

```

# Load iris dataset
data(iris)
head(iris)
#simple scatter plot
library(ggplot2)

ggplot(iris, aes(x = Sepal.Length, y = Sepal.Width, color = Species)) +
  geom_point(size = 3) +
  labs(title = "Simple Scatter Plot", x = "Sepal Length", y = "Sepal Width") +
  theme_minimal()

#multi variate scatter plot
ggplot(iris, aes(x = Sepal.Length, y = Sepal.Width,
                 color = Species, size = Petal.Length)) +
  geom_point(alpha = 0.7) +
  labs(title = "Multivariate Scatter Plot",
       x = "Sepal Length", y = "Sepal Width") +
  theme_minimal()

#scatter plot matrix
pairs(iris[1:4], col = iris$Species,
      main = "Scatter Plot Matrix (Base R)",
      pch = 21, bg = c("red", "green3", "blue")[unclass(iris$Species)])

#using ggally package
install.packages("GGally")

library(GGally)

ggpairs(iris, aes(color = Species, alpha = 0.5),
       title = "Scatter Plot Matrix - GGally")

```