**Exp:10**

**VISUALIZE DATA USING ANY PLOTTING FRAMEWORK**

1. **SCATTER PLOT**

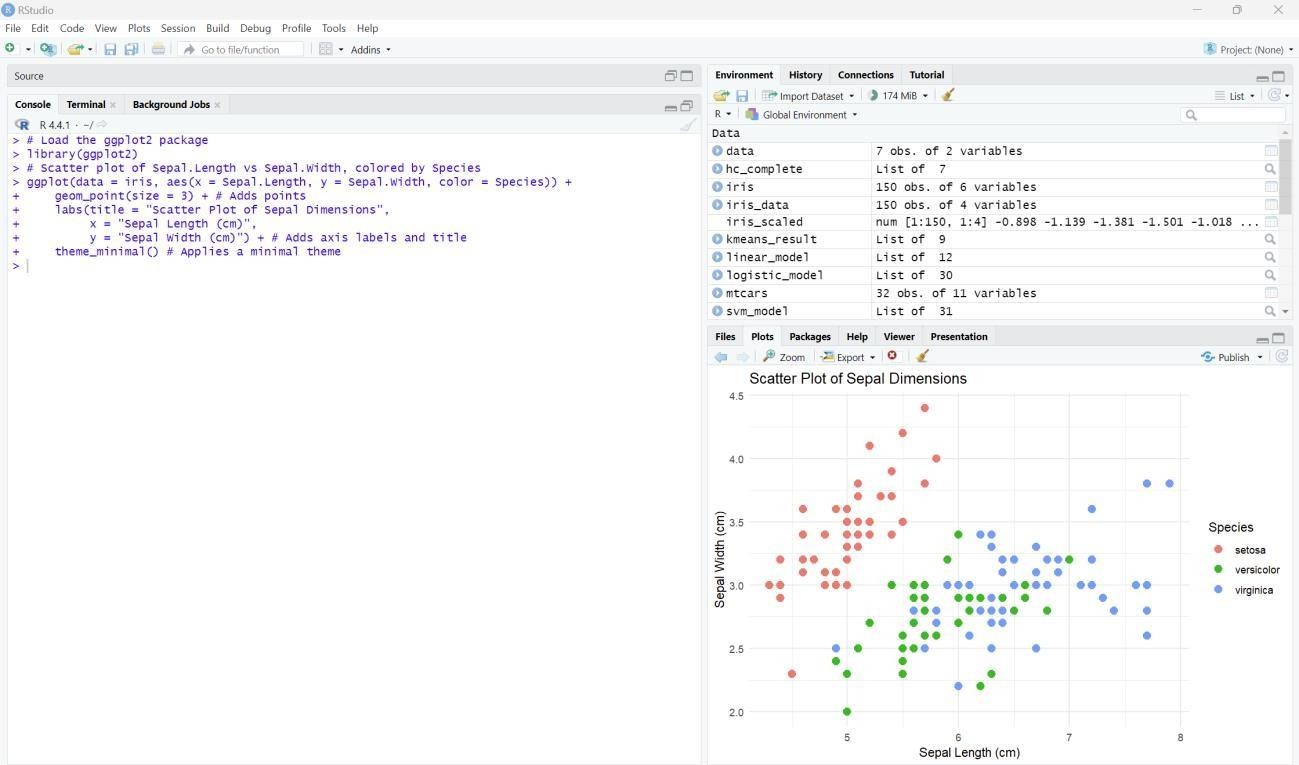
# Install ggplot2 (if not already installed) install.packages("ggplot2")

# 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 titletheme\_minimal() # Applies a minimal theme



1. **BAR CHART**

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

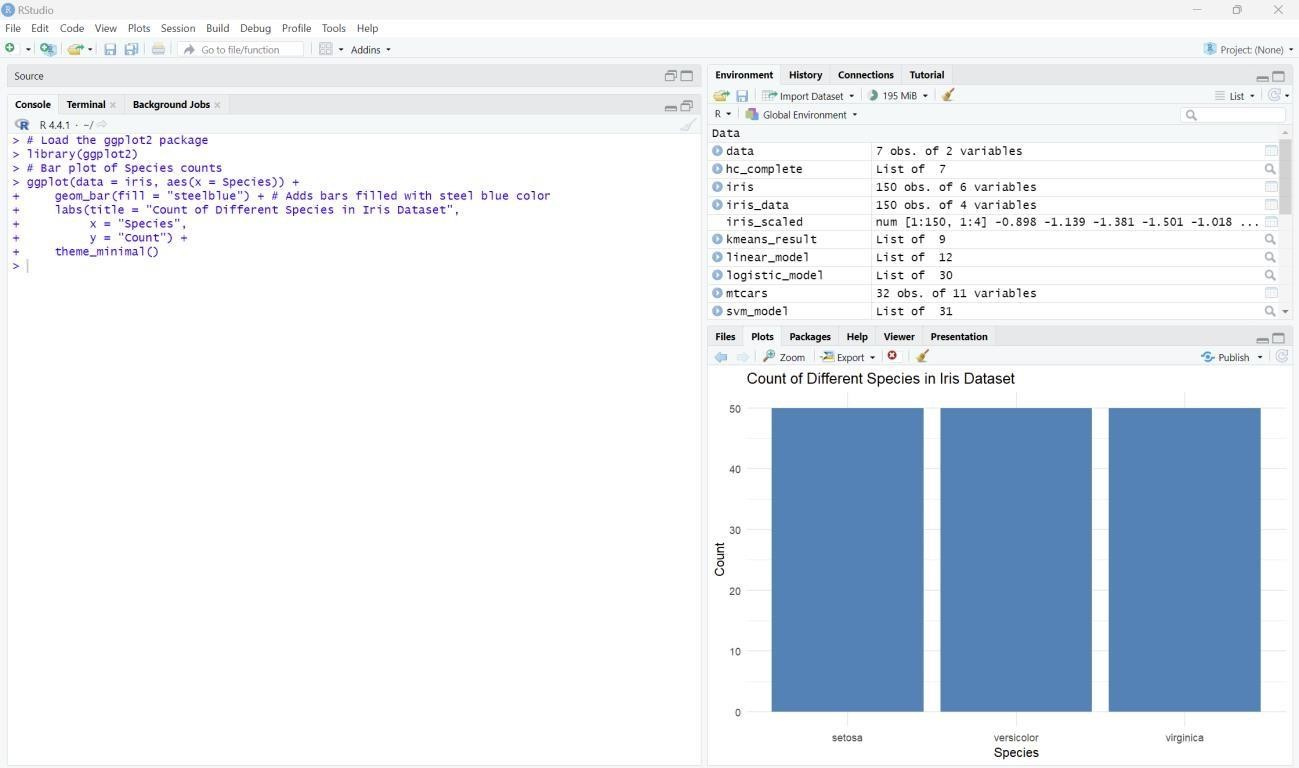
# Load the ggplot2 package library(ggplot2)

# 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()



1. **HISTOGRAM**

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

# Load the ggplot2 package library(ggplot2)

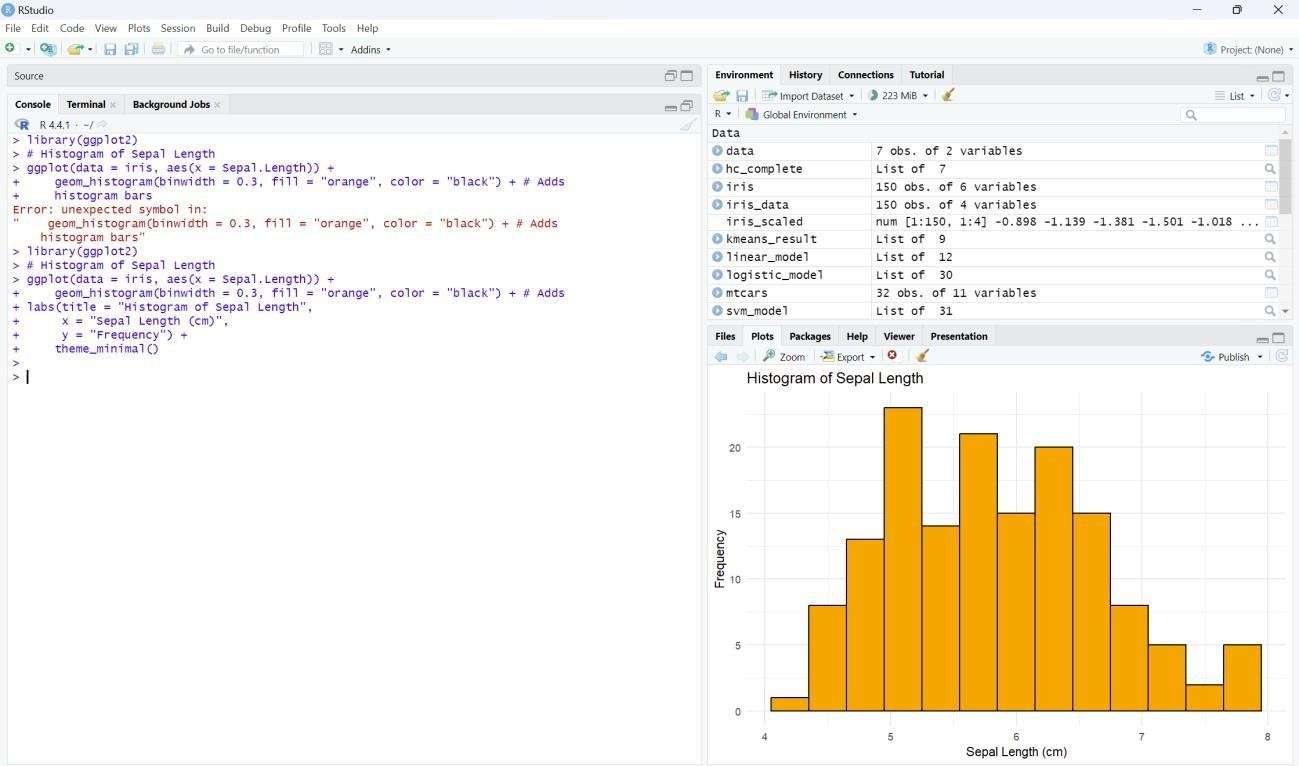
# Histogram of Sepal Length

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()



1. **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()

