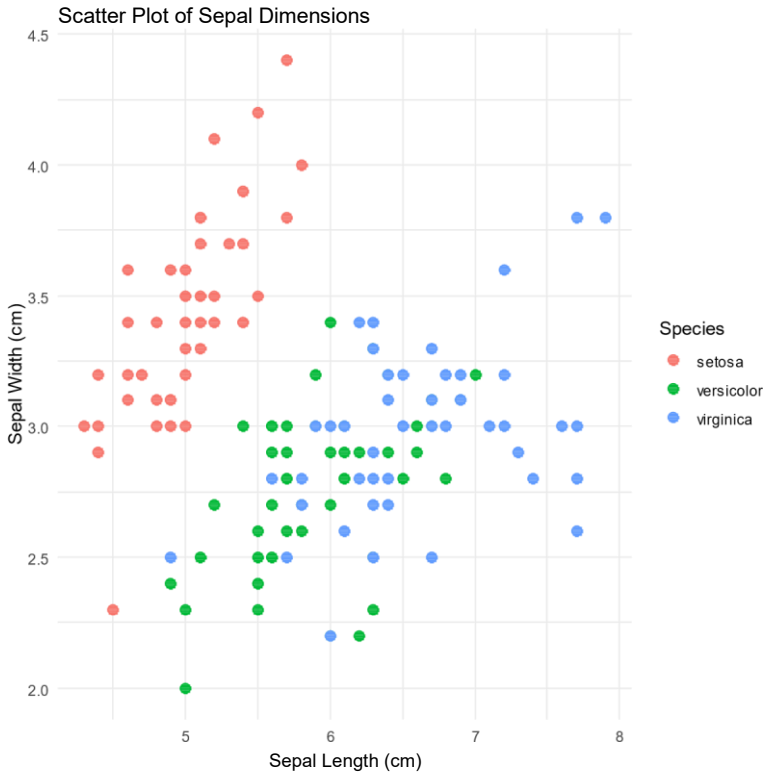
Exp. No : 10

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
```

Output :



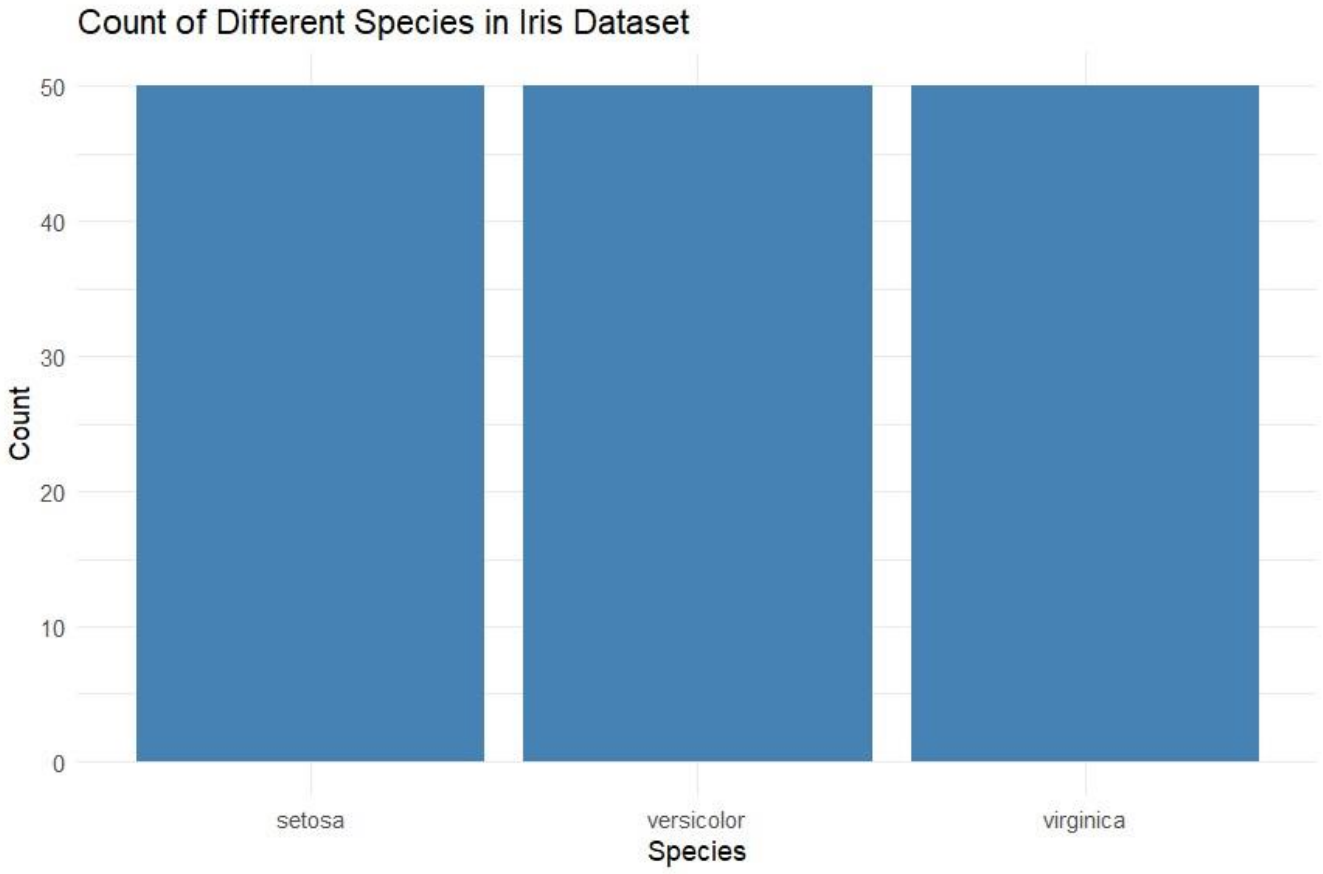
Bar Chart

2.

```
# 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()
```

Output :



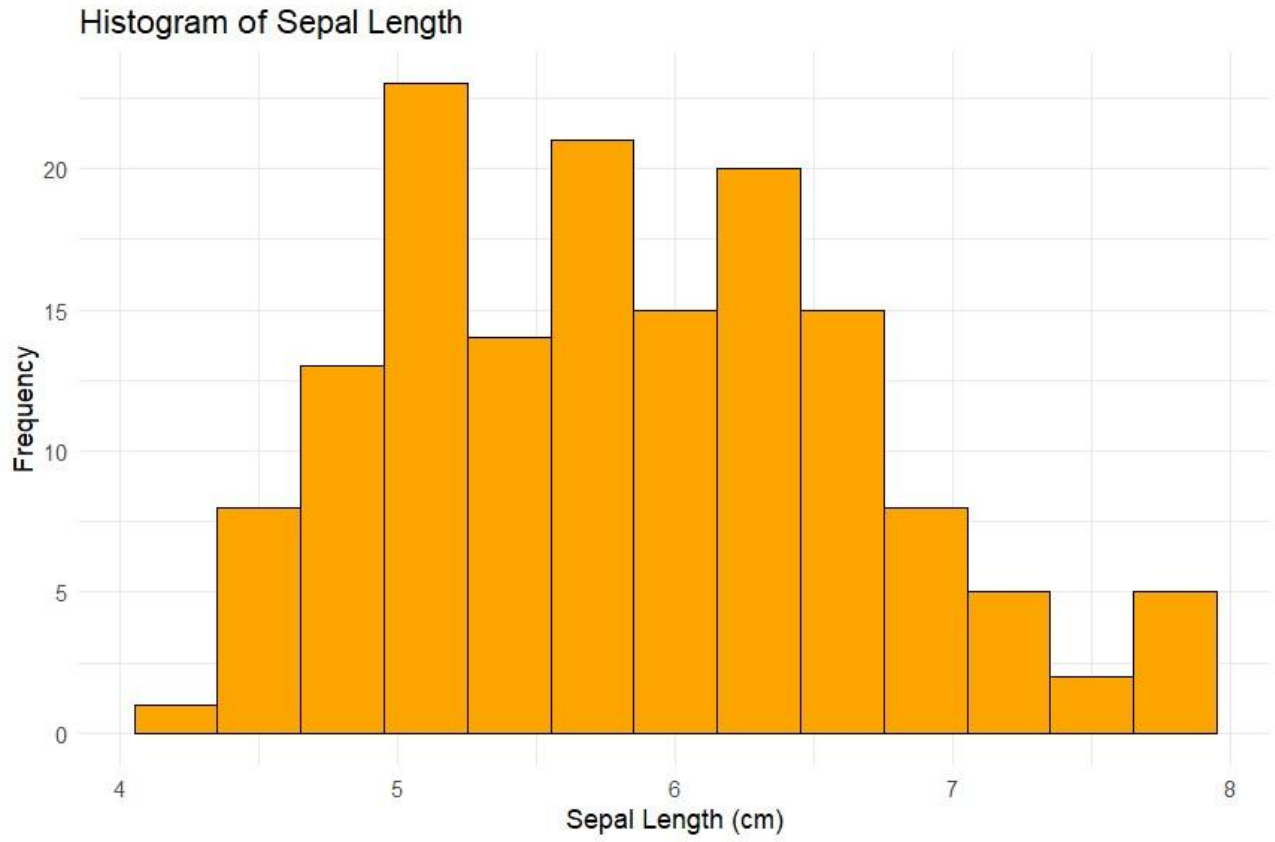
Histogram

3.

```
# 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()
```

Output :



Box Plot

```
# Load the ggplot2 package
library(ggplot2)
```

4.

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

Output :