

**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)) +
```

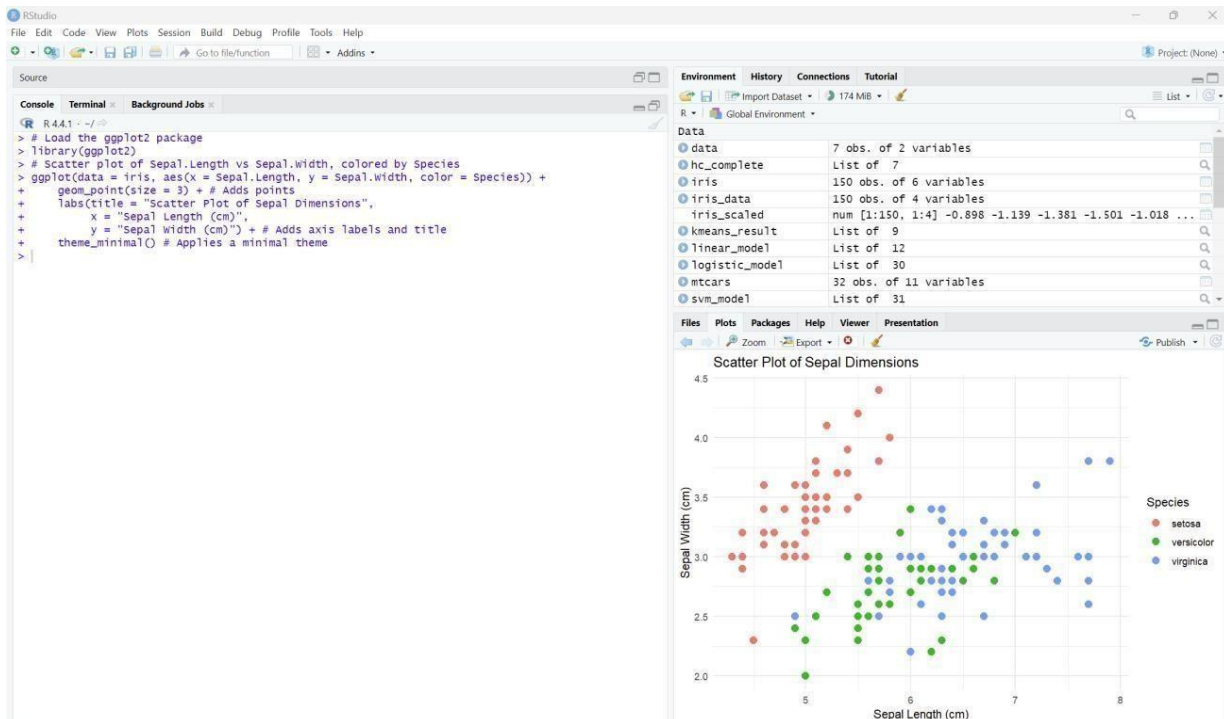
```
geom_point(size = 3) + # Adds points
```

```
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)) +

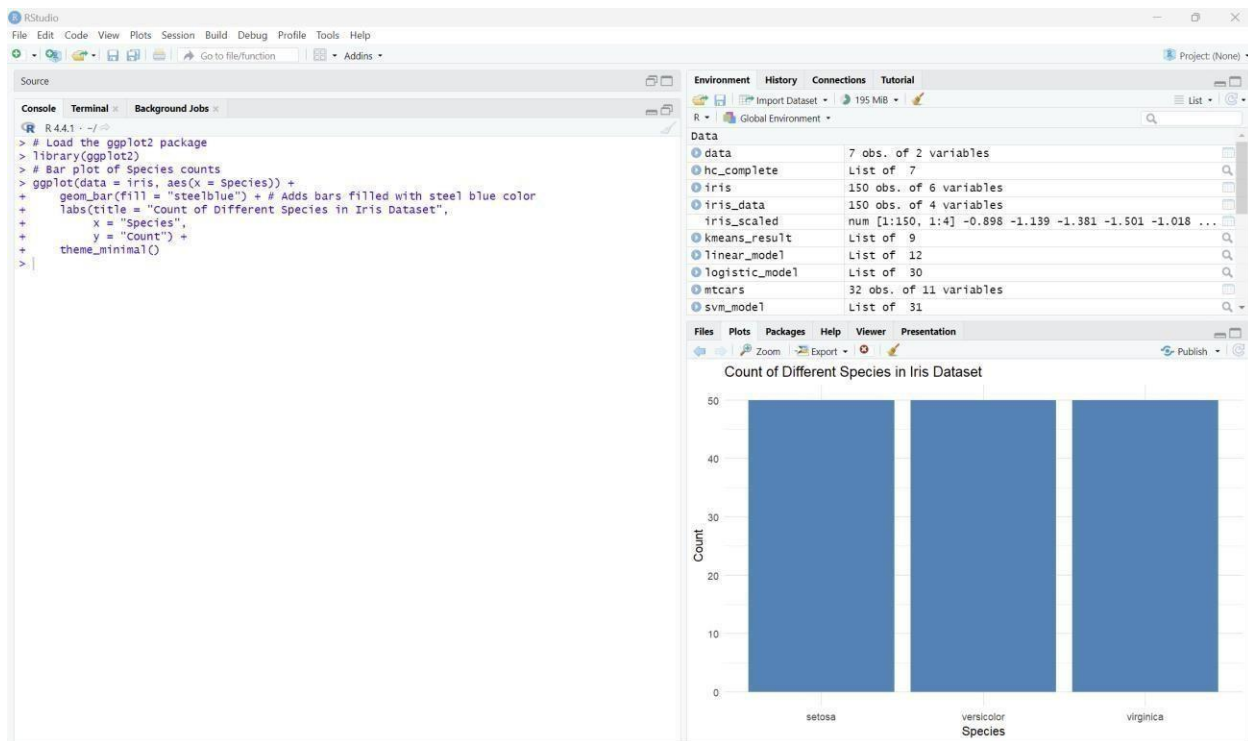
  geom_bar(fill = "steelblue") + # Adds bars filled with steel blue color

  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
```

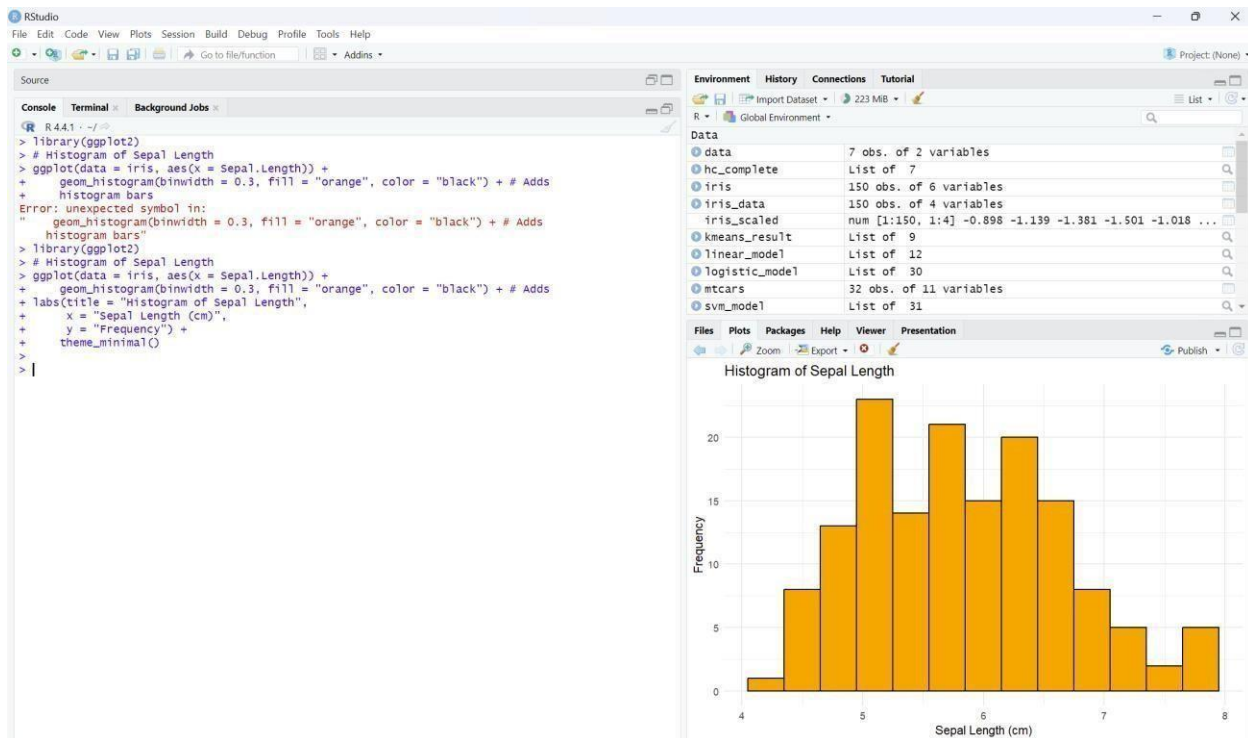
```
  histogram bars
```

```
  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()
```

