

Package: factory (via r-universe)

August 23, 2024

Type Package

Title Build Function Factories

Version 0.1.0.9000

Description Function factories are functions that make functions. They can be confusing to construct. Straightforward techniques can produce functions that are fragile or hard to understand. While more robust techniques exist to construct function factories, those techniques can be confusing. This package is designed to make it easier to construct function factories.

URL <https://github.com/jonthegeek/factory>

BugReports <https://github.com/jonthegeek/factory/issues>

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.0

Imports purrr (>= 0.3.2), rlang (>= 0.4.0), magrittr

Suggests testthat (>= 2.1.0), covr, roxygen2, knitr, rmarkdown, ggplot2, grDevices, scales, bench

VignetteBuilder knitr

Repository <https://jonthegeek.r-universe.dev>

RemoteUrl <https://github.com/jonthegeek/factory>

RemoteRef HEAD

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body_insert	<i>Insert Into a Function Body</i>
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Description

Insert quoted insertions at the start of a function body (after the opening of the function).

Usage

```
body_insert(fn_body, insertion, before = NULL)
```

Arguments

fn_body	The body of a function (as found via <code>body(fun)</code>).
insertion	A quoted expression to add at the beginning of the function.

Value

A function body with the insertion. Note: If `before` is specified and is not found anywhere in `fn_body`, `fn_body` is returned unaltered.

Examples

```
fun <- function(x) {  
  x + 1  
}  
body_insert(body(fun), quote(x + 2))
```

body_replace	<i>Replace Parts of a Function Body</i>
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Description

Replace quoted targets in the body of a function with quoted replacements.

Usage

```
body_replace(fn_body, target, replacement)
```

Arguments

fn_body	The body of a function (as found via <code>body(fun)</code>).
target	A quoted expression to replace.
replacement	A quoted expression with which the target should be replaced.

Value

A function body with the target replaced anywhere it occurs.

Examples

```
fun <- function(x) {
  x^exp
}
body_replace(body(fun), quote(exp), quote(!exp))
```

 build_factory

Easily Build Function Factories

Description

Easily Build Function Factories

Usage

```
build_factory(fun, ..., .pass_dots = FALSE, .internal_variables = NULL)
```

Arguments

fun	A function to turn into a factory.
...	Arguments for the factory function. Things on the RHS will be evaluated before building your factory unless explicitly quoted with quote. See examples.
.pass_dots	A logical indicating whether the factory should accept additional arguments (...) to pass on to methods. In order for this to work, the manufactured function <i>must</i> also include dots, and the input fun must indicate where those dots are used.
.internal_variables	A named list of additional code to run to create additional variables used by the factory.

Value

A function factory.

Examples

```
y <- 2
power <- build_factory(
  fun = function(x) {
    x^exponent
  },
  exponent
)
square <- power(y)
```

```
square(2)
y <- 7
square(2)

base_bins <- build_factory(
  .internal_variables = list(
    nclass_fun = switch(
      type,
      Sturges = nclass.Sturges,
      scott = nclass.scott,
      FD = nclass.FD,
      stop("Unknown type", call. = FALSE)
    )
  ),
  fun = function(x) {
    (max(x) - min(x) / nclass_fun(x))
  },
  type
)
base_bins("Sturges")
```

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