

# Practical 1: Introduction to R packages

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## Introduction

In this practical you will learn:

- The basic structure of R packages.
- How to create a simple R package.

## A simple R package

Given two vector  $x = (x_1, \dots, x_n)$  and  $y = (y_1, \dots, y_n)$  of length  $n$ , their inner product is defined as:

$$\langle x, y \rangle = \sum_{i=1}^n x_i \cdot y_i$$

1. Write a simple function to compute the inner product:
  - The function will take two arguments (`x` and `y`).
  - The function must return a single value (i.e., the inner product).
2. Use `devtools` to create a simple package with this function:
  - Create the basic structure of the package.
  - Write the manual page of the function, including a simple example.
3. Check the command to fix possible errors.