```
import pandas as pd

df = pd.read_csv("titanic.csv")
print(df.head())
print(df.info())
```

```
   PassengerId  Survived  Pclass  \
0            1         0       3   
1            2         1       1   
2            3         1       3   
3            4         1       1   
4            5         0       3   

                                                Name     Sex   Age  SibSp  \
0                            Braund, Mr. Owen Harris    male  22.0      1   
1  Cumings, Mrs. John Bradley (Florence Briggs Th...  female  38.0      1   
2                             Heikkinen, Miss. Laina  female  26.0      0   
3       Futrelle, Mrs. Jacques Heath (Lily May Peel)  female  35.0      1   
4                           Allen, Mr. William Henry    male  35.0      0   

   Parch            Ticket     Fare Cabin Embarked  
0      0         A/5 21171   7.2500   NaN        S  
1      0          PC 17599  71.2833   C85        C  
2      0  STON/O2. 3101282   7.9250   NaN        S  
3      0            113803  53.1000  C123        S  
4      0            373450   8.0500   NaN        S  
<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     889 non-null    object 
dtypes: float64(2), int64(5), object(5)
memory usage: 83.7+ KB
None
```

New Section

```
print(df.describe())
print(df.median())
```

```
       PassengerId    Survived      Pclass         Age       SibSp  \
count   891.000000  891.000000  891.000000  714.000000  891.000000
mean    446.000000    0.383838    2.308642   29.699118    0.523008
std     257.353842    0.486592    0.836071   14.526497    1.102743
min       1.000000    0.000000    1.000000    0.420000    0.000000
25%     223.500000    0.000000    2.000000   20.125000    0.000000
50%     446.000000    0.000000    3.000000   28.000000    0.000000
75%     668.500000    1.000000    3.000000   38.000000    1.000000
max     891.000000    1.000000    3.000000   80.000000    8.000000

            Parch        Fare
count  891.000000  891.000000
mean     0.381594   32.204208
std      0.806057   49.693429
min      0.000000    0.000000
25%      0.000000    7.910400
50%      0.000000   14.454200
75%      0.000000   31.000000
max      6.000000  512.329200
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-2-91219e798408> in <cell line: 0>()
      1 print(df.describe())
----> 2 print(df.median())
```

8 frames

```
/usr/local/lib/python3.11/dist-packages/pandas/core/nanops.py in nanmedian(values, axis, skipna, mask)
    785             inferred = lib.infer_dtype(values)
    786             if inferred in ["string", "mixed"]:
--> 787                 raise TypeError(f"Cannot convert {values} to numeric")
    788         try:
    789             values = values.astype("f8")

TypeError: Cannot convert [['Braund, Mr. Owen Harris'
  'Cumings, Mrs. John Bradley (Florence Briggs Thayer)'
  'Heikkinen, Miss. Laina' ... 'Johnston, Miss. Catherine Helen "Carrie"'
  'Behr, Mr. Karl Howell' 'Dooley, Mr. Patrick']
 ['male' 'female' 'female' ... 'female' 'male' 'male']
 ['A/5 21171' 'PC 17599' 'STON/O2. 3101282' ... 'W./C. 6607' '111369'
  '370376']
 [nan 'C85' nan ... nan 'C148' nan]
 ['S' 'C' 'S' ... 'S' 'C' 'Q']] to numeric
```

Next steps: Explain error

Start coding or generate with AI.

Double-click (or enter) to edit

```
# Select only numeric columns for median calculation
numeric_df = df.select_dtypes(include=['number'])
print(numeric_df.describe())
print(numeric_df.median()) # Calculate median only for numeric columns
```

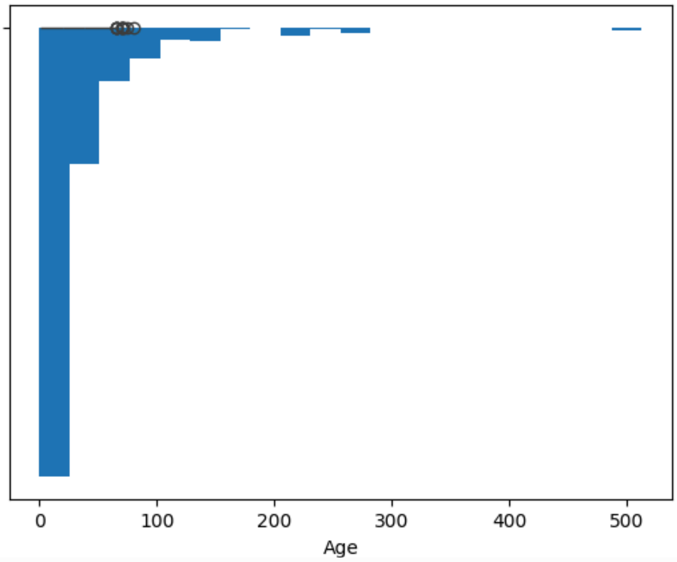
```
       PassengerId    Survived      Pclass         Age       SibSp  \
count   891.000000  891.000000  891.000000  714.000000  891.000000
mean    446.000000    0.383838    2.308642   29.699118    0.523008
std     257.353842    0.486592    0.836071   14.526497    1.102743
min       1.000000    0.000000    1.000000    0.420000    0.000000
25%     223.500000    0.000000    2.000000   20.125000    0.000000
50%     446.000000    0.000000    3.000000   28.000000    0.000000
75%     668.500000    1.000000    3.000000   38.000000    1.000000
max     891.000000    1.000000    3.000000   80.000000    8.000000

            Parch        Fare
count  891.000000  891.000000
mean     0.381594   32.204208
std      0.806057   49.693429
min      0.000000    0.000000
25%      0.000000    7.910400
50%      0.000000   14.454200
75%      0.000000   31.000000
max      6.000000  512.329200
PassengerId    446.0000
Survived         0.0000
Pclass           3.0000
Age             28.0000
SibSp            0.0000
Parch            0.0000
Fare            14.4542
dtype: float64
```

Start coding or generate with AI.

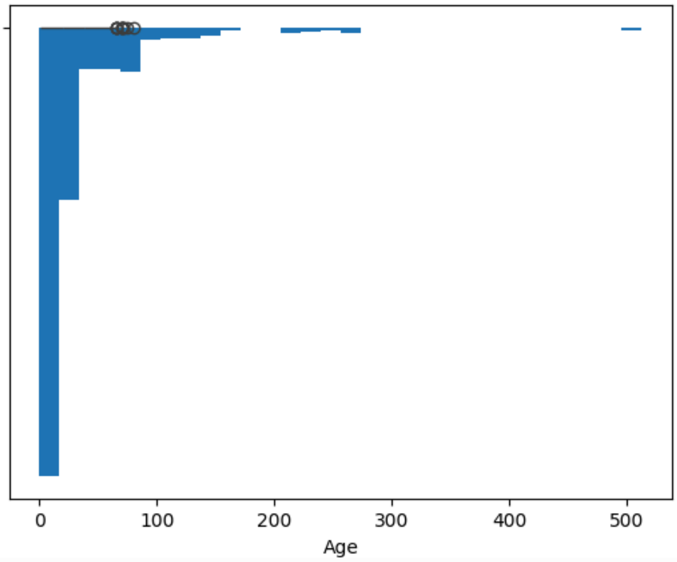
```
import seaborn as sns
import matplotlib.pyplot as plt

sns.boxplot(x=df['Age'])
plt.hist(df['Fare'], bins=20)
plt.show()
```



```
import seaborn as sns
import matplotlib.pyplot as plt

sns.boxplot(x=df['Age'])
plt.hist(df['Fare'], bins=30)
plt.show()
```



Default title text

```
# @title Default title text
import pandas as pd

df = pd.read_csv("titanic.csv")
print(df.head())
print(df.info())

# Select only numeric columns for median calculation
numeric_df = df.select_dtypes(include=['number'])
print(numeric_df.describe())
print(numeric_df.median()) # Calculate median only for numeric columns
```

```
   PassengerId  Survived  Pclass  \
0            1         0       3
1            2         1       1
```

```
2            3         1       3
3            4         1       1
4            5         0       3

                                                Name     Sex   Age  SibSp  \
0                            Braund, Mr. Owen Harris    male  22.0      1
1  Cumings, Mrs. John Bradley (Florence Briggs Th...  female  38.0      1
2                             Heikkinen, Miss. Laina  female  26.0      0
3       Futrelle, Mrs. Jacques Heath (Lily May Peel)  female  35.0      1
4                           Allen, Mr. William Henry    male  35.0      0

   Parch            Ticket     Fare Cabin Embarked
0      0         A/5 21171   7.2500   NaN        S
1      0          PC 17599  71.2833   C85        C
2      0  STON/O2. 3101282   7.9250   NaN        S
3      0            113803  53.1000  C123        S
4      0            373450   8.0500   NaN        S
<class 'pandas.core.frame.DataFrame'>
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 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     889 non-null    object 
dtypes: float64(2), int64(5), object(5)
memory usage: 83.7+ KB
None
       PassengerId    Survived      Pclass         Age       SibSp  \
count   891.000000  891.000000  891.000000  714.000000  891.000000   
mean    446.000000    0.383838    2.308642   29.699118    0.523008   
std     257.353842    0.486592    0.836071   14.526497    1.102743   
min       1.000000    0.000000    1.000000    0.420000    0.000000   
25%     223.500000    0.000000    2.000000   20.125000    0.000000   
50%     446.000000    0.000000    3.000000   28.000000    0.000000   
75%     668.500000    1.000000    3.000000   38.000000    1.000000   
max     891.000000    1.000000    3.000000   80.000000    8.000000   

            Parch        Fare  
count  891.000000  891.000000  
mean     0.381594   32.204208  
std      0.806057   49.693429  
min      0.000000    0.000000  
25%      0.000000    7.910400  
50%      0.000000   14.454200  
75%      0.000000   31.000000  
```
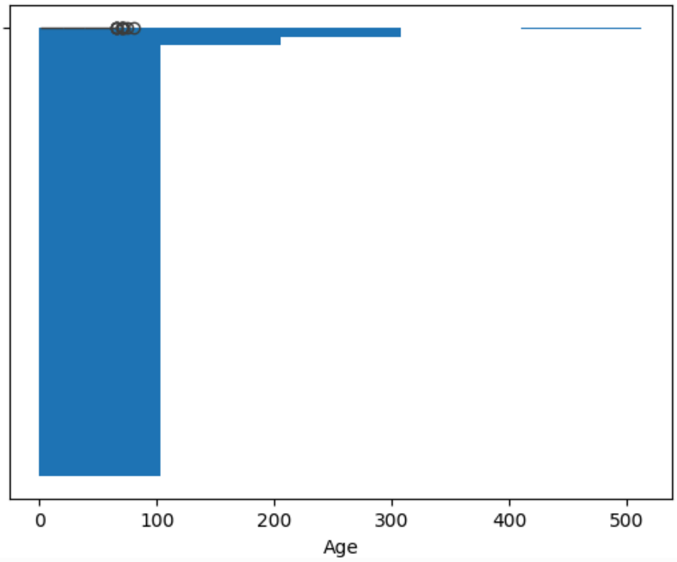

New Section

```
import seaborn as sns
import matplotlib.pyplot as plt

sns.boxplot(x=df['Age'])
plt.hist(df['Fare'], bins=5)
plt.show()
```



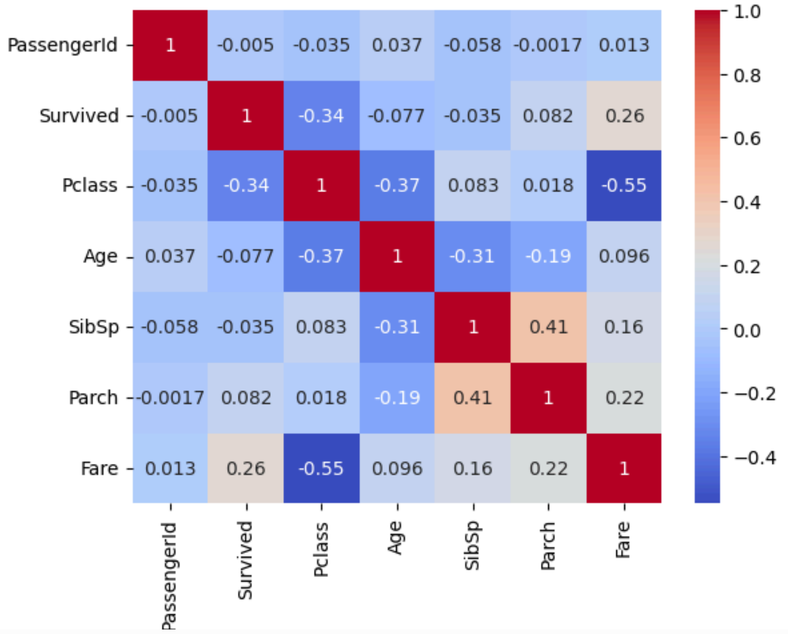
New Section

```
corr = df.corr()
sns.heatmap(corr, annot=True, cmap='coolwarm')
plt.show()
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-9-b533ebab2cf1> in <cell line: 0>()
----> 1 corr = df.corr()
      2 sns.heatmap(corr, annot=True, cmap='coolwarm')
      3 plt.show()

                                       3 frames
/usr/local/lib/python3.11/dist-packages/pandas/core/internals/managers.py in _interleave(self, dtype, na_value)
   1751             else:
   1752                 arr = blk.get_values(dtype)
-> 1753             result[rl.indexer] = arr
   1754             itemmask[rl.indexer] = 1
   1755 

ValueError: could not convert string to float: 'Braund, Mr. Owen Harris'
```

Next steps: Explain error

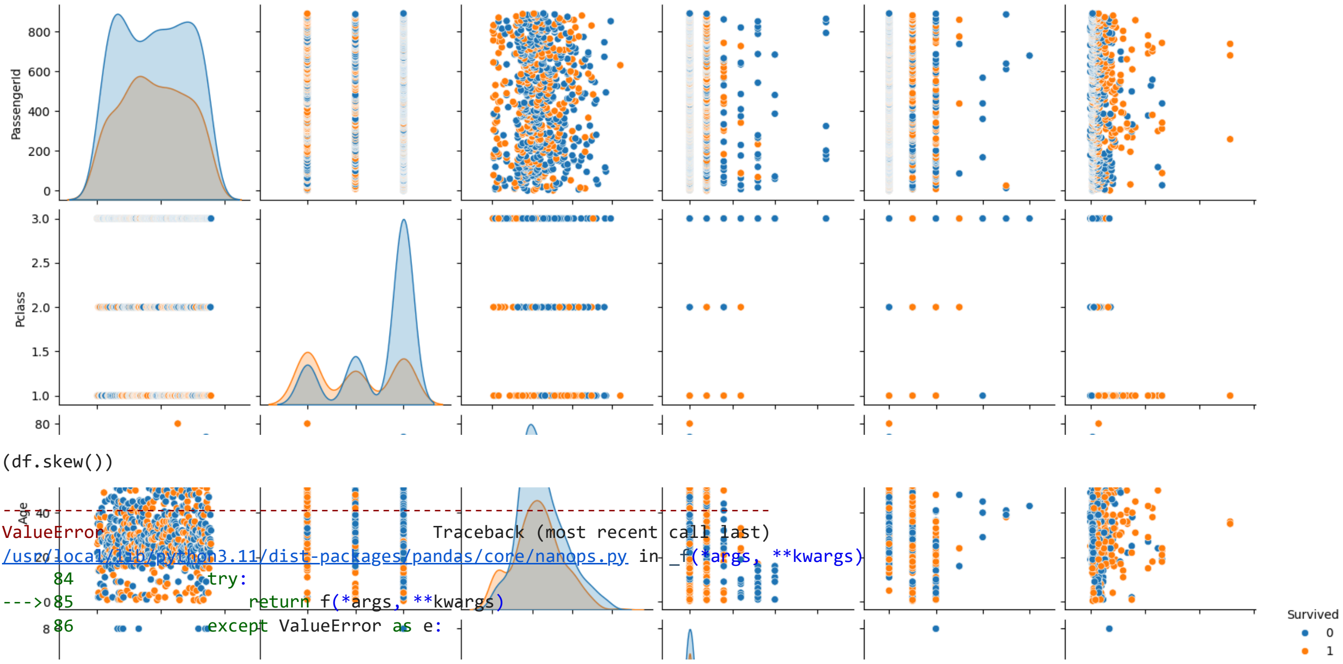
```
corr = numeric_df.corr()
sns.heatmap(corr, annot=True, cmap='coolwarm')
plt.show()
```



	PassengerId	Survived	Pclass	Age	SibSp	Parch	Fare
PassengerId	1	-0.005	-0.035	0.037	-0.058	-0.0017	0.013
Survived	-0.005	1	-0.34	-0.077	-0.035	0.082	0.26
Pclass	-0.035	-0.34	1	-0.37	0.083	0.018	-0.55
Age	0.037	-0.077	-0.37	1	-0.31	-0.19	0.096
SibSp	-0.058	-0.035	0.083	-0.31	1	0.41	0.16
Parch	-0.0017	0.082	0.018	-0.19	0.41	1	0.22
Fare	0.013	0.26	-0.55	0.096	0.16	0.22	1

```
sns.pairplot(df, hue='Survived')  # If using Titanic dataset
```

```
<seaborn.axisgrid.PairGrid at 0x7bba402edb10>
```



```
print(df.skew())
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
/usr/local/lib/python3.11/dist-packages/pandas/core/nanops.py in _f(*args, **kwargs)
     84         try:
---> 85             return f(*args, **kwargs)
     86         except ValueError as e:
```