R BASIC OPERATION CHEATSHEET Wanxiao Hong wh2493

For R beginners who are familiar with other programming languages, the most basic functions and attributes may be the most unintuitive part. These basic information are often scattered in multiple webpage, which make searching inconvenient. So I make this cheatsheet for quicker look up..

READ & WRITE DATA

read.table(file) / read.csv()	write.table(x) / write.csv()
read text files which data are stored in rows and columns, return a data frame.	prints x (after converting it to a data frame) to a file
difference: default separater -- table: space; csv: comma	
readLines(file)	**writeLines()**
reading lines of text file	writing line by line to text file
source(file)	**dump(file)**
reading in R code files	dumping a textual representation of multiple R objects
dget(file)	**dput(file)**
reading in R code files	outputting a textual representation of an R object
load(file)	**save(file)**
for reading binary option	Saving an arbitray number of R objects in binary formate to a file
unserialize(file)	**serialize(file)**
reading R objects in binary form	Saving an R object in binary formate to a file

Using **readr** Package
read_table("file_name")
read_csv("file_name")

Libraries
install.packages('package_name')
library('package_name')
data(built_in_dataset)
Package::dataset

	Python	R
Assign Value	`X = value`	`X <- value`
Explicit Printing	`print(x)`	`print(x)`
Integer Sequence	`range(1, 11)`	`1:10`
Creating Vectors	`np.array()`	`c(v1, v2, v3)`
Create Matrices	`np.zeros((2, 3))`	`matrix(nrow= 2, ncol= 3)`
Matrices Dimension	`np.shape`	`dim(matrix)`

For Loop	`for val in sequence:`
	`    Do Somethine`
		`for (val in sequence) {`
		`    Do something`
		`}`

While Loop	`while expression:`
	`    Do Somethine`
		`while (expression){`
		`    Do something`
		`}`

If Statement	`if expression:`
	`    Do something`
	`else:`
	`    Do something else`
		`if (expression){`
		`    Do something`
		`} else {`
		`    Do something else`
		`}`

Functions	`def function_name(parameters):`
	`    "function_docstring"`
	`    function_suite`
	`    return [expression]`
		`function_name <-function(var){`
		`    Do something`
		`    return(expression)`
		`}`

Atomic Classes
logical
numeric
character
integer
complex

Math Functions
log()	sum()
exp()	mean()
max()	var()
min()	sd()