```
In [9]:  import pandas as pd
         import statistics as stat
```

```
In [10]: df = pd.read_csv('Iris.csv')
```

```
In [13]: df.head(5)
```

Out[13]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa

```
In [15]: df.describe()
```

Out[15]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
count	150.000000	150.000000	150.000000	150.000000	150.000000
mean	75.500000	5.843333	3.054000	3.758667	1.198667
std	43.445368	0.828066	0.433594	1.764420	0.763161
min	1.000000	4.300000	2.000000	1.000000	0.100000
25%	38.250000	5.100000	2.800000	1.600000	0.300000
50%	75.500000	5.800000	3.000000	4.350000	1.300000
75%	112.750000	6.400000	3.300000	5.100000	1.800000
max	150.000000	7.900000	4.400000	6.900000	2.500000

```
In [16]: df.groupby("Species")[["SepalLengthCm", "SepalWidthCm", "PetalLengthCm", "P
```

Out[16]:

	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
Species				
Iris-setosa	5.006	3.418	1.464	0.244
Iris-versicolor	5.936	2.770	4.260	1.326
Iris-virginica	6.588	2.974	5.552	2.026

```
In [18]: df.groupby("Species")[["SepalLengthCm", "SepalWidthCm", "PetalLengthCm", "P
```

Out[18]:

	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
Species				
Iris-setosa	5.0	3.4	1.50	0.2
Iris-versicolor	5.9	2.8	4.35	1.3
Iris-virginica	6.5	3.0	5.55	2.0

```
In [19]: df.groupby("Species")[["SepalLengthCm", "SepalWidthCm", "PetalLengthCm", "P
```

Out[19]:

Species	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
Iris-setosa	5.8	4.4	1.9	0.6
Iris-versicolor	7.0	3.4	5.1	1.8
Iris-virginica	7.9	3.8	6.9	2.5

```
In [20]: df.groupby("Species")[["SepalLengthCm", "SepalWidthCm", "PetalLengthCm", "P
```

Out[20]:

Species	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
Iris-setosa	4.3	2.3	1.0	0.1
Iris-versicolor	4.9	2.0	3.0	1.0
Iris-virginica	4.9	2.2	4.5	1.4

```
In [21]: df.groupby("Species")[["SepalLengthCm", "SepalWidthCm", "PetalLengthCm", "P
```

Out[21]:

Species	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
Iris-setosa	5.0	3.4	1.50	0.2
Iris-versicolor	5.9	2.8	4.35	1.3
Iris-virginica	6.5	3.0	5.55	2.0

```
In [22]: df.SepalLengthCm.std()
```

Out[22]: 0.8280661279778629

```
In [23]: df.SepalWidthCm.std()
```

Out[23]: 0.4335943113621737

```
In [ ]:
```