

R and Rstudio

Make scientific data analysis easy to conduct

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What is R

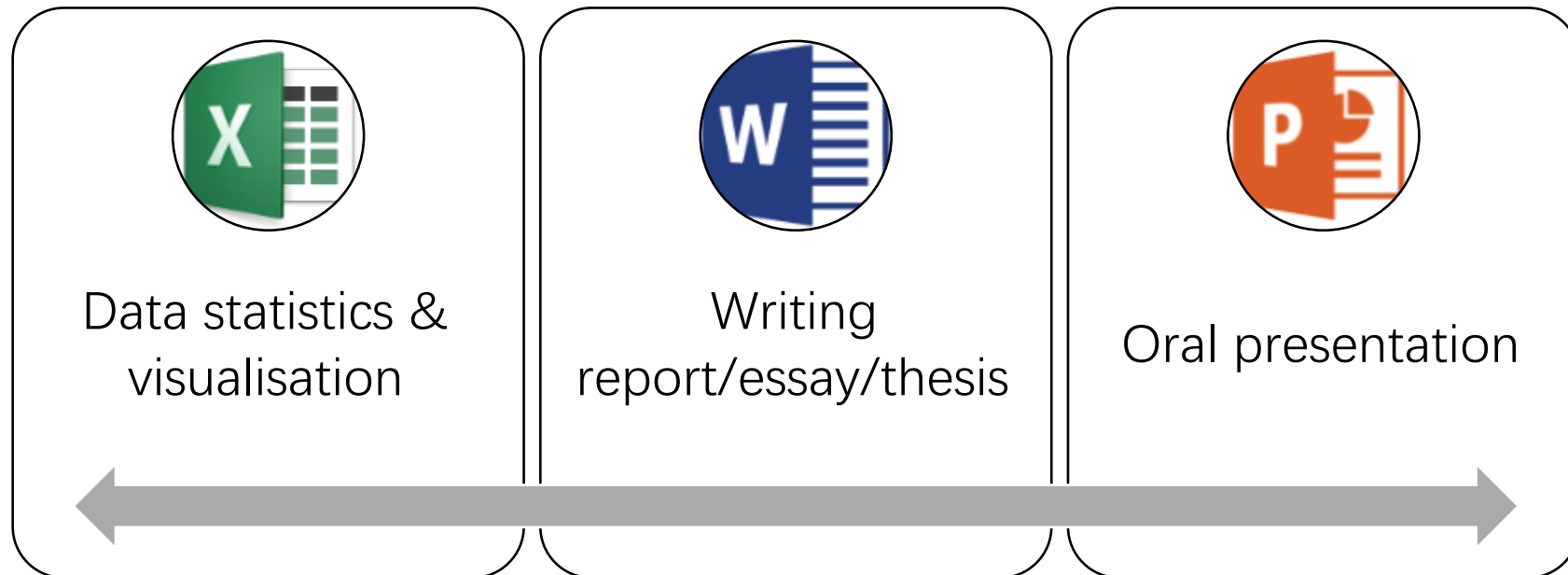
for nonprogrammer: R is a programming language

for programmer: R is just a statistical software (like SPSS, SAS)

for someone like me: R can do a lot of things



A general research workflow



Other utilities

Data statistics & visualisation



Writing report/essay/thesis



Oral presentation



Graphical User Interface



Build Website



Data importation

separator

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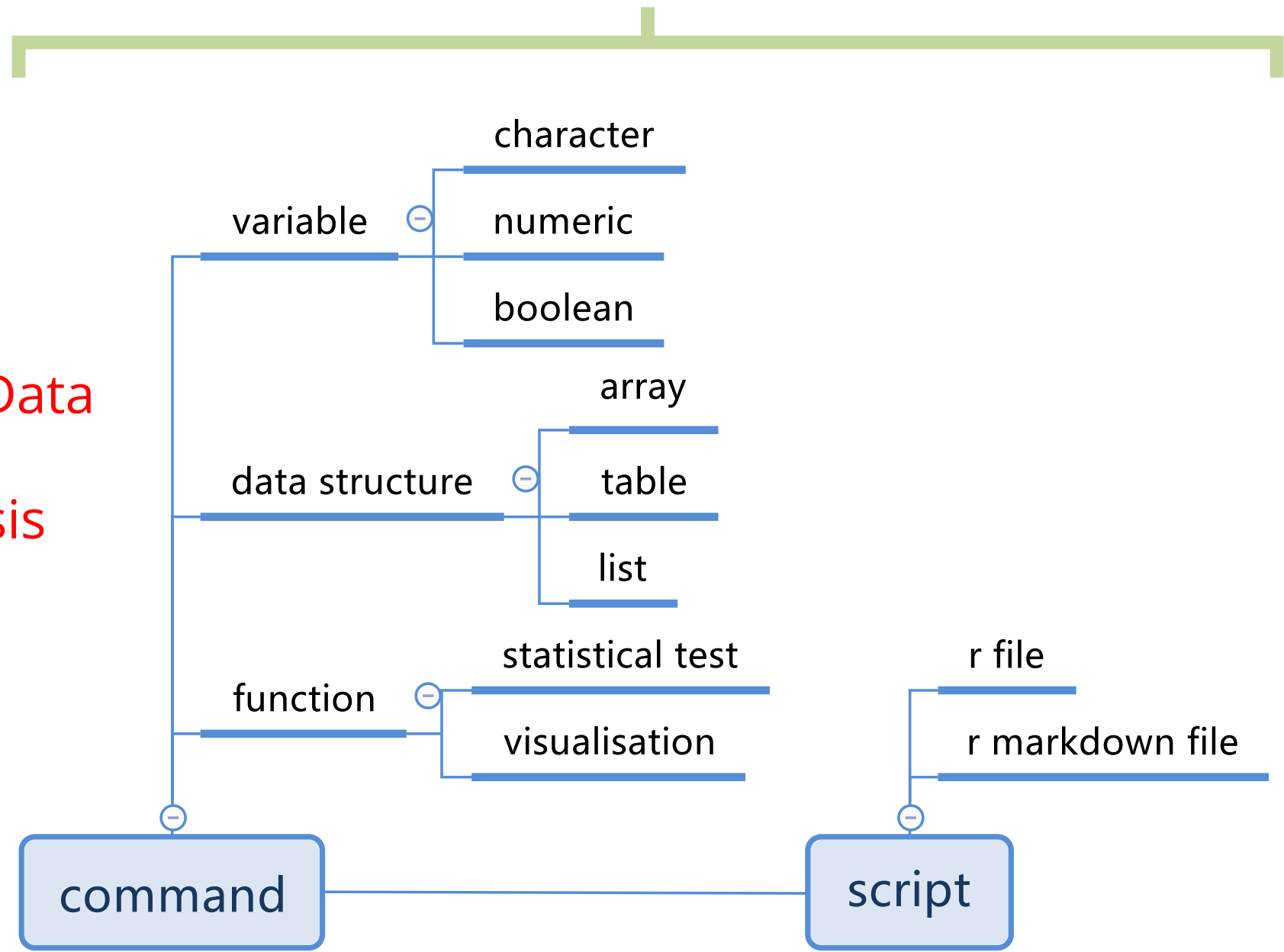
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import

Browse...

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R for Data
Analysis



Common mistakes in R programming

Some common mistakes are made frequently by both beginning and experienced R programmers. If your program generates an error, be sure to check for the following:

- *Using the wrong case*—`help()`, `Help()`, and `HELP()` are three different functions (only the first will work).
- *Forgetting to use quotation marks when they're needed*—`install.packages("gclus")` works, whereas `install.packages(gclus)` generates an error.
- *Forgetting to include the parentheses in a function call*—For example, `help()` works, but `help` doesn't. Even if there are no options, you still need the `()`.
- *Using the `\` in a pathname on Windows*—R sees the backslash character as an escape character. `setwd("c:\mydata")` generates an error. Use `setwd("c:/mydata")` or `setwd("c:\\mydata")` instead.
- *Using a function from a package that's not loaded*—The function `order.clusters()` is contained in the `gclus` package. If you try to use it before loading the package, you'll get an error.

The error messages in R can be cryptic, but if you're careful to follow these points, you should avoid seeing many of them.