Worksheet 11 - mapping

Wednesday, October 16, 2024

DS 002R - Jo Hardin

Name: _____

Names of people you worked with: _____

Name the people sitting one table over from you. Tell your partner one fantastic thing from fall break.

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] 0.4212603

[[2]]
[1] 0.6506433 0.6659116

[[3]]
[1] 0.3539038 0.6954502 0.1237045
```

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

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

```
[[1]]
[1] 0.9252648 0.6153951

[[2]]
[1] 0.007237726 0.273496795

[[3]]
[1] 0.8582335 0.1590893
```

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] 0.2568553 0.4910937

[[2]]
[1] 0.2011562 0.8550069

[[3]]
[1] 0.0158582 0.4944408
```

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

```
[[1]]
[1] 0.8953919 0.8608666

[[2]]
[1] 0.3255565 0.2413960

[[3]]
[1] 0.76273525 0.09557489
```