

Package ‘corrtable’

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

Version 0.1.1

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

Author Paul van der Laken [aut] (ORCID: <https://orcid.org/0000-0002-0404-9114>),
Laura Lambert [ctb, cre] (ORCID: <https://orcid.org/0000-0003-4057-7114>)

Maintainer Laura Lambert <laura.lambert.99@gmail.com>

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correlation_matrix	<i>Creates a publication-ready / formatted correlation matrix, using Hmisc::rcorr in the backend.</i>
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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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