Package 'portion'

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Type Package

Title Extracting a Data Portion

Version 0.1.2

Description Provides simple methods to extract data portions from various objects. The relative portion size and the way the portion is selected can be chosen.

License GPL (>= 3)

Encoding UTF-8

RoxygenNote 7.3.2

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

Imports stats

URL https://github.com/loelschlaeger/portion

BugReports https://github.com/loelschlaeger/portion/issues

NeedsCompilation no

Author Lennart Oelschläger [aut, cre]

Maintainer Lennart Oelschläger <oelschlaeger.lennart@gmail.com>

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Contents

portion *Extracting a data portion*

Description

Methods to extract portions of different objects.

Usage

```
portion(x, proportion, how = "random", centers = 2L, ...)

## Default S3 method:
portion(x, ...)

## S3 method for class 'numeric'
portion(x, proportion, how = "random", centers = 2L, ...)

## S3 method for class 'character'
portion(x, proportion, how = "random", ...)

## S3 method for class 'logical'
portion(x, proportion, how = "random", centers = 2L, ...)

## S3 method for class 'matrix'
portion(
  x,
  proportion,
  how = "random",
  centers = 2L,
  byrow = TRUE,
  ignore = integer(),
  ...
)

## S3 method for class 'data.frame'
portion(
  x,
  proportion,
  how = "random",
  centers = 2L,
  byrow = TRUE,
  ignore = integer(),
  ...
)

## S3 method for class 'list'
portion(x, proportion, how = "random", centers = 2L, ...)
```

Arguments

x	An object to be portioned.
proportion	[numeric(1)] The relative portion size between 0 and 1 (rounded up).
how	[character(1)] Specifying how to portion, one of: • "random" (default), portion at random • "first", portion to the first elements. • "last", portion to the last elements • "similar", portion to similar elements • "dissimilar", portion to dissimilar elements Options "similar" and "dissimilar" are based on clustering via kmeans and hence are only available for numeric x.
centers	[integer(1)] Only relevant if how = "similar" or how = "dissimilar". In this case, passed on to kmeans for clustering.
...	Further arguments to be passed to or from other methods.
byrow	[logical(1)] Only relevant if x has two dimensions (rows and columns). In this case, set to TRUE to portion row-wise (default) or FALSE to portion column-wise.
ignore	[integer()] Only relevant if how = "similar" or how = "dissimilar. In this case, row indices (or column indices if byrow = FALSE) to ignore during clustering.

Value

The portioned input x with selected (row, column) indices as attributes "indices".

Examples

```
# can portion vectors, matrices, data.frames, and lists of such types
portion(
  list(
    1:10,
    matrix(LETTERS[1:12], nrow = 3, ncol = 4),
    data.frame(a = 1:6, b = -6:-1)
  ),
  proportion = 0.5,
  how = "first"
)

# can portion similar and dissimilar elements (based on kmeans clustering)
x <- c(1, 1, 2, 2)
portion(x, proportion = 0.5, how = "similar")
```

```
portion(x, proportion = 0.5, how = "dissimilar")

# object attributes are preserved
x <- structure(1:10, "test_attribute" = "test")
x[1:5]
portion(x, proportion = 0.5, how = "first")
```

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