Style Guide

Ivan Jacob Agaloos Pesigan

Follow the Google R style guide (https://google.github.io/styleguide/Rguide.html) as much as possible. Note that the Google R style guide is a fork of the Tidyverse style guide (https://style.tidyverse.org/index.html) with some changes most notably with regard to function names. Thus, only flags that relate to function names are allowed when running lintr.

1 R Objects

• snake_case for object names except for function names

2 R Functions

- use BigCamelCase for function names to distinguish functions from other objects
- append a dot (.) at the beginning for unexported functions (.Foo)
- append dot Check (.Check) at the beginning for unexported functions used for sanity checks (.CheckFoo)
- when calling functions from another package use the :: notation as much as possible (stats::rnorm(n = 10, mean = 100, sd = 15))
- when calling a function, use argument names as much as possible (stats::rnorm(n = 10, mean = 100, sd = 15))

3 File and Filenames

- filenames should be in lowercase using dash (-) as separator
- $\bullet\,$ capitalize R if used as a file extension

3.1 Files that Contain Functions

3.1.1 Folders

- \bullet .setup/latex/r-scripts for functions used to process LATeX output
- R and .setup/r-dependencies for functions that are part of the package
- .setup/r-miscellaneous for useful functions but are not essential to the package

3.1.2 Files and Filenames

- use one file per function
- use the function name as part of the filename
- $\bullet \ \ {\rm for \ files \ under \ R} \ \ {\rm and} \ \ . \ {\tt setup/r-dependencies}$
 - package name dash function name dot R (template-foo.R)
 - if the file contains an unexported function, follow the rules as usual but append the word dot at the end of the filename (template-foo-dot.R)
 - if the file contains an unexported sanity check function, follow the rules as usual but append the word check at the end of the filename (template-foo-check.R)

3.2 Files Under Test Folders

3.2.1 Folders

• tests/testthat for unit tests that are part of the package

- .setup/tests-benchmark for benchmark tests that are NOT part of the package unit tests
- .setup/tests-external for external tests that are NOT part of the package unit tests

3.2.2 Files and Filenames

- use setup-test.R as an optional file for loading setup function or objects. Note that setup-test.R is sourced before the test*.R files.
- use one file for tests for a single function
- use the function name as part of the filename but convert BigCamelCase to lowercase using dash (-) as separator
- for files under tests/testthat
 - test dash package name dash function name dot R (test-template-foo.R)
- for files under .setup/tests-benchmark
 - test dash benchmark dash package name dash function name dot R (test-benchmark-template-foo.R)
- for files under .setup/tests-external
 - test dash external dash package name dash function name dot R (test-external-template-foo.R)

4 Rcpp Functions

- Save Rcpp functions in .setup/cpp using filname conventions used for R except for the .cpp extennsion. Save Makevars in .setup/cpp as well.
- Use forward declarations of functions in .setup/cpp/000-forward-declarations.cpp.
- Rcpp files are styled using clang-format with the style=google flag. Make sure to limit the
 number of characters to less than 80 for each line especially when using Roxygen comments
 to avoid styling errors.
- Rcpp functions are unit tested as R functions.

References

R Core Team. (2023). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/