Package 'corrtable'

October 12, 2022

Title Creates and Saves Out a Correlation Table with Significance Levels Indicated

Version 0.1.0

Description After using this, a publication-ready correlation table with p-values indicated will be created. The input can be a full data frame; any string and Boolean terms will be dropped as part of functionality. Correlations and p-values are calculated using the 'Hmisc' framework. Output of the correlation_matrix() function is a table of strings; this gets saved out to a '.csv2' with the save_correlation_matrix() function for easy insertion into a paper. For more details about the process, consult <https://paulvanderlaken.com/2020/07/28/publication-ready-correlation-matrix-significance-r/>.

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Encoding UTF-8

RoxygenNote 7.2.1

Imports Hmisc

Suggests waldo, withr, testthat (>= 3.0.0)

Config/testthat/edition 3

NeedsCompilation no

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R topics documented:

`correlation_matrix` *Creates a publication-ready / formatted correlation matrix, using* `Hmisc::rcorr` *in the backend.*

Description

Creates a publication-ready / formatted correlation matrix, using `Hmisc::rcorr` in the backend.

Usage

```
correlation_matrix(
  df,
  type = "pearson",
  digits = 3,
  decimal.mark = ".",
  use = "all",
  show_significance = TRUE,
  replace_diagonal = FALSE,
  replacement = ""
)
```

Arguments

`df`	dataframe; containing numeric and/or logical columns to calculate correlations for
`type`	character; specifies the type of correlations to compute; gets passed to `Hmisc::rcorr`; options are `"pearson"` or `"spearman"`; defaults to `"pearson"`
`digits`	integer/double; number of decimals to show in the correlation matrix; gets passed to `formatC`; defaults to `3`
`decimal.mark`	character; which decimal.mark to use; gets passed to `formatC`; defaults to `.`
`use`	character; which part of the correlation matrix to display; options are `"all"`, `"upper"`, `"lower"`; defaults to `"all"`
`show_significance`	boolean; whether to add `*` to represent the significance levels for the correlations; defaults to `TRUE`
`replace_diagonal`	boolean; whether to replace the correlations on the diagonal; defaults to `FALSE`
`replacement`	character; what to replace the diagonal and/or upper/lower triangles with; defaults to `""` (empty string)

Value

a correlation matrix

Examples

```
correlation_matrix(iris)
correlation_matrix(mtcars)
```

`save_correlation_matrix` *Creates and save to file a fully formatted correlation matrix, using* `correlation_matrix` *and* `Hmisc::rcorr` *in the backend*

Description

Creates and save to file a fully formatted correlation matrix, using `correlation_matrix` and `Hmisc::rcorr` in the backend

Usage

```
save_correlation_matrix(df, filename, ...)
```

Arguments

`df`	dataframe; passed to `correlation_matrix`
`filename`	either a character string naming a file or a connection open for writing. "" indicates output to the console; passed to `write.csv`
`...`	any other arguments passed to `correlation_matrix`

Value

'csv' file. No value is returned.

Examples

```
save_correlation_matrix(df = iris,
                        filename = 'iris-correlation-matrix.csv')

save_correlation_matrix(df = mtcars,
                        filename = 'mtcars-correlation-matrix.csv',
                        digits = 3,
                        use = 'lower')
```

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