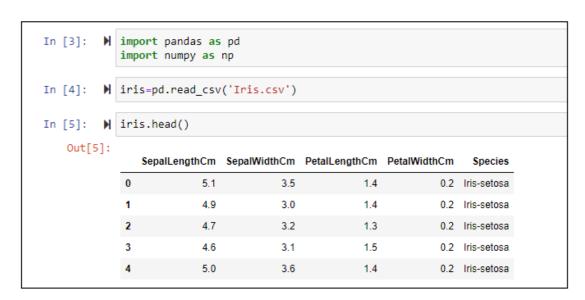
Practical No:03

Perform the following operations on any open source dataset (e.g., data.csv)

- 1. Provide summary statistics (mean, median, minimum, maximum, standard deviation) for a dataset (age, income etc.) with numeric variables grouped by one of the qualitative (categorical) variable. For example, if your categorical variable is age groups and quantitative variable is income, then provide summary statistics of income grouped by the age groups. Create a list that contains a numeric value for each response to the categorical variable.
- 2. Write a Python program to display some basic statistical details like percentile, mean, standard deviation etc. of the species of 'Irissetosa', 'Iris-versicolor' and 'Iris-versicolor' of iris.csv dataset.

OUTPUT:



In [6]: ▶	iris.describe()								
Out[6]:		SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm				
	count	150.000000	150.000000	150.000000	150.000000				
	mean	5.843333	3.054000	3.758667	1.198667				
	std	0.828066	0.433594	1.764420	0.763161				
	min	4.300000	2.000000	1.000000	0.100000				
	25%	5.100000	2.800000	1.600000	0.300000				
	50%	5.800000	3.000000	4.350000	1.300000				
	75%	6.400000	3.300000	5.100000	1.800000				
	max	7.900000	4.400000	6.900000	2.500000				

```
In [7]: ► iris.shape
    Out[7]: (150, 5)
C:\Users\user\AppData\Local\Temp\i
            me.mean is deprecated. In a future
            ted. Select only valid columns or
              iris.mean()
   Out[10]: SepalLengthCm
                             5.843333
            SepalWidthCm
                             3.054000
            PetalLengthCm
                             3.758667
            PetalWidthCm
                            1.198667
            dtype: float64
In [11]: ▶ iris.median()
            C:\Users\user\AppData\Local\Temp\ipyk
            ame.median is deprecated. In a future
            ecated. Select only valid columns or
              iris.median()
   Out[11]: SepalLengthCm
                           5.80
            SepalWidthCm
                           3.00
            PetalLengthCm
                           4.35
            PetalWidthCm
                           1.30
            dtype: float64
```

In [12]: 🔰	iris.SepalLengthCm.mode()								
Out[12]:	0 5.0 Name: SepalLengthCm, dtype: float64								
In [13]: 🔰	iris.SepalWidthCm.mode()								
Out[13]:	0 3.0 Name: SepalWidthCm, dtype: float64								
In [14]: ▶	<pre>iris.groupby(['Species']).count()</pre>								
Out[14]:		SepalLengthCm	S epal W idthCm	PetalLengthCm	Petal W idthCm				
	Species								
	Iris-setosa	50	50	50	50				
	Iris-versicolor	50	50	50	50				
	Iris-virginica	50	50	50	50				