

Package ‘ykmeans’

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Type Package

Title K-means using a target variable

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Description The clustering by k-means of using the target variable.
To determine the number of clusters with the variance of the target variable in the cluster.

License GPL

Imports plyr,foreach

LazyData true

NeedsCompilation no

Repository CRAN

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ykmeans-package *K-means using a target variable*

Description

The clustering by k-means of using the target variable.

Details

Package: ykmeans
Type: Package
Version: 1.0
Date: 2014-03-14
License: GPL

Author(s)

Yohei Sato

Examples

```
## Not run:  
data(actData)  
act.ykm <- ykmeans(actData, paste0("x",1:17),"y",3:6)  
table(act.ykm$cluster)  
  
## End(Not run)
```

actData *Sample Action Data*

Description

Sample Action Data. x1 ~ x17 is the explanatory variable, y is the target variable.

Usage

```
data(actData)
```

Format

A data frame with 500 observations on the following 18 variables.

y a numeric vector
x1 a numeric vector
x2 a numeric vector
x3 a numeric vector
x4 a numeric vector
x5 a numeric vector
x6 a numeric vector
x7 a numeric vector
x8 a numeric vector
x9 a numeric vector
x10 a numeric vector
x11 a numeric vector
x12 a numeric vector
x13 a numeric vector
x14 a numeric vector
x15 a numeric vector
x16 a numeric vector
x17 a numeric vector

Examples

```
data(actData)
## maybe str(actData) ; plot(actData) ...
```

kmeansN

kmeansN

Description

N times run the k-means

Usage

```
kmeansN(x, k, variable.names = "x", target.name = "y",
        cluster.name = "cluster", n = 100)
```

Arguments

x	A data.frame
k	number of cluster
variable.names	variable names
target.name	objective variable name
cluster.name	cluster variable name
n	number of trials

Value

A data.frame

Author(s)

Yohei Sato

Examples

```
## Not run:
data(actData)
act.kmn <- kmeansN(actData, 3, paste0("x",1:17),"y")
table(act.kmn$cluster)

## End(Not run)
```

kmeansN2

kmeansN2

Description

run N times the number of clusters in kmeans of multiple

Usage

```
kmeansN2(x, variable.names = "x", target.name = "y",
         k.list = 3:6, cluster.name = "cluster", n = 100)
```

Arguments

x	A data.frame
variable.names	variable names
target.name	objective names
k.list	number of cluster
cluster.name	cluster variable name
n	number of trials

Value

A data.frame

Author(s)

Yohei Sato

Examples

```
## Not run:  
data(actData)  
act.kmn2 <- kmeansN2(actData, paste0("x",1:17),"y", 3:6)  
head(act.kmn2)  
  
## End(Not run)
```

ykmeans

K-means using a target variable

Description

The clustering by k-means of using the target variable.

Usage

```
ykmeans(x, variable.names = "x", target.name = "y",  
        k.list = 3:6, cluster.name = "cluster", n = 100)
```

Arguments

x	A data.frame
variable.names	variable names
target.name	objective variable name
k.list	number of cluster
cluster.name	cluster variable name
n	number of trials

Value

A data.frame

Author(s)

Yohei Sato

Examples

```
## Not run:  
data(actData)  
act.ykm <- ykmeans(actData, paste0("x",1:17),"y",3:6)  
table(act.ykm$cluster)  
  
## End(Not run)
```

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