R_Activity_Assignment_1

Dahee Ahn

2024-08-30

R Markdown

Question 1. Load in the .txt version of the Iris data using the read.table() command.

```
read.table(file = "C:/Users/chemk/OneDrive/Desktop/Classes/ENT6707_DataAnalysis/week2/Iris_data_
text_file.txt", header = TRUE, sep = "\t", na.strings = ".")
```

```
##     Sepal.Length Sepal.Width Petal.Length Petal.Width    Species
## 1            5.1          NA           NA         0.2     setosa
## 2            4.9         3.0          1.4         0.2     setosa
## 3            4.7         3.2          1.3         0.2     setosa
## 4             NA         3.1          1.5         0.2     setosa
## 5            5.0         3.6          1.4         0.2     setosa
## 6            5.4         3.9           NA         0.4     setosa
## 7            4.6         3.4          1.4         0.3     setosa
## 8            5.0         3.4          1.5         0.2     setosa
## 9             NA         2.9          1.4         0.2     setosa
## 10           4.9          NA          1.5         0.1     setosa
## 11           5.4          NA          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          NA          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
## 20           5.1         3.8          1.5         0.3     setosa
## 21           5.4         3.4          1.7         0.2     setosa
## 22           5.1         3.7          1.5         0.4     setosa
## 23           4.6         3.6          1.0         0.2     setosa
## 24           5.1         3.3          1.7          NA     setosa
## 25           4.8         3.4          1.9         0.2     setosa
## 26           5.0         3.0          1.6         0.2     setosa
## 27           5.0         3.4          1.6         0.4     setosa
## 28           5.2         3.5          1.5         0.2     setosa
## 29           5.2         3.4          1.4          NA     setosa
## 30           5.0         3.5          1.6         0.6     setosa
## 31           5.1         3.8          1.9         0.4     setosa
## 32           4.8         3.0          1.4         0.3     setosa
## 33           5.1         3.8          1.6         0.2     setosa
## 34           4.6         3.2          1.4         0.2     setosa
## 35           5.3         3.7          1.5         0.2     setosa
## 36           5.0         3.3          1.4         0.2     setosa
## 37           7.0         3.2          4.7         1.4 versicolor
## 38           6.4         3.2          4.5         1.5 versicolor
## 39           6.9         3.1          4.9         1.5 versicolor
## 40           5.5         2.3          4.0         1.3 versicolor
## 41           6.5         2.8          4.6         1.5 versicolor
## 42           5.7         2.8          4.5         1.3 versicolor
## 43           6.3         3.3          4.7         1.6 versicolor
## 44           4.9         2.4          3.3         1.0 versicolor
## 45           6.6         2.9          4.6         1.3 versicolor
## 46           5.2         2.7          3.9         1.4 versicolor
## 47           5.0         2.0          3.5         1.0 versicolor
## 48           5.9         3.0          4.2         1.5 versicolor
## 49           6.0         2.2          4.0         1.0 versicolor
## 50           6.1         2.9          4.7         1.4 versicolor
## 51           5.6         2.9          3.6         1.3 versicolor
```

```
## 52          6.7         3.1          4.4         1.4 versicolor
## 53          5.6         3.0          4.5         1.5 versicolor
## 54          5.8         2.7          4.1         1.0 versicolor
## 55          6.2         2.2          4.5         1.5 versicolor
## 56          5.6         2.5          3.9         1.1 versicolor
## 57          5.9         3.2          4.8         1.8 versicolor
## 58          6.1         2.8          4.0         1.3 versicolor
## 59          6.3         2.5          4.9         1.5 versicolor
## 60          6.1         2.8          4.7         1.2 versicolor
## 61          6.4         2.9          4.3         1.3 versicolor
## 62          6.6         3.0          4.4         1.4 versicolor
## 63          6.8         2.8          4.8         1.4 versicolor
## 64          6.7         3.0          5.0         1.7 versicolor
## 65          6.0         2.9          4.5         1.5 versicolor
## 66          5.7         2.6          3.5         1.0 versicolor
## 67          6.1         3.0          4.6         1.4 versicolor
## 68          5.8         2.6          4.0         1.2 versicolor
## 69          5.0         2.3          3.3         1.0 versicolor
## 70          5.6         2.7          4.2         1.3 versicolor
## 71          5.7         3.0          4.2         1.2 versicolor
## 72          5.7         2.9          4.2         1.3 versicolor
## 73          6.2         2.9          4.3         1.3 versicolor
## 74          5.1         2.5          3.0         1.1 versicolor
## 75          5.7         2.8          4.1         1.3 versicolor
## 76          6.3         3.3          6.0         2.5  virginica
## 77          5.8         2.7          5.1         1.9  virginica
## 78          7.1         3.0          5.9         2.1  virginica
## 79          6.3         2.9          5.6         1.8  virginica
## 80          6.5         3.0          5.8         2.2  virginica
## 81          7.6         3.0          6.6         2.1  virginica
## 82          4.9         2.5          4.5         1.7  virginica
## 83          7.3         2.9          6.3         1.8  virginica
## 84          6.7         2.5          5.8         1.8  virginica
## 85          7.2         3.6          6.1         2.5  virginica
## 86          6.5         3.2          5.1         2.0  virginica
## 87          6.4         2.7          5.3         1.9  virginica
## 88          6.8         3.0          5.5         2.1  virginica
## 89          5.7         2.5          5.0         2.0  virginica
## 90          5.8         2.8          5.1         2.4  virginica
## 91          6.4         3.2          5.3         2.3  virginica
## 92          6.5         3.0          5.5         1.8  virginica
## 93          7.7         3.8          6.7         2.2  virginica
## 94          7.7         2.6          6.9         2.3  virginica
## 95          6.0         2.2          5.0         1.5  virginica
## 96          6.9         3.2          5.7         2.3  virginica
## 97          5.6         2.8          4.9         2.0  virginica
## 98          7.7         2.8          6.7         2.0  virginica
## 99          6.3         2.7          4.9         1.8  virginica
## 100         6.7         3.3          5.7         2.1  virginica
## 101         7.2         3.2          6.0         1.8  virginica
## 102         6.2         2.8          4.8         1.8  virginica
## 103         6.1         3.0          4.9         1.8  virginica
```

```
## 104          6.4         2.8          5.6         2.1  virginica
## 105          6.3         3.4          5.6         2.4  virginica
## 106          6.4         3.1          5.5         1.8  virginica
## 107          6.0         3.0          4.8         1.8  virginica
## 108          6.9         3.1          5.4         2.1  virginica
## 109          6.7         3.1          5.6         2.4  virginica
## 110          6.9         3.1          5.1         2.3  virginica
## 111          5.8         2.7          5.1         1.9  virginica
## 112          6.8         3.2          5.9         2.3  virginica
## 113          6.7         3.3          5.7         2.5  virginica
## 114          6.7         3.0          5.2         2.3  virginica
## 115          6.3         2.5          5.0         1.9  virginica
## 116          6.5         3.0          5.2         2.0  virginica
## 117          6.2         3.4          5.4         2.3  virginica
## 118          5.9         3.0          5.1         1.8  virginica
```

```
iris_df_txt <- read.table(file =
"C:/Users/chemk/OneDrive/Desktop/Classes/ENT6707_DataAnalysis/week2/Iris_data_text_file.txt", he
ader = TRUE, sep = "\t", na.strings = ".")
```

Question 2. How many rows are in the data?

```
nrow(iris_df_txt)
```

```
## [1] 118
```

Question 3. How many NA values are there per column?

```
colSums(is.na(iris_df_txt))
```

```
## Sepal.Length  Sepal.Width Petal.Length  Petal.Width      Species
##            2            4            2            2            0
```

Question 4. Provide the first 10 rows of the data.

```
head(iris_df_txt, n=10)
```

```
##    Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1           5.1          NA           NA         0.2  setosa
## 2           4.9         3.0          1.4         0.2  setosa
## 3           4.7         3.2          1.3         0.2  setosa
## 4            NA         3.1          1.5         0.2  setosa
## 5           5.0         3.6          1.4         0.2  setosa
## 6           5.4         3.9           NA         0.4  setosa
## 7           4.6         3.4          1.4         0.3  setosa
## 8           5.0         3.4          1.5         0.2  setosa
## 9            NA         2.9          1.4         0.2  setosa
## 10          4.9          NA          1.5         0.1  setosa
```

Question 5. Provide the last 3 rows of the data.

```
tail(iris_df_txt, n=3)
```

```
##     Sepal.Length Sepal.Width Petal.Length Petal.Width   Species
## 116          6.5         3.0          5.2         2.0 virginica
## 117          6.2         3.4          5.4         2.3 virginica
## 118          5.9         3.0          5.1         1.8 virginica
```