

# Advanced R Week 1

## Chapter 1(good to know):

Suggested ways to develop packages: devtools, roxygen, testthat and usethis

### **Meta-techniques:**

1. Reading Source Code: Will help you write better code, help develop your opinions about good and bad code
2. Adopting a Scientific Mindset: useful when you don't know how something works

## Chapter 2: Names and Values

-> Difference between an object and its name

Quiz:(was very lost will return post chapter)

### **2.2 Binding Basics:**

```
x <- c(1, 2, 3)
```

R is creating an object(the vector of values) and binding it to the name x.

So: Value doesn't have a name, the name is assigned a value.

*Thus:* Name serves as a reference to the value

Doing `y <- x` means y refers to the og object

*Further:* both x and y have the same location identifier(we can see when we do `lobstr::obj_addr()`, from `library(lobstr)` )

### **Syntactic-name**

- must consist of letters, digits, . and, \_ but can't star with \_ or a digit
- You cannot use a **reserved word**:
  - Ex: TRUE, NULL, if, function
  - Full list @ ?Reserved
- Name that doesn't follow these conditions is **non-syntactic**
  - **Can override non-syntactic names with backticks**
    - Eg: ``_abc``
    - Don't use quotes to override bad names, its outdated

### **2.2.2 Exercises:**

- 1) a is R creating a new object, and the name a is assigned to it, b and c are then assigned to the same object. d is R creating a new object, with a different address(but the object is equivalent to a, b, and c)
- 2) Come back to 2
- 3) Automatically converting non-syntactic to
- 4) Look into `make.names`
- 5)

Chapter 3: Vectors

Chapter 4: Subsetting