

Package ‘Cluster.OBeu’

December 30, 2016

Type Package

Title Cluster Analysis OpenBudgets.eu

Version 1.1.3

Date 2016-08-09

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Description Cluster Analysis for OBEU datasets.

URL <https://github.com/okgreece/Cluster.OBeu>

BugReports <https://github.com/okgreece/Cluster.OBeu/issues>

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LazyData TRUE

Imports car, cluster, clValid, dendextend, graphics, jsonlite, mclust,
RCurl, reshape, stringr, utils, methods,

RoxygenNote 5.0.1

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cl.analysis	<i>Cluster OBEU</i>
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Description

Clustering Analysis for OBEU datasets.

Usage

```
cl.analysis(cl.data, cl_feature=NULL, measured.dim="variable", cl.aggregate="sum",  
cl.meth=NULL, clust.numb=NULL, dist="euclidean")
```

Arguments

cl.data	The input data
cl_feature	...
measured.dim	...
cl.aggregate	...
cl.meth	The clustering method algorithm
clust.numb	The number of clusters
dist	The dist metric

Details

...

Value

This function returns the graphical and evaluation paremeters of the selected algorithm.

Author(s)

Kleanthis Koupidis, Jaroslav Kuchar

See Also

[cl.feature](#)

cl.feature	<i>Clustering feature</i>
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Description

Select clustering characteristic of OBEU datasets.

Usage

```
cl.feature(data, feature=NULL, measured="variable", aggregate="sum")
```

Arguments

data	The input data
feature	The clustering feature
measured	The measured dimension of dataset
aggregate	The function to aggregate

Details

This function adapts the dataset according to the selected dimension of the dataset and the aggregation function.

Value

This function returns the dataset for cluster analysis adapted to the desired feature.

Author(s)

Kleanthis Koupidis

See Also

[cl.analysis](#)

cl.plot	<i>Plot of clustering model</i>
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Description

...

Usage

```
cl.plot(clustering.model, parameters = list())
```

Arguments

clustering.model	
	...
parameters	...

Value

...

Author(s)Jaroslav Kuchar <<https://github.com/jaroslav-kuchar>>**Examples**

```
data("iris")
inputs.data <- scale(iris[,1:4])
inputs.clustering <- cl.analysis(inputs.data, cl.meth="kmeans", clust.numb=3)
cl.plot(inputs.clustering, parameters = list(convex.hulls=TRUE))
```

nums	<i>Select the numeric columns of a given dataset</i>
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Description

Extract and return a data frame with the columns that include only numeric values

Usage

```
nums(data)
```

Arguments

data The input data frame

Value

This function returns a data frame with the numeric columns of the input dataset.

Author(s)

Kleanthis Koupidis

open_spending.cl	<i>Read and Calculate the Basic Information for Cluster Analysis Tasks from Open Spending API</i>
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Description

Extract and analyze the input data provided from Open Spending API, using the [cl.analysis](#) function.

Usage

```
open_spending.cl(json_data, dimensions=NULL, amounts=NULL, measured.dim=NULL,
                  cl.feature=NULL, cl.measured.dim="variable", cl.aggregate="sum",
                  cl.method=NULL, cl.num=NULL, cl.dist="euclidean")
```

Arguments

json_data	The json string, URL or file from Open Spending API
dimensions	The dimensions of the input data
amounts	The measures of the input data
measured.dim	The dimensions to which correspond amount/numeric variables
cl.feature	...
cl.measured.dim	...
cl.aggregate	...
cl.method	...
cl.num	...
cl.dist	...

Details

This function is used to read data in json format from Open Spending API, in order to implement some cluster analysis tasks through [cl.analysis](#) function.

Value

A json string with the resulted parameters of the [cl.analysis](#) function.

Author(s)

Kleanthis Koupidis

See Also

[cl.analysis](#)

proposed.meth.nb.clust

Extract the proposed clustering method and the number of clusters from clvalid method

Description

...

Usage

```
proposed.meth.nb.clust(clv)
```

Arguments

clv	A clValid object
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Details

...

Value

...

Author(s)

Kleanthis Koupidis

See Also

proposed.methclust, proposed.nbclust

proposed.methclust	<i>Extract the proposed clustering method from clvalid method</i>
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Description

...

Usage

```
proposed.methclust(clv)
```

Arguments

clv	A clValid object
-----	------------------

Details

...

Value

...

Author(s)

Kleanthis Koupidis

See Also

proposed.meth.nb.clust, proposed.nbclust

proposed.nbclust	<i>Extract the proposed number of clusters from clvalid method</i>
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Description

...

Usage

```
proposed.nbclust(clv)
```

Arguments

clv	A clValid object
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Details

...

Value

...

Author(s)

Kleanthis Koupidis

See Also

proposed.meth.nb.clust, proposed.methclust

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