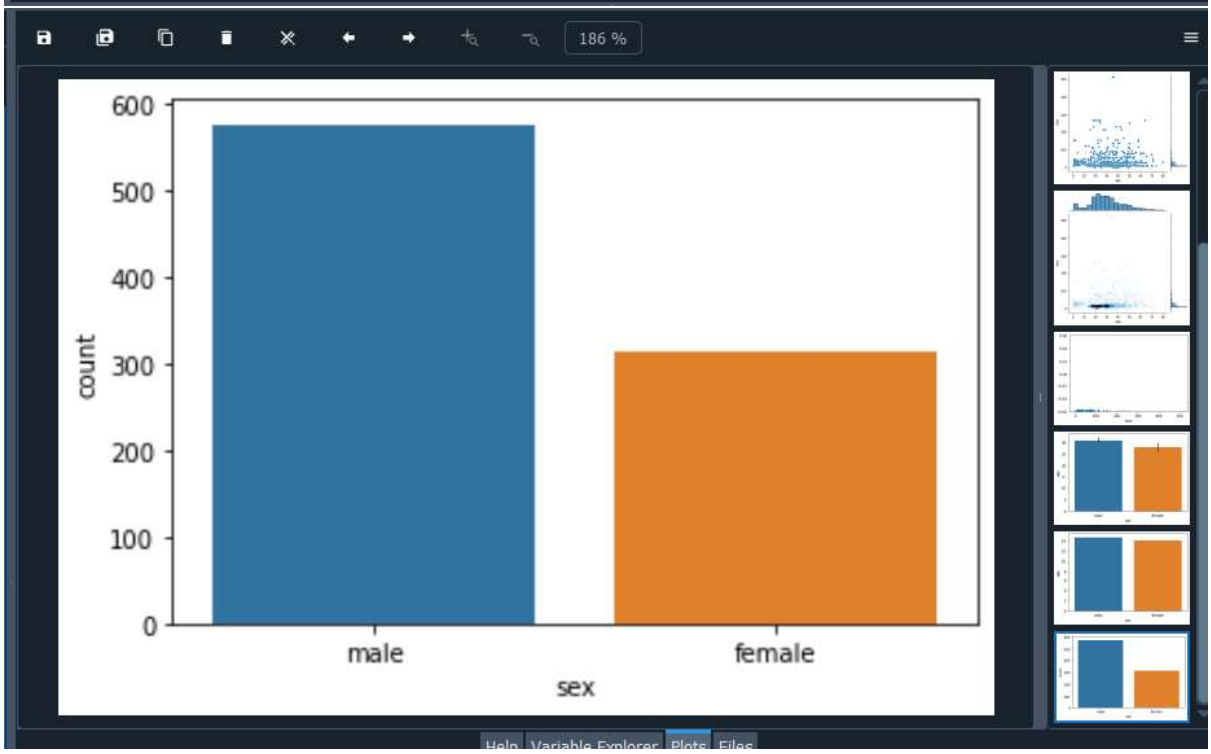

187 %
80
70
60
50
40
30
20
10
0
age
male
female
sex
Help
Variable Explorer
Plots
Files

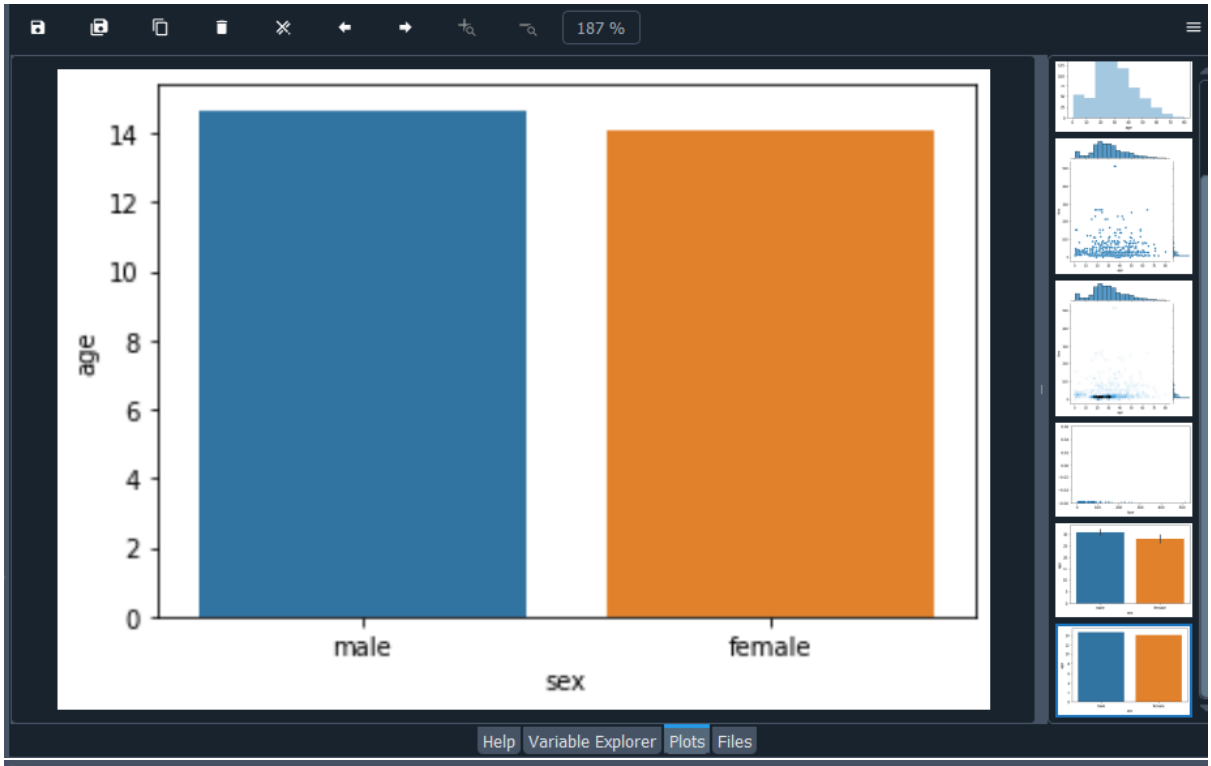

187 %
survived
0
1
80
60
40
20
0
age
male
female
sex
Help
Variable Explorer
Plots
Files

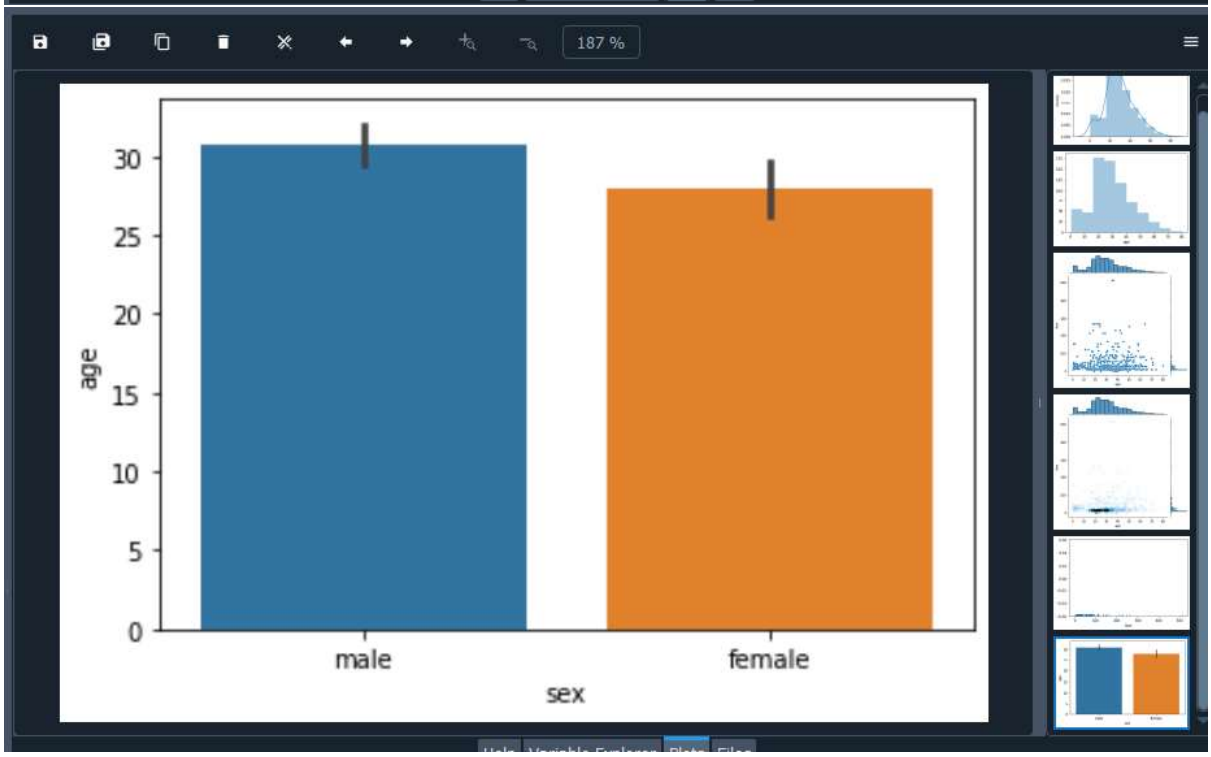

187 %
80
60
40
20
0
age
male
female
sex
Help
Variable Explorer
Plots
Files

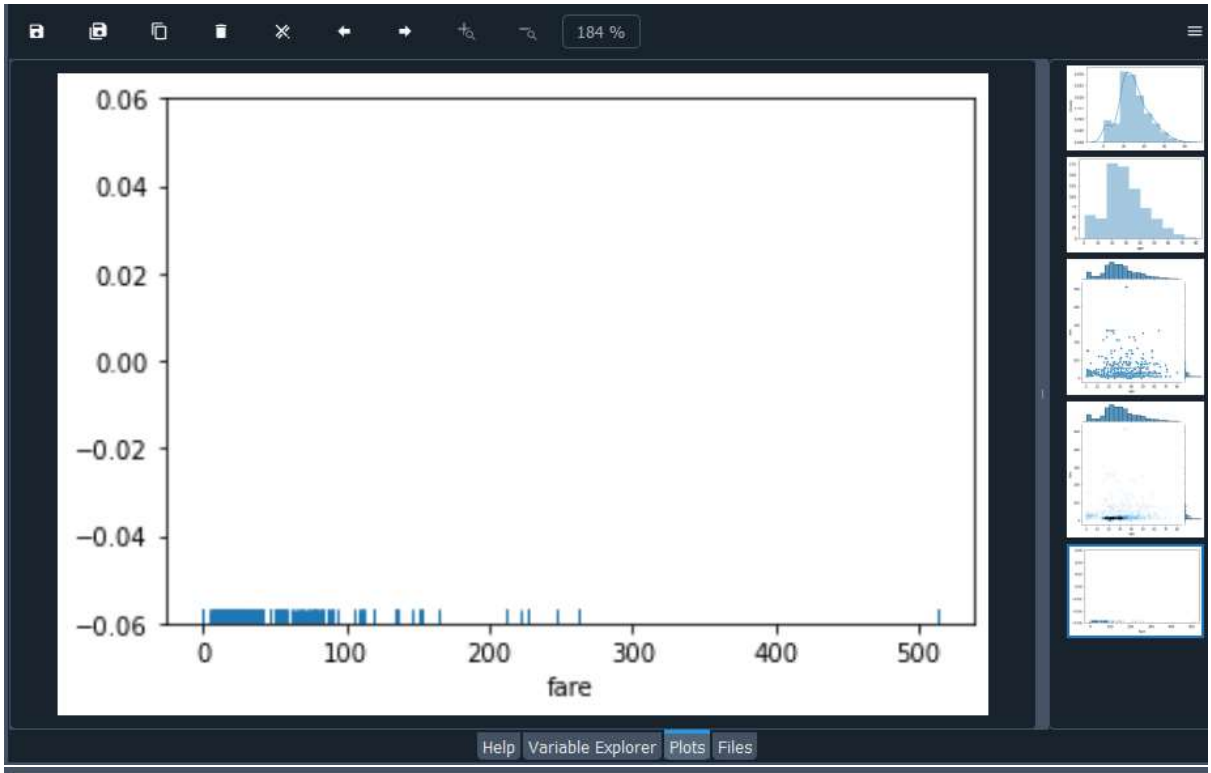

187 %
survived
0
1
80
70
60
50
40
30
20
10
0
age
male
female
sex
Help
Variable Explorer
Plots
Files

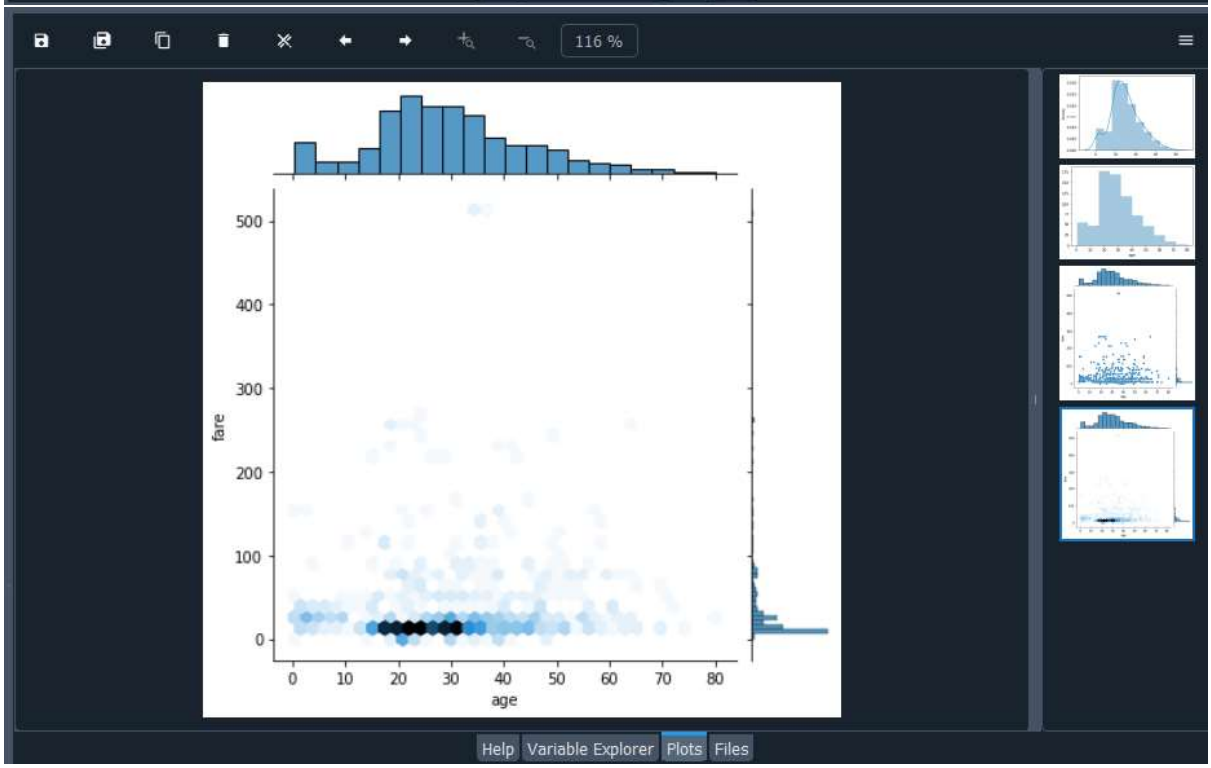

187 %
80
70
60
50
40
30
20
10
0
age
male
female
sex
Help
Variable Explorer
Plots
Files

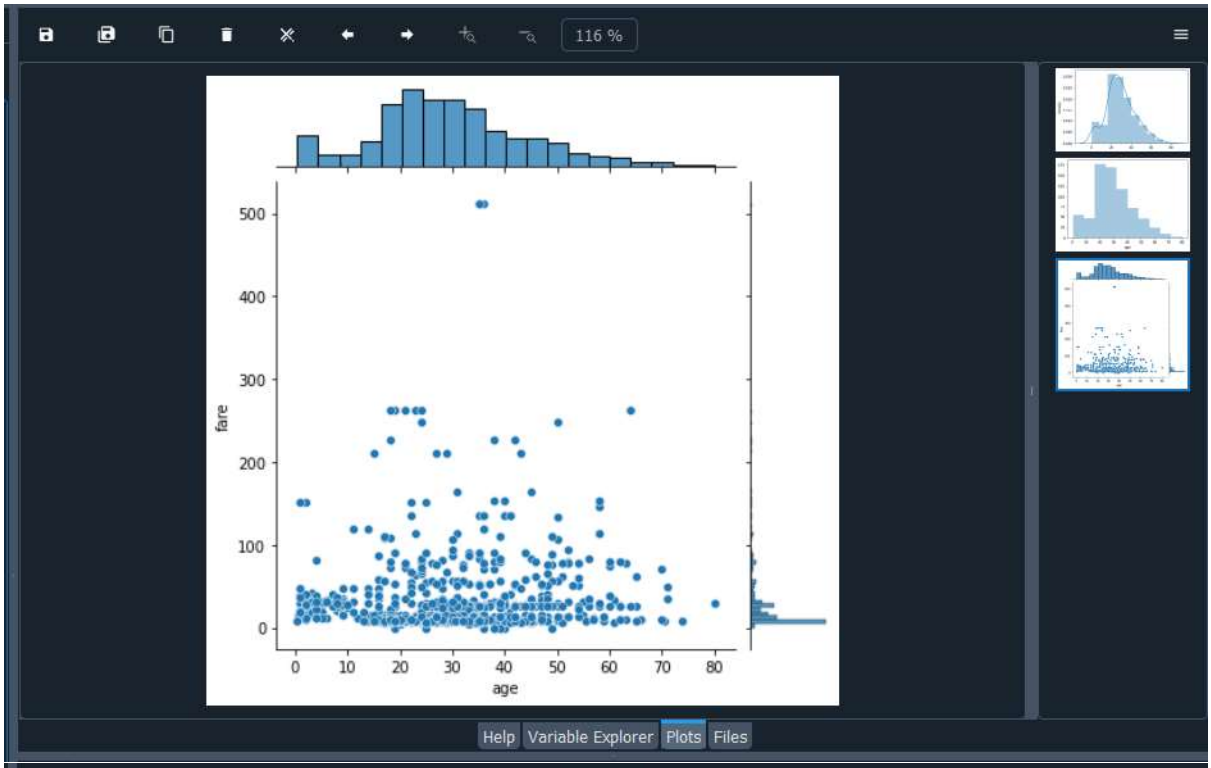

186 %
600
500
400
300
200
100
0
count
male
female
sex

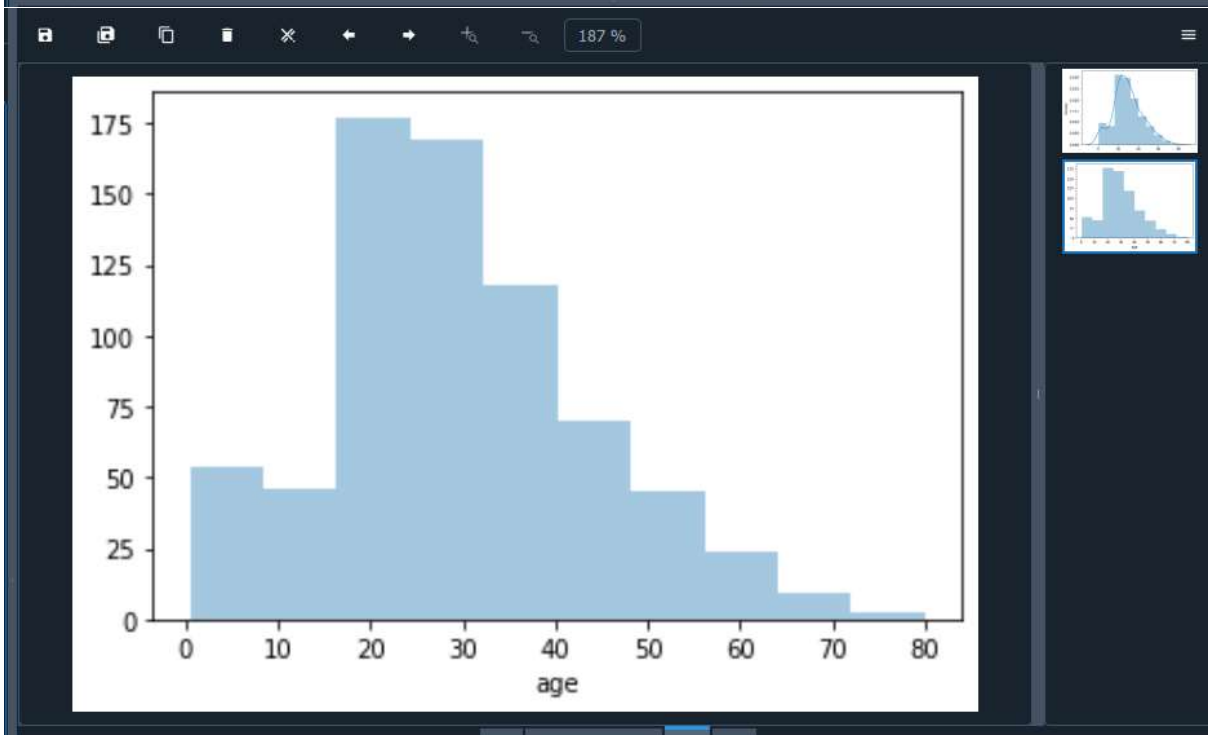

187 %
14
12
10
8
6
4
2
0
age
male
female
sex
Help
Variable Explorer
Plots
Files

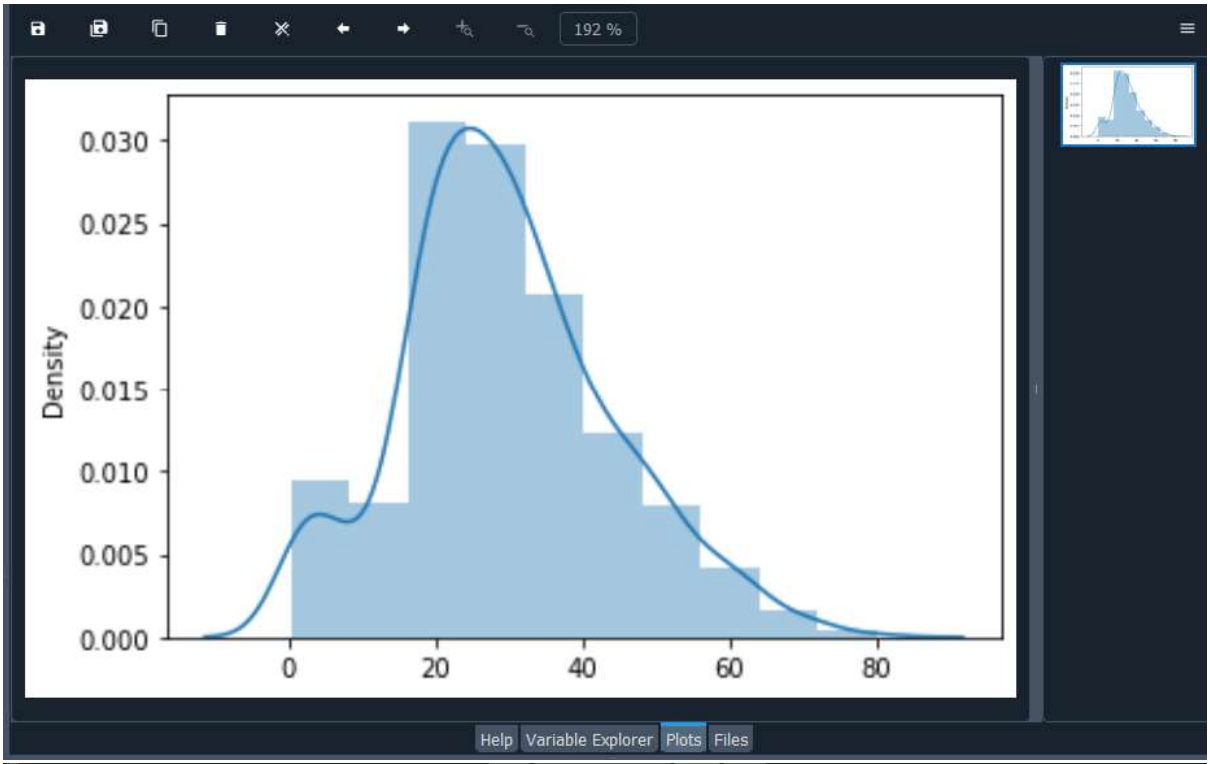

187 %
30
25
20
15
10
5
0
age
male
female
sex


184 %
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
0
100
200
300
400
500
fare
Help
Variable Explorer
Plots
Files


116 %
500
400
300
200
100
0
fare
0
10
20
30
40
50
60
70
80
age
Help
Variable Explorer
Plots
Files


116 %
fare
age
0
100
200
300
400
500
0
10
20
30
40
50
60
70
80
Help
Variable Explorer
Plots
Files

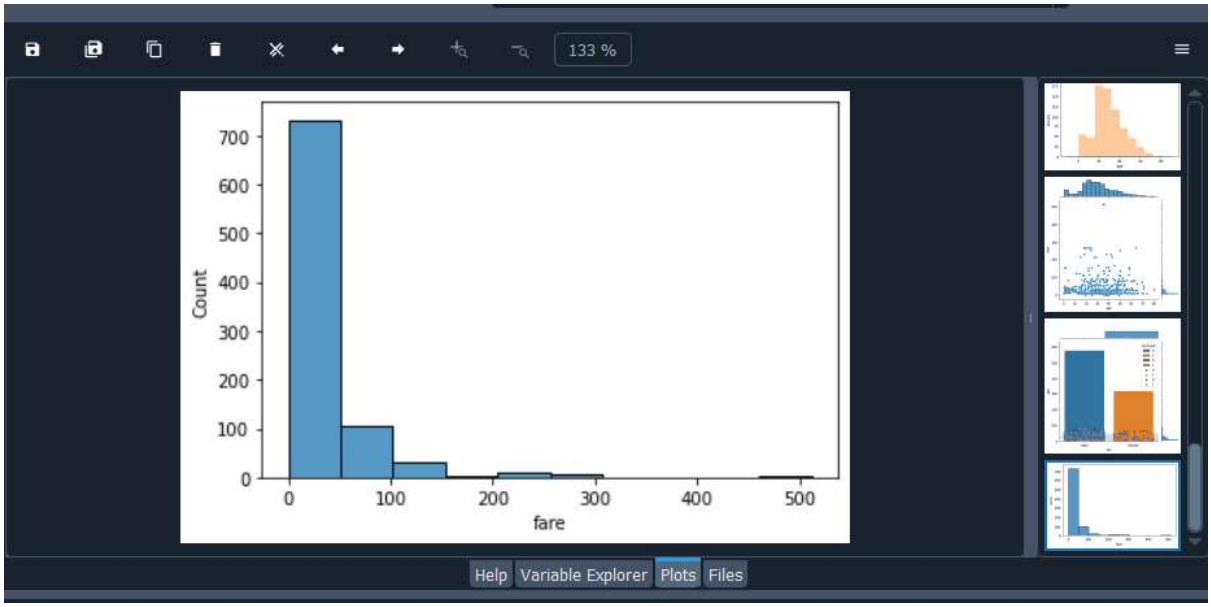

187 %
age
0
25
50
75
100
125
150
175
0
10
20
30
40
50
60
70
80



Console 1/A

```
In [13]: runfile('E:/DSBDA/dsbdapr8.py', wdir='E:/DSBDA')

In [14]: print(dataset)
     survived  pclass     sex   age  ...  deck  embark_town  alive  alone
0           0       3    male  22.0  ...   NaN  Southampton     no  False
1           1       1  female  38.0  ...     C    Cherbourg    yes  False
2           1       3  female  26.0  ...   NaN  Southampton    yes   True
3           1       1  female  35.0  ...     C  Southampton    yes  False
4           0       3    male  35.0  ...   NaN  Southampton     no   True
..        ...     ...     ...   ...  ...   ...          ...    ...    ...
886         0       2    male  27.0  ...   NaN  Southampton     no   True
887         1       1  female  19.0  ...     B  Southampton    yes   True
888         0       3  female   NaN  ...   NaN  Southampton     no  False
889         1       1    male  26.0  ...     C    Cherbourg    yes   True
890         0       3    male  32.0  ...   NaN   Queenstown     no   True

[891 rows x 15 columns]

In [15]: dataset.head()
Out[15]:
   survived  pclass     sex   age  ...  deck  embark_town  alive  alone
0         0       3    male  22.0  ...   NaN  Southampton     no  False
1         1       1  female  38.0  ...     C    Cherbourg    yes  False
2         1       3  female  26.0  ...   NaN  Southampton    yes   True
3         1       1  female  35.0  ...     C  Southampton    yes  False
4         0       3    male  35.0  ...   NaN  Southampton     no   True

[5 rows x 15 columns]

In [16]: sns.distplot(x = dataset['age'], bins = 10)
C:\Users\vedik\AppData\Local\Temp\ipykernel_15116\3209197554.py:1: UserWarning:
```

IPython Console History


133 %
Count
fare
0
100
200
300
400
500
700
600
Help
Variable Explorer
Plots
Files