Hands-on Exercise No. 4 Solution **DigiSkills 2.0 Batch-05** **Data Analytics and Business Intelligence**	**Total Marks: 10**

Instructions:

Please read the following instructions carefully before submitting this Hands-on Exercise:

- Use MS Word to prepare exercise solution.
- You may consult tutorials and videos if the concept is not clear.
- Your submitted exercise will not be considered/counted if:
  - It is submitted after due date.
  - It is not in the required format (.doc or .docx)
  - It does not open, or file is corrupt.
  - It is copied (partial or full) from any source (websites, forums, students, etc.)

Learning Outcome:

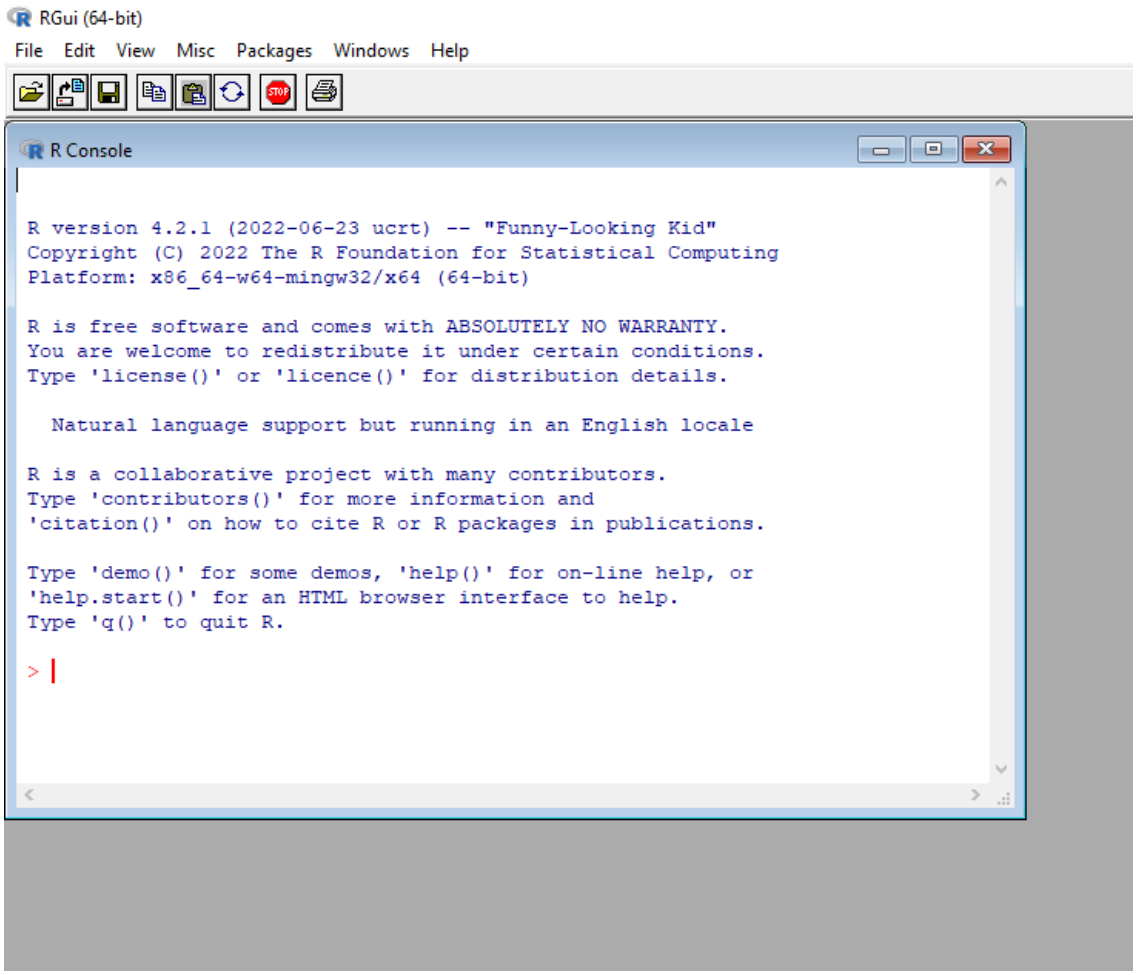
After completing this exercise, you shall be able to:

- Download and install free R language.
- Perform Descriptive Analysis for Iris dataset.
- Create BoxPlot and Pairs chart for Iris dataset.

Solution

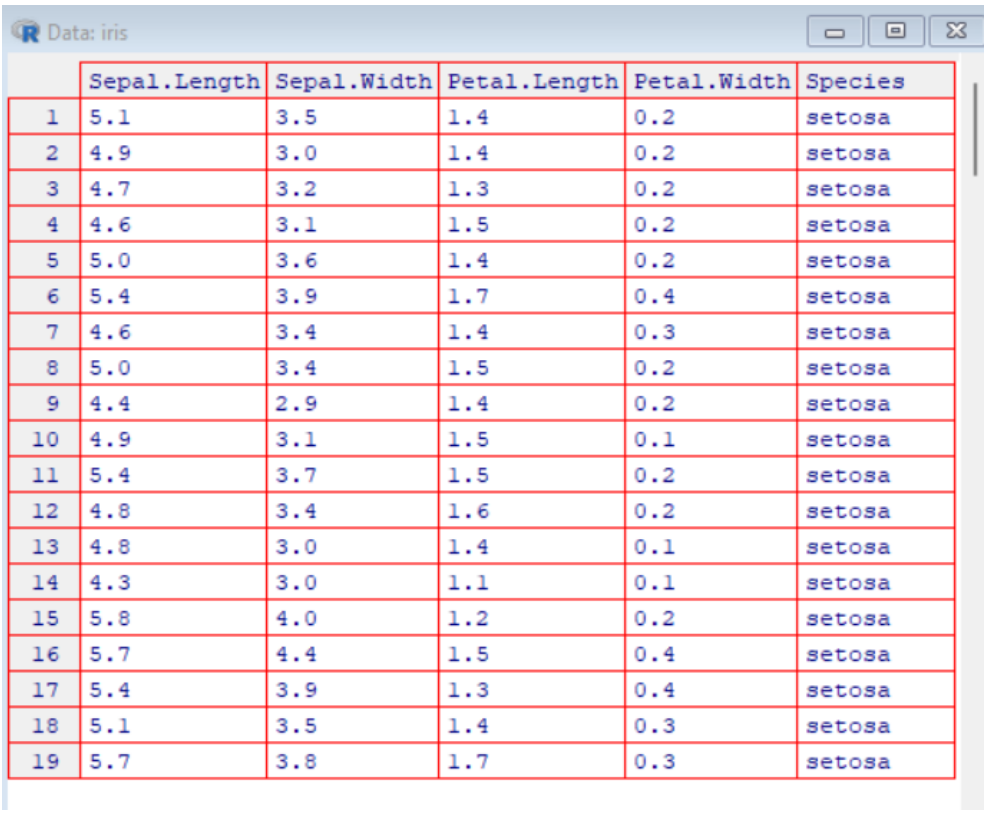
Tasks:

1) Download and Install free R language from the following link. (Take a screenshot)
https://cran.r-project.org/bin/windows/base/



2) Create view and summary for iris dataset using the following command. (Take a screenshot)

- View(iris)



	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
1	5.1	3.5	1.4	0.2	setosa
2	4.9	3.0	1.4	0.2	setosa
3	4.7	3.2	1.3	0.2	setosa
4	4.6	3.1	1.5	0.2	setosa
5	5.0	3.6	1.4	0.2	setosa
6	5.4	3.9	1.7	0.4	setosa
7	4.6	3.4	1.4	0.3	setosa
8	5.0	3.4	1.5	0.2	setosa
9	4.4	2.9	1.4	0.2	setosa
10	4.9	3.1	1.5	0.1	setosa
11	5.4	3.7	1.5	0.2	setosa
12	4.8	3.4	1.6	0.2	setosa
13	4.8	3.0	1.4	0.1	setosa
14	4.3	3.0	1.1	0.1	setosa
15	5.8	4.0	1.2	0.2	setosa
16	5.7	4.4	1.5	0.4	setosa
17	5.4	3.9	1.3	0.4	setosa
18	5.1	3.5	1.4	0.3	setosa
19	5.7	3.8	1.7	0.3	setosa

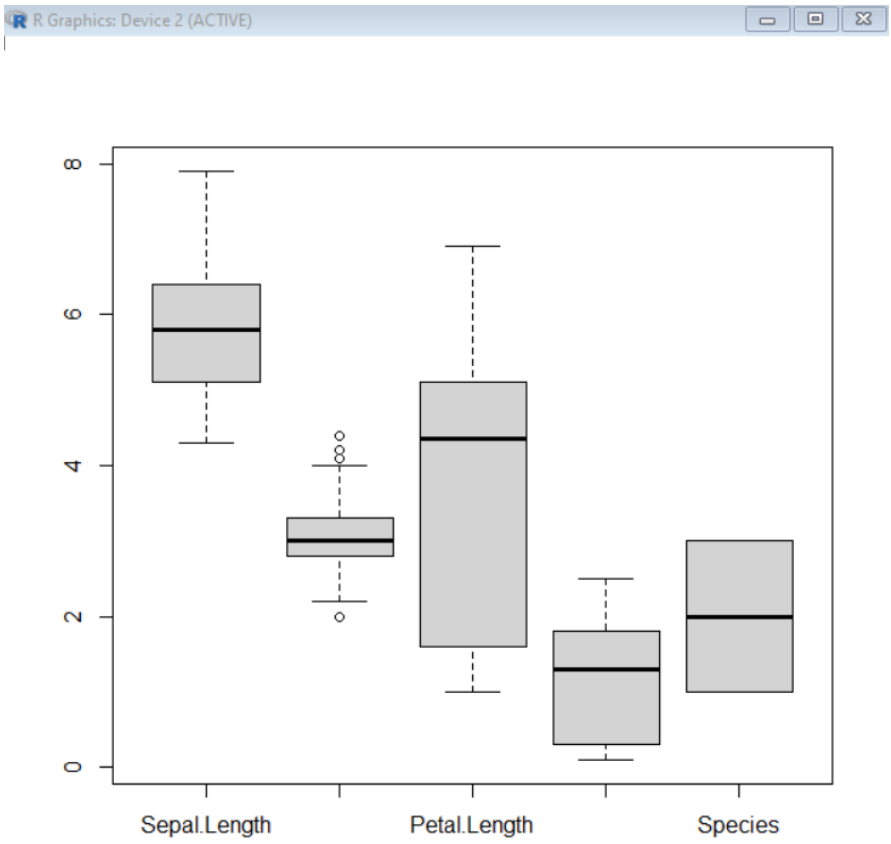
- summary(iris)

```
> summary(iris)
  Sepal.Length    Sepal.Width     Petal.Length    Petal.Width
 Min.   :4.300   Min.   :2.000   Min.   :1.000   Min.   :0.100
 1st Qu.:5.100   1st Qu.:2.800   1st Qu.:1.600   1st Qu.:0.300
 Median :5.800   Median :3.000   Median :4.350   Median :1.300
 Mean   :5.843   Mean   :3.057   Mean   :3.758   Mean   :1.199
 3rd Qu.:6.400   3rd Qu.:3.300   3rd Qu.:5.100   3rd Qu.:1.800
 Max.   :7.900   Max.   :4.400   Max.   :6.900   Max.   :2.500
       Species
 setosa    :50
 versicolor:50
 virginica :50
```

3) Compute the mean of the sepal length and the sepal Width in the data set iris using following command.

mean(iris$Sepal.Length)	5.843333
mean(iris$Sepal.Width)	3.057333

4) Create BoxPlot for iris dataset using the following command. (Take a screenshot)
   - boxplot(iris)



5) Create Pairs for iris dataset using the following command. (Take a screenshot)
   - pairs(iris)