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)) +

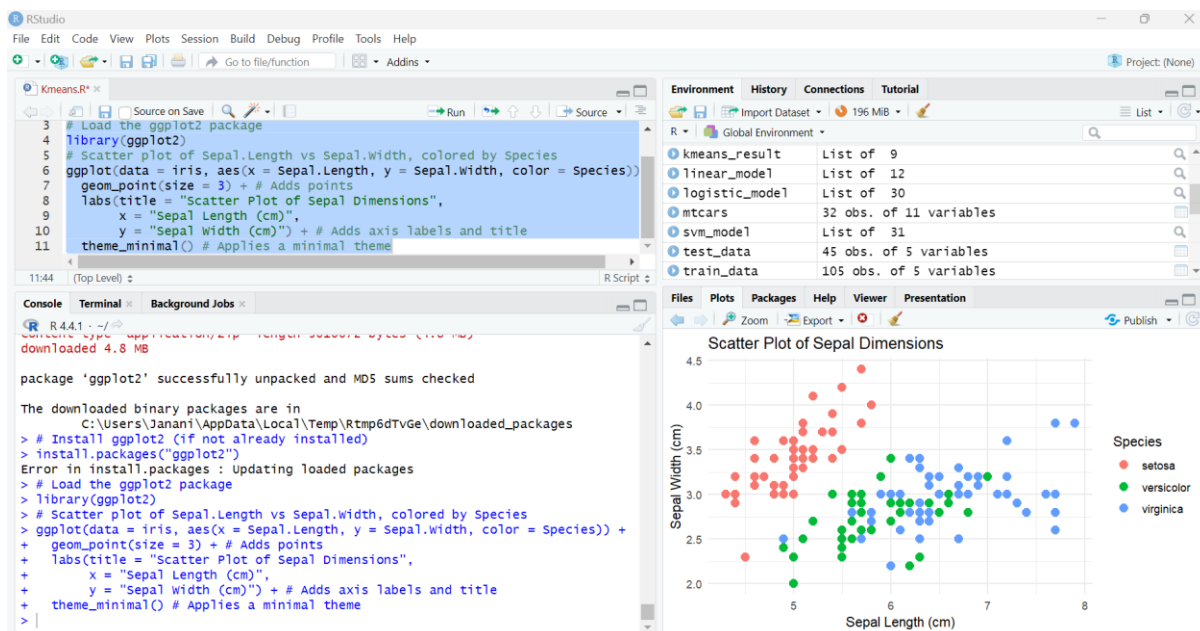geom_point(size = 3) + # Adds points

 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)

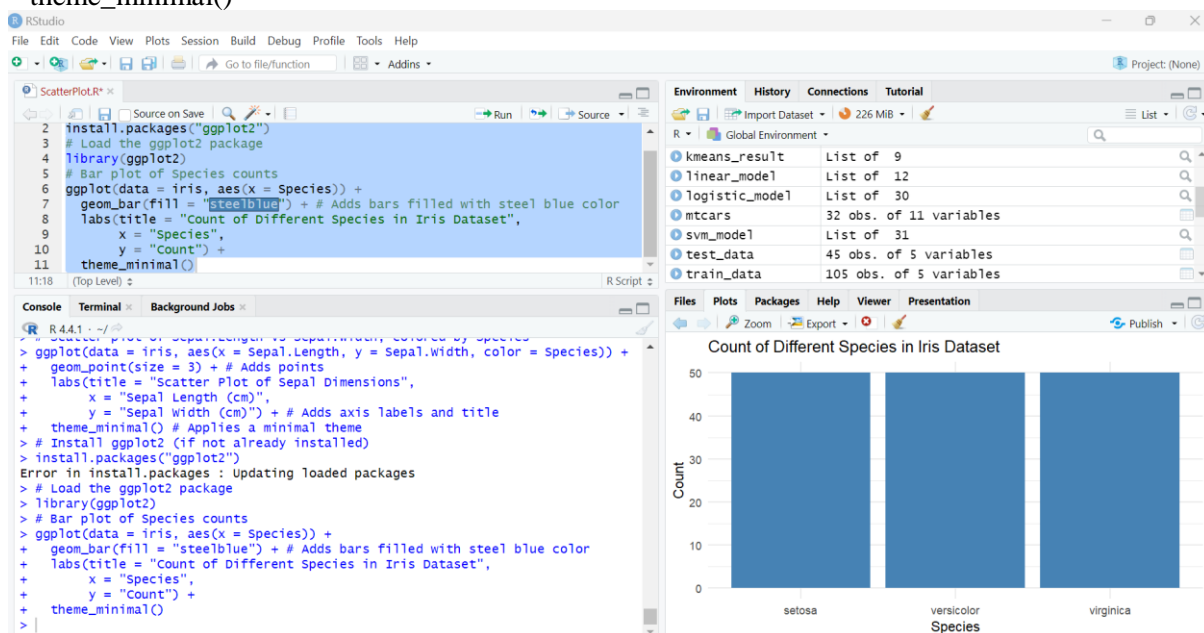# Bar plot of Species counts

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()
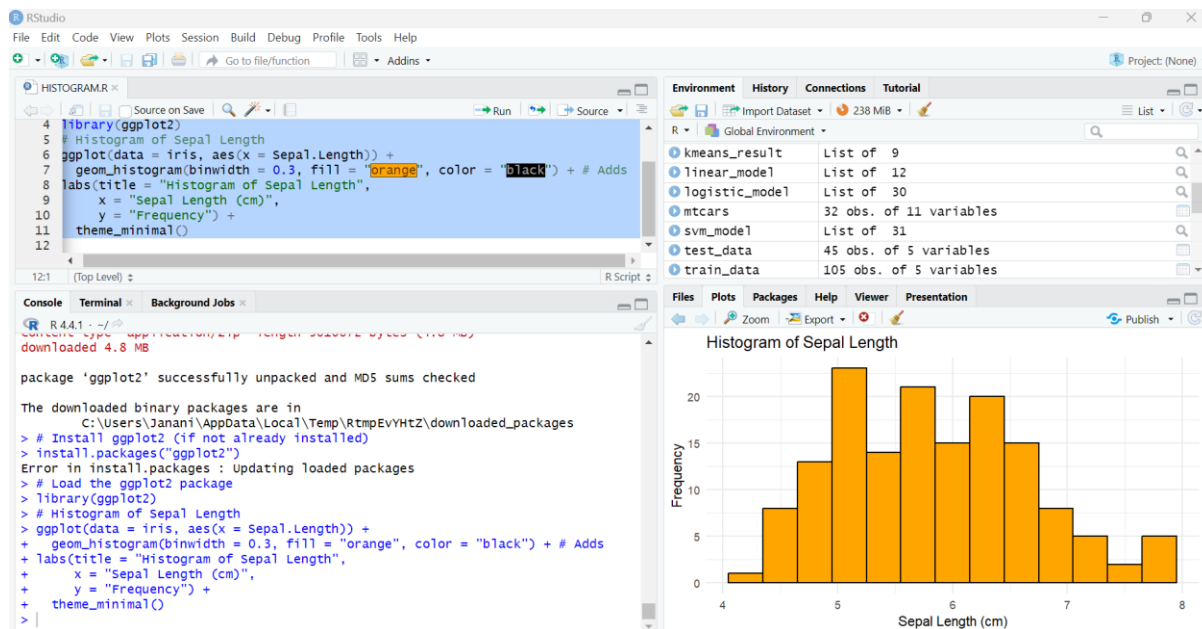

3) HISTOGRAM

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()