Untitled

R Cheatsheet

Load libraries

```
if (!require(testthat)) install.packages('testthat')
library(testthat)
```

Self learning

```
library("swirl")
```

Vectors

```
rep(c(0, 1, 2), each = 10)
```

```
##  [1] 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2
```

```
rep(c(0, 1, 2), times = 10)
```

```
##  [1] 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2
```

Memory management

```
# Sample dataset of 1000 rows
some_df <- data.frame(rep(1:100, 10),
                              rep(101:200, 10),
                              rep(201:300, 10))

object.size(some_df) # Reports the memory size allocated to the object
```

```
## 13040 bytes
```

```
rm("some_df") # Removes only the object itself and not necessarily the memory allotted to it
gc() # Force R to release memory it is no longer using
```

```
##          used (Mb) gc trigger (Mb) max used (Mb)
## Ncells 485954 26.0    1057142 56.5   662594 35.4
## Vcells 898005  6.9    8388608 64.0  1802053 13.8
```

```
ls() # Lists all the objects in your current workspace
```

```
## character(0)
```

```
rm(list = ls()) # If you want to delete all the objects in the workspace and start with a clean slate
```

Apply functions

```
# https://purrr.tidyverse.org/reference/map.html
```

```
library(dplyr)
myList <- mtcars[1:20,] %>%
  split(.$cyl) %>%
  map(~ lm(mpg ~ wt, data = .x)) %>%
  map_dfr(~ as.data.frame(t(as.matrix(coef(.)))))
```

testthat

Prepare package

```
install.packages("testthat")

usethis::create_package("myPackageName")
usethis::use_test("myPackageName") # creates tests/testthat/test-mypackage.R
usethis::use_description(
  fields = list(Package = "myPackageName"),
  check_name = TRUE,
  roxygen = TRUE
)

usethis::use_package("zip", min_version = "1.0.0") # adds "Imports: zip (>= 1.0.0)" to DESCRiPTION file
```

Run tests

```
library(testthat)
test_that("multiplication works", {
  expect_equal(2 * 2, 4)
})
```

Run test coverage

```
library(covr)
devtools::load_all(".")
covr <- file_coverage("R/fahrenheit_to_celsius.R", "tests/testthat/test-myPackageName.R")
covr
report(covr)
```