

Packages : the whole game

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R Packages - Cheat sheet

Libraries

For details see : <https://r-pkgs.org/>

For personal start-up configuration with devtools and testthat, write in your .Rprofile startup file

```
library(devtools)
library(testthat)
```

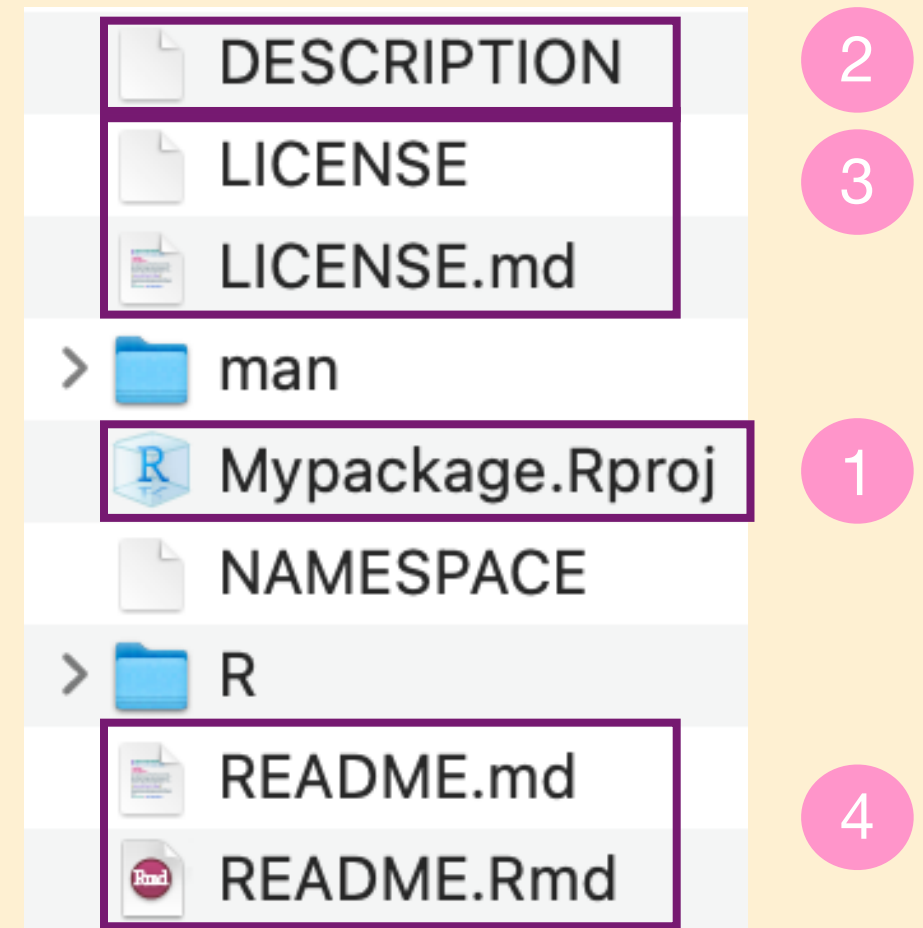
OR

```
if (interactive()) {
  suppressMessages(require(devtools))
}
```

Add also testthat

FIRST SETUP (Do it once)

- Create your package :
`create_package("path/Mypackage")`
- `Mypackage.Rproj` session is opened 1
- Edit the `DESCRIPTION` file : 2
 - Make yourself the author
 - Write some descriptive text in the TITLE and DESCRIPTION fields
- Choose a license (see <https://r-pkgs.org/license.html> for details) :
Ex : `use_mit_license("Jane Doe")` (Write your name and surname) 3
- Initialize a `README.md` (and fill the fields)
(Optional if your package is only for you without using GitHub)
`use_readme_rmd()`
`build_readme()` 4



WORKING FLOW (Do it cyclically)

Open `Mypackage.Rproj`

Add a function
`use_r("Afunction")`
The file `Afunction.R`
is created

Run `install()` if you want :
➡ it installs your package on your computer and you can run
`library(Mypackage)`
to access your package whenever you want !


`check()`
➡ It checks that the hole package works !
➡ You must correct errors/warnings/ notes if needed

Write
functions,
write
classes,
...

Write the function in the created file `Afunction.R`



If you need to use an fonction from another package to write your actual function, run :
`use_package("package_name")`
➡ This adds the package to the "Imports" section of the DESCRIPTION file.

To call the function, use :
`package_name::thefunctionyouneed()`

 Do not create too many dependencies !
You can also re-write some functions

`load_all()` ➡ Make `Afunction` available in the current session

Write the documentation :
Place the cursor somewhere in the function and then click on :
Code > Insert R oxygen Skeleton
Fill the fields. Then run :
`document()`
`load_all()`
➡ You can use `Afunction` and its documentation in the current session !

Create a unit tests file
`use_testthat()`
`use_test("Afunction")`
Write unit tests in the created file `test-Afunction.R`
Check all unit tests with `test()`
Or use a shortcut :
CTRL + SHIFT + T  
CMD + SHIFT + T 