Notes 3/18/19

The for the rest of the class, forget about vectorization in R (for warmups and labs)

For Loops: Can be used when we want to repeat 1 or more steps a fixed number of times

* For () {} function

For (*iterator* **in** *vector of times*) {

Y[pos] = x[pos] + 2

]

Table: Charting the process mentally…

|  |  |  |
| --- | --- | --- |
| Pos | X[pos] | Y[pos] |
| 1 | 2 | 2+2=4 |
| 2 | 4 | 4+2=6 |
| 3 | 6 | 6+2=6 |

Ex:

1. Using logical subsetting, for a df with a variable “year” with levels fr,sr,jr,sp for class year
   * (assumes vectorization)

Year = dat$year

N=length(year)

Junior= rep(0,n)

Junior[year==”junior”]

1. Using for loops

Junior <- NULL

For (pos in 1:N) {

If(year[pos]==”junior”) {

Junior <- c(junior, 1)

} else {

Junior <- c(junior,0)

}]

1. Different way of thinking of using loops

Junior <- rep(0L, N)

* In the rep, specify an integer with the “0L” so that it takes less memory than “double” which is the R default

For (pos in 1:n) {

If(year[pos]==”junior”) {

Junior[pos] <- 1L

} }