1. Write a program to create barplots for all the categorical columns in mtcars.

counts <- table(mtcars$vs, mtcars$gear)

barplot(counts, main="Car Distribution by Gears and VS", xlab="Number of Gears",

col=c("darkblue","red"), legend = rownames(counts), beside=TRUE)

1. Create a scatterplot matrix by gear types in mtcars dataset.

# Packages

library(car)

library(RColorBrewer)

# Let's use the car dataset proposed by R

data=mtcars

# Make the plot

my\_colors <- brewer.pal(nlevels(as.factor(data$cyl)), "Set2")

scatterplotMatrix(~mpg+disp+drat|cyl, data=data , reg.line="" , smoother="", col=my\_colors , smoother.args=list(col="grey") , cex=1.5 , pch=c(15,16,17) , main="Scatter plot with Three Cylinder Options")

1. Write a program to create a plot density by class variable.

ggplot(students, aes(x = Height)) + geom\_density()

ggplot(students, aes(x = Height)) + geom\_density(adjust = 4)

ggplot(students, aes(x = Height)) + geom\_density(adjust = 0.25)