Write an R package in 15 minutes

Luca Cerone <luca.cerone@gmail.com>

Why an R package

- Re-usability

- Sharing

- Conventions

What's in an R package

- Set of conventions (basic):

    - ./R/ contains source code

    - NAMESPACE, DESCRIPTION files

    - ./man/ contains documentation pages

    - ./vignettes/ tutorials, use cases

    - ./tests/ tests for functions
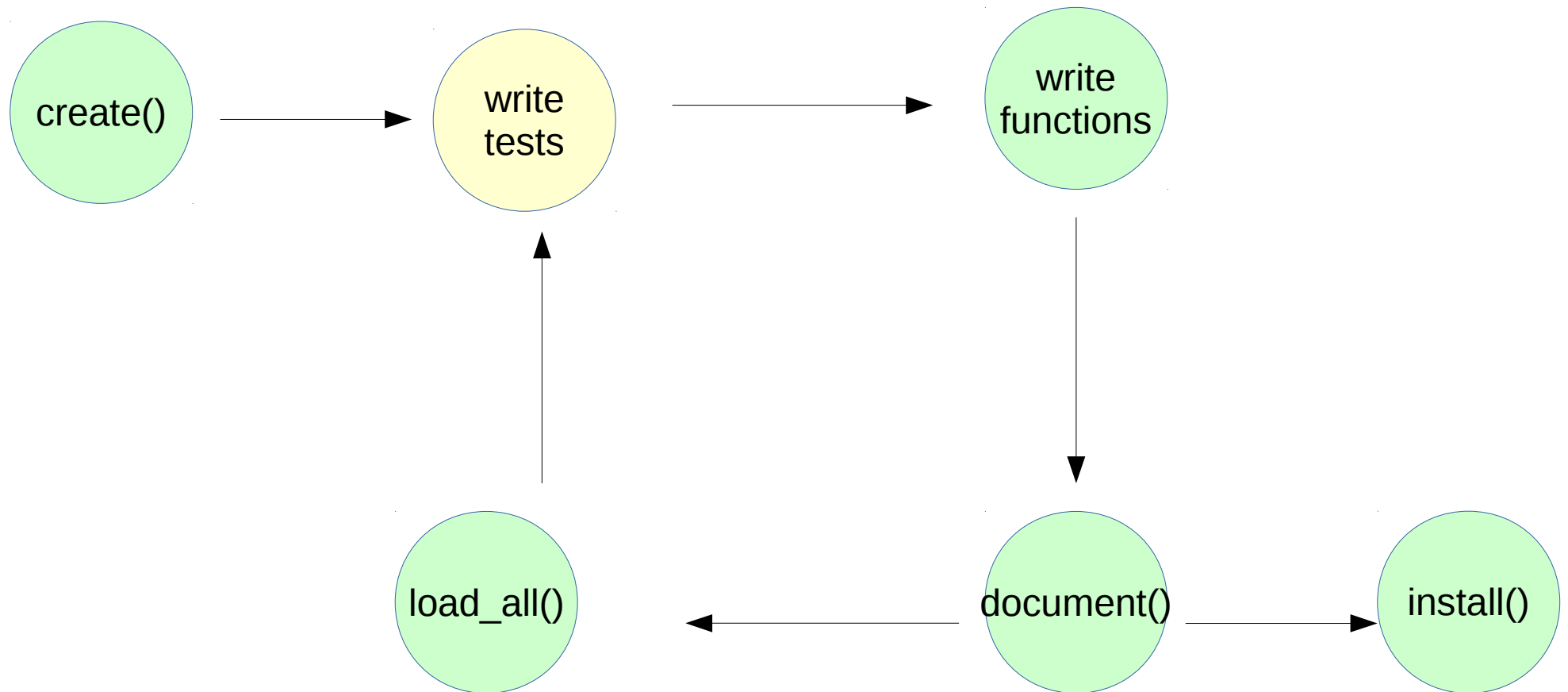
    - …. many others …. (depends on package complexity)

R package: devtools

old: package.skeleton() … most of the maintenance has to be done by hand...

new: devtools package by Hadley Wickham

- implements a flexible and easy to use workflow for package development

- it interfaces nicely with git (local repos, github, bitbucket, gitorious)

- makes packages ready for CRAN

- easily helps creating NAMESPACE

- makes easy to write functions documentation and vignettes, share data, manage tests

devtools workflow

```r
#' Say hi
#'
#' @param name Character, the name to which the
function says hi.
#'
#' @return
#' @export
#'
#' @examples
#' say_hi("Luca")
say_hi <- function(name = NULL){
  if(is.null(name)){
    stop("Sorry I need a name, whom should I
greet?")
  }
  message(paste("Hi", name, "!"))
}
```