dataframes in R tool

data()

mtcars

"mtcars A data frame with 32 observations on 11 (numeric) variables. [, 1] mpg Miles/(US) gallon [, 2] cyl Number of cylinders [, 3] disp Displacement (cu.in.) [, 4] hp Gross horsepower [, 5] drat Rear axle ratio [, 6] wt Weight (1000 lbs) [, 7] qsec 1/4 mile time [, 8] vs Engine (0 = V-shaped, 1 = straight) [, 9] am Transmission (0 = automatic, 1 = manual) [,10] gear Number of forward gears "

str(mtcars)

summary(mtcars)

plot(mtcars)

plot(mtcars$mpg)

Grid chart the margin of the grid(mar),

no of rows and columns(mfrow),

whether a border is to be included(bty) and position of the

labels(las: 1 for horizontal, las: 0 for vertical).

par(mfrow=c(2,2), mar=c(2,5,2,1), las=1, bty="n")

Simple Histogram

A histogram is very common plot.

It plots the frequencies that data appears

within certain ranges.

hist(mtcars$mpg, main="Histogram",xlab='MPG',col="blue",ylim=c(0,30))

Simple Scatterplot

A scatter plot provides a graphical view of

the relationship between two sets of numbers.

plot(mtcars$wt, mtcars$mpg, main="Scatterplot Example", xlab="Car Weight ", ylab="Miles Per Gallon ", pch=1, col=c("blue", "green"))

Simple Bar Plot

Barplots are useful for comparing the distribution of

a quantitative variable (numeric) between groups or categories.

counts <- table(mtcars$gear) barplot(counts, main="Car Distribution", xlab="Number of Gears",horiz=TRUE)

Stacked Bar Plot with Colors and Legend

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))

Grouped Bar Plot

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)

Simple Pie Chart

slices <- c(15,10, 12,4, 16, 8) lbls <- c("India","US", "UK", "Australia", "Germany", "France") pie(slices, labels = lbls, main="Pie Chart of Countries")

Boxplot of MPG by Car Cylinders

A boxplot provides a graphical view of the median, quartiles,

maximum, and minimum of a data set.

boxplot(mpg~cyl,data=mtcars, main="Car Milage Data", xlab="Number of Cylinders", ylab="Miles Per Gallon")

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