Worksheet 11 - mapping

Wednesday, March 5, 2025

DS 002R - Jo Hardin

Name: _____

Names of people you worked with: _____

Among the group of you, how many people in class can you name?

Task: Explain how `c(1:3)` is being used as an argument in each line of code. Why is the output different?

Random uniform numbers, `runif()`

```
map(c(1:3), runif)

[[1]]
[1] 0.5168943

[[2]]
[1] 0.6387195 0.8517425

[[3]]
[1] 0.76837730 0.23893294 0.07788605
```

Random uniform numbers, `runif()` as an anonymous function.

```
map(c(1:3), ~runif(n = 2))

[[1]]
[1] 0.9897530 0.3123427

[[2]]
[1] 0.1114579 0.4403508

[[3]]
[1] 0.8592887 0.3810138
```

Solution:

The idea of an anonymous function is that it creates a full new function, with an argument only if specified.

```
~runif(n = 2)
```

Is exactly the same as:

```
function(.x){
  runif(n = 2)
}
```

Important note: `runif(n = 2)` does not have `.x` as an argument!!! So each time the `map()` goes through the function, it ignores the value of the input and runs `runif(n = 2)`.

```
map(c(10000000:10000002), ~runif(n = 2))
```

```
[[1]]
[1] 0.4629600 0.2569495

[[2]]
[1] 0.735356391 0.003772957

[[3]]
[1] 0.4526710 0.3143956
```

```
map(c("rainbow", "unicorn", "flowers"), ~runif(n = 2))
```

```
[[1]]
[1] 0.9291963 0.9202179

[[2]]
[1] 0.7435407 0.4014286

[[3]]
[1] 0.3225626 0.9960613
```