ROLL NO: 210701268

Exp:10

VISUALIZE DATA USING ANY PLOTTING FRAMEWORK

Aim: To visualize data using any plotting framework

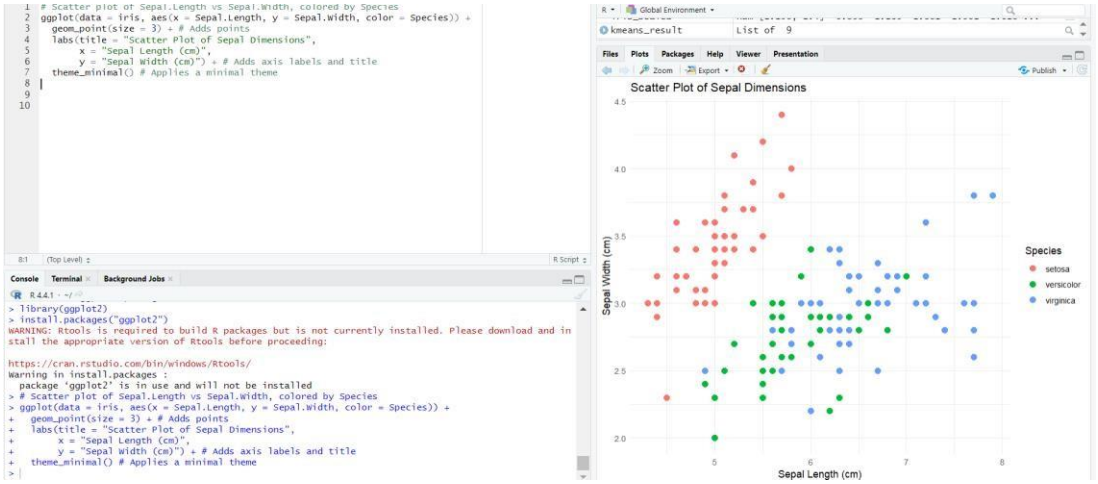
PROCEDURE:

1) SCATTER PLOT

```
# Install ggplot2 (if not already installed)
install.packages("ggplot2")

# Load the ggplot2 package library(ggplot2)

# Scatter plot of Sepal.Length vs Sepal.Width, colored by Species
ggplot(data = iris, aes(x = Sepal.Length, y = Sepal.Width, color = Species))
+   geom_point(size = 3) +  # Adds points   labs(title = "Scatter Plot of Sepal
Dimensions",         x = "Sepal Length (cm)",         y = "Sepal Width (cm)") +
# Adds axis labels and title   theme_minimal()  # Applies a minimal theme
```



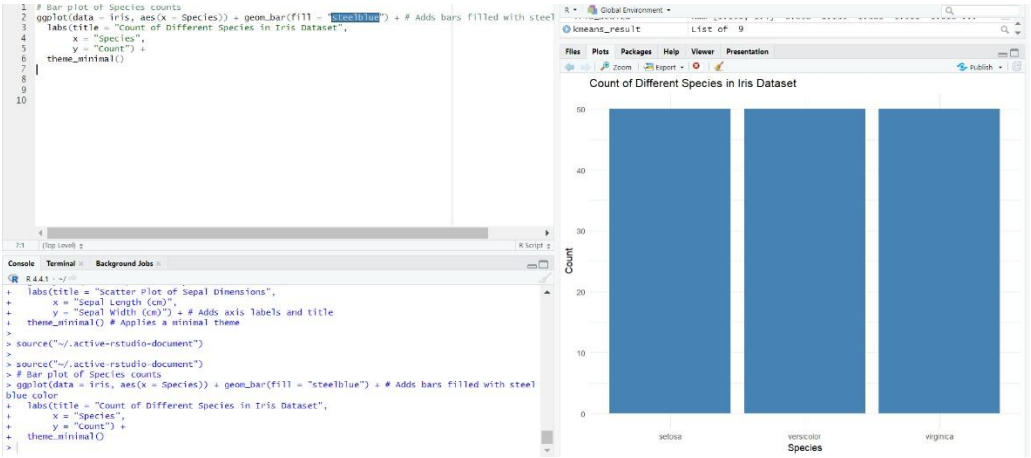
2) BAR CHART

```
# Install ggplot2 (if not already installed)  install.packages("ggplot2")

# Load the ggplot2 package library(ggplot2)

# Bar plot of Species counts ggplot(data
```

= iris, aes(x = Species)) + geom_bar(fill = "steelblue") + # Adds bars filled with steel blue color labs(title = "Count of Different Species in Iris
Dataset", x = "Species", y = "Count") + theme_minimal()

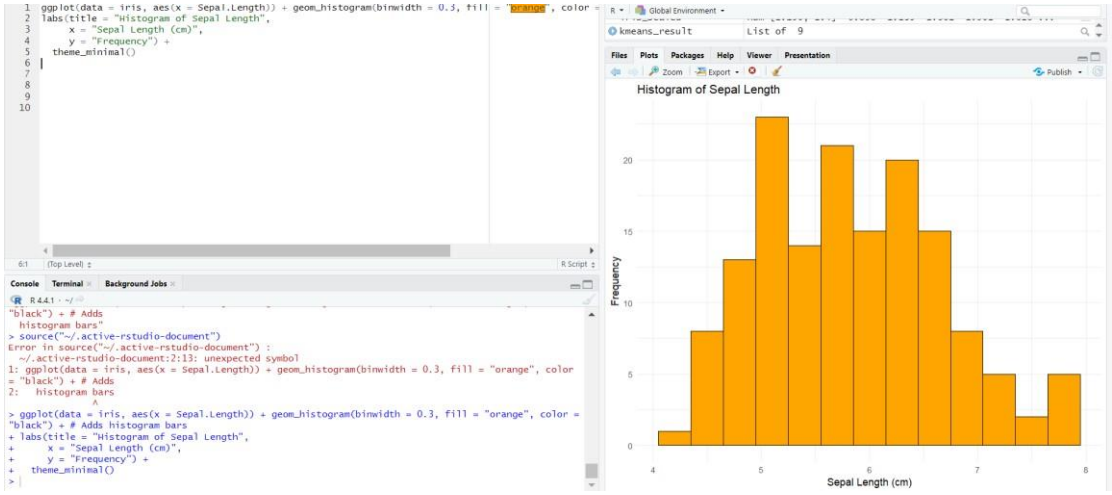


3) HISTOGRAM

# Install ggplot2 (if not already installed)
install.packages("ggplot2")

Load the ggplot2 package library(ggplot2)

Histogram of Sepal Length
ggplot(data = iris, aes(x = Sepal.Length)) +
geom_histogram(binwidth = 0.3, fill = "orange", color = "black") + # Adds histogram bars
labs(title = "Histogram of Sepal
Length", x = "Sepal Length (cm)", y
= "Frequency") +
theme_minimal()



4)BOX PLOT

# Install ggplot2 (if not already installed)
install.packages("ggplot2")

Load the ggplot2 package library(ggplot2)

Box plot of Sepal Length for each Species ggplot(data = iris, aes(x = Species, y = Sepal.Length, fill = Species)) + geom_boxplot() + # Adds box plot labs(title = "Box Plot of Sepal Length by Species", x = "Species", y = "Sepal Length (cm)") + theme_minimal()

Result: Thus data using any plotting framework is visualizied successfully.