Package 'recombinator'

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Type Package

Title Recombinate Nested Lists to Dataframes

Description Turns nested lists into data.frames in an orderly manner.

Version 1.0.1

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LazyData true

Depends R (>= 3.0.1)

Imports stats, crayon

Suggests testthat

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NeedsCompilation no

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Contents

has_names *Checks if a list has names.*

Description

Checks if a list has names.

Usage

```
has_names(dat)
```

Arguments

dat	list. The list to verify.

Value

boolean. TRUE if the list is named, FALSE otherwise.

heterogeneous_recombinator *Process heterogeneous batch data.*

Description

This function turns a list of data obtained from the Avant API in heterogeneous format into a `data.frame`. Here, heterogeneous refers to a list of lists with each element being of possibly different size, but a complete named list of the data for that row.

Usage

```
heterogeneous_recombinator(dat, id = "id")
```

Arguments

dat	list. The list of lists to process. Each row is a named list with the names being variable names and the values being respective variable values.
id	character. Primary key, by default `"id"`.

Details

For example, `list(list(variable_one = 1, variable_two = 'a'), list(variable_one = 2, variable_three = 1))` refers to a data set with three variables with two rows, the first variable having `c(1,2)`, the second `c('a', NA)`, and the third `c(NA, 1)`.

If the list of lists is not formatted in this way, the function performs no error handling and will likely return a malformed `data.frame`.

Value

the formatted data.frame

Examples

```
pre_dataframe <-
  list(list(variable_one = 1, variable_two = 'a'),
       list(variable_one = 2, variable_three = 1))
df <- heterogeneous_recombinator(pre_dataframe)
# 3 by 2 dataframe w/ c(1,2), c('a', NA), c(NA, 1) in the columns, respectively.
```

---

homogeneous_recombinator

Process homogeneous batch data.

Description

This function turns a list of data obtained from the Avant API in homogeneous format into a data.frame. Here, homogeneous refers to a list of lists with the first element of the list being a character vector of column names, and subsequent list elements being lists of values in the correct order and of the same length as the names vector.

Usage

```
homogeneous_recombinator(dat, id = "id")
```

Arguments

dat	list. The list of lists to process. The first list element is a character vector of variable names, and subsequent elements are lists of variable values ordered by these variable names.
id	character. Primary key, by default "id".

Details

For example, list(c('variable_one', 'variable_two'), list(1, 'a'), list(2, 'b')) refers to a data set with two variables with two rows, the first variable having c(1,2) and the latter having 'a', 'b'.

If the list of lists is not formatted in this way, the function performs no error handling and will likely return a malformed data.frame.

Value

the formatted data.frame

Examples

```
pre_dataframe <- list(c('variable_one', 'variable_two'), list(1, 'a'), list(2, 'b'))
df <- homogeneous_recombinator(pre_dataframe)
# 2 by 2 dataframe w/ c(1,2), c('a','b') in the columns, respectively.
```

---

is_heterogeneous *Is this heterogeneous data?*

Description

Is this heterogeneous data?

Usage

```
is_heterogeneous(dat)
```

Arguments

dat	list. The list to verify.

Value

boolean. TRUE if the list is heterogeneous, FALSE otherwise.

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is_homogeneous *Is this homogeneous data?*

Description

Is this homogeneous data?

Usage

```
is_homogeneous(dat)
```

Arguments

dat	list. The list to verify.

Value

boolean. TRUE if the list is heterogeneous, FALSE otherwise.

`recombinator` *Turn nested lists into data.frames.*

Description

A mini-utility package for turning nested lists into data.frames.

A recombinator attempts to convert a depth 2 nested list into a `data.frame`.

Usage

```
recombinator(dat, id = "id")
```

Arguments

`dat`	list. The list of lists to process. It can be in homogeneous or heterogeneous format (see the description).
`id`	character. Primary key, by default `"id"`.

Details

There are two supported formats.

1. Homogeneous lists A list where the first list element is a character vector giving the names of the data.frame, and the subsequent list elements themselves lists of values.
2. Heterogeneous lists A list where each element is a named list of values. In this format, `plyr::rbind` will be used to take the union of all names and impute the ones missing with `NA` values.

Value

the converted data.frame. If not a list, no changes will be performed.

Note

A warning will be issued if non-standard names (i.e. those containing more than alphanumeric, underscore, and period characters) are used.

`warn_on_nonstandard_names` *Warn if names will be changed when converting to a data.frame.*

Description

Warn if names will be changed when converting to a data.frame.

Usage

```
warn_on_nonstandard_names(data)
```

Arguments

`data`	list. A list to convert to a data.frame.

Value

Nothing, but a `warning` if the names will be mangled due to R's `make.names`.

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