**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)

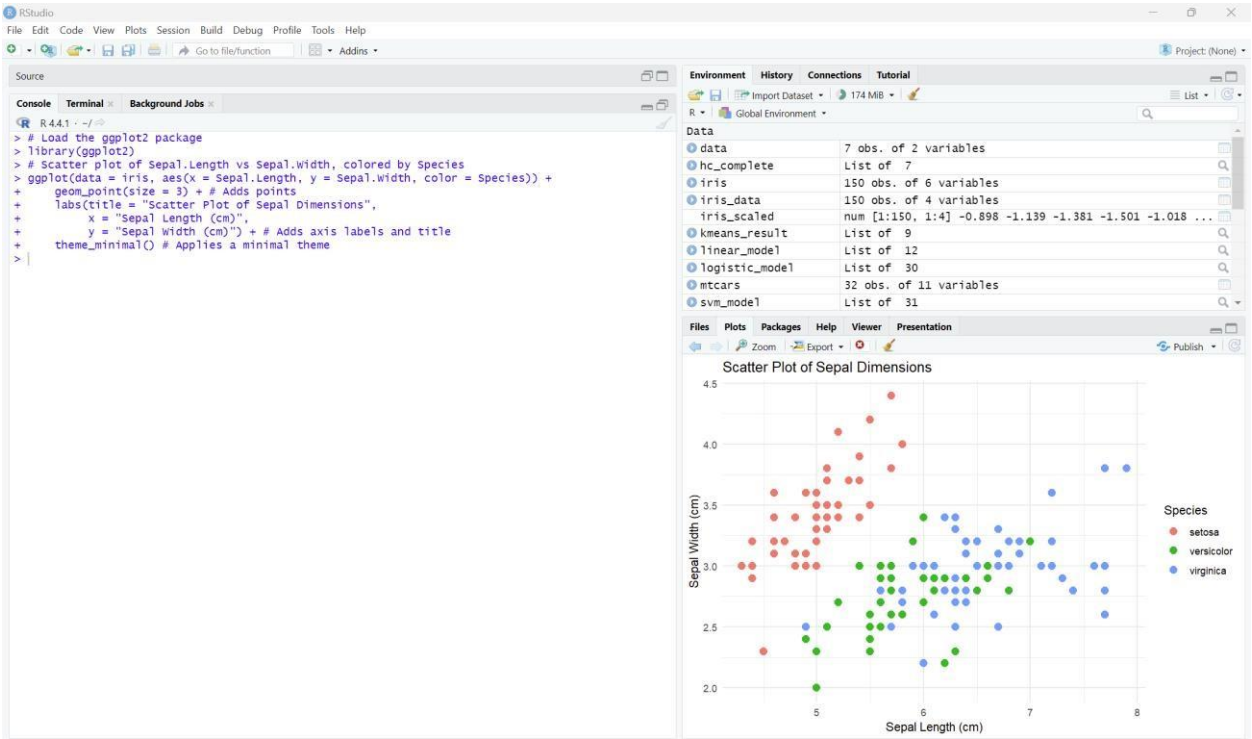
# Scatter plot of Sepal.Length vs Sepal.Width, colored by Species

ggplot(data = iris, aes(x = Sepal.Length, y = Sepal.Width, color = Species))

+ geom_point(size = 3) + # Adds points labs(title = "Scatter Plot of Sepal

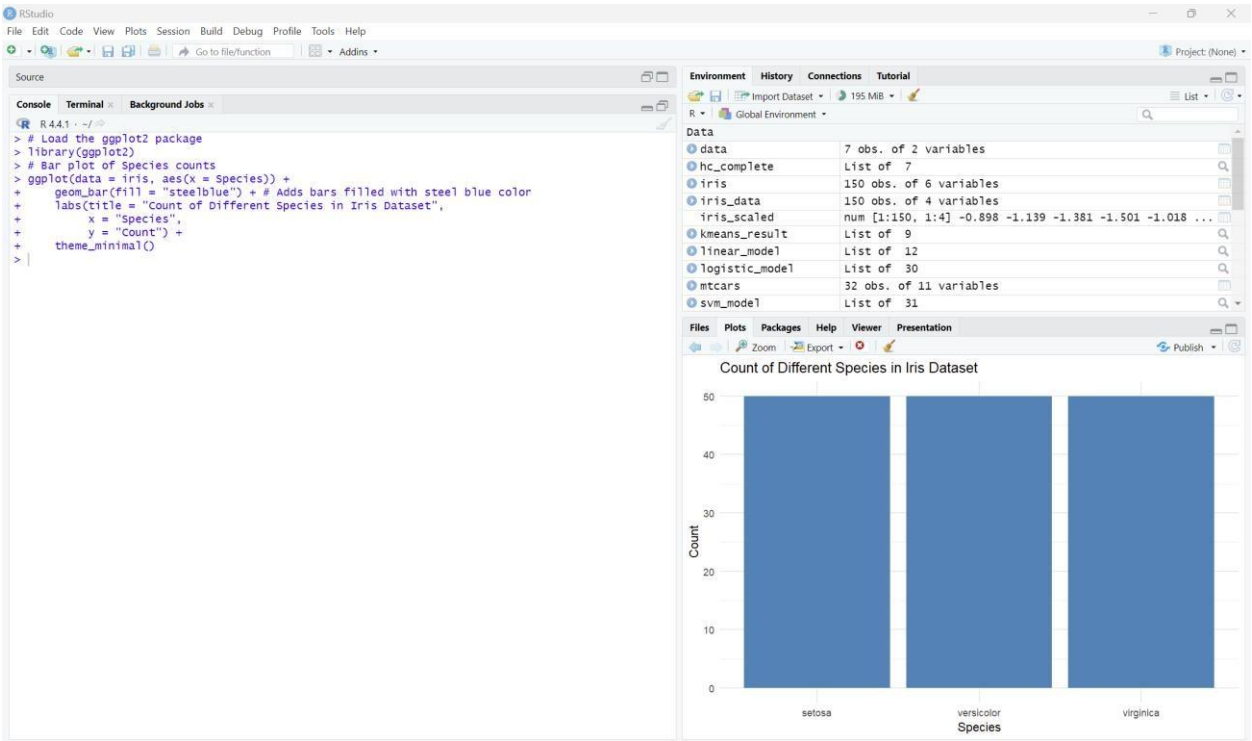
Dimensions", x = "Sepal Length (cm)", y = "Sepal Width (cm)") + # Adds

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()
```

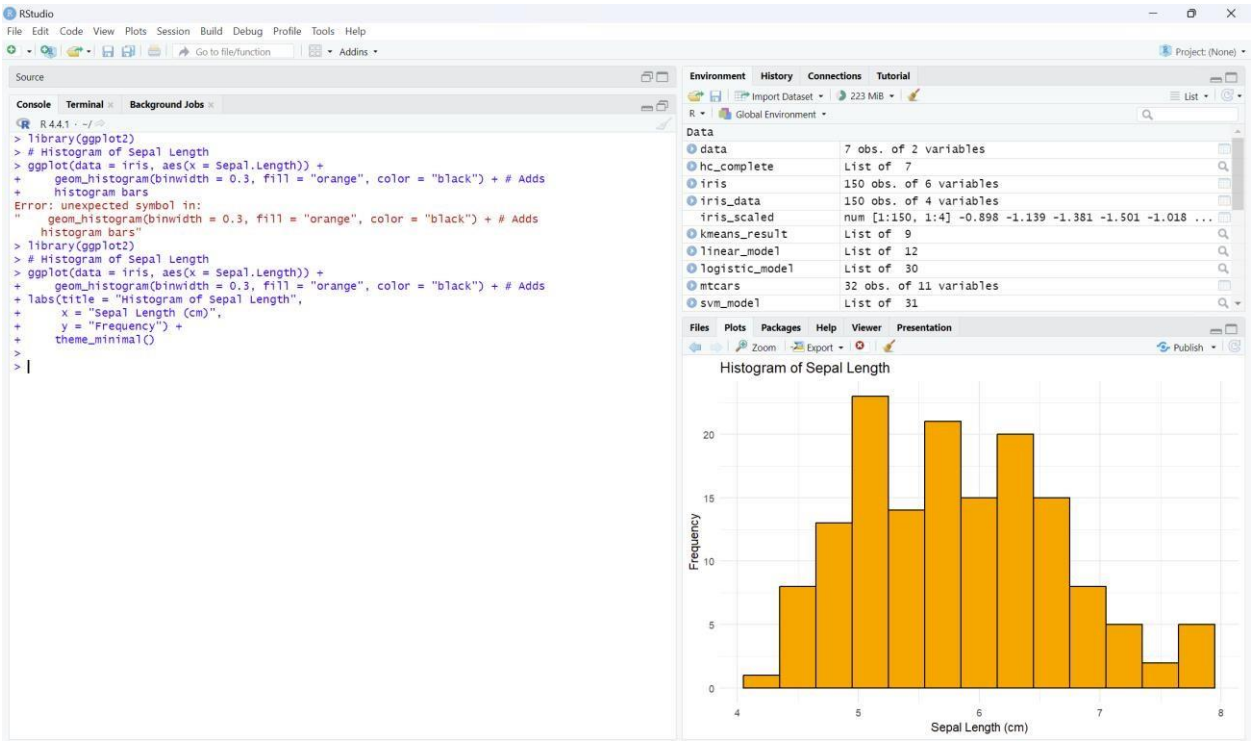



## 3) HISTOGRAM

```
# 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 =

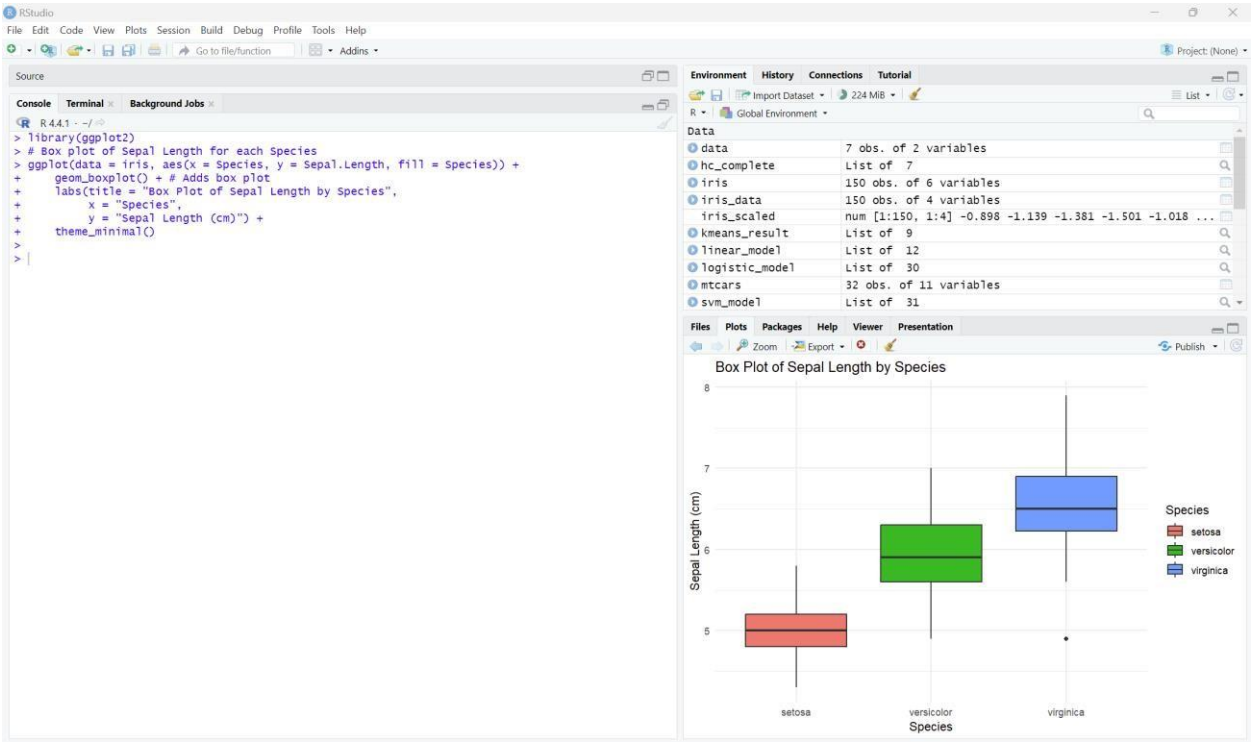
Species, y = Sepal.Length, fill = Species)) + geom_boxplot() + #

Adds box plot

labs(title = "Box Plot of Sepal Length by Species",

x = "Species", y = "Sepal Length (cm)") +

theme_minimal()


RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Source
Console Terminal Background Jobs
R 4.4.1 · ~/
> 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()
Environment History Connections Tutorial
Import Dataset 224 MiB
Global Environment
Data
data 7 obs. of 2 variables
hc_complete List of 7
iris 150 obs. of 6 variables
iris_data 150 obs. of 4 variables
iris_scaled num [1:150, 1:4] -0.898 -1.139 -1.381 -1.501 -1.018 ...
kmeans_result List of 9
linear_model List of 12
logistic_model List of 30
mtcars 32 obs. of 11 variables
svm_model List of 31
Files Plots Packages Help Viewer Presentation
Zoom Export Publish
Box Plot of Sepal Length by Species
Sepal Length (cm)
8
7
6
5
setosa
versicolor
virginica
Species
Species
setosa
versicolor
virginica