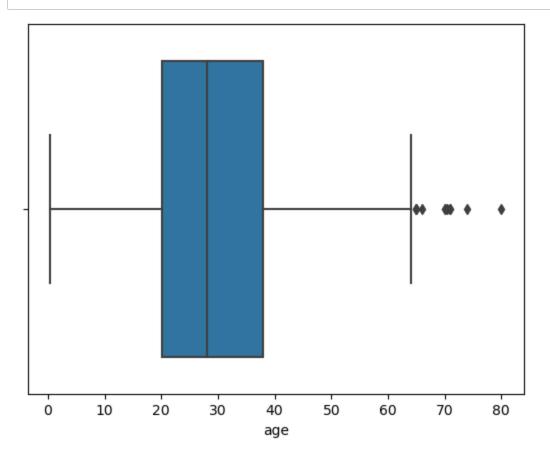
In []: ##OUTLIERS

In [1]: import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
pd.set_option('display.max_column',None) ##... göstermesin diye
pd.set_option('display.width',700) #sağ tarafa doğru daha fazla sütun(columns)
df=sns.load_dataset("titanic")
df.head()

Out[1]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	C
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	_
1	1	1	female	38.0	1	0	71.2833	С	First	woman	False	
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	
											,	

In [4]: sns.boxplot(x=df["age"]) plt.show()



```
q1 = df["age"].quantile(0.25)
 In [5]:
 In [6]:
          q1
 Out[6]: 20.125
           q3= df["age"].quantile(0.75)
 In [7]:
 In [8]:
           q3
 Out[8]: 38.0
 In [9]:
           iqr = q3-q1
In [10]:
           up = q3+1.5*iqr
           low = q1-1.5*iqr
In [11]:
           up
Out[11]: 64.8125
           df[(df["age"]>up) | (df["age"]<low)]</pre>
Out[14]:
                 survived
                          pclass
                                  sex
                                        age sibsp
                                                   parch
                                                             fare embarked
                                                                               class who
                                                                                          adult male c
             33
                       0
                                 male
                                                0
                                                         10.5000
                                                                             Second
                                                                                                 True
                               2
                                       66.0
                                                       0
                                                                          S
                                                                                      man
             54
                       0
                                 male
                                       65.0
                                                 0
                                                          61.9792
                                                                          С
                                                                                First
                                                                                     man
                                                                                                 True
             96
                       0
                                 male
                                      71.0
                                                 0
                                                          34.6542
                                                                          С
                                                                                First
                                                                                                 True
                                                                                     man
            116
                       0
                               3
                                 male
                                       70.5
                                                0
                                                       0
                                                           7.7500
                                                                          Q
                                                                               Third
                                                                                                 True
                                                                                     man
            280
                       0
                                 male
                                       65.0
                                                 0
                                                           7.7500
                                                                          Q
                                                                               Third
                                                                                                 True
                                                                                     man
            456
                       0
                                 male
                                       65.0
                                                 0
                                                          26.5500
                                                                          S
                                                                                First
                                                                                                 True
                                                                                     man
                                      71.0
            493
                       0
                                 male
                                                       0 49.5042
                                                                          С
                                                                                First
                                                                                     man
                                                                                                 True
            630
                       1
                               1
                                 male
                                       80.0
                                                          30.0000
                                                                          S
                                                                                First
                                                                                                 True
                                                                                     man
            672
                       0
                               2 male
                                      70.0
                                                 0
                                                         10.5000
                                                                          S
                                                                             Second
                                                                                                 True
                                                                                     man
                                                                          S
            745
                       0
                                 male
                                       70.0
                                                          71.0000
                                                                                First
                                                                                     man
                                                                                                 True
                                                                          S
            851
                       0
                               3 male 74.0
                                                 0
                                                       0
                                                           7.7750
                                                                               Third man
                                                                                                 True |
                                                                                                     >
          df[(df["age"]>up) | (df["age"]<low)].index</pre>
In [15]:
```

Out[15]: Index([33, 54, 96, 116, 280, 456, 493, 630, 672, 745, 851], dtype='int64')

localhost:8889/notebooks/Untitled1.ipynb?kernel_name=python3

```
##SİLME
 In [ ]:
In [18]: df.shape
Out[18]: (891, 15)
In [20]: |df[~((df["fare"]<low)|(df["fare"]>up))].shape
Out[20]: (773, 15)
In [21]: | df=df[~((df["fare"]<low)|(df["fare"]>up))]
In [22]: df
Out[22]:
                 survived pclass
                                          age
                                              sibsp parch
                                                                fare
                                                                     embarked
                                                                                  class
                                                                                          who adult_mal
              0
                       0
                               3
                                    male
                                         22.0
                                                   1
                                                          0
                                                              7.2500
                                                                             S
                                                                                  Third
                                                                                                      Tru
                                                                                          man
              2
                       1
                                         26.0
                                                              7.9250
                                                                             S
                               3 female
                                                                                  Third woman
                                                                                                     Fals
              3
                       1
                                         35.0
                                                             53.1000
                                                                             S
                               1
                                  female
                                                                                  First woman
                                                                                                     Fals
                                                                                  Third
              4
                       0
                               3
                                         35.0
                                                              8.0500
                                                                             S
                                                                                                      Tru
                                    male
                                                                                           man
              5
                       0
                                    male
                                         NaN
                                                              8.4583
                                                                                  Third
                                                                                          man
                                                                                                      Tru
                                                            13.0000
            886
                       0
                               2
                                         27.0
                                                                                Second
                                                                                                      Tru
                                    male
                                                                                           man
            887
                       1
                                         19.0
                                                             30.0000
                                                                             S
                                                                                                     Fals
                                  female
                                                                                   First woman
                                                          2 23.4500
            888
                       0
                                                                             S
                                                                                  Third woman
                                                                                                     Fals
                                  female
                                         NaN
                                                             30.0000
            889
                                    male
                                         26.0
                                                                             С
                                                                                   First
                                                                                           man
                                                                                                      Tru
            890
                       0
                               3
                                    male 32.0
                                                             7.7500
                                                                             Q
                                                                                  Third
                                                                                                      Tru
                                                                                          man
           773 rows × 15 columns
                                                                                                      >
```

localhost:8889/notebooks/Untitled1.ipynb?kernel_name=python3

In [23]: | df.loc[(df["fare"]>up), "fare"] = up

In [24]: df

Out[24]:

adult_ma	who	class	embarked	fare	parch	sibsp	age	sex	pclass	survived	
Tru	man	Third	S	7.2500	0	1	22.0	male	3	0	0
Fals	woman	Third	S	7.9250	0	0	26.0	female	3	1	2
Fals	woman	First	S	53.1000	0	1	35.0	female	1	1	3
Tru	man	Third	S	8.0500	0	0	35.0	male	3	0	4
Tru	man	Third	Q	8.4583	0	0	NaN	male	3	0	5
Tru	man	Second	S	13.0000	0	0	27.0	male	2	0	886
Fals	woman	First	S	30.0000	0	0	19.0	female	1	1	887
Fals	woman	Third	S	23.4500	2	1	NaN	female	3	0	888
Tru	man	First	С	30.0000	0	0	26.0	male	1	1	889
Tru	man	Third	Q	7.7500	0	0	32.0	male	3	0	890

773 rows × 15 columns

In [25]: df.isnull().values.any()

Out[25]: True

In [26]: df.isnull().sum()

0

Out[26]: survived

0 pclass sex 0 age 162 sibsp parch 0 fare 0 embarked 0 class 0 who 0 adult_male 0 deck 660 embark_town 0 alive 0 alone 0 dtype: int64

In []:

In []: