Exercises for progamming with functions

Timothée Bonnet

March 12, 2019

Contents

1 Output

1.1 Implicit and explicit return

1.2 The <<- operator

*** Exercise 1 Understand the <<-**

```
f0 <- function(x=2){
  x <- x
  y <- x+2
  return(y)
}

f1 <- function(x=2){
  x <<- x
  y <- x+2
  return(y)
}

x <- rnorm(1000)
f0()+x

##    [1] 4.3394 4.4600 3.9849 3.4357 4.3952 3.4863 3.8654 4.3888 4.9120
##   [10] 2.6897 3.8505 2.5605 3.1216 4.0338 4.9300 2.5427 4.0720 3.5533
##   [19] 6.6698 3.2557 3.3729 4.5571 4.8910 3.6032 4.1899 5.3820 3.9197
##   [28] 3.8913 3.9748 5.5296 3.3094 6.2997 1.1596 5.8660 3.4988 3.2916
##   [37] 3.1409 4.4697 3.5885 4.2934 3.7327 5.8059 1.6293 3.7540 4.2216
##   [46] 3.1264 3.9004 2.3224 3.7815 3.0384 2.4538 4.1004 3.3121 3.1848
##   [55] 3.0638 4.2987 2.7975 3.2104 2.0468 3.4246 2.6915 3.6302 3.4761
##   [64] 4.9796 3.7249 3.8531 3.4965 2.8563 4.6942 3.2930 4.1823 2.7256
##   [73] 4.8579 5.4510 5.1794 3.8269 5.2279 5.2929 2.2936 5.0833 2.4787
##   [82] 5.2037 4.6327 3.4346 4.1822 2.9690 3.9266 3.4995 3.4141 5.2311
##   [91] 2.7892 4.5861 4.3917 3.1077 3.3571 3.7326 5.3284 3.6550 3.7155
##  [100] 3.0069 4.0960 4.2889 3.0134 4.2536 4.3568 4.4804 2.4339 3.7337
##  [109] 2.8727 3.6275 2.1188 3.5850 4.3920 5.1745 3.7296 3.9228 5.3403
##  [118] 4.2479 2.1387 4.5627 2.9978 4.8873 2.9068 3.2938 3.8856 5.4528
##  [127] 3.4644 3.6734 3.2246 4.6663 4.8550 3.0920 3.5656 2.7382 2.8811
##  [136] 5.2466 3.7401 4.3380 3.7495 3.9919 4.7389 3.2140 4.2986 3.8928
##  [145] 4.2130 4.0999 5.3279 5.0060 5.3417 3.0444 5.4419 3.4713 4.4994
##  [154] 5.3994 3.2369 5.2037 3.0560 2.3172 3.3687 4.0528 3.4946 5.0591
##  [163] 4.1855 5.1849 3.6591 5.2142 4.2119 3.3874 3.2466 6.1185 2.7116
##  [172] 3.9828 5.2433 3.5368 3.9545 4.5957 3.2810 4.2636 4.9464 6.0386
##  [181] 3.4516 4.8692 2.2748 2.0337 3.8506 3.1442 3.5255 5.3735 4.5893
##  [190] 6.2068 3.4884 5.7576 3.6668 2.9359 2.9671 5.4564 3.2995 5.1526
##  [199] 3.9520 3.3807 4.4805 4.2330 5.5551 4.1844 4.0783 5.7524 5.3172
##  [208] 2.3891 5.3336 4.4390 4.8386 2.6140 2.9956 5.5541 3.9886 2.4174
##  [217] 3.8775 2.2346 4.0219 2.9805 3.5244 4.1392 5.0508 3.2783 5.0824
##  [226] 3.6917 3.4950 2.3420 3.2590 4.3574 5.1896 3.6682 3.7619 3.6602
##  [235] 3.4511 2.8915 3.9007 4.1075 3.7626 4.3214 4.0135 5.8570 4.5551
##  [244] 5.3174 3.9142 4.0129 3.6215 6.3602 3.7564 5.1875 3.5797 3.9994
##  [253] 2.8875 4.5180 4.5589 4.5953 2.6021 4.0608 4.9622 4.0972 4.1151
##  [262] 4.4940 2.4144 2.9925 4.2214 3.5845 3.9410 2.3061 2.8844 1.9877
##  [271] 2.7344 5.6179 4.1832 4.3401 3.1275 3.7052 5.2117 3.8910 3.7933
##  [280] 4.0363 5.1031 4.2308 3.0235 4.8339 4.8170 4.4414 4.9483 3.3783
##  [289] 4.1647 6.1366 5.1916 4.5354 2.6175 4.6005 3.4861 2.9496 4.2476
##  [298] 4.6689 6.7391 4.3539 4.6402 4.2279 1.9916 3.3990 3.3833 3.5309
##  [307] 3.9830 5.2171 3.5165 4.2319 5.6568 5.9152 3.4229 5.8275 4.7934
##  [316] 5.2558 3.5183 4.9250 5.2872 4.4533 3.4458 3.6881 3.8630 4.7655
##  [325] 5.0442 2.4701 4.8334 3.9990 5.3305 5.0079 3.3890 5.1765 4.7052
##  [334] 3.5410 1.8585 3.5493 3.6528 5.4658 2.9611 3.7548 5.6145 3.6373
```