pandas2

March 29, 2019

```
In [1]: import numpy as np
        import pandas as pd
        titanic = pd.read_csv("titanic.csv", dtype={"Age": np.float64} )
In [2]: titanic.info()
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 891 entries, 0 to 890
Data columns (total 12 columns):
PassengerId
               891 non-null int64
Survived
               891 non-null int64
Pclass
               891 non-null int64
Name
               891 non-null object
               891 non-null object
Sex
               714 non-null float64
Age
SibSp
               891 non-null int64
               891 non-null int64
Parch
Ticket
               891 non-null object
Fare
               891 non-null float64
Cabin
               204 non-null object
Embarked
               889 non-null object
dtypes: float64(2), int64(5), object(5)
memory usage: 83.6+ KB
In [3]: titanic
Out[3]:
             PassengerId Survived Pclass
        0
                                  0
                        1
                                          3
                        2
        1
                                  1
                                          1
        2
                        3
                                  1
                                          3
        3
                        4
                                  1
                                          1
        4
                        5
                                  0
                                          3
        5
                                          3
                        6
                                  0
                       7
        6
                                  0
                                          1
        7
                       8
                                  0
                                          3
        8
                        9
                                  1
                                          3
        9
                      10
                                  1
                                          2
```

| 10 | 11 | 1 | 3 |
|------|-----|---|---|
| 11 | 12 | 1 | 1 |
| 12 | 13 | 0 | 3 |
| 13 | 14 | 0 | 3 |
| 14 | 15 | 0 | 3 |
| 15 | 16 | 1 | 2 |
| 16 | 17 | 0 | 3 |
| 17 | 18 | 1 | 2 |
| 18 | 19 | 0 | 3 |
| 19 | 20 | 1 | 3 |
| 20 | 21 | 0 | 2 |
| 21 | 22 | 1 | 2 |
| 22 | 23 | 1 | 3 |
| 23 | 24 | 1 | 1 |
| 24 | 25 | 0 | 3 |
| 25 | 26 | 1 | 3 |
| 26 | 27 | 0 | 3 |
| 27 | 28 | 0 | 1 |
| 28 | 29 | 1 | 3 |
| 29 | | | |
| 29 | 30 | 0 | 3 |
| 0.61 | | | |
| 861 | 862 | 0 | 2 |
| 862 | 863 | 1 | 1 |
| 863 | 864 | 0 | 3 |
| 864 | 865 | 0 | 2 |
| 865 | 866 | 1 | 2 |
| 866 | 867 | 1 | 2 |
| 867 | 868 | 0 | 1 |
| 868 | 869 | 0 | 3 |
| 869 | 870 | 1 | 3 |
| 870 | 871 | 0 | 3 |
| 871 | 872 | 1 | 1 |
| 872 | 873 | 0 | 1 |
| 873 | 874 | 0 | 3 |
| 874 | 875 | 1 | 2 |
| 875 | 876 | 1 | 3 |
| 876 | 877 | 0 | 3 |
| 877 | 878 | 0 | 3 |
| 878 | 879 | 0 | 3 |
| 879 | 880 | 1 | 1 |
| 880 | 881 | 1 | 2 |
| 881 | 882 | 0 | 3 |
| 882 | 883 | 0 | 3 |
| 883 | 884 | 0 | 2 |
| 884 | 885 | 0 | 3 |
| 885 | 886 | 0 | 3 |
| 886 | 887 | 0 | 2 |
| 887 | 888 | 1 | 1 |
| 551 | 000 | - | _ |

| 889 | 890 1 1 | | | | |
|-----|---|--------|-------------|-------|---|
| | 0.04 | | | | |
| 890 | 891 0 3 | | | | |
| | | | | | |
| | Name | Sex | Age | SibSp | \ |
| 0 | Braund, Mr. Owen Harris | | 22.0 | 1 | • |
| 1 | Cumings, Mrs. John Bradley (Florence Briggs Th | | 38.0 | 1 | |
| | | | | | |
| 2 | Heikkinen, Miss. Lain: | | 26.0 | 0 | |
| 3 | Futrelle, Mrs. Jacques Heath (Lily May Peel) | | 35.0 | 1 | |
| 4 | Allen, Mr. William Henry | male | 35.0 | 0 | |
| 5 | Moran, Mr. James | male | NaN | 0 | |
| 6 | McCarthy, Mr. Timothy . | male | 54.0 | 0 | |
| 7 | Palsson, Master. Gosta Leonard | l male | 2.0 | 3 | |
| 8 | Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg) | female | 27.0 | 0 | |
| 9 | Nasser, Mrs. Nicholas (Adele Achem) | | 14.0 | 1 | |
| 10 | Sandstrom, Miss. Marguerite Ru | | 4.0 | 1 | |
| 11 | Bonnell, Miss. Elizabeth | | 58.0 | | |
| | | | | 0 | |
| 12 | Saundercock, Mr. William Henry | | 20.0 | 0 | |
| 13 | Andersson, Mr. Anders Johan | | 39.0 | 1 | |
| 14 | Vestrom, Miss. Hulda Amanda Adolfina | female | 14.0 | 0 | |
| 15 | Hewlett, Mrs. (Mary D Kingcome) | female | 55.0 | 0 | |
| 16 | Rice, Master. Eugene | male | 2.0 | 4 | |
| 17 | Williams, Mr. Charles Eugene | male | NaN | 0 | |
| 18 | Vander Planke, Mrs. Julius (Emelia Maria Vande | | 31.0 | 1 | |
| 19 | Masselmani, Mrs. Fatima | | NaN | 0 | |
| 20 | Fynney, Mr. Joseph | | 35.0 | 0 | |
| | | | | | |
| 21 | Beesley, Mr. Lawrence | | 34.0 | 0 | |
| 22 | McGowan, Miss. Anna "Annie' | | 15.0 | 0 | |
| 23 | Sloper, Mr. William Thompson | | 28.0 | 0 | |
| 24 | Palsson, Miss. Torborg Danira | female | 8.0 | 3 | |
| 25 | Asplund, Mrs. Carl Oscar (Selma Augusta Emilia | female | 38.0 | 1 | |
| 26 | Emir, Mr. Farred Chehal | male | ${\tt NaN}$ | 0 | |
| 27 | Fortune, Mr. Charles Alexander | male | 19.0 | 3 | |
| 28 | O'Dwyer, Miss. Ellen "Nellie' | female | ${\tt NaN}$ | 0 | |
| 29 | Todoroff, Mr. Lalio | | NaN | 0 | |
| | , | | | _ | |
| 861 | Giles, Mr. Frederick Edward | | 21.0 | 1 | |
| | · | | | | |
| 862 | Swift, Mrs. Frederick Joel (Margaret Welles Ba | | 48.0 | 0 | |
| 863 | Sage, Miss. Dorothy Edith "Dolly" | | NaN | 8 | |
| 864 | Gill, Mr. John William | | 24.0 | 0 | |
| 865 | Bystrom, Mrs. (Karolina) | female | 42.0 | 0 | |
| 866 | Duran y More, Miss. Asuncion | female | 27.0 | 1 | |
| 867 | Roebling, Mr. Washington Augustus II | male | 31.0 | 0 | |
| 868 | van Melkebeke, Mr. Philemon | male | ${\tt NaN}$ | 0 | |
| 869 | Johnson, Master. Harold Theodor | | 4.0 | 1 | |
| 870 | Balkic, Mr. Ceri | | 26.0 | 0 | |
| 871 | Beckwith, Mrs. Richard Leonard (Sallie Monypeny) | | 47.0 | 1 | |
| | | | | | |
| 872 | Carlsson, Mr. Frans Olo | male | 33.0 | 0 | |

| 873 | Vander Cruyssen, Mr. Victor | male | 47.0 | 0 |
|-----|---|--------------|-------------|---|
| 874 | Abelson, Mrs. Samuel (Hannah Wizosky) | female | 28.0 | 1 |
| 875 | Najib, Miss. Adele Kiamie "Jane" | female | 15.0 | 0 |
| 876 | Gustafsson, Mr. Alfred Ossian | ${\tt male}$ | 20.0 | 0 |
| 877 | Petroff, Mr. Nedelio | male | 19.0 | 0 |
| 878 | Laleff, Mr. Kristo | male | ${\tt NaN}$ | 0 |
| 879 | Potter, Mrs. Thomas Jr (Lily Alexenia Wilson) | female | 56.0 | 0 |
| 880 | Shelley, Mrs. William (Imanita Parrish Hall) | female | 25.0 | 0 |
| 881 | Markun, Mr. Johann | male | 33.0 | 0 |
| 882 | Dahlberg, Miss. Gerda Ulrika | female | 22.0 | 0 |
| 883 | Banfield, Mr. Frederick James | ${\tt male}$ | 28.0 | 0 |
| 884 | Sutehall, Mr. Henry Jr | ${\tt male}$ | 25.0 | 0 |
| 885 | Rice, Mrs. William (Margaret Norton) | female | 39.0 | 0 |
| 886 | Montvila, Rev. Juozas | male | 27.0 | 0 |
| 887 | Graham, Miss. Margaret Edith | female | 19.0 | 0 |
| 888 | Johnston, Miss. Catherine Helen "Carrie" | female | ${\tt NaN}$ | 1 |
| 889 | Behr, Mr. Karl Howell | ${\tt male}$ | 26.0 | 0 |
| 890 | Dooley, Mr. Patrick | male | 32.0 | 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/02. 3101282 | 7.9250 | NaN | S |
| 3 | 0 | 113803 | 53.1000 | C123 | S |
| 4 | 0 | 373450 | 8.0500 | NaN | S |
| 5 | 0 | 330877 | 8.4583 | NaN | Q |
| 6 | 0 | 17463 | 51.8625 | E46 | S |
| 7 | 1 | 349909 | 21.0750 | NaN | S |
| 8 | 2 | 347742 | 11.1333 | NaN | S |
| 9 | 0 | 237736 | 30.0708 | NaN | C |
| 10 | 1 | PP 9549 | 16.7000 | G6 | S |
| 11 | 0 | 113783 | 26.5500 | C103 | S |
| 12 | 0 | A/5. 2151 | 8.0500 | NaN | S |
| 13 | 5 | 347082 | 31.2750 | NaN | S |
| 14 | 0 | 350406 | 7.8542 | NaN | S |
| 15 | 0 | 248706 | 16.0000 | NaN | S |
| 16 | 1 | 382652 | 29.1250 | NaN | Q |
| 17 | 0 | 244373 | 13.0000 | NaN | S |
| 18 | 0 | 345763 | 18.0000 | NaN | S |
| 19 | 0 | 2649 | 7.2250 | NaN | C |
| 20 | 0 | 239865 | 26.0000 | NaN | S |
| 21 | 0 | 248698 | 13.0000 | D56 | S |
| 22 | 0 | 330923 | 8.0292 | NaN | Q |
| 23 | 0 | 113788 | 35.5000 | A6 | S |
| 24 | 1 | 349909 | 21.0750 | NaN | S |
| 25 | 5 | 347077 | 31.3875 | NaN | S |
| 26 | 0 | 2631 | 7.2250 | NaN | C |
| 27 | 2 | 19950 | 263.0000 | C23 C25 C27 | S |

| 0 | 330959 | 7.8792 | NaN | Q |
|---|---|---|--|---|
| 0 | 349216 | 7.8958 | NaN | S |
| | | | | |
| 0 | 28134 | 11.5000 | NaN | S |
| 0 | 17466 | 25.9292 | D17 | S |
| 2 | CA. 2343 | 69.5500 | NaN | S |
| 0 | 233866 | 13.0000 | NaN | S |
| 0 | 236852 | 13.0000 | NaN | S |
| 0 | SC/PARIS 2149 | 13.8583 | NaN | C |
| 0 | PC 17590 | 50.4958 | A24 | S |
| 0 | 345777 | 9.5000 | NaN | S |
| 1 | 347742 | 11.1333 | NaN | S |
| 0 | 349248 | 7.8958 | NaN | S |
| 1 | 11751 | 52.5542 | D35 | S |
| 0 | 695 | 5.0000 | B51 B53 B55 | S |
| 0 | 345765 | 9.0000 | NaN | S |
| 0 | P/PP 3381 | 24.0000 | NaN | C |
| 0 | 2667 | 7.2250 | NaN | C |
| 0 | 7534 | 9.8458 | NaN | S |
| 0 | 349212 | 7.8958 | NaN | S |
| 0 | 349217 | 7.8958 | NaN | S |
| 1 | 11767 | 83.1583 | C50 | C |
| 1 | 230433 | 26.0000 | NaN | S |
| 0 | 349257 | 7.8958 | NaN | S |
| 0 | 7552 | 10.5167 | NaN | S |
| 0 | C.A./SOTON 34068 | 10.5000 | NaN | S |
| 0 | SOTON/OQ 392076 | 7.0500 | NaN | S |
| 5 | 382652 | 29.1250 | NaN | Q |
| 0 | 211536 | 13.0000 | NaN | S |
| 0 | 112053 | 30.0000 | B42 | S |
| 2 | W./C. 6607 | 23.4500 | NaN | S |
| 0 | 111369 | 30.0000 | C148 | C |
| 0 | 370376 | 7.7500 | NaN | Q |
| | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 349216 0 28134 0 17466 2 CA. 2343 0 233866 0 236852 0 SC/PARIS 2149 0 PC 17590 0 345777 1 347742 0 349248 1 11751 0 695 0 345765 0 P/PP 3381 0 2667 0 7534 0 349212 0 349217 1 11767 1 230433 0 349217 1 11767 1 230433 0 349257 0 7552 0 C.A./SOTON 34068 0 SOTON/OQ 392076 5 382652 0 211536 0 112053 2 W./C. 6607 0 111369 | 0 349216 7.8958 0 28134 11.5000 0 17466 25.9292 2 CA. 2343 69.5500 0 233866 13.0000 0 236852 13.0000 0 SC/PARIS 2149 13.8583 0 PC 17590 50.4958 0 345777 9.5000 1 347742 11.1333 0 349248 7.8958 1 11751 52.5542 0 695 5.0000 0 345765 9.0000 0 P/PP 3381 24.0000 0 P/PP 3381 24.0000 0 P/PP 3381 24.0000 0 7534 9.8458 0 349212 7.8958 1 11767 83.1583 1 230433 26.0000 0 349257 7.8958 1 11767 83.1583 1 230433 26.0000 0 349257 7.8958 0 7552 10.5167 0 C.A./SOTON 34068 10.5000 0 SOTON/OQ 392076 7.0500 5 382652 29.1250 0 211536 13.0000 0 112053 30.0000 2 W./C. 6607 23.4500 | 0 349216 7.8958 NaN 0 28134 11.5000 NaN 0 17466 25.9292 D17 2 CA. 2343 69.5500 NaN 0 233866 13.0000 NaN 0 236852 13.0000 NaN 0 SC/PARIS 2149 13.8583 NaN 0 PC 17590 50.4958 A24 0 345777 9.5000 NaN 1 347742 11.1333 NaN 0 349248 7.8958 NaN 1 11751 52.5542 D35 0 695 5.0000 B51 B53 B55 0 345765 9.0000 NaN 0 P/PP 3381 24.0000 NaN 0 7534 9.8458 NaN 0 7534 9.8458 NaN 0 349217 7.8958 NaN 1 11767 83.1583 C50 1 |

[891 rows x 12 columns]

In [4]: titanic.iloc[0:5,:]

```
Out[4]:
           PassengerId Survived
                                    Pclass
                      1
                                 0
                      2
        1
                                  1
                                          1
        2
                      3
                                  1
                                          3
        3
                      4
                                  1
                                          1
                                          3
        4
                      5
                                  0
```

```
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
                                                                           35.0
        3
                 Futrelle, Mrs. Jacques Heath (Lily May Peel)
                                                                  female
        4
                                      Allen, Mr. William Henry
                                                                           35.0
                                                                    male
           Parch
                              Ticket
                                         Fare Cabin Embarked
        0
                           A/5 21171
                0
                                       7.2500
                                                 NaN
        1
                0
                            PC 17599
                                      71.2833
                                                 C85
                                                             С
                   STON/02. 3101282
                                       7.9250
                                                 NaN
                                                             S
        3
                                                             S
                0
                              113803
                                      53.1000
                                                C123
        4
                0
                              373450
                                       8.0500
                                                 NaN
                                                             S
In [5]: titanic.loc[:,["Name","Age","Survived"]]
Out[5]:
                                                              Name
                                                                           Survived
                                                                      Age
        0
                                          Braund, Mr. Owen Harris
                                                                     22.0
                                                                                   0
        1
              Cumings, Mrs. John Bradley (Florence Briggs Th...
                                                                     38.0
                                                                                   1
        2
                                           Heikkinen, Miss. Laina
                                                                     26.0
                                                                                   1
        3
                   Futrelle, Mrs. Jacques Heath (Lily May Peel)
                                                                     35.0
                                                                                   1
        4
                                         Allen, Mr. William Henry
                                                                     35.0
                                                                                   0
        5
                                                 Moran, Mr. James
                                                                                   0
                                                                      NaN
        6
                                         McCarthy, Mr. Timothy J
                                                                     54.0
                                                                                   0
        7
                                  Palsson, Master. Gosta Leonard
                                                                      2.0
                                                                                   0
        8
              Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)
                                                                     27.0
                                                                                   1
        9
                             Nasser, Mrs. Nicholas (Adele Achem)
                                                                     14.0
                                                                                   1
                                                                      4.0
        10
                                 Sandstrom, Miss. Marguerite Rut
                                                                                   1
        11
                                         Bonnell, Miss. Elizabeth
                                                                     58.0
                                                                                   1
        12
                                                                     20.0
                                                                                   0
                                  Saundercock, Mr. William Henry
        13
                                     Andersson, Mr. Anders Johan
                                                                    39.0
                                                                                   0
        14
                                                                     14.0
                            Vestrom, Miss. Hulda Amanda Adolfina
                                                                                   0
        15
                                Hewlett, Mrs. (Mary D Kingcome)
                                                                     55.0
                                                                                   1
        16
                                             Rice, Master. Eugene
                                                                      2.0
                                                                                   0
        17
                                    Williams, Mr. Charles Eugene
                                                                     NaN
                                                                                   1
        18
              Vander Planke, Mrs. Julius (Emelia Maria Vande...
                                                                     31.0
                                                                                   0
        19
                                         Masselmani, Mrs. Fatima
                                                                     NaN
                                                                                   1
        20
                                             Fynney, Mr. Joseph J
                                                                     35.0
                                                                                   0
                                                                     34.0
        21
                                            Beesley, Mr. Lawrence
                                                                                   1
        22
                                     McGowan, Miss. Anna "Annie"
                                                                     15.0
                                                                                   1
        23
                                    Sloper, Mr. William Thompson
                                                                     28.0
                                                                                   1
        24
                                   Palsson, Miss. Torborg Danira
                                                                      8.0
                                                                                   0
        25
              Asplund, Mrs. Carl Oscar (Selma Augusta Emilia...
                                                                     38.0
                                                                                   1
        26
                                          Emir, Mr. Farred Chehab
                                                                      NaN
                                                                                   0
        27
                                  Fortune, Mr. Charles Alexander
                                                                     19.0
                                                                                   0
        28
                                   O'Dwyer, Miss. Ellen "Nellie"
                                                                      NaN
                                                                                   1
        29
                                              Todoroff, Mr. Lalio
                                                                      NaN
                                                                                   0
        . .
                                                                      . . .
                                                                                 . . .
        861
                                     Giles, Mr. Frederick Edward
                                                                     21.0
                                                                                   0
```

0

1

0

Sage, Miss. Dorothy Edith "Dolly"

48.0

NaN

1

0

Swift, Mrs. Frederick Joel (Margaret Welles Ba...

862

863

```
864
                                  Gill, Mr. John William
                                                            24.0
                                                                          0
865
                                Bystrom, Mrs. (Karolina)
                                                            42.0
                                                                          1
866
                            Duran y More, Miss. Asuncion
                                                            27.0
                                                                          1
867
                   Roebling, Mr. Washington Augustus II
                                                                          0
                                                            31.0
868
                             van Melkebeke, Mr. Philemon
                                                             NaN
                                                                          0
869
                         Johnson, Master. Harold Theodor
                                                                          1
                                                             4.0
870
                                       Balkic, Mr. Cerin
                                                            26.0
                                                                          0
871
      Beckwith, Mrs. Richard Leonard (Sallie Monypeny)
                                                            47.0
                                                                          1
872
                                Carlsson, Mr. Frans Olof
                                                            33.0
                                                                          0
873
                             Vander Cruyssen, Mr. Victor
                                                            47.0
                                                                          0
874
                  Abelson, Mrs. Samuel (Hannah Wizosky)
                                                            28.0
                                                                          1
                       Najib, Miss. Adele Kiamie "Jane"
                                                            15.0
                                                                          1
875
876
                           Gustafsson, Mr. Alfred Ossian
                                                            20.0
                                                                          0
877
                                    Petroff, Mr. Nedelio
                                                            19.0
                                                                          0
                                      Laleff, Mr. Kristo
878
                                                             {\tt NaN}
                                                                          0
879
         Potter, Mrs. Thomas Jr (Lily Alexenia Wilson)
                                                            56.0
                                                                          1
880
          Shelley, Mrs. William (Imanita Parrish Hall)
                                                            25.0
                                                                          1
881
                                      Markun, Mr. Johann
                                                            33.0
                                                                          0
                           Dahlberg, Miss. Gerda Ulrika
                                                            22.0
                                                                          0
882
883
                           Banfield, Mr. Frederick James
                                                            28.0
                                                                          0
                                                            25.0
884
                                  Sutehall, Mr. Henry Jr
                                                                          0
885
                   Rice, Mrs. William (Margaret Norton)
                                                            39.0
                                                                          0
886
                                   Montvila, Rev. Juozas
                                                            27.0
                                                                          0
887
                                                            19.0
                            Graham, Miss. Margaret Edith
                                                                          1
888
               Johnston, Miss. Catherine Helen "Carrie"
                                                             {\tt NaN}
                                                                          0
                                                            26.0
889
                                   Behr, Mr. Karl Howell
                                                                          1
890
                                     Dooley, Mr. Patrick
                                                            32.0
                                                                          0
```

[891 rows x 3 columns]

In [6]: titanic[["Name","Age","Survived"]]

| Out[6]: | Name | Age | Survived |
|---------|---|-------------|----------|
| 0 | Braund, Mr. Owen Harris | 22.0 | 0 |
| 1 | Cumings, Mrs. John Bradley (Florence Briggs Th | 38.0 | 1 |
| 2 | Heikkinen, Miss. Laina | 26.0 | 1 |
| 3 | Futrelle, Mrs. Jacques Heath (Lily May Peel) | 35.0 | 1 |
| 4 | Allen, Mr. William Henry | 35.0 | 0 |
| 5 | Moran, Mr. James | ${\tt NaN}$ | 0 |
| 6 | McCarthy, Mr. Timothy J | 54.0 | 0 |
| 7 | Palsson, Master. Gosta Leonard | 2.0 | 0 |
| 8 | Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg) | 27.0 | 1 |
| 9 | Nasser, Mrs. Nicholas (Adele Achem) | 14.0 | 1 |
| 10 | Sandstrom, Miss. Marguerite Rut | 4.0 | 1 |
| 11 | Bonnell, Miss. Elizabeth | 58.0 | 1 |
| 12 | Saundercock, Mr. William Henry | 20.0 | 0 |
| 13 | Andersson, Mr. Anders Johan | 39.0 | 0 |
| 14 | Vestrom, Miss. Hulda Amanda Adolfina | 14.0 | 0 |

| 15 | Hewlett, Mrs. (Mary D Kingcome) | 55.0 | 1 |
|-----|--|-------------|---|
| 16 | Rice, Master. Eugene | 2.0 | 0 |
| 17 | Williams, Mr. Charles Eugene | NaN | 1 |
| 18 | Vander Planke, Mrs. Julius (Emelia Maria Vande | 31.0 | 0 |
| 19 | Masselmani, Mrs. Fatima | NaN | 1 |
| 20 | Fynney, Mr. Joseph J | 35.0 | 0 |
| 21 | Beesley, Mr. Lawrence | 34.0 | 1 |
| 22 | McGowan, Miss. Anna "Annie" | 15.0 | 1 |
| 23 | Sloper, Mr. William Thompson | 28.0 | 1 |
| 24 | Palsson, Miss. Torborg Danira | 8.0 | 0 |
| 25 | Asplund, Mrs. Carl Oscar (Selma Augusta Emilia | 38.0 | 1 |
| 26 | Emir, Mr. Farred Chehab | ${\tt NaN}$ | 0 |
| 27 | Fortune, Mr. Charles Alexander | 19.0 | 0 |
| 28 | O'Dwyer, Miss. Ellen "Nellie" | ${\tt NaN}$ | 1 |
| 29 | Todoroff, Mr. Lalio | NaN | 0 |
| | | | |
| 861 | Giles, Mr. Frederick Edward | 21.0 | 0 |
| 862 | Swift, Mrs. Frederick Joel (Margaret Welles Ba | 48.0 | 1 |
| 863 | Sage, Miss. Dorothy Edith "Dolly" | NaN | 0 |
| 864 | Gill, Mr. John William | 24.0 | 0 |
| 865 | Bystrom, Mrs. (Karolina) | 42.0 | 1 |
| 866 | Duran y More, Miss. Asuncion | 27.0 | 1 |
| 867 | Roebling, Mr. Washington Augustus II | 31.0 | 0 |
| 868 | van Melkebeke, Mr. Philemon | NaN | 0 |
| 869 | Johnson, Master. Harold Theodor | 4.0 | 1 |
| 870 | Balkic, Mr. Cerin | 26.0 | 0 |
| 871 | Beckwith, Mrs. Richard Leonard (Sallie Monypeny) | 47.0 | 1 |
| 872 | Carlsson, Mr. Frans Olof | 33.0 | 0 |
| 873 | Vander Cruyssen, Mr. Victor | 47.0 | 0 |
| 874 | Abelson, Mrs. Samuel (Hannah Wizosky) | 28.0 | 1 |
| 875 | Najib, Miss. Adele Kiamie "Jane" | 15.0 | 1 |
| 876 | Gustafsson, Mr. Alfred Ossian | 20.0 | 0 |
| 877 | Petroff, Mr. Nedelio | 19.0 | 0 |
| 878 | Laleff, Mr. Kristo | NaN | 0 |
| 879 | Potter, Mrs. Thomas Jr (Lily Alexenia Wilson) | 56.0 | 1 |
| 880 | Shelley, Mrs. William (Imanita Parrish Hall) | 25.0 | 1 |
| 881 | Markun, Mr. Johann | 33.0 | 0 |
| 882 | Dahlberg, Miss. Gerda Ulrika | 22.0 | 0 |
| 883 | Banfield, Mr. Frederick James | 28.0 | 0 |
| 884 | Sutehall, Mr. Henry Jr | 25.0 | 0 |
| 885 | Rice, Mrs. William (Margaret Norton) | 39.0 | 0 |
| 886 | Montvila, Rev. Juozas | 27.0 | 0 |
| 887 | Graham, Miss. Margaret Edith | 19.0 | 1 |
| 888 | Johnston, Miss. Catherine Helen "Carrie" | NaN | 0 |
| 889 | Behr, Mr. Karl Howell | 26.0 | 1 |
| 890 | Dooley, Mr. Patrick | 32.0 | 0 |

[891 rows x 3 columns]

In [7]: titanic[titanic["Survived"]==1]

| Out[7]: | PassengerId | Survived | Pclass | \ |
|---------|-------------|----------|--------|---|
| 1 | 2 | 1 | 1 | |
| 2 | 3 | 1 | 3 | |
| 3 | 4 | 1 | 1 | |
| 8 | 9 | 1 | 3 | |
| 9 | 10 | 1 | 2 | |
| 10 | 11 | 1 | 3 | |
| 11 | 12 | 1 | 1 | |
| 15 | 16 | 1 | 2 | |
| 17 | 18 | 1 | 2 | |
| 19 | 20 | 1 | 3 | |
| 21 | 22 | 1 | 2 | |
| 22 | 23 | 1 | 3 | |
| 23 | 24 | 1 | 1 | |
| 25 | 26 | 1 | 3 | |
| 28 | 29 | 1 | 3 | |
| 31 | 32 | 1 | 1 | |
| 32 | 33 | 1 | 3 | |
| 36 | 37 | 1 | 3 | |
| 39 | 40 | 1 | 3 | |
| 43 | 44 | 1 | 2 | |
| 44 | 45 | 1 | 3 | |
| 47 | 48 | 1 | 3 | |
| 52 | 53 | 1 | 1 | |
| 53 | 54 | 1 | 2 | |
| 55 | 56 | 1 | 1 | |
| 56 | 57 | 1 | 2 | |
| 58 | 59 | 1 | 2 | |
| 61 | 62 | 1 | 1 | |
| 65 | 66 | 1 | 3 | |
| 66 | 67 | 1 | 2 | |
| | | | | |
| 809 | 810 | 1 | 1 | |
| 820 | 821 | 1 | 1 | |
| 821 | 822 | 1 | 3 | |
| 823 | 824 | 1 | 3 | |
| 827 | 828 | 1 | 2 | |
| 828 | 829 | 1 | 3 | |
| 829 | 830 | 1 | 1 | |
| 830 | 831 | 1 | 3 | |
| 831 | 832 | 1 | 2 | |
| 835 | 836 | 1 | 1 | |
| 838 | 839 | 1 | 3 | |
| 839 | 840 | 1 | 1 | |
| 842 | 843 | 1 | 1 | |
| 849 | 850 | 1 | 1 | |

```
855
              856
                           1
                                    3
856
              857
                           1
                                    1
                           1
857
              858
                                    1
858
              859
                           1
                                    3
                           1
862
              863
                                    1
865
              866
                           1
                                    2
866
              867
                           1
                                    2
869
              870
                           1
                                    3
871
              872
                           1
                                    1
                                    2
874
              875
                           1
                                    3
875
              876
                           1
879
              880
                           1
                                    1
                                    2
880
              881
                           1
887
              888
                           1
                                    1
889
                                    1
              890
                           1
                                                      Name
                                                                Sex
                                                                        Age
                                                                              SibSp
     Cumings, Mrs. John Bradley (Florence Briggs Th...
1
                                                             female
                                                                      38.00
                                                                                  1
2
                                   Heikkinen, Miss. Laina
                                                                      26.00
                                                             female
                                                                                  0
3
           Futrelle, Mrs. Jacques Heath (Lily May Peel)
                                                             female
                                                                      35.00
                                                                                  1
8
     Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)
                                                             female
                                                                      27.00
                                                                                  0
9
                    Nasser, Mrs. Nicholas (Adele Achem)
                                                             female
                                                                      14.00
                                                                                  1
10
                         Sandstrom, Miss. Marguerite Rut
                                                             female
                                                                       4.00
                                                                                  1
                                 Bonnell, Miss. Elizabeth
                                                             female
                                                                      58.00
                                                                                  0
11
15
                        Hewlett, Mrs. (Mary D Kingcome)
                                                                      55.00
                                                             female
                                                                                  0
                            Williams, Mr. Charles Eugene
17
                                                               male
                                                                                  0
                                                                        NaN
19
                                  Masselmani, Mrs. Fatima
                                                             female
                                                                        NaN
                                                                                  0
21
                                                                      34.00
                                    Beesley, Mr. Lawrence
                                                               male
                                                                                  0
22
                             McGowan, Miss. Anna "Annie"
                                                             female
                                                                      15.00
                                                                                  0
                            Sloper, Mr. William Thompson
23
                                                               male
                                                                      28.00
                                                                                  0
25
     Asplund, Mrs. Carl Oscar (Selma Augusta Emilia...
                                                             female
                                                                      38.00
                                                                                  1
28
                           O'Dwyer, Miss. Ellen "Nellie"
                                                             female
                                                                        NaN
                                                                                  0
31
        Spencer, Mrs. William Augustus (Marie Eugenie)
                                                                                  1
                                                             female
                                                                        NaN
32
                                 Glynn, Miss. Mary Agatha
                                                             female
                                                                        NaN
                                                                                  0
36
                                         Mamee, Mr. Hanna
                                                               male
                                                                        NaN
                                                                                  0
39
                             Nicola-Yarred, Miss. Jamila
                                                             female
                                                                      14.00
                                                                                  1
43
               Laroche, Miss. Simonne Marie Anne Andree
                                                             female
                                                                       3.00
                                                                                  1
44
                           Devaney, Miss. Margaret Delia
                                                             female
                                                                      19.00
                                                                                  0
47
                                O'Driscoll, Miss. Bridget
                                                                                  0
                                                             female
                                                                        NaN
52
               Harper, Mrs. Henry Sleeper (Myna Haxtun)
                                                             female
                                                                      49.00
                                                                                  1
     Faunthorpe, Mrs. Lizzie (Elizabeth Anne Wilkin...
53
                                                             female
                                                                      29.00
                                                                                  1
55
                                        Woolner, Mr. Hugh
                                                               male
                                                                        NaN
                                                                                  0
56
                                        Rugg, Miss. Emily
                                                             female
                                                                      21.00
                                                                                  0
58
                            West, Miss. Constance Mirium
                                                             female
                                                                       5.00
                                                                                  1
61
                                      Icard, Miss. Amelie
                                                             female
                                                                      38.00
                                                                                  0
```

853

65

66

854

1

1

Moubarek, Master. Gerios

Nye, Mrs. (Elizabeth Ramell)

male

female

NaN

29.00

1

0

| | • • • | | | |
|-----|--|--------------|-------|---|
| 809 | Chambers, Mrs. Norman Campbell (Bertha Griggs) | female | 33.00 | 1 |
| 820 | Hays, Mrs. Charles Melville (Clara Jennings Gr | female | 52.00 | 1 |
| 821 | Lulic, Mr. Nikola | ${\tt male}$ | 27.00 | 0 |
| 823 | Moor, Mrs. (Beila) | female | 27.00 | 0 |
| 827 | Mallet, Master. Andre | male | 1.00 | 0 |
| 828 | McCormack, Mr. Thomas Joseph | male | NaN | 0 |
| 829 | Stone, Mrs. George Nelson (Martha Evelyn) | female | 62.00 | 0 |
| 830 | Yasbeck, Mrs. Antoni (Selini Alexander) | female | 15.00 | 1 |
| 831 | Richards, Master. George Sibley | male | 0.83 | 1 |
| 835 | Compton, Miss. Sara Rebecca | female | 39.00 | 1 |
| 838 | Chip, Mr. Chang | ${\tt male}$ | 32.00 | 0 |
| 839 | Marechal, Mr. Pierre | male | NaN | 0 |
| 842 | Serepeca, Miss. Augusta | female | 30.00 | 0 |
| 849 | Goldenberg, Mrs. Samuel L (Edwiga Grabowska) | female | NaN | 1 |
| 853 | Lines, Miss. Mary Conover | female | 16.00 | 0 |
| 855 | Aks, Mrs. Sam (Leah Rosen) | female | 18.00 | 0 |
| 856 | Wick, Mrs. George Dennick (Mary Hitchcock) | female | 45.00 | 1 |
| 857 | Daly, Mr. Peter Denis | male | 51.00 | 0 |
| 858 | Baclini, Mrs. Solomon (Latifa Qurban) | female | 24.00 | 0 |
| 862 | Swift, Mrs. Frederick Joel (Margaret Welles Ba | female | 48.00 | 0 |
| 865 | Bystrom, Mrs. (Karolina) | female | 42.00 | 0 |
| 866 | Duran y More, Miss. Asuncion | female | 27.00 | 1 |
| 869 | Johnson, Master. Harold Theodor | ${\tt male}$ | 4.00 | 1 |
| 871 | Beckwith, Mrs. Richard Leonard (Sallie Monypeny) | female | 47.00 | 1 |
| 874 | Abelson, Mrs. Samuel (Hannah Wizosky) | female | 28.00 | 1 |
| 875 | Najib, Miss. Adele Kiamie "Jane" | female | 15.00 | 0 |
| 879 | Potter, Mrs. Thomas Jr (Lily Alexenia Wilson) | female | 56.00 | 0 |
| 880 | Shelley, Mrs. William (Imanita Parrish Hall) | female | 25.00 | 0 |
| 887 | Graham, Miss. Margaret Edith | female | 19.00 | 0 |
| 889 | Behr, Mr. Karl Howell | ${\tt male}$ | 26.00 | 0 |
| | | | | |
| | Parch Ticket Fare Cabin Embarked | | | |
| 1 | 0 PC 17599 71.2833 C85 C | | | |
| 2 | 0 STON/02. 3101282 7.9250 NaN S | | | |
| 3 | 0 113803 53.1000 C123 S | | | |
| 8 | 2 347742 11.1333 NaN S | | | |
| 9 | 0 237736 30.0708 NaN C | | | |
| 10 | 1 PP 9549 16.7000 G6 S | | | |
| 11 | 0 113783 26.5500 C103 S | | | |
| 15 | 0 248706 16.0000 NaN S | | | |
| 17 | 0 244373 13.0000 NaN S | | | |
| 19 | 0 2649 7.2250 NaN C | | | |
| 21 | 0 248698 13.0000 D56 S | | | |
| 22 | 0 330923 8.0292 NaN Q | | | |
| 23 | 0 113788 35.5000 A6 S | | | |
| 25 | 5 347077 31.3875 NaN S | | | |
| 28 | 0 330959 7.8792 NaN Q | | | |
| | | | | |

| 31 | 0 | PC 17569 | 146.5208 | B78 | C |
|------------|---|-----------------|----------|-------------|-----|
| 32 | 0 | 335677 | 7.7500 | NaN | Q |
| 36 | 0 | 2677 | 7.2292 | ${\tt NaN}$ | C |
| 39 | 0 | 2651 | 11.2417 | ${\tt NaN}$ | C |
| 43 | 2 | SC/Paris 2123 | 41.5792 | ${\tt NaN}$ | C |
| 44 | 0 | 330958 | 7.8792 | NaN | Q |
| 47 | 0 | 14311 | 7.7500 | NaN | Q |
| 52 | 0 | PC 17572 | 76.7292 | D33 | C |
| 53 | 0 | 2926 | 26.0000 | NaN | S |
| 55 | 0 | 19947 | 35.5000 | C52 | S |
| 56 | 0 | C.A. 31026 | 10.5000 | NaN | S |
| 58 | 2 | C.A. 34651 | 27.7500 | NaN | S |
| 61 | 0 | 113572 | 80.0000 | B28 | NaN |
| 65 | 1 | 2661 | | NaN | С |
| 66 | 0 | C.A. 29395 | 10.5000 | F33 | S |
| | | | | | |
| 809 | 0 | 113806 | 53.1000 | E8 | S |
| 820 | 1 | 12749 | | B69 | S |
| 821 | 0 | 315098 | 8.6625 | NaN | S |
| 823 | 1 | 392096 | | | S |
| 827 | 2 | S.C./PARIS 2079 | | NaN | C |
| 828 | 0 | 367228 | 7.7500 | NaN | Q |
| 829 | 0 | 113572 | | B28 | NaN |
| 830 | 0 | 2659 | | NaN | C |
| 831 | 1 | 29106 | 18.7500 | NaN | S |
| 835 | 1 | PC 17756 | 83.1583 | E49 | C |
| 838 | 0 | 1601 | 56.4958 | NaN | S |
| 839 | 0 | 11774 | | C47 | C |
| 842 | 0 | 113798 | | NaN | C |
| 849 | 0 | 17453 | | C92 | C |
| 853 | 1 | PC 17592 | 39.4000 | D28 | S |
| 855 | 1 | 392091 | 9.3500 | NaN | S |
| 856 | 1 | | 164.8667 | NaN | S |
| 857 | 0 | 113055 | 26.5500 | E17 | S |
| 858 | 3 | 2666 | 19.2583 | NaN | C |
| 862 | 0 | 17466 | 25.9292 | D17 | S |
| 865 | 0 | 236852 | 13.0000 | NaN | S |
| 866 | 0 | SC/PARIS 2149 | 13.8583 | NaN | C |
| 869 | 1 | 347742 | 11.1333 | NaN | S |
| 871 | 1 | 11751 | 52.5542 | D35 | S |
| 874 | 0 | P/PP 3381 | 24.0000 | NaN | C |
| | _ | | | | |
| 875 870 | 0 | 2667 | 7.2250 | NaN C50 | C |
| 879 880 | 1 | 11767 | 83.1583 | C50 | C |
| 880 | 1 | 230433 | 26.0000 | NaN | S |
| 887 | 0 | 112053 | 30.0000 | B42 | S |
| 889 | 0 | 111369 | 30.0000 | C148 | C |

[342 rows x 12 columns]

```
In [8]: titanic[(titanic["Survived"]==1) & (titanic["Sex"]=="female")][["Name", "Age"]]
Out[8]:
                                                             Name
                                                                    Age
             Cumings, Mrs. John Bradley (Florence Briggs Th...
                                                                   38.0
        1
        2
                                          Heikkinen, Miss. Laina
                                                                   26.0
        3
                  Futrelle, Mrs. Jacques Heath (Lily May Peel)
                                                                   35.0
        8
             Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)
                                                                   27.0
        9
                            Nasser, Mrs. Nicholas (Adele Achem)
                                                                   14.0
                                Sandstrom, Miss. Marguerite Rut
                                                                    4.0
        10
                                        Bonnell, Miss. Elizabeth
                                                                   58.0
        11
        15
                               Hewlett, Mrs. (Mary D Kingcome)
                                                                   55.0
                                         Masselmani, Mrs. Fatima
        19
                                                                    {\tt NaN}
        22
                                    McGowan, Miss. Anna "Annie"
                                                                   15.0
        25
             Asplund, Mrs. Carl Oscar (Selma Augusta Emilia...
                                                                   38.0
        28
                                  O'Dwyer, Miss. Ellen "Nellie"
                                                                    NaN
                Spencer, Mrs. William Augustus (Marie Eugenie)
        31
                                                                    NaN
                                        Glynn, Miss. Mary Agatha
        32
                                                                    NaN
        39
                                    Nicola-Yarred, Miss. Jamila
                                                                   14.0
        43
                       Laroche, Miss. Simonne Marie Anne Andree
                                                                    3.0
        44
                                  Devaney, Miss. Margaret Delia
                                                                   19.0
                                       O'Driscoll, Miss. Bridget
        47
                                                                    NaN
        52
                       Harper, Mrs. Henry Sleeper (Myna Haxtun)
                                                                   49.0
             Faunthorpe, Mrs. Lizzie (Elizabeth Anne Wilkin...
        53
                                                                   29.0
        56
                                               Rugg, Miss. Emily
                                                                   21.0
        58
                                   West, Miss. Constance Mirium
                                                                    5.0
                                             Icard, Miss. Amelie
        61
                                                                   38.0
        66
                                   Nye, Mrs. (Elizabeth Ramell)
                                                                   29.0
        68
                                Andersson, Miss. Erna Alexandra
                                                                   17.0
        79
                                        Dowdell, Miss. Elizabeth
                                                                   30.0
        82
                                 McDermott, Miss. Brigdet Delia
                                                                    NaN
                                             Ilett, Miss. Bertha
        84
                                                                   17.0
        85
             Backstrom, Mrs. Karl Alfred (Maria Mathilda Gu...
                                                                   33.0
                                     Fortune, Miss. Mabel Helen
        88
                                                                   23.0
        . .
                                                                    . . .
        774
                          Hocking, Mrs. Elizabeth (Eliza Needs)
                                                                   54.0
        777
                                  Emanuel, Miss. Virginia Ethel
                                                                    5.0
        779
             Robert, Mrs. Edward Scott (Elisabeth Walton Mc...
                                                                   43.0
                                            Ayoub, Miss. Banoura
                                                                   13.0
        780
                      Dick, Mrs. Albert Adrian (Vera Gillespie)
                                                                   17.0
        781
        786
                                       Sjoblom, Miss. Anna Sofia
                                                                   18.0
        796
                                    Leader, Dr. Alice (Farnham)
                                                                   49.0
        797
                                                Osman, Mrs. Mara
                                                                   31.0
        801
                   Collyer, Mrs. Harvey (Charlotte Annie Tate)
                                                                   31.0
        809
                Chambers, Mrs. Norman Campbell (Bertha Griggs)
                                                                   33.0
        820
             Hays, Mrs. Charles Melville (Clara Jennings Gr...
                                                                   52.0
                                                                   27.0
        823
                                              Moor, Mrs. (Beila)
        829
                      Stone, Mrs. George Nelson (Martha Evelyn)
                                                                   62.0
        830
                        Yasbeck, Mrs. Antoni (Selini Alexander)
                                                                   15.0
```

| 835 | Compton, Miss. Sara Rebecca | 39.0 |
|-----|--|-------------|
| 842 | Serepeca, Miss. Augusta | 30.0 |
| 849 | Goldenberg, Mrs. Samuel L (Edwiga Grabowska) | ${\tt NaN}$ |
| 853 | Lines, Miss. Mary Conover | 16.0 |
| 855 | Aks, Mrs. Sam (Leah Rosen) | 18.0 |
| 856 | Wick, Mrs. George Dennick (Mary Hitchcock) | 45.0 |
| 858 | Baclini, Mrs. Solomon (Latifa Qurban) | 24.0 |
| 862 | Swift, Mrs. Frederick Joel (Margaret Welles Ba | 48.0 |
| 865 | Bystrom, Mrs. (Karolina) | 42.0 |
| 866 | Duran y More, Miss. Asuncion | 27.0 |
| 871 | Beckwith, Mrs. Richard Leonard (Sallie Monypeny) | 47.0 |
| 874 | Abelson, Mrs. Samuel (Hannah Wizosky) | 28.0 |
| 875 | Najib, Miss. Adele Kiamie "Jane" | 15.0 |
| 879 | Potter, Mrs. Thomas Jr (Lily Alexenia Wilson) | 56.0 |
| 880 | Shelley, Mrs. William (Imanita Parrish Hall) | 25.0 |
| 887 | Graham, Miss. Margaret Edith | 19.0 |

[233 rows x 2 columns]