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Purpose of 'list' code in makeVector function?

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G. Michael Guy [Signature Track]   · a day ago ∞

```
list(set = set, get = get,
           setmean = setmean,
           getmean = getmean)
```

In the makeVector function, I am unsure what this block of code does.
It seems to return a list, but every value is set to itself.

Any explanation or reference would be helpful.

Thanks,
Michael

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Sarah F [Signature Track]   · a day ago ∞

Prior to that point in the code, no list has actually been made to output from the function. This bit of
code does that. Perhaps it would be a bit clearer if things were renamed differently. The following code
would output the exact same thing as the example code given to us:

```
makeVector <- function(x = numeric()) {
    m <- NULL
    setfunction <- function(y) {
        x <<- y
        m <<- NULL
    }
    getfunction <- function() x
    setmeanfunction <- function(mean) m <<- mean
    getmeanfunction <- function() m
    list(set = setfunction, get = getfunction,
         setmean = setmeanfunction,
         getmean = getmeanfunction)
```

```
    }
```

As you can see, the left hand "set" in "set = set" (or "set = setfunction") is the name of that list element. The right hand "set" in "set = set" is the value that you want to store as that list element. In the case of the example code it is a function named set. It doesn't have to be, it could be a function named "setfunction." They key is that the two "set"s are representing different things.

If you want to understand why you need to make a list in the first place, see what happens when you run the following code - with the list command missing - and compare it to what happens when you run makeVector.

```
makeVector.noList <- function(x = numeric()) {
    m <- NULL
    set <- function(y) {
        x <<- y
        m <<- NULL
    }
    get <- function() x
    setmean <- function(mean) m <<- mean
    getmean <- function() m
}

mV<-makeVector.noList(somevector)
mV
```

⬆ 3 ⬇ · flag

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G. Michael Guy [Signature Track] · a day ago ⚲

Thank you very much. that is very helpful. I understand now. The naming did indeed confuse me.
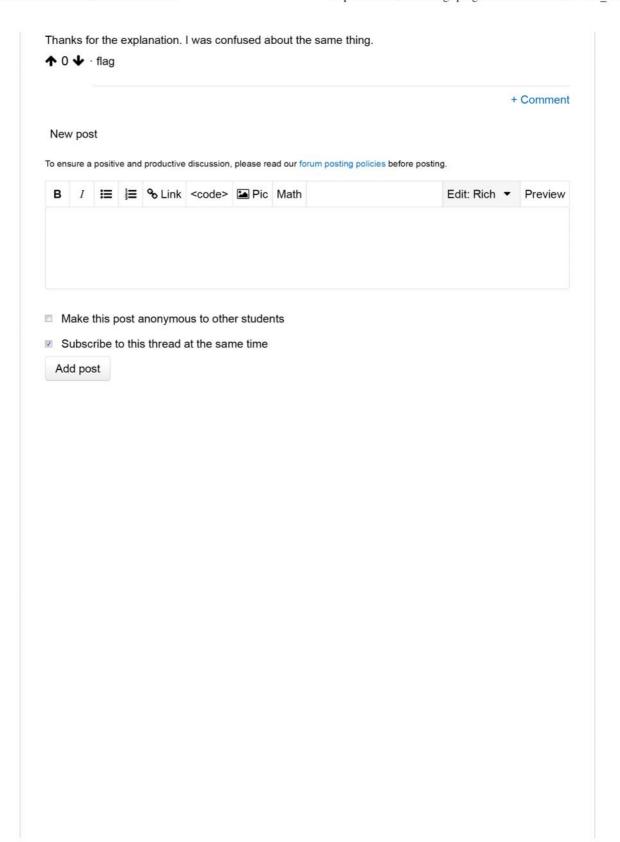
Michael

⬆ 2 ⬇ · flag

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Roger Shih [Signature Track] · a day ago ⚲

Thanks for the explanation. I was confused about the same thing.

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