In R, the ggplot2 package is widely used for creating high-quality, customizable visualizations. It follows the Grammar of Graphics concept, allowing users to build up complex plots by combining simple components. Below is an overview of basic plotting using ggplot2 and other base R plotting functions.

Using ggplot2:

Install and Load ggplot2

install.packages("ggplot2")

library(ggplot2)

**Basic Scatter Plot:**

**# Create a sample data frame**

**data <- data.frame(x = c(1, 2, 3, 4, 5), y = c(2, 4, 6, 8, 10))**

**# Create a scatter plot**

**ggplot(data, aes(x, y)) +**

**geom\_point() +**

**labs(x = "X-axis", y = "Y-axis", title = "Scatter Plot")**

**Line Plot:**

**# Create a line plot**

**ggplot(data, aes(x, y)) +**

**geom\_line() +**

**labs(x = "X-axis", y = "Y-axis", title = "Line Plot")**

**Bar Plot:**

**# Create a bar plot**

**ggplot(data, aes(x, y)) +**

**geom\_bar(stat = "identity") +**

**labs(x = "X-axis", y = "Y-axis", title = "Bar Plot")**

**Scatter Plot:**

**# Create a scatter plot**

**plot(data$x, data$y, xlab = "X-axis", ylab = "Y-axis", main = "Scatter Plot")**

**Line Plot:**

**# Create a line plot**

**plot(data$x, data$y, type = "l", xlab = "X-axis", ylab = "Y-axis", main**

**Bar Plot:**

**# Create a bar plot**

**# Create a bar plot**

**barplot(data$y, names.arg = data$x, xlab = "X-axis", ylab = "Y-axis", main = "Bar Plot")**

**# Create a box plot**

**boxplot(data$y, horizontal = TRUE, xlab = "Y-axis", main = "Box Plot")**