map-funcs~.R

Alexandros

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```
formals(seq)

## $...

library(tidyverse)

## Warning: package 'tidyverse' was built under R version 4.1.2

## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --

## v ggplot2 3.3.6     v purrr   0.3.4
## v tibble  3.1.2     v dplyr   1.0.7
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   1.4.0     v forcats 0.5.1

## Warning: package 'ggplot2' was built under R version 4.1.3

## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()

formals(filter)

## $.data
##
##
## $...
##
##
## $.preserve
## [1] FALSE

body(filter)

## {
##     UseMethod("filter")
## }
```

```
#example variable n of parameter function

#http://adv-r.had.co.nz/Functions.html
```

```
myfun <- function(x, ...) {
  for(i in list(...)) {
    print(x * i)
  }
}

myfun(5,2,3,4,5)
```

```
## [1] 10
## [1] 15
## [1] 20
## [1] 25
```

```
formals(myfun)
```

```
## $x
##
##
## $...
```

```
body(myfun)
```

```
## {
##     for (i in list(...)) {
##         print(x * i)
##     }
## }
```

```
environment(myfun)
```

```
## <environment: R_GlobalEnv>
```

```
d <- function(...){
  x <- list(...) # THIS WILL BE A LIST STORING EVERYTHING:
  sum(...)       # Example of inbuilt function
}
d(1,2,3,4,5)
```

```
## [1] 15
```

```
z=d(1,2,3,4,5,6,7)
```

```
#https://stackoverflow.com/questions/62488162/use-of-tilde-and-period-in-r
```

```
#In tidyverse NSE, ~ indicates function(...). Thus, these two expressions are
equivalent.
```

```
#~ automatically assigns each argument of the function to
#the .; .x, .y; and ..1, ..2 ..3 special symbols. Note that only the first argument
becomes .
```

```
map2(1, 2, function(x,y) x + y)
```

```
## [[1]]
## [1] 3
```

```
map2(1, 2, ~.x + .y)
```

```
## [[1]]
## [1] 3
```

```
map2(1, 2, ~..1 + ..2)
```

```
## [[1]]
## [1] 3
```

```
map2(1, 2, ~. + ..2)
```

```
## [[1]]
## [1] 3
```

```
df=data.frame(x=c(1:10),y=c(11:20))
```

```
df %>% pmap_dbl(~..1/..2)
```

```
##  [1] 0.09090909 0.16666667 0.23076923 0.28571429 0.33333333 0.37500000
##  [7] 0.41176471 0.44444444 0.47368421 0.50000000
```

```
df %>% pmap_dbl(function(...) ..1/..2)
```

```
##  [1] 0.09090909 0.16666667 0.23076923 0.28571429 0.33333333 0.37500000
```

```
##  [7] 0.41176471 0.44444444 0.47368421 0.50000000
```

```
#https://stackoverflow.com/questions/56621051/in-map-when-is-it-necessary-to-use-a-tilde-and-a-period-and
```

```
# normal anonymous function
 mtcars %>%
  split(.$cyl) %>%
  map(function(x) lm(mpg ~ wt, data = x))
```

```
## $`4`
##
## Call:
## lm(formula = mpg ~ wt, data = x)
##
## Coefficients:
## (Intercept)           wt
##      39.571       -5.647
##
##
## $`6`
##
## Call:
## lm(formula = mpg ~ wt, data = x)
##
## Coefficients:
## (Intercept)           wt
##       28.41        -2.78
##
##
## $`8`
##
## Call:
## lm(formula = mpg ~ wt, data = x)
##
## Coefficients:
## (Intercept)           wt
##      23.868       -2.192
```

```
# anonymous mapper function (~)
 mtcars %>%
  split(.$cyl) %>%
  map(~ lm(mpg ~ wt, data = .))
```

```
## $`4`
```

```
##
## Call:
## lm(formula = mpg ~ wt, data = .)
##
## Coefficients:
## (Intercept)           wt
##      39.571       -5.647
##
##
## $`6`
##
## Call:
## lm(formula = mpg ~ wt, data = .)
##
## Coefficients:
## (Intercept)           wt
##       28.41        -2.78
##
##
## $`8`
##
## Call:
## lm(formula = mpg ~ wt, data = .)
##
## Coefficients:
## (Intercept)           wt
##      23.868       -2.192
```

```
#creates a function that returns a logical value indicating
#whether the argument of the function is greater than 5.
#this mechanism is specific to tidyverse and does not work in general.
 zd=purrr::as_mapper( ~. > 5 )

 zd(6)
```

```
## [1] TRUE
```

```
?purrr::as_mapper
```

```
## starting httpd help server ...
```

```
##  done
```

```
methods("summary")
```

```
##  [1] summary,ANY-method                  summary,DBIObject-method
```

```
##  [3] summary.aov                          summary.aovlist*
##  [5] summary.aspell*                      summary.check_packages_in_dir*
##  [7] summary.connection                   summary.data.frame
##  [9] summary.Date                         summary.default
## [11] summary.Duration*                    summary.ecdf*
## [13] summary.factor                       summary.ggplot*
## [15] summary.glm                          summary.haven_labelled*
## [17] summary.hcl_palettes*                summary.infl*
## [19] summary.Interval*                    summary.lm
## [21] summary.loess*                       summary.manova
## [23] summary.matrix                       summary.mlm*
## [25] summary.nls*                         summary.packageStatus*
## [27] summary.Period*                      summary.POSIXct
## [29] summary.POSIXlt                      summary.ppr*
## [31] summary.prcomp*                      summary.princomp*
## [33] summary.proc_time                    summary.rlang:::list_of_conditions*
## [35] summary.rlang_error*                 summary.rlang_message*
## [37] summary.rlang_trace*                 summary.rlang_warning*
## [39] summary.srcfile                      summary.srcref
## [41] summary.stepfun                      summary.stl*
## [43] summary.table                        summary.tukeysmooth*
## [45] summary.vctrs_sclr*                  summary.vctrs_vctr*
## [47] summary.warnings
## see '?methods' for accessing help and source code

attributes(summary)

## NULL
```