EX.NO:10 **210701167**

VISUALIZE DATA USING ANY PLOTTING FRAMEWORK

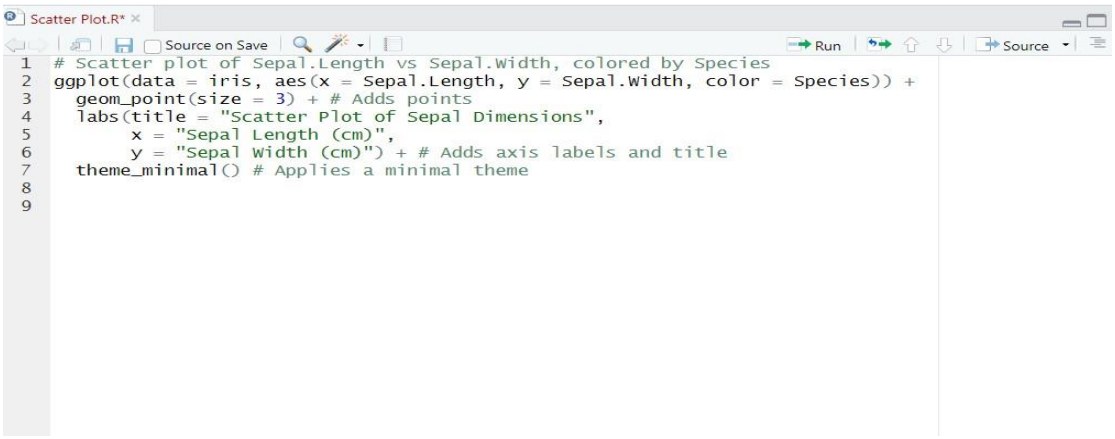
AIM:

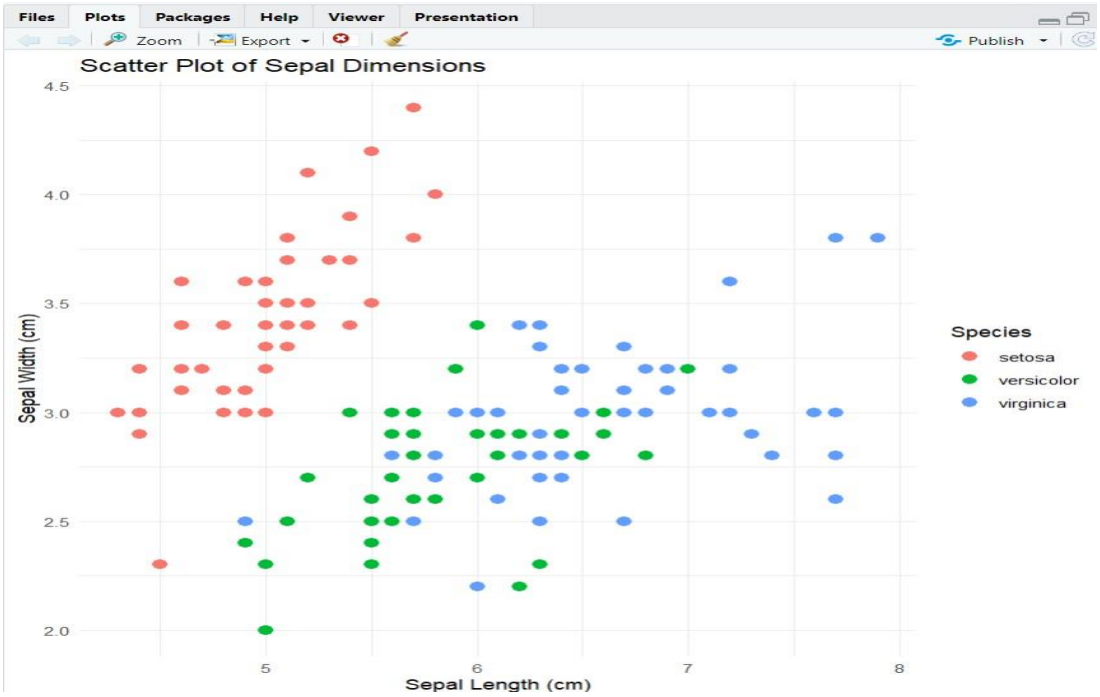
To implement a visualize Data using any plotting framework using R Studio.

1) SCATTER PLOT

```
# 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
```

OUTPUT:



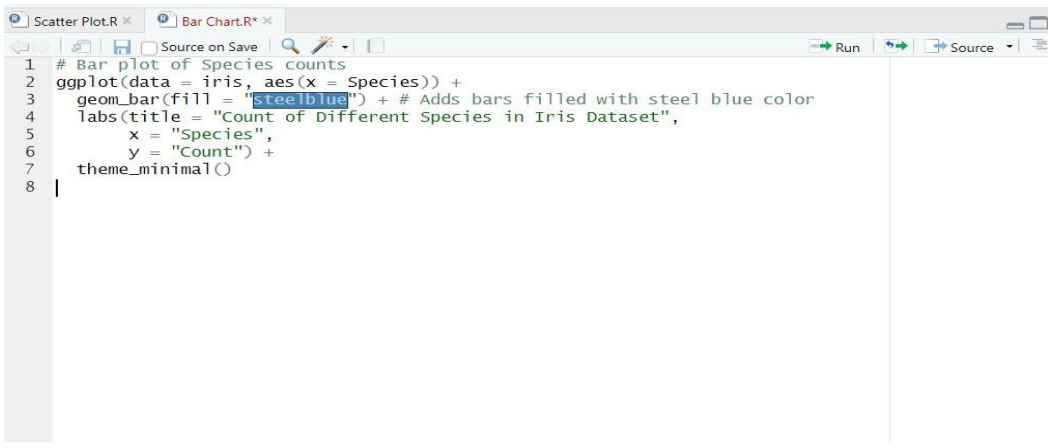


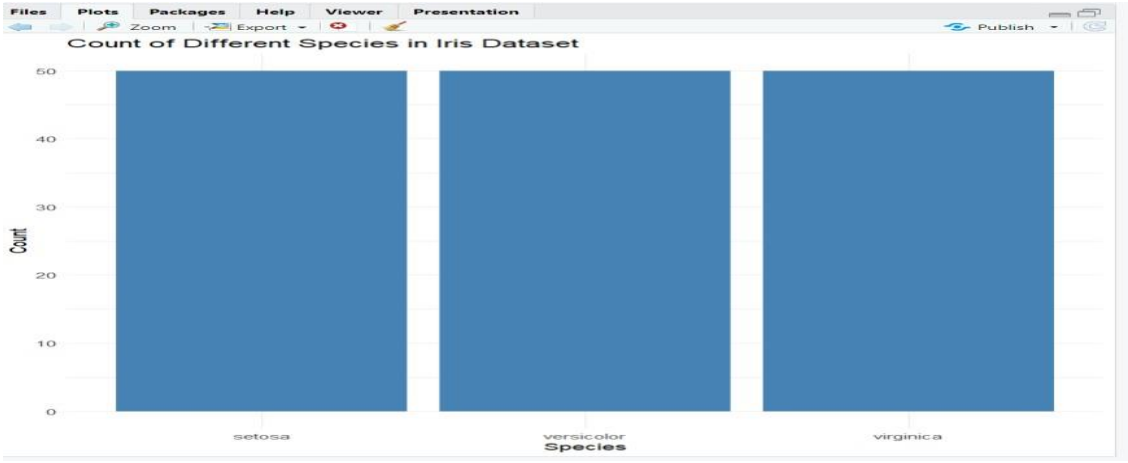
2) BAR CHART

# 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() **OUTPUT:**





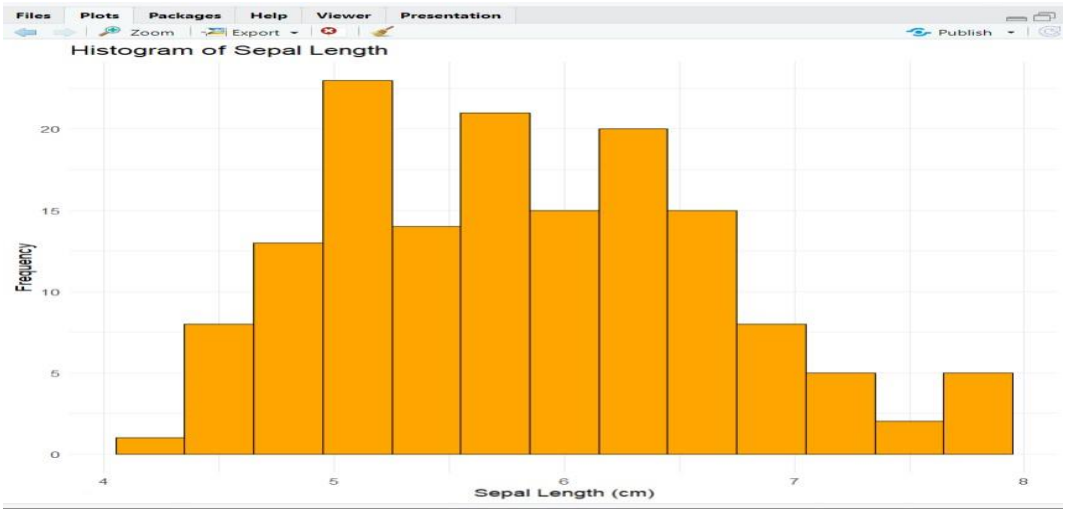
3) HISTOGRAM

```
# 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()
```

OUTPUT:



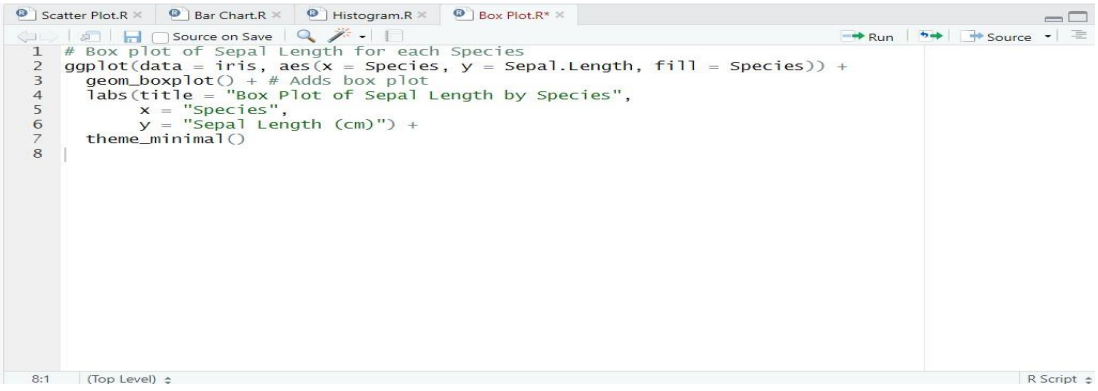
4)BOX PLOT

# 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()

OUTPUT:



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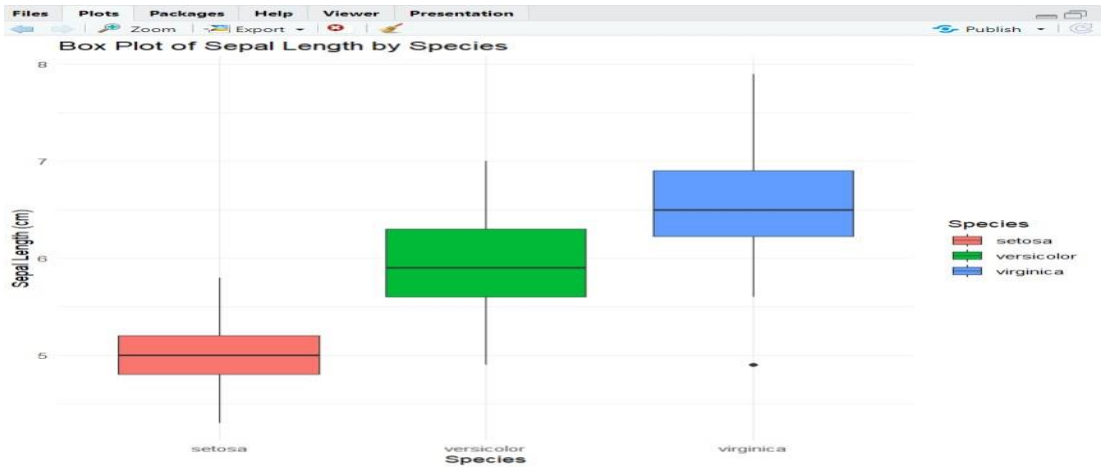

RESULT:

Thus, the visualize Data using any plotting framework using R Studio have been successfully executed.