Exp:10

VISUALIZE DATA USING ANY PLOTTING FRAMEWORK

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
```
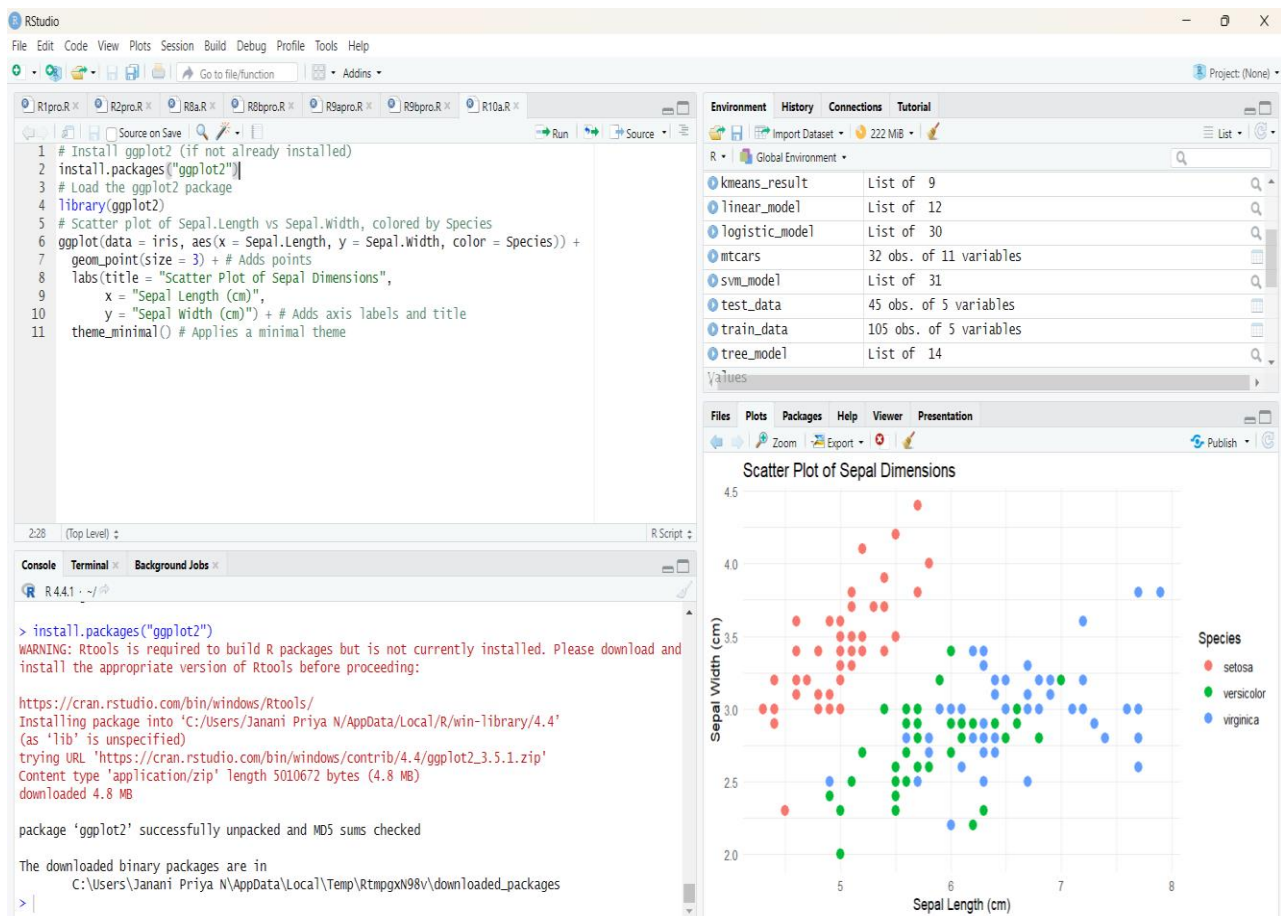
2) BAR CHART

\# Install ggplot2 (if not already installed)

install.packages("ggplot2")

\# Load the ggplot2 package

library(ggplot2)

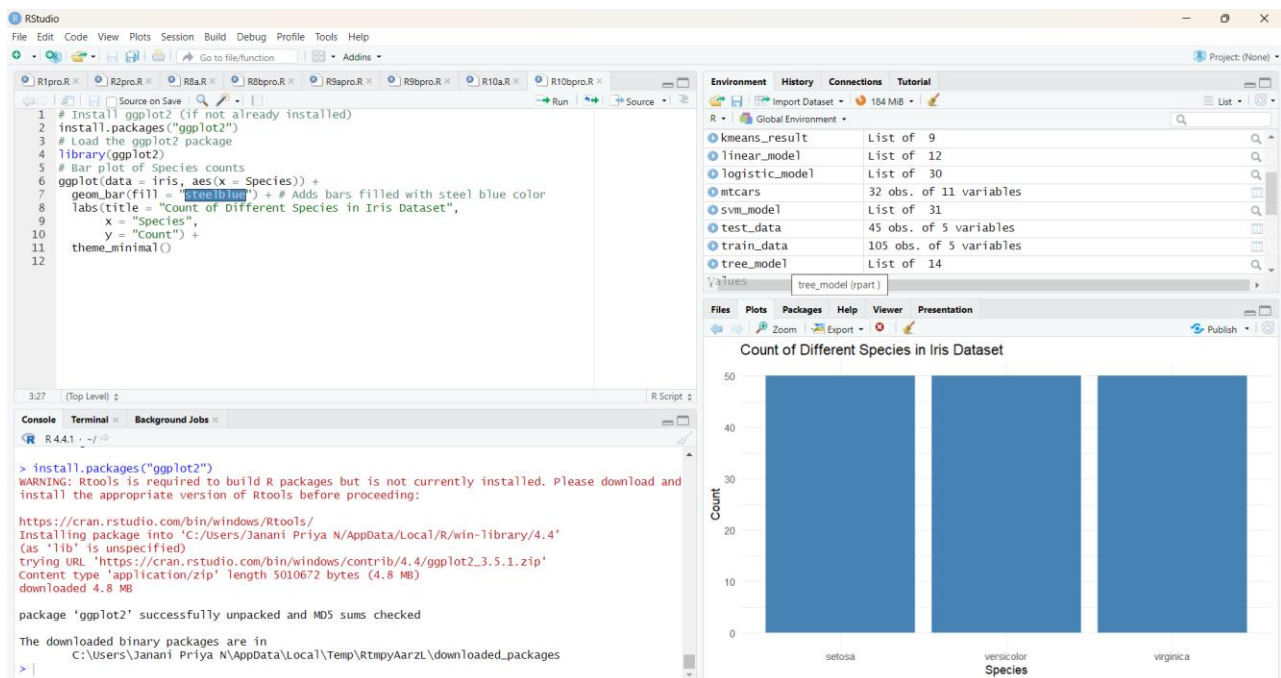\# Bar plot of Species counts

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()
```
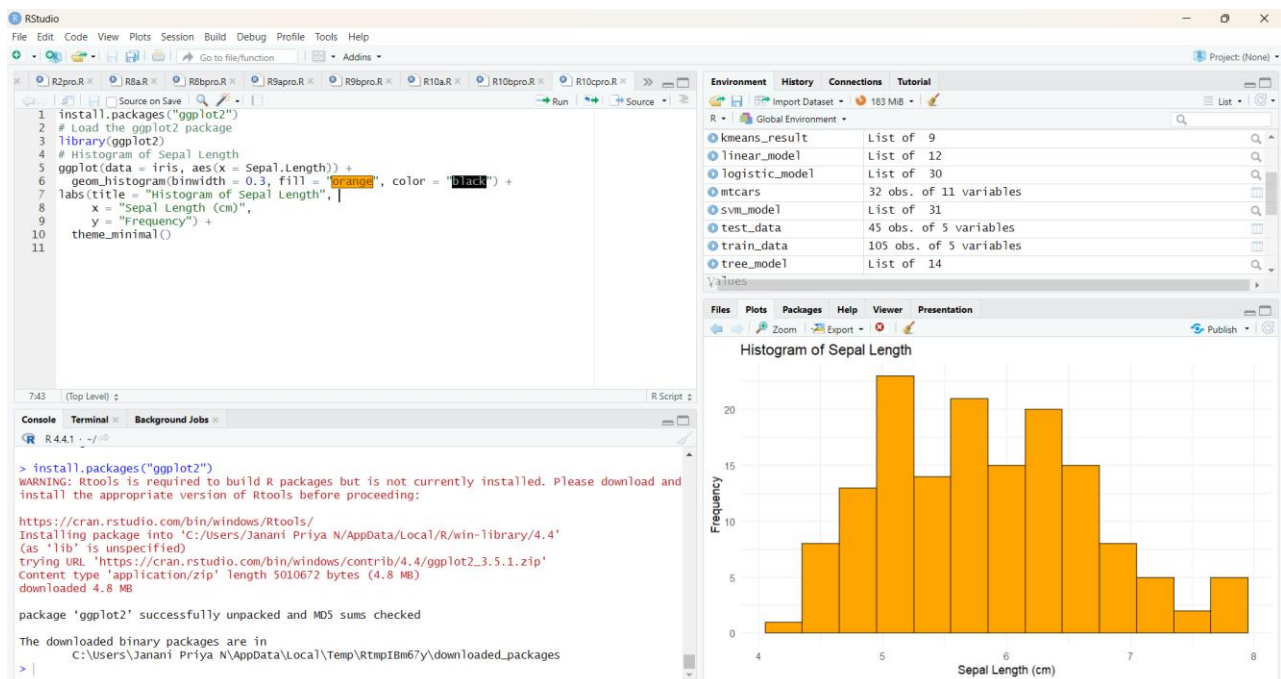

4) BOX PLOT

```
# 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()