

Day 2 Cheatsheet

Basic R

Major concepts

- **Package** - a package in R is a bundle or “package” of code (and or possibly data) that can be loaded together for easy repeated use or for sharing with others.
- The R console is a full calculator:
 - `+`, `-`, `/`, `*` are add, subtract, divide and multiply
 - `^` or `**` is power
 - parentheses – (and) – work with order of operations
 - `%%` finds the remainder
- `#` is the comment symbol; nothing to its right is evaluated.

Functions

Library/Package	Piece of code	Example of usage	What it does
Base R	<code><-</code>	<code>x <- 1</code>	Assigns a name to something in the R environment.
Base R	<code>c()</code>	<code>x <- c(1, 3)</code>	Combines values into a vector or list.
Base R	<code>str(x)</code>	<code>str(x)</code>	Gets a summary of the object <code>x</code> structure.
Base R	<code>class(x)</code>	<code>class(x)</code>	Returns the type of the values in object <code>x</code> .
Base R	<code>print(x)</code>	<code>print(x)</code>	Prints out contents of <code>x</code> .
Base R	<code>length(x)</code>	<code>length(x)</code>	Returns how long the object <code>x</code> is.

Data Input/Output

Major concepts

- **Delimited file** - columns within the file have boundaries created with some type of punctuation - for example, a csv file stands for comma separated values, thus the columns are delimited or separated by commas. txt files often use tabs.
- **tibble** – a rectangular data frame, where data are split into rows and columns.
- **File path** - where a file lives on your computer (or on the internet) - [File paths can be relative or absolute](#).
- **Getting help** - For any function, you can write `?FUNCTION_NAME` , or `help("FUNCTION_NAME")` to look at the help file for that function.
- **R Projects** set the working directory where the .Rproj file is.
- **R Markdown** files look for file paths relative to where the .Rmd file is located

Functions

Library/Package	Piece of code	Example of usage
readr	<code>read_csv()</code>	<pre>df <- read_csv("http://jhudatascience.org/intro_to_R_class/data/Youth")</pre>
TSA	<code>spec()</code> <code>spec(mtcars)</code>	Gives specification of column types
readxl	<code>read_excel()</code>	<code>read_excel("dataset.xlsx")</code>
Base R	<code>getwd()</code>	<code>getwd()</code>
Base R	<code>setwd()</code>	<code>setwd("Desktop")</code>

* This format was adapted from the [cheatsheet format from AlexsLemonade](#).