

Util Functions	
getwd()	Get working directory
setwd()	Set working directory
ls()	List the objects declared
rm()	Remove an object
attach()	Add an object to the environment variable list
detach()	Remove an object from the environment variable list
install.packages()	Install R Packages
library()	Load the packages to the library

Aggregate Function	
mean()	Returns the mean value
range()	Returns the range
sd()	Returns the standard deviation
length()	Returns the length

String functions	
toString()	Converts variable to string
sprintf()	Prints data in specified format
toupper()	Convert all characters to uppercase
tolower()	Convert all characters to lowercase
substr()	Extract a substring
paste()	Append two strings with delimiters in between

Date and Time	
Sys.time()	Returns system date and time
POSIXlt()	Date and time in POSIXlt format
POSIXct()	Date and time in POSIXct format
strptime()	strptime("20180722T093000-Z", "%Y%m%dT%H%M%SZ", tz="UTC")
strftime()	strftime(now_ct, "It's %I:%M%p on %A %d %B, %Y.")

Matrix	
matrix()	Used to creates a matrix
Example	a_matrix<-matrix(1:12,by-row=TRUE, nrow=4, #ncol=3 works the same dimnames=list(c("one","two","three","four"), c("c1","c2","c3")))
dim()	Returns the dimension of matrix
nrow()	Number of rows
ncols()	Number of columns
identical()	Returns true if same
rownames()	Name of the rows
colnames()	Name of the columns
dimnames()	Name of the dimensions
cbind()	Replicate columns
rbind()	Replicate rows
t()	Transpose

Control Structure	
if else	if(a>b & a>c){ print("a is greater") }else if(b>c & b>a){ print("b is greater") }else{ print("c is greater") }
ifelse()	ifelse(a>b, ifelse(a>c,"a","c"), ifelse(b>c,"b","c"))
switch()	(greek=switch("gamma", alpha=1, beta=sqrt(4), gamma=4))

Stats	
summary()	Returns a summary of the object
quantile()	Returns the quartile details
hist()	Creates a frequency table
density()	Creates a standardized frequency table
plot()	Creates a graph
boxplot()	Creates a boxplot
ggplot()	Visualization function
qplot()	Visualization function

Other functions	
which.m- in()	Returns the minimum from a list
which.m- ax()	Returns the maximum from a list
rep()	Replicates a vector

Loop	
while	while(i<10){ print(i) i=i+1 }
for	for(i in 1:5) message("i=",i)
for	for(month in month.name){ message("The month of ",month) }

Dataframes	
Example	d=data.frame(subjectID=1:5, gender=c("M","F","F","M","F"), score=c(8,3,6,5,5))

Filters	
d[3,1];d[, "subjectID"]>3;d[,c("subjectID","gender")]	
d\$subjectID	
filter=d\$subjectID>3	
d[filter,]	
d["subjectID"];d\$subjectID>3;d[d\$subjectID>3,]	
filter2=d\$gender=="F"	
d[filter2,]	
filter3=d\$score>5	
d[filter3,]	
d[filter2,c("score")]	
d[filter2 & filter3,][,c("score")]	
subset() - Returns a filtered set of data	

Joins	
merge()	merge(a_data_frame,b_data_frame,by="x",all=TRUE)
colsums()	colSums(a_data_frame[, -1])
colmeans()	colMeans(fw[, -2])

