How to enter your data?
R Programming

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Every experiment starts with data, so the question is "how do you enter your data into R?". Well there are many ways to do that, we can do import for large dataset. But for this post, we will only consider the two functions below:

- The concatenate, `c`; and,
- the `data.frame` functions.

The concatenate function, `c`, is use for combining data points into single numeric R object, known as the vector. The usage of this function is simply

```
c(..., recursive = FALSE)
```

Where `...` is the objects to be concatenated. Run `?c`, for description of the second argument. Let's try an example,

```
> vec1 <- c(0.5, 0.3, 0.1, 0.6, 0.2)
> vec1
[1] 0.5 0.3 0.1 0.6 0.2
```

What happened here is that, we defined a new object, `vec1`, into the workspace. That means, we can start manipulating the entries of it, say the summary,

```
> summary(vec1)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   0.10    0.20    0.30    0.34    0.50    0.60
```

For dispersion, try this,

```
> var(vec1) # Variance
[1] 0.043
> sd(vec1) # Standard Deviation
[1] 0.2073644
```

What about the `data.frame` function? If the first function combines data points into a single vector, `data.frame` from the name itself constructs a frame of data points. Here is an example,

```
> weights <- c(56.4, 45.6, 40.2, 50.1, 51.3)
> volunteers <- c("Mirra", "Jeh-Jeh", "Amil", "Ikkah", "NG")
> data1 <- data.frame(volunteers, weights)
> data1
  volunteers weights
```

```
1      Mirra    56.4
2    Jeh-Jeh    45.6
3       Amil    40.2
4      Ikkah    50.1
5         NG    51.3
```

What we did here is we defined two R objects, the `weights` and `volunteers`, then we combine the two into a table like structure, called the data frame. To extract columns of `data1`, try this

```
> # extract volunteers
> data1$volunteers
[1] Mirra   Jeh-Jeh Amil    Ikkah   NG
Levels: Amil Ikkah Jeh-Jeh Mirra NG
>
> # extract weights
> data1$weights
[1] 56.4 45.6 40.2 50.1 51.3
```

And the mean of the `weights` is,

```
> mean(data1$weights)
[1] 48.72
```

Labels

R, Tutorial,