

Using describe, info and data head read

```
Python 3.13 (64-bit)
PermissionError: [Errno 13] Permission denied: 'C:\\Users\\Deep Sakpal\\Downloads\\titanic'
>>> import pandas as pd
>>> df = pd.read_csv('C:/Users/Deep Sakpal/Downloads/titanic/train.csv')
>>> print(df.head())
  PassengerId  Survived  Pclass    Age  SibSp  Parch  Fare  Cabin  Embarked
0           1         0       3   NaN    1.0    0.0   7.25   NaN     S
1           2         1       1   NaN    0.0    0.0  51.00   85   C
2           3         1       3   NaN    1.0    0.0  53.00  C123   S
3           4         1       1   NaN    0.0    0.0  51.00  C123   S
4           5         0       3   NaN    1.0    0.0  51.00  C123   S

[5 rows x 12 columns]
>>> print(df.info())
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 891 entries, 0 to 890
Data columns (total 12 columns):
 #  Column  Non-Null Count  Dtype
---  --
 0  PassengerId  891 non-null    int64
 1  Survived    891 non-null    int64
 2  Pclass      891 non-null    int64
 3  Name        891 non-null    object
 4  Sex         891 non-null    object
 5  Age         714 non-null    float64
 6  SibSp       891 non-null    int64
 7  Parch       891 non-null    int64
 8  Ticket      891 non-null    object
 9  Fare        891 non-null    float64
10  Cabin       204 non-null    object
11  Embarked    891 non-null    object
dtypes: float64(2), int64(5), object(5)
memory usage: 83.7+ KB
None
>>> print(data.describe())
Traceback (most recent call last):
  File "c:\python\python-3.13.0\python.exe", line 1, in <module>
    print(data.describe())
NameError: name 'data' is not defined
>>> print(df.describe())
  PassengerId  Survived  Pclass    Age  SibSp  Parch  Fare
count  891.000000  891.000000  891.000000  714.000000  891.000000  891.000000  891.000000
mean     446.000000    0.338333    2.306422   29.699118    0.523088    0.381594   32.204208
std      257.353842    0.486592    0.836071   14.526497    1.102743    0.806057   49.693429
min         1.000000    0.000000    1.000000    0.420000    0.000000    0.000000    0.000000
25%      223.500000    0.000000    2.000000   20.125000    0.000000    0.000000    7.918400
50%      446.000000    0.000000    3.000000   28.000000    0.000000    0.000000   14.454200
75%      668.500000    1.000000    3.000000   38.000000    1.000000    0.000000   31.000000
```

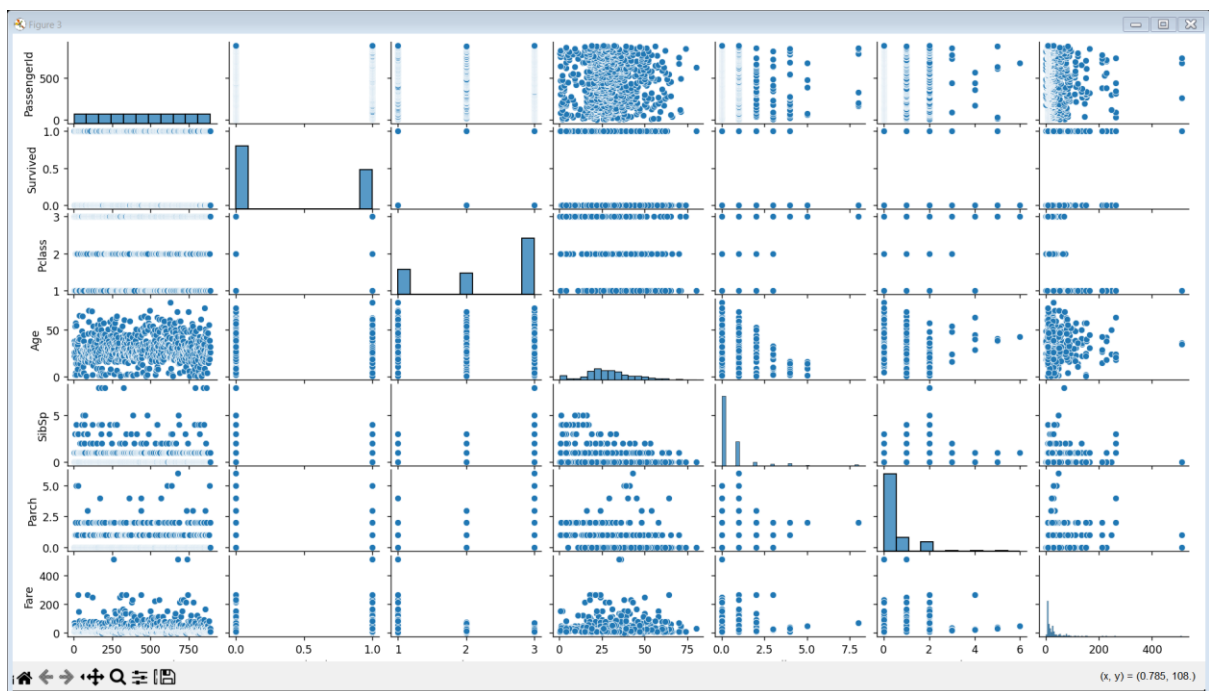
```
Python 3.13 (64-bit)
>>> import seaborn as sns
>>> import matplotlib.pyplot as plt
>>> sns.pairplot(df)
<seaborn.axisgrid.PairGrid object at 0x000001F1A44440>
>>> p
Traceback (most recent call last):
  File "c:\python\python-3.13.0\python.exe", line 1, in <module>
    p
NameError: name 'p' is not defined. Did you mean: 'pd'?
>>> plt.show()
<function show at 0x000001F173A480>
>>> sns.pairplot(df, hue='survived')
Traceback (most recent call last):
  File "C:\Users\Deep Sakpal\AppData\Local\Programs\Python\Python313\Lib\site-packages\pandas\core\indexes\base.py", line 3895, in get_loc
    return self._engine.get_loc(casted_key)
  File "pandas\_libs\index.pyi", line 167, in pandas._libs.index.IndexEngine.get_loc
  File "pandas\_libs\index.py", line 196, in pandas._libs.index.IndexEngine.get_loc
  File "pandas\_libs\hashtable_class_helper.pxi", line 7801, in pandas._libs.hashtable.PyObjectHashTable.get_item
  File "pandas\_libs\hashtable_class_helper.pxi", line 7809, in pandas._libs.hashtable.PyObjectHashTable.get_item
KeyError: 'survived'

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

Traceback (most recent call last):
  File "c:\python\python-3.13.0\python.exe", line 1, in <module>
    sns.pairplot(df, hue='survived')
  File "C:\Users\Deep Sakpal\AppData\Local\Programs\Python\Python313\Lib\site-packages\seaborn\axisgrid.py", line 2119, in pairplot
    grid = PairGrid(data, vars=vars, x_vars=x_vars, y_vars=y_vars, hue=hue,
              hue_order=hue_order, palette=palette, corner=corner,
              height=height, aspect=aspect, dropna=dropna, **grid_kws)
  File "C:\Users\Deep Sakpal\AppData\Local\Programs\Python\Python313\Lib\site-packages\seaborn\axisgrid.py", line 1327, in __init__
    hue_names = hue_order = categorical_order(data[hue], hue_order)
  File "C:\Users\Deep Sakpal\AppData\Local\Programs\Python\Python313\Lib\site-packages\pandas\core\frame.py", line 4107, in __getitem__
    indexer = self.columns.get_loc(key)
  File "C:\Users\Deep Sakpal\AppData\Local\Programs\Python\Python313\Lib\site-packages\pandas\core\indexes\base.py", line 3812, in get_loc
    raise KeyError(key) from err
KeyError: 'survived'
>>> sns.pairplot(df, hue)
Traceback (most recent call last):
  File "c:\python\python-3.13.0\python.exe", line 1, in <module>
    sns.pairplot(df, hue)
NameError: name 'hue' is not defined
```

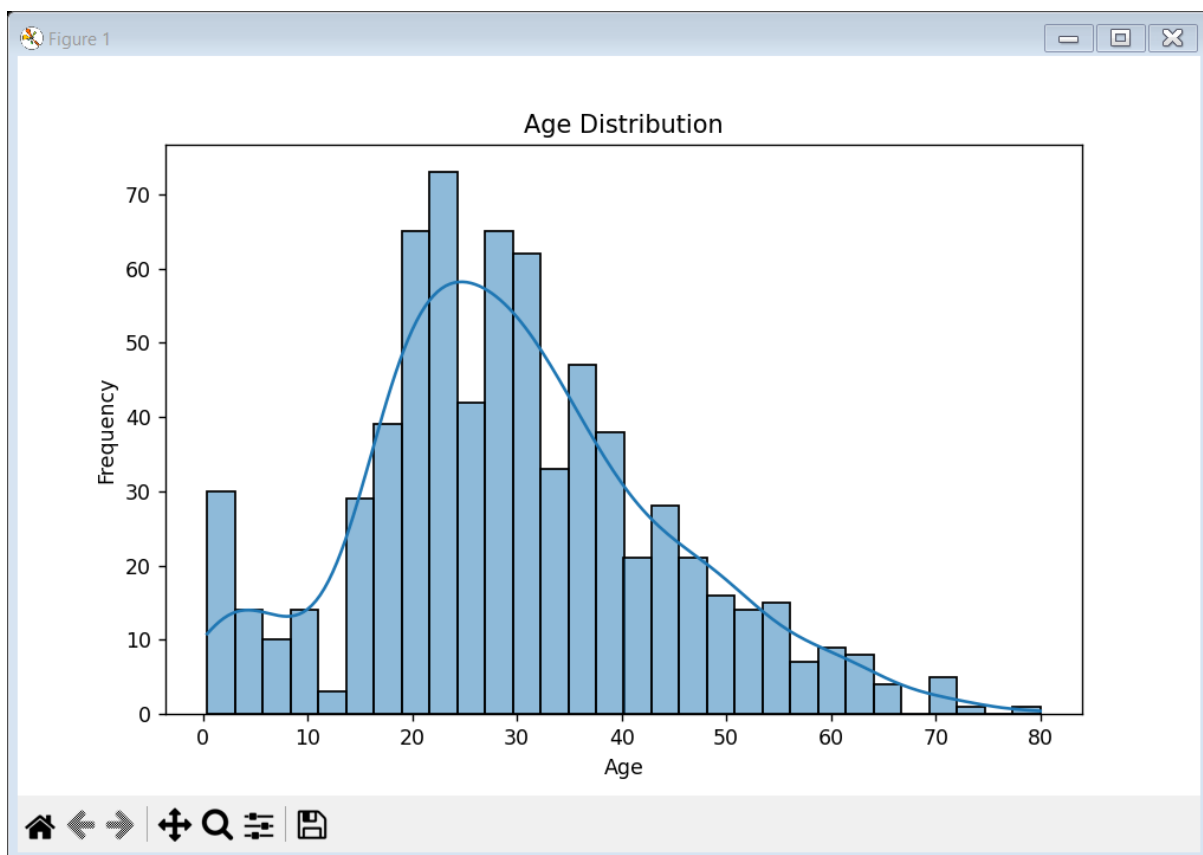
pairplot

```
Traceback (most recent call last):
  File "python-input-13", line 1, in <module>
    sns.pairplot(df, hue='survived')
    ~~~~~^~~~~~
File "C:\Users\Deep Sakpal\AppData\Local\Programs\Python\Python313\Lib\site-packages\seaborn\axisgrid.py", line 2119, in pairplot
    grid = PairGrid(data, vars=vars, x_vars=x_vars, y_vars=y_vars, hue=hue,
                  hue_order=hue_order, palette=palette, corner=corner,
                  height=height, aspect=aspect, dropna=dropna, **grid_kws)
File "C:\Users\Deep Sakpal\AppData\Local\Programs\Python\Python313\Lib\site-packages\seaborn\axisgrid.py", line 1327, in __init__
    hue_names = hue_order + categorical_order(data[hue], hue_order)
    ~~~~~^~~~~~
File "C:\Users\Deep Sakpal\AppData\Local\Programs\Python\Python313\Lib\site-packages\pandas\core\frame.py", line 4102, in __getitem__
    indexer = self.columns.get_loc(key)
File "C:\Users\Deep Sakpal\AppData\Local\Programs\Python\Python313\Lib\site-packages\pandas\core\indexes\base.py", line 3812, in get_loc
    raise KeyError(key) from err
KeyError: 'survived'
>>> sns.pairplot(df, hue)
Traceback (most recent call last):
  File "python-input-14", line 1, in <module>
    sns.pairplot(df, hue)
    ~~~~~^~~~~~
NameError: name 'hue' is not defined
>>> sns.pairplot(df, age)
Traceback (most recent call last):
  File "python-input-15", line 1, in <module>
    sns.pairplot(df, age)
    ~~~~~^~~~~~
NameError: name 'age' is not defined
>>> sns.pairplot(df)
<seaborn.axisgrid.PairGrid object at 0x000001f1f983c200>
>>> plt.show()
```



histogram

```
Python 3.13 (64-bit)
Python 3.13.3 (tags/v3.13.3:6280bb5, Apr 8 2025, 14:47:33) [MSC v.1943 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import pandas as pd
>>> df = pd.read_csv('C:\\Users\\Deep Sakpal\\Downloads\\titanic\\train.csv')
>>> import pandas as pd
>>> import seaborn as sns
>>> import matplotlib.pyplot as plt
>>> # Histogram of Age
>>> plt.figure(figsize=(8,5))
<Figure size 800x500 with 0 Axes>
>>> sns.histplot(df['Age'], bins=30, kde=True)
<Axes: xlabel='Age', ylabel='Count'>
>>> plt.title('Age Distribution')
Text(0.5, 1.0, 'Age Distribution')
>>> plt.xlabel('Age')
Text(0.5, 0, 'Age')
>>> plt.ylabel('Frequency')
Text(0, 0.5, 'Frequency')
>>> plt.show()
```



boxplot

```
Select Python 3.13 (64-bit)
Python 3.13.3 (tags/v3.13.3:6280bb5, Apr 8 2025, 14:47:33) [MSC v.1943 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import panda as pd
Traceback (most recent call last):
  File "<python-input-0>", line 1, in <module>
    import panda as pd
ModuleNotFoundError: No module named 'panda'
>>> import pandas as pd
>>> import seaborn as sns
>>> import matplotlib.pyplot as plt
>>> # Boxplot of Age based on Survived
>>> plt.figure(figsize=(8,5))
<Figure size 800x500 with 0 Axes>
>>> sns.boxplot(x='Survived', y='Age', data=df)
Traceback (most recent call last):
  File "<python-input-6>", line 1, in <module>
    sns.boxplot(x='Survived', y='Age', data=df)
                                   ^^
NameError: name 'df' is not defined
>>> plt.title('Age distribution by Survival')
Text(0.5, 1.0, 'Age distribution by Survival')
>>> plt.xlabel('Survived')
Text(0.5, 0, 'Survived')
>>> plt.ylabel('Age')
Text(0, 0.5, 'Age')
>>> plt.show()
```

