Assignment No 3B

```
import pandas as pd
import numpy as np
import io
import statistics
from google.colab import files
uploaded=files.upload()
<IPython.core.display.HTML object>
Saving Iris.csv to Iris.csv
df=pd.read_csv(io.BytesIO(uploaded['Iris.csv']))
print(df)
      Id SepalLengthCm SepalWidthCm PetalLengthCm PetalWidthCm \
0
                    5.1
       1
                                  3.5
                                                                0.2
                                                                0.2
1
       2
                    4.9
                                  3.0
                                                 1.4
2
       3
                    4.7
                                  3.2
                                                 1.3
                                                                0.2
3
       4
                                                 1.5
                    4.6
                                  3.1
                                                                0.2
4
       5
                    5.0
                                  3.6
                                                 1.4
                                                                0.2
                                  . . .
                                                  . . .
145 146
                    6.7
                                  3.0
                                                 5.2
                                                                2.3
146 147
                    6.3
                                  2.5
                                                 5.0
                                                                1.9
                                                 5.2
                                                                2.0
147 148
                    6.5
                                  3.0
                                                                2.3
148
    149
                    6.2
                                  3.4
                                                 5.4
149 150
                    5.9
                                  3.0
                                                 5.1
                                                                1.8
            Species
0
        Iris-setosa
1
        Iris-setosa
2
        Iris-setosa
3
        Iris-setosa
4
        Iris-setosa
145 Iris-virginica
146 Iris-virginica
147 Iris-virginica
148 Iris-virginica
149 Iris-virginica
[150 rows x 6 columns]
data = pd.read_csv("Iris.csv")
print('Iris-setosa')
setosa = data['Species'] == 'Iris-setosa'
print(data[setosa].describe())
```

```
print('\nIris-versicolor')
setosa = data['Species'] == 'Iris-versicolor'
print(data[setosa].describe())
print('\nIris-virginica')
setosa = data['Species'] == 'Iris-virginica'
print(data[setosa].describe())
Iris-setosa
             Ιd
                  SepalLengthCm
                                                 PetalLengthCm
                                                                PetalWidthCm
                                  SepalWidthCm
count
       50.00000
                       50.00000
                                     50.000000
                                                     50.000000
                                                                     50.00000
mean
       25.50000
                        5.00600
                                      3.418000
                                                      1.464000
                                                                      0.24400
std
                        0.35249
                                                      0.173511
                                                                      0.10721
       14.57738
                                      0.381024
                                                                      0.10000
min
        1.00000
                        4.30000
                                      2.300000
                                                      1.000000
25%
       13.25000
                        4.80000
                                      3.125000
                                                      1.400000
                                                                      0.20000
50%
       25.50000
                        5.00000
                                      3.400000
                                                      1.500000
                                                                      0.20000
75%
       37.75000
                        5.20000
                                      3.675000
                                                      1.575000
                                                                      0.30000
       50.00000
                                      4.400000
max
                        5.80000
                                                      1.900000
                                                                      0.60000
Iris-versicolor
               Ιd
                   SepalLengthCm
                                   SepalWidthCm
                                                  PetalLengthCm
                                                                 PetalWidthCm
        50.00000
                       50.000000
                                      50.000000
                                                      50.000000
count
                                                                     50.000000
mean
        75.50000
                        5.936000
                                       2.770000
                                                       4.260000
                                                                      1.326000
std
                                                       0.469911
        14.57738
                        0.516171
                                       0.313798
                                                                      0.197753
min
        51.00000
                        4.900000
                                       2.000000
                                                       3.000000
                                                                      1.000000
25%
        63.25000
                        5.600000
                                       2.525000
                                                       4.000000
                                                                      1.200000
50%
        75.50000
                        5.900000
                                       2.800000
                                                       4.350000
                                                                      1.300000
75%
        87.75000
                        6.300000
                                       3.000000
                                                       4.600000
                                                                      1.500000
       100.00000
max
                        7.000000
                                       3.400000
                                                       5.100000
                                                                      1.800000
Iris-virginica
               Ιd
                   SepalLengthCm
                                   SepalWidthCm
                                                  PetalLengthCm
                                                                  PetalWidthCm
        50.00000
                        50.00000
                                      50.000000
                                                      50.000000
count
                                                                      50.00000
                                       2.974000
mean
       125.50000
                         6.58800
                                                       5.552000
                                                                       2.02600
std
        14.57738
                         0.63588
                                       0.322497
                                                       0.551895
                                                                       0.27465
min
       101.00000
                         4.90000
                                       2.200000
                                                       4.500000
                                                                       1.40000
25%
       113.25000
                         6.22500
                                       2.800000
                                                       5.100000
                                                                       1.80000
50%
       125.50000
                         6.50000
                                       3.000000
                                                       5.550000
                                                                       2.00000
75%
       137.75000
                         6.90000
                                       3.175000
                                                       5.875000
                                                                       2.30000
```

3.800000

6.900000

2.50000

max

150.00000

7.90000