Package 'LECCDSExPkg'

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Title Lancaster Environment Centre -
Centre of Excellence in Environmental Data Science Example Package

Version 0.1.0

Description Provides an example basic package structure for the LEC-CEEDS coding and stats group.

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Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.3

Depends R (>= 3.5)

LazyData true

Suggests knitr,
rmarkdown,
testthat (>= 3.0.0)

Config/testthat/edition 3

Imports checkmate (>= 2.3.3)

VignetteBuilder knitr

Contents

`bin_mat` *Bin values in a matrix*

Description

Bin values in a matrix using a set of breaks.

Usage

```
bin_mat(X, breaks)
```

Arguments

X	A named matrix containing values between 0 and 100 (e.g. LECCDSExPkg::test_mat).
breaks	A vector of doubles containing the break values to use when binning X (See LECCDSExPkg::break_options).

Value

The input matrix

Examples

```
mat <- LECCDSExPkg::bin_mat(X = LECCDSExPkg::test_mat, breaks = LECCDSExPkg::break_options[["20_inc"]])
```

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break_options *A list of breaks for binning data*

Description

A named list of breaks for binning data between 0 and 100 (e.g. LECCDSExPkg::test_mat) into categories.

Usage

```
break_options
```

Format

A named list of vectors containing 4 items.

Details

break_options

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hamming_distance *Calculate the hamming distance*

Description

Calculate the hamming distance between each pairwise combination of column values in X.

Usage

```
hamming_distance(X)
```

Arguments

X	A named matrix containing values between 0 and 100 (e.g. LECCDSExPkg::test_mat), with the values usually binned using LECCDSExPkg::bin_mat.

Value

A matrix containing the hamming distance values between each pairwise combination of column values in X.

Examples

```
mat <- LECCDSExPkg::bin_mat(X = LECCDSExPkg::test_mat, breaks = LECCDSExPkg::break_options[["50_inc"]])
LECCDSExPkg::hamming_distance(X = mat)
```

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test_mat *A matrix of random values between 0 and 100*

Description

A matrix of random values between 0 and 100 with additional values randomly assigned to 0.

Usage

```
test_mat
```

Format

A matrix containing 10 and 20

Details

```
test_mat
```

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