

Stat 610 Homework 0

Not due

Background

This is a short assignment aimed at showing you how R stores information.

Assignment

Your assignment is as follows:

Run the following code:

```
> x <- rnorm(10)
> y <- rnorm(10)
> lm0 <- lm(y ~ x)
> lm0_summary <- summary(lm0)
```

and answer the following questions about the objects that were created.

1. Use the `typeof` function to find the types of `x`, `y`, `lm0`, and `lm0_summary`.
2. Use the `str` function to look at the elements of `lm0_summary`. Describe some of the elements contained in that object (there are 11 total, no need to describe all of them).
3. What is the `typeof` `lm0_summary[4]`? Of `lm0_summary[[4]]`? What is the difference between them?
4. Suppose you wanted a vector containing just the standard errors of the coefficient estimates in this model. Notice that the standard errors, along with some other information, is contained in the fourth element of `lm0_summary`. What is wrong with the following strategy for getting the standard errors?

```
> estimates_and_errors <- lm0_summary[4]
> std_errors <- estimates_and_errors[,2]
```

5. How would you modify the code above so that `std_errors` is a vector with the standard errors?

Submission parameters

This assignment is just for you and is not going to be graded. No need to submit anything.