

S3 method for class vector in R

{Question Link}(<https://stackoverflow.com/questions/45521273/s3-method-for-class-vector->

Is it possible to create an S3 method for all vector types at once? I.e. one that is called for a numeric, integer, character etc. vector. Something like this:

```
first_element <- function(x, ...){
  UseMethod("first_element", x)
}

first_element.vector <- function(x){
  x[1]
}

first_element(1:3)
```

Answer

By type, I assume you mean `class`. The `structure` function will allow you to define multiple classes of a vector.

First, create some data and look at its class.

```
set.seed(1)
vector <- rnorm(100, mean = 1, sd = 3)
class(vector)
```

```
## [1] "numeric"
```

```
head(vector)
```

```
## [1] -0.8793614  1.5509300 -1.5068858  5.7858424  1.9885233 -1.4614052
```

Now use the `structure` function on your vector to define additional classes. Then check the class again and call `str` function to see the classes and data of the `new_vector` object.

```
new_vector <- structure(vector, class = c("character", "integer", "numeric", "double"))
class(new_vector)
```

```
## [1] "character" "integer"    "numeric"    "double"
```

```
str(new_vector)
```

```
## Classes 'character', 'integer', 'numeric', 'double'  num [1:100] -0.879 1.551 -1.507 5.786 1.989 ...
```