import pandas as pd
df = pd.read\_csv("/content/tested.csv")
df.head()

|   | PassengerId | Survived | Pclass | Name  | Sex    | Age  | SibSp | Parch | Ticket  | Fare    | Cabin | Embarked |     |
|---|-------------|----------|--------|---|--------|------|-------|-------|---------|---------|-------|----------|-----|
| 0 | 892         | 0        | 3      | Kelly, Mr. James                                | male   | 34.5 | 0     | 0     | 330911  | 7.8292  | NaN   | Q        | ıl. |
| 1 | 893         | 1        | 3      | Wilkes, Mrs. James (Ellen Needs)                | female | 47.0 | 1     | 0     | 363272  | 7.0000  | NaN   | S        |     |
| 2 | 894         | 0        | 2      | Myles, Mr. Thomas Francis                       | male   | 62.0 | 0     | 0     | 240276  | 9.6875  | NaN   | Q        |     |
| 3 | 895         | 0        | 3      | Wirz, Mr. Albert                                | male   | 27.0 | 0     | 0     | 315154  | 8.6625  | NaN   | S        |     |
| 4 | 896         | 1        | 3      | Hirvonen, Mrs. Alexander (Helga E<br>Lindqvist) | female | 22.0 | 1     | 1     | 3101298 | 12.2875 | NaN   | S        |     |

df.info

| $\rightarrow$ | <pre><bound meth<="" pre=""></bound></pre> | od DataFram | e.info o | f     | PassengerId | Survived | Pclass | \ |
|---------------|--|-------------|----------|-------|-------------|----------|--------|---|
|               | 0  | 892         | 0        | 3     |             |          |        |   |
|               | 1  | 893         | 1        | 3     |             |          |        |   |
|               | 2  | 894         | 0        | 2     |             |          |        |   |
|               | 3  | 895         | 0        | 3     |             |          |        |   |
|               | 4  | 896         | 1        | 3     |             |          |        |   |
|               |  |             | • • •    | • • • |             |          |        |   |
|               | 413  | 1305        | 0        | 3     |             |          |        |   |
|               | 414  | 1306        | 1        | 1     |             |          |        |   |
|               | 415  | 1307        | 0        | 3     |             |          |        |   |
|               | 416  | 1308        | 0        | 3     |             |          |        |   |
|               | 417  | 1309        | 0        | 3     |             |          |        |   |
|               |  |             |          |       |             |          |        |   |

|     | Name   | Sex    | Age  | SibSp | Parch | ١ |
|-----|--|--------|------|-------|-------|---|
| 0   | Kelly, Mr. James                             | male   | 34.5 | 0     | 0     |   |
| 1   | Wilkes, Mrs. James (Ellen Needs)             | female | 47.0 | 1     | 0     |   |
| 2   | Myles, Mr. Thomas Francis                    | male   | 62.0 | 0     | 0     |   |
| 3   | Wirz, Mr. Albert                             | male   | 27.0 | 0     | 0     |   |
| 4   | Hirvonen, Mrs. Alexander (Helga E Lindqvist) | female | 22.0 | 1     | 1     |   |
|     | •••  |        |      |       |       |   |
| 413 | Spector, Mr. Woolf                           | male   | NaN  | 0     | 0     |   |
| 414 | Oliva y Ocana, Dona. Fermina                 | female | 39.0 | 0     | 0     |   |
| 415 | Saether, Mr. Simon Sivertsen                 | male   | 38.5 | 0     | 0     |   |
| 416 | Ware, Mr. Frederick                          | male   | NaN  | 0     | 0     |   |
| 417 | Peter, Master. Michael J                     | male   | NaN  | 1     | 1     |   |
|     |  |        |      |       |       |   |

|     |                    | •        |       |          |
|-----|--------------------|----------|-------|----------|
|     | Ticket             | Fare     | Cabin | Embarked |
| 0   | 330911             | 7.8292   | NaN   | Q        |
| 1   | 363272             | 7.0000   | NaN   | S        |
| 2   | 240276             | 9.6875   | NaN   | Q        |
| 3   | 315154             | 8.6625   | NaN   | S        |
| 4   | 3101298            | 12.2875  | NaN   | S        |
|     |                    |          |       |          |
| 413 | A.5. 3236          | 8.0500   | NaN   | S        |
| 414 | PC 17758           | 108.9000 | C105  | C        |
| 415 | SOTON/O.Q. 3101262 | 7.2500   | NaN   | S        |
| 416 | 359309             | 8.0500   | NaN   | S        |
| 417 | 2668               | 22.3583  | NaN   | C        |
|     |                    |          |       |          |

[418 rows x 12 columns]>

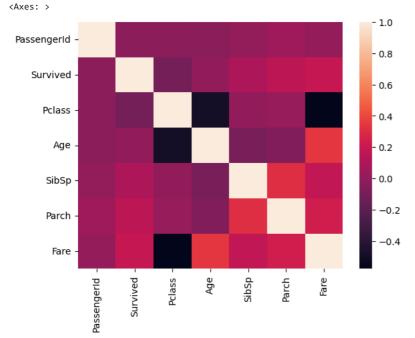
df.corr()

<ipython-input-3-2f6f6606aa2c>:1: FutureWarning: The default value of numeric\_only in DataFrame.corr is deprecated. In a future ver
 df.corr()

|             | PassengerId | Survived  | Pclass    | Age       | SibSp     | Parch     | Fare      | $\blacksquare$ |
|-------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|
| Passengerld | 1.000000    | -0.023245 | -0.026751 | -0.034102 | 0.003818  | 0.043080  | 0.008211  | ıl.            |
| Survived    | -0.023245   | 1.000000  | -0.108615 | -0.000013 | 0.099943  | 0.159120  | 0.191514  |                |
| Pclass      | -0.026751   | -0.108615 | 1.000000  | -0.492143 | 0.001087  | 0.018721  | -0.577147 |                |
| Age         | -0.034102   | -0.000013 | -0.492143 | 1.000000  | -0.091587 | -0.061249 | 0.337932  |                |
| SibSp       | 0.003818    | 0.099943  | 0.001087  | -0.091587 | 1.000000  | 0.306895  | 0.171539  |                |
| Parch       | 0.043080    | 0.159120  | 0.018721  | -0.061249 | 0.306895  | 1.000000  | 0.230046  |                |
| Fare        | 0.008211    | 0.191514  | -0.577147 | 0.337932  | 0.171539  | 0.230046  | 1.000000  |                |

import seaborn as sns
sns.heatmap(df.corr())

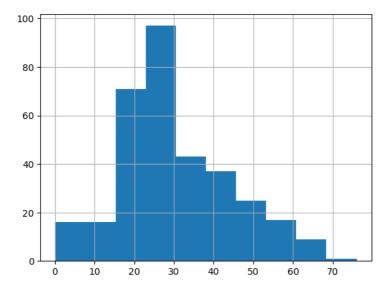
<ipython-input-4-534f4f3c80b7>:2: FutureWarning: The default value of numeric\_only in DataFrame.corr is deprecated. In a future ver sns.heatmap(df.corr())



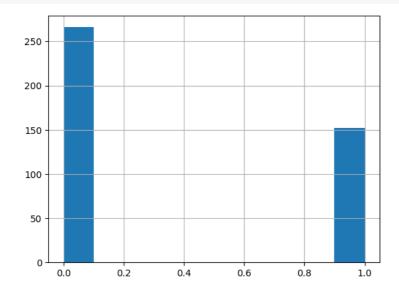
## df.hist()

```
<Axes: title={'center': 'Pclass'}>],
   dtype=object)
    PassengerId
                   Survived
                                Pclass
 40
                           200
              200
 20
                           100
              100
  0
               0
     1000Age1200
                   Sib5p
                                 Parch
                0.0
                         1.0
100
             200
                           200
 50
              100
  0
               0
   0
       Fare50
                0
200
  0
      200
          400
```

df["Age"].hist();



## df["Survived"].hist();



import matplotlib.pyplot as plt
sns.countplot(df, x="Survived", hue="Sex")
plt.xlabel('Survived')
plt.ylabel('Count')

Text(0, 0.5, 'Count')

