Data Frames

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12/19/2020

rm(list=ls())  
x=1:10  
y=-4:5  
z=c("jan","feb","mar","apr","may","jun","jul","aug","sep","oct")  
f=data.frame(x,y,z)  
f

## x y z  
## 1 1 -4 jan  
## 2 2 -3 feb  
## 3 3 -2 mar  
## 4 4 -1 apr  
## 5 5 0 may  
## 6 6 1 jun  
## 7 7 2 jul  
## 8 8 3 aug  
## 9 9 4 sep  
## 10 10 5 oct

#assigning Names  
f=data.frame(First=x,Second=y,Third=z)  
f

## First Second Third  
## 1 1 -4 jan  
## 2 2 -3 feb  
## 3 3 -2 mar  
## 4 4 -1 apr  
## 5 5 0 may  
## 6 6 1 jun  
## 7 7 2 jul  
## 8 8 3 aug  
## 9 9 4 sep  
## 10 10 5 oct

#Dimensions  
nrow(f)

## [1] 10

ncol(f)

## [1] 3

dim(f)

## [1] 10 3

names(f)

## [1] "First" "Second" "Third"

rownames(f)

## [1] "1" "2" "3" "4" "5" "6" "7" "8" "9" "10"

# Head & Tail Function  
head(f,n=4)

## First Second Third  
## 1 1 -4 jan  
## 2 2 -3 feb  
## 3 3 -2 mar  
## 4 4 -1 apr

tail(f)

## First Second Third  
## 5 5 0 may  
## 6 6 1 jun  
## 7 7 2 jul  
## 8 8 3 aug  
## 9 9 4 sep  
## 10 10 5 oct

# Specific Selection  
f$First

## [1] 1 2 3 4 5 6 7 8 9 10

f[1,3]

## [1] "jan"

f[1:3,2]

## [1] -4 -3 -2

f[c(1,9),2]

## [1] -4 4