Lab8 Exercises

Q1) Rearrange the following series to become as follow

Input:

pd.Series([4.5, 7.2, -5.3, 3.6], index=['d', 'b', 'a', 'c'])

output:

```
e    NaN
b    7.2
d    4.5
c    3.6
a   -5.3
```

Q2) Convert the following to data frame then sort the data according to the names in ascending order and if they are equals sort them according to id then rank the GPA as following output

input:

data = {'names': ['ahmed', 'mohammed', 'anas', 'foad', 'loay', 'gamal', 'ahmed'],
 'ids': ['120215568', '120216874', '120219874', '120214532', '120212258', '120214521', '120217452'],
 'GPAs': [89, 77, 52, 60, 58, 54, 92]}

output:

```
0    2.0
1    3.0
2    7.0
3    4.0
4    5.0
5    6.0
6    1.0
```

Q3) Check if the indices is unique or not then get the index of the max value then show this information about the series

input:

pd.Series(range(5), index=['a', 'a', 'b', 'b', 'c'])

output:

```
count    5.000000
mean     2.000000
std      1.581139
min      0.000000
25%      1.000000
50%      2.000000
75%      3.000000
max      4.000000
dtype: float64
```

Q4) For the given excel file get the maximum value and the minimum value then sort the data according to the SepalLengthCm in descending order then print the correlation between SepalLengthCm and PetalLengthCm then get the mean of SepalLengthCm values at the end get the count of Virginica species