Package ‘radiant.multivariate’

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Type  Package

Title  Multivariate Menu for Radiant: Business Analytics using R and Shiny

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Description  The Radiant Multivariate menu includes interfaces for perceptual mapping, factor analysis, cluster analysis, and conjoint analysis. The application extends the functionality in ‘radiant.data’.

Depends  R (>= 3.4.0), radiant.data (>= 1.4.1)

Imports  radiant.model (>= 1.4.1), shiny (>= 1.7.1), dplyr (>= 1.0.7), rlang (>= 0.4.10), ggplot2 (>= 2.2.1), scales (>= 0.4.0), magrittr (>= 1.5), psych (>= 1.8.4), GPArotation (>= 2014.11-1), car (>= 2.1.1), MASS (>= 7.3), import (>= 1.1.0), ggrepel (>= 0.8), lubridate (>= 1.7.4), polycor (>= 0.7.10), gower (>= 0.2.1), clustMixType (>= 0.2.1), patchwork (>= 1.0.0)

Suggests  testthat (>= 2.0.0), pkgdown (>= 1.1.0)


BugReports  https://github.com/radiant-rstats/radiant.multivariate/issues/

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carpet

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**Description**
Carpet cleaners

**Usage**
data(carpet)

**Format**
A data frame with 18 rows and 5 variables

**Details**
Rankings reflect the evaluation of 18 alternative carpet cleaners by one respondent. Description provided in attr(carpet," description")

---

city

<table>
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**Description**
City distances

**Usage**
data(city)

**Format**
A data frame with 45 rows and 3 variables

**Details**
Distance in miles between nine cities in the USA. The dataset is used to illustrate multi-dimensional scaling (MDS). Description provided in attr(city, "description")
city2  

City distances 2

Description
City distances 2

Usage
data(city2)

Format
A data frame with 78 rows and 3 variables

Details
Distance in miles between 12 cities in the USA. The dataset is used to illustrate multi-dimensional scaling (MDS). Description provided in attr(city2, "description")

clean_loadings  

Sort and clean loadings

Description
Sort and clean loadings

Usage
clean_loadings(floadings, cutoff = 0, fsort = FALSE, dec = 8, repl = NA)

Arguments
- floadings: Data frame with loadings
- cutoff: Show only loadings with (absolute) values above cutoff (default = 0)
- fsort: Sort factor loadings
- dec: Number of decimals to show
- repl: Replace loadings below the cutoff by NA (or "")

Details
See [https://radiant-rstats.github.io/docs/multivariate/full_factor.html](https://radiant-rstats.github.io/docs/multivariate/full_factor.html) for an example in Radiant
**Examples**

```r
result <- full_factor(shopping, "v1:v6", nr_fact = 2)
clean_loadings(result$floadings, fsort = TRUE, cutoff = .5, dec = 2)
```

---

**computer**

**Perceptions of computer (re)sellers**

---

**Description**

Perceptions of computer (re)sellers

**Usage**

```r
data(computer)
```

**Format**

A data frame with 5 rows and 8 variables

**Details**

Perceptions of computer (re)sellers. The dataset is used to illustrate perceptual maps. Description provided in attr(computer, "description")

---

**conjoint**

**Conjoint analysis**

---

**Description**

Conjoint analysis

**Usage**

```r
conjoint(
  dataset,
  rvar,
  evar,
  int = "",
  by = "none",
  reverse = FALSE,
  data_filter = "",
  envir = parent.frame()
)
```
Arguments

dataset  Dataset
rvar     The response variable (e.g., profile ratings)
evar     Explanatory variables in the regression
int      Interaction terms to include in the model
by       Variable to group data by before analysis (e.g., a respondent id)
reverse  Reverse the values of the response variable ('rvar')
data_filter Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")
envir    Environment to extract data from

Details

See https://radiant-rstats.github.io/docs/multivariate/conjoint.html for an example in Radiant

Value

A list with all variables defined in the function as an object of class conjoint

See Also

summary.conjoint to summarize results
plot.conjoint to plot results

Examples

conjoint(mp3, rvar = "Rating", evar = "Memory:Shape") %>% str()
Usage

```r
call_factor(
  dataset,
  vars,
  method = "PCA",
  hcor = FALSE,
  nr_fact = 1,
  rotation = "varimax",
  data_filter = "",
  envir = parent.frame()
)
```

Arguments

dataset: Dataset  
vars: Variables to include in the analysis  
method: Factor extraction method to use  
hcor: Use polycor::hetcor to calculate the correlation matrix  
nr_fact: Number of factors to extract  
rotation: Apply varimax rotation or no rotation ("varimax" or "none")  
data_filter: Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")  
envir: Environment to extract data from

Details

See https://radiant-rstats.github.io/docs/multivariate/full_factor.html for an example in Radiant

Value

A list with all variables defined in the function as an object of class full_factor

See Also

`summary.full_factor` to summarize results  
`plot.full_factor` to plot results

Examples

```r
full_factor(shopping, "v1:v6") %>% str()
```
Hierarchical cluster analysis

Usage

```r
hclus(
  dataset,
  vars,
  labels = "none",
  distance = "sq.euclidian",
  method = "ward.D",
  max_cases = 5000,
  standardize = TRUE,
  data_filter = "",
  envir = parent.frame()
)
```

Arguments

dataset  Dataset
vars     Vector of variables to include in the analysis
labels   A vector of labels for the leaves of the tree
distance Distance
method   Method
max_cases Maximum number of cases allowed (default is 1000). Set to avoid long-running
          analysis in the radiant web-interface
standardize Standardized data (TRUE or FALSE)
data_filter Expression entered in, e.g., Data > View to filter the dataset in Radiant. The
               expression should be a string (e.g., "price > 10000")
envir    Environment to extract data from

Details

See [https://radiant-rstats.github.io/docs/multivariate/hclus.html](https://radiant-rstats.github.io/docs/multivariate/hclus.html) for an example in Radiant

Value

A list of all variables used in hclus as an object of class hclus
kclus

See Also

summary.hclus to summarize results
plot.hclus to plot results

Examples

hclus(shopping, vars = "v1:v6") %>% str()

kclus

K-clustering

Description

K-clustering

Usage

kclus(
  dataset,
  vars,
  fun = "kmeans",
  hc_init = TRUE,
  distance = "sq.euclidian",
  method = "ward.D",
  seed = 1234,
  nr_clus = 2,
  standardize = TRUE,
  lambda = NULL,
  data_filter = "",
  envir = parent.frame()
)

Arguments

dataset     Dataset
vars         Vector of variables to include in the analysis
fun          Use either "kmeans" or "kproto" for clustering
hc_init      Use centers from hclus as the starting point
distance    Distance for hclus
method       Method for hclus
seed         Random see to use for k-clustering if hc_init is FALSE
nr_clus      Number of clusters to extract
standardize  Standardize data (TRUE or FALSE)
lambda

Parameter > 0 to trade off between Euclidean distance of numeric variables and simple matching coefficient between categorical variables. Also a vector of variable specific factors is possible where the order must correspond to the order of the variables in the data. In this case all variables’ distances will be multiplied by their corresponding lambda value.

data_filter

Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

envir

Environment to extract data from

Details

See https://radiant-rstats.github.io/docs/multivariate/kclus.html for an example in Radiant

Value

A list of all variables used in kclus as an object of class kclus

See Also

summary.kclus to summarize results
plot.kclus to plot results
store.kclus to add cluster membership to the selected dataset

Examples

kclus(shopping, c("v1:v6"), nr_clus = 3) %>% str()

mds

(Dis)similarity based brand maps (MDS)

Description

(Dis)similarity based brand maps (MDS)

Usage

mds(
  dataset,
  id1,
  id2,
  dis,
  method = "metric",
  nr_dim = 2,
  seed = 1234,
  data_filter = "",
  envir = parent.frame()
)
Arguments

- **dataset**: Dataset
- **id1**: A character variable or factor with unique entries
- **id2**: A character variable or factor with unique entries
- **dis**: A numeric measure of brand dissimilarity
- **method**: Apply metric or non-metric MDS
- **nr_dim**: Number of dimensions
- **seed**: Random seed
- **data_filter**: Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")
- **envir**: Environment to extract data from

Details

See [https://radiant-rstats.github.io/docs/multivariate/mds.html](https://radiant-rstats.github.io/docs/multivariate/mds.html) for an example in Radiant.

Value

A list of all variables defined in the function as an object of class mds

See Also

- `summary.mds` to summarize results
- `plot.mds` to plot results

Examples

```r
mds(city, "from", "to", "distance") %>% str()
mds(diamonds, "clarity", "cut", "price") %>% str()
```

```r
movie
Conjoint data for Movie theaters

Description

Conjoint data for Movie theaters

Usage

data(movie)

Format

A data frame with 18 rows and 6 variables
Details

Rankings reflect the evaluation of 18 alternative movie theaters by one respondent. Description provided in attr(movie, "description")

---

### mp3

Conjoint data for MP3 players

Description

Conjoint data for MP3 players

Usage

data(mp3)

Format

A data frame with 18 rows and 6 variables

Details

Ratings reflect the evaluation of 18 alternative MP3 players by one respondent. Description provided in attr(mp3, "description")

---

### plot.conjoint

Plot method for the conjoint function

Description

Plot method for the conjoint function

Usage

```r
## S3 method for class 'conjoint'
plot(
  x,
  plots = "pw",
  show = "",
  scale_plot = FALSE,
  shiny = FALSE,
  custom = FALSE,
  ...
)
```
Arguments

x  Return value from `conjoint`
plots  Show either the part-worth ("pw") or importance-weights ("iw") plot
show  Level in by variable to analyze (e.g., a specific respondent)
scale_plot  Scale the axes of the part-worth plots to the same range
shiny  Did the function call originate inside a shiny app
custom  Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This option can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and https://ggplot2.tidyverse.org/ for options.
...  further arguments passed to or from other methods

Details

See https://radiant-rstats.github.io/docs/multivariate/conjoint.html for an example in Radiant

See Also

`conjoint` to generate results

`summary.conjoint` to summarize results

Examples

```r
result <- conjoint(mp3, rvar = "Rating", evar = "Memory:Shape")
plot(result, scale_plot = TRUE)
plot(result, plots = "iw")
```

Description

Plot method for the full_factor function

Usage

```r
## S3 method for class 'full_factor'
plot(x, plots = "attr", shiny = FALSE, custom = FALSE, ...)
```
Arguments

x  
   Return value from `full_factor`

plots  
   Include attribute ("attr"), respondents ("resp") or both in the plot

shiny  
   Did the function call originate inside a shiny app

custom  
   Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This option can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and [https://ggplot2.tidyverse.org/](https://ggplot2.tidyverse.org/) for options.

...  
   further arguments passed to or from other methods

Details

See [https://radiant-rstats.github.io/docs/multivariate/full_factor.html](https://radiant-rstats.github.io/docs/multivariate/full_factor.html) for an example in Radiant

See Also

`full_factor` to calculate results

`plot.full_factor` to plot results

Examples

```r
result <- full_factor(shopping, "v1:v6", nr_fact = 2)
plot(result)
```

Documentation for `plot.hclus` - *Plot method for the hclus function*

Description

Plot method for the hclus function

Usage

```r
## S3 method for class 'hclus'
plot(
  x,
  plots = c("scree", "change"),
  cutoff = 0.05,
  shiny = FALSE,
  custom = FALSE,
  ...
)
```
Arguments

- **x**: Return value from `hclus`.
- **plots**: Plots to return. "change" shows the percentage change in within-cluster heterogeneity as respondents are grouped into different number of clusters, "dendro" shows the dendrogram, "scree" shows a scree plot of within-cluster heterogeneity.
- **cutoff**: For large datasets plots can take time to render and become hard to interpret. By selection a cutoff point (e.g., 0.05 percent) the initial steps in hierarchical cluster analysis are removed from the plot.
- **shiny**: Did the function call originate inside a shiny app.
- **custom**: Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This option can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and https://ggplot2.tidyverse.org/ for options.
- ... further arguments passed to or from other methods.

Details

See https://radiant-rstats.github.io/docs/multivariate/hclus.html for an example in Radiant.

See Also

- `hclus` to generate results
- `summary.hclus` to summarize results

Examples

```r
result <- hclus(shopping, vars = c("v1:v6"))
plot(result, plots = c("change", "scree"), cutoff = .05)
plot(result, plots = "dendro", cutoff = 0)
```

Description

Plot method for kclus

Usage

```r
# S3 method for class 'kclus'
plot(x, plots = "density", shiny = FALSE, custom = FALSE, ...)
```
Arguments

x  
Return value from \texttt{kclus}

plots  
One of "density", "bar", or "scatter"

shiny  
Did the function call originate inside a shiny app

custom  
Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This option can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and \url{https://ggplot2.tidyverse.org/} for options.

...  
further arguments passed to or from other methods

Details

See \url{https://radiant-rstats.github.io/docs/multivariate/kclus.html} for an example in Radiant

See Also

\texttt{kclus} to generate results

\texttt{summary.kclus} to summarize results

\texttt{store.kclus} to add cluster membership to the selected dataset

Examples

```r
result <- kclus(shopping, vars = "v1:v6", nr_clus = 3)
plot(result)
```

Description

Plot method for the \texttt{mds} function

Usage

```r
## S3 method for class 'mds'
plot(x, rev_dim = NULL, fontsz = 5, shiny = FALSE, custom = FALSE, ...)
```

Arguments

x  
Return value from \texttt{mds}

rev_dim  
Flip the axes in plots

fontsz  
Font size to use in plots

shiny  
Did the function call originate inside a shiny app
custom Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This option can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and https://ggplot2.tidyverse.org/ for options.

... further arguments passed to or from other methods

Details

See https://radiant-rstats.github.io/docs/multivariate/mds.html for an example in Radiant

See Also

mds to calculate results
summary.mds to plot results

Examples

result <- mds(city, "from", "to", "distance")
plot(result, fontsize = 7)
plot(result, rev_dim = 1:2)

---

plot.pre_factor Plot method for the pre_factor function

Description

Plot method for the pre_factor function

Usage

## S3 method for class 'pre_factor'
plot(
x,
plots = c("scree", "change"),
cutoff = 0.2,
shiny = FALSE,
custom = FALSE,
... )
Arguments

- **x**: Return value from `pre_factor`
- **plots**: Plots to return. "change" shows the change in eigenvalues as variables are grouped into different number of factors, "scree" shows a scree plot of eigenvalues
- **cutoff**: For large datasets plots can take time to render and become hard to interpret. By selection a cutoff point (e.g., eigenvalues of .8 or higher) factors with the least explanatory power are removed from the plot
- **shiny**: Did the function call originate inside a shiny app
- **custom**: Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This option can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and [https://ggplot2.tidyverse.org/](https://ggplot2.tidyverse.org/) for options.
- **...**: further arguments passed to or from other methods

Details

See [https://radiant-rstats.github.io/docs/multivariate/pre_factor.html](https://radiant-rstats.github.io/docs/multivariate/pre_factor.html) for an example in Radiant

See Also

- `pre_factor` to calculate results
- `summary.pre_factor` to summarize results

Examples

```R
result <- pre_factor(shopping, "v1:v6")
plot(result, plots = c("change", "scree"), cutoff = .05)
```

Description

Plot method for the `prmap` function

Usage

```R
## S3 method for class 'prmap'
plot(
  x, 
  plots = "", 
  scaling = 2, 
  fontsize = 5, 
)```
Arguments

- **x**: Return value from `prmap`
- **plots**: Components to include in the plot ("brand", "attr"). If data on preferences is available use "pref" to add preference arrows to the plot
- **scaling**: Arrow scaling in the brand map
- **fontsz**: Font size to use in plots
- **seed**: Random seed
- **shiny**: Did the function call originate inside a shiny app
- **custom**: Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This option can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and [https://ggplot2.tidyverse.org/](https://ggplot2.tidyverse.org/) for options.

... further arguments passed to or from other methods

Details

See [https://radiant-rstats.github.io/docs/multivariate/prmap.html](https://radiant-rstats.github.io/docs/multivariate/prmap.html) for an example in Radiant

See Also

- `prmap` to calculate results
- `summary.prmap` to plot results

Examples

```
result <- prmap(computer, brand = "brand", attr = "high_end:business")
plot(result, plots = "brand")
plot(result, plots = c("brand", "attr"))
plot(result, scaling = 1, plots = c("brand", "attr"))
prmap(
  retailers, brand = "retailer",
  attr = "good_value:cluttered",
  pref = c("segment1", "segment2")
) %>% plot(plots = c("brand", "attr", "pref"))
```
predict.conjoint  

Predict method for the conjoint function

Description

Predict method for the conjoint function

Usage

```r
## S3 method for class 'conjoint'
predict(
  object,
  pred_data = NULL,
  pred_cmd = "",
  conf_lev = 0.95,
  se = FALSE,
  interval = "confidence",
  dec = 3,
  envir = parent.frame(),
  ...
)
```

Arguments

- `object`: Return value from `conjoint`
- `pred_data`: Provide the dataframe to generate predictions. The dataset must contain all columns used in the estimation
- `pred_cmd`: Command used to generate data for prediction
- `conf_lev`: Confidence level used to estimate confidence intervals (.95 is the default)
- `se`: Logical that indicates if prediction standard errors should be calculated (default = FALSE)
- `interval`: Type of interval calculation ("confidence" or "prediction"). Set to "none" if `se` is FALSE
- `dec`: Number of decimals to show
- `envir`: Environment to extract data from
- `...`: further arguments passed to or from other methods

Details

See [https://radiant-rstats.github.io/docs/multivariate/conjoint.html](https://radiant-rstats.github.io/docs/multivariate/conjoint.html) for an example in Radiant
See Also

- `conjoint` to generate the result
- `summary.conjoint` to summarize results
- `plot.conjoint` to plot results

Examples

```r
result <- conjoint(mp3, rvar = "Rating", evar = "Memory:Shape")
predict(result, pred_data = mp3)
```

---

**predict_conjoint_by**  
*Predict method for the conjoint function when a by variables is used*

Description

Predict method for the conjoint function when a by variables is used

Usage

```r
predict_conjoint_by(
  object,  
pfun,  
pred_data = NULL,  
pred_cmd = "",  
conf_level = 0.95,  
se = FALSE,  
dec = 3,  
envir = parent.frame(),  
...  
)
```

Arguments

- `object`: Return value from `conjoint`
- `pfun`: Function to use for prediction
- `pred_data`: Name of the dataset to use for prediction
- `pred_cmd`: Command used to generate data for prediction
- `conf_level`: Confidence level used to estimate confidence intervals (.95 is the default)
- `se`: Logical that indicates if prediction standard errors should be calculated (default = FALSE)
- `dec`: Number of decimals to show
- `envir`: Environment to extract data from
- `...`: Further arguments passed to or from other methods
Details

See [https://radiant-rstats.github.io/docs/multivariate/conjoint.html](https://radiant-rstats.github.io/docs/multivariate/conjoint.html) for an example in Radiant

See Also

- `conjoint` to generate the result
- `summary.conjoint` to summarize results
- `plot.conjoint` to plot results

---

**pre_factor**  
Evaluate if data are appropriate for PCA / Factor analysis

Description

Evaluate if data are appropriate for PCA / Factor analysis

Usage

```r
pre_factor(
  dataset,
  vars,
  hcor = FALSE,
  data_filter = "",
  envir = parent.frame()
)
```

Arguments

- `dataset`  
  Dataset
- `vars`  
  Variables to include in the analysis
- `hcor`  
  Use polycor::hetcor to calculate the correlation matrix
- `data_filter`  
  Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")
- `envir`  
  Environment to extract data from

Details

See [https://radiant-rstats.github.io/docs/multivariate/pre_factor.html](https://radiant-rstats.github.io/docs/multivariate/pre_factor.html) for an example in Radiant

Value

A list with all variables defined in the function as an object of class `pre_factor`
See Also

- `summary.pre_factor` to summarize results
- `plot.pre_factor` to plot results

Examples

```r
pre_factor(shopping, "v1:v6") %>% str()
```

---

**print.conjoint.predict**  
*Print method for predict.conjoint*

### Description

Print method for `predict.conjoint`

### Usage

```r
## S3 method for class 'conjoint.predict'
print(x, ..., n = 20)
```

### Arguments

- `x`: Return value from prediction method
- `...`: further arguments passed to or from other methods
- `n`: Number of lines of prediction results to print. Use `-1` to print all lines

---

**prmap**  
*Attribute based brand maps*

### Description

Attribute based brand maps

### Usage

```r
prmap(  
  dataset,  
  brand,  
  attr,  
  pref = "",  
  nr_dim = 2,  
  hcor = FALSE,  
  data_filter = "",  
  envir = parent.frame()  
)
```
Arguments

- **dataset**: Dataset
- **brand**: A character variable with brand names
- **attr**: Names of numeric variables
- **pref**: Names of numeric brand preference measures
- **nr_dim**: Number of dimensions
- **hcor**: Use polycor::hetcor to calculate the correlation matrix
- **data_filter**: Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")
- **envir**: Environment to extract data from

Details

See [https://radiant-rstats.github.io/docs/multivariate/prmap.html](https://radiant-rstats.github.io/docs/multivariate/prmap.html) for an example in Radiant

Value

A list of all variables defined in the function as an object of class prmap

See Also

- `summary.prmap` to summarize results
- `plot.prmap` to plot results

Examples

```r
prmap(computer, brand = "brand", attr = "high_end:business") %>% str()
```

description

Launch `radiant.multivariate` in the default web browser

Usage

```r
radiant.multivariate(state, ...)
```

Arguments

- **state**: Path to state file to load
- **...**: additional arguments to pass to shiny::runApp (e.g, port = 8080)
radiant.multivariate_viewer

Details

See https://radiant-rstats.github.io/docs/ for documentation and tutorials

Examples

```r
## Not run:
radiant.multivariate()

## End(Not run)
```

---

Description

Launch radiant.multivariate in the Rstudio viewer

Usage

```r
radiant.multivariate_viewer(state, ...)
```

Arguments

- `state` : Path to state file to load
- `...` : additional arguments to pass to shiny::runApp (e.g. port = 8080)

Details

See https://radiant-rstats.github.io/docs/ for documentation and tutorials

Examples

```r
## Not run:
radiant.multivariate_viewer()

## End(Not run)
```
radiant.multivariate_window

Launch radiant.multivariate in an Rstudio window

Description
Launch radiant.multivariate in an Rstudio window

Usage
radiant.multivariate_window(state, ...)

Arguments
state Path to state file to load
... additional arguments to pass to shiny::runApp (e.g. port = 8080)

Details
See https://radiant-rstats.github.io/docs/ for documentation and tutorials

Examples
## Not run:
radiant.multivariate_window()
## End(Not run)

retailers Perceptions of retailers

Description
Perceptions of retailers

Usage
data(retailers)

Format
A data frame with 6 rows and 10 variables

Details
Consumer evaluations for a set of retailers in the Chicago area on 7 attributes. The dataset is used to illustrate perceptual maps. Description provided in attr(retailers, "description")
shopping

| shopping    | Shopping attitudes |

Description

Shopping attitudes

Usage

data(shopping)

Format

A data frame with 20 rows and 7 variables

Details

Attitudinal data on shopping for 20 consumers. Description provided in attr(shopping, "description")

store.conjoint

Store method for the Multivariate > Conjoint tab

Description

Store method for the Multivariate > Conjoint tab

Usage

## S3 method for class 'conjoint'
store(dataset, object, name, ...)

Arguments

dataset       Dataset
object        Return value from conjoint
name          Variable name(s) assigned to predicted values
...            further arguments passed to or from other methods

Details

Store data frame with PWs or IWs in Radiant r_data list if available
store.conjoint.predict

Store predicted values generated in predict.conjoint

Description

Store predicted values generated in predict.conjoint

Usage

```r
## S3 method for class 'conjoint.predict'
store(dataset, object, name = "prediction", ...)
```

Arguments

- `dataset`: Dataset to add predictions to
- `object`: Return value from model predict function
- `name`: Variable name(s) assigned to predicted values
- `...`: Additional arguments

Details

See [https://radiant-rstats.github.io/docs/multivariate/conjoint.html](https://radiant-rstats.github.io/docs/multivariate/conjoint.html) for an example in Radiant

Examples

```r
conjoint(mp3, rvar = "Rating", evar = "Memory:Shape") %>%
predict(mp3) %>%
store(mp3, ., name = "pred_pref")
```

---

store.full_factor

Store factor scores to active dataset

Description

Store factor scores to active dataset

Usage

```r
## S3 method for class 'full_factor'
store(dataset, object, name = "", ...)```
store.hclus

Add a cluster membership variable to the active dataset

Description

Add a cluster membership variable to the active dataset

Usage

```r
## S3 method for class 'hclus'
store(dataset, object, nr_clus = 2, name = "", ...)  
```  

Arguments

- `dataset`: Dataset to append to cluster membership variable to
- `object`: Return value from `hclus`
- `nr_clus`: Number of clusters to extract
- `name`: Name of cluster membership variable
- `...`: Additional arguments
**Details**

See [https://radiant-rstats.github.io/docs/multivariate/hclus.html](https://radiant-rstats.github.io/docs/multivariate/hclus.html) for an example in Radiant

**See Also**

- `hclus` to generate results
- `summary.hclus` to summarize results
- `plot.hclus` to plot results

**Examples**

```r
hclus(shopping, vars = "v1:v6") %>%
store(shopping, ., nr_clus = 3) %>%
head()
```

---

**store.kclus**  
*Add a cluster membership variable to the active dataset*

**Description**

Add a cluster membership variable to the active dataset

**Usage**

```r
## S3 method for class 'kclus'
store(dataset, object, name = "", ...)  
```

**Arguments**

- `dataset` Dataset to append to cluster membership variable to
- `object` Return value from `kclus`
- `name` Name of cluster membership variable
- `...` Additional arguments

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/kclus.html](https://radiant-rstats.github.io/docs/multivariate/kclus.html) for an example in Radiant

**See Also**

- `kclus` to generate results
- `summary.kclus` to summarize results
- `plot.kclus` to plot results
Examples

```r
kclus(shopping, vars = "v1:v6", nr_clus = 3) %>%
  store(shopping, .) %>%
  head()
```

---

**summary.conjoint**  
*Summary method for the conjoint function*

**Description**

Summary method for the conjoint function

**Usage**

```r
## S3 method for class 'conjoint'
summary(object, show = "", mc_diag = FALSE, additional = FALSE, dec = 3, ...)
```

**Arguments**

- `object`: Return value from `conjoint`
- `show`: Level in by variable to analyze (e.g., a specific respondent)
- `mc_diag`: Shows multicollinearity diagnostics.
- `additional`: Show additional regression results
- `dec`: Number of decimals to show
- `...`: further arguments passed to or from other methods

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/conjoint.html](https://radiant-rstats.github.io/docs/multivariate/conjoint.html) for an example in Radiant

**See Also**

- `conjoint` to generate results
- `plot.conjoint` to plot results

**Examples**

```r
result <- conjoint(mp3, rvar = "Rating", evar = "Memory:Shape")
summary(result, mc_diag = TRUE)
```
Description

Summary method for the full_factor function

Usage

## S3 method for class 'full_factor'
summary(object, cutoff = 0, fsort = FALSE, dec = 2, ...)

Arguments

- **object**: Return value from **full_factor**
- **cutoff**: Show only loadings with (absolute) values above cutoff (default = 0)
- **fsort**: Sort factor loadings
- **dec**: Number of decimals to show
- **...**: further arguments passed to or from other methods

Details

See [https://radiant-rstats.github.io/docs/multivariate/full_factor.html](https://radiant-rstats.github.io/docs/multivariate/full_factor.html) for an example in Radiant

See Also

- **full_factor** to calculate results
- **plot.full_factor** to plot results

Examples

```r
result <- full_factor(shopping , "v1:v6", nr_fact = 2)
summary(result)
summary(result, cutoff = .5, fsort = TRUE)
```
summary.hclus

Summary method for the hclus function

Description

Summary method for the hclus function

Usage

## S3 method for class 'hclus'
summary(object, ...)

Arguments

object
Return value from hclus

... further arguments passed to or from other methods

Details

See https://radiant-rstats.github.io/docs/multivariate/hclus.html for an example in Radiant

See Also

hclus to generate results
plot.hclus to plot results

Examples

result <- hclus(shopping, vars = c("v1:v6"))
summary(result)

summary.kclus

Summary method for kclus

Description

Summary method for kclus

Usage

## S3 method for class 'kclus'
summary(object, dec = 2, ...)

Arguments

object: Return value from `kclus`

dec: Number of decimals to show

... further arguments passed to or from other methods

Details

See [https://radiant-rstats.github.io/docs/multivariate/kclus.html](https://radiant-rstats.github.io/docs/multivariate/kclus.html) for an example in Radiant

See Also

`kclus` to generate results

`plot.kclus` to plot results

`store.kclus` to add cluster membership to the selected dataset

Examples

```r
result <- kclus(shopping, vars = "v1:v6", nr_clus = 3)
summary(result)
```

summary.mds

Summary method for the `mds` function

Description

Summary method for the `mds` function

Usage

```r
## S3 method for class 'mds'
summary(object, dec = 2, ...)
```

Arguments

object: Return value from `mds`

dec: Rounding to use for output (default = 2). +1 used for stress measure

... further arguments passed to or from other methods

Details

See [https://radiant-rstats.github.io/docs/multivariate/mds.html](https://radiant-rstats.github.io/docs/multivariate/mds.html) for an example in Radiant
See Also

- `mds` to calculate results
- `plot.mds` to plot results

Examples

```r
result <- mds(city, "from", "to", "distance")
summary(result, dec = 1)
```

```
result <- pre_factor(shopping, "v1:v6")
summary(result)
pre_factor(computer, "high_end:business") %>% summary()
```
Summary method for the `prmap` function

**Description**

Summary method for the `prmap` function

**Usage**

```r
# S3 method for class 'prmap'
summary(object, cutoff = 0, dec = 2, ...)
```

**Arguments**

- `object`: Return value from `prmap`
- `cutoff`: Show only loadings with (absolute) values above cutoff (default = 0)
- `dec`: Rounding to use for output
- `...`: further arguments passed to or from other methods

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/prmap.html](https://radiant-rstats.github.io/docs/multivariate/prmap.html) for an example in Radiant

**See Also**

- `prmap` to calculate results
- `plot.prmap` to plot results

**Examples**

```r
result <- prmap(computer, brand = "brand", attr = "high_end:business")
summary(result)
summary(result, cutoff = .3)
prmap(
  computer, brand = "brand", attr = "high_end:dated",
  pref = c("innovative","business")
) %>% summary()
```
Function to calculate the PW and IW table for conjoint

Description
Function to calculate the PW and IW table for conjoint

Usage
the_table(model, dataset, evar)

Arguments
- model: Tidied model results (broom) output from `conjoint` passed on by `summary.conjoint`
- dataset: Conjoint data
- evar: Explanatory variables used in the conjoint regression

Details
See https://radiant-rstats.github.io/docs/multivariate/conjoint.html for an example in Radiant

See Also
- `conjoint` to generate results
- `summary.conjoint` to summarize results
- `plot.conjoint` to plot results

Examples
```r
result <- conjoint(mp3, rvar = "Rating", evar = "Memory:Shape")
the_table(tidy(result$model_list[[1]][["model"])], result$dataset, result$evar)
```

Toothpaste attitudes

Description
Toothpaste attitudes

Usage
data(toothpaste)
Format

A data frame with 60 rows and 10 variables

Details

Attitudinal data on toothpaste for 60 consumers. Description provided in attr(toothpaste, "description")

<table>
<thead>
<tr>
<th>tpbrands</th>
<th>Toothpaste brands</th>
</tr>
</thead>
</table>

Description

Toothpaste brands

Usage

data(tpbrands)

Format

A data frame with 45 rows and 4 variables

Details

Perceived (dis)similarity of a set of toothpaste brands. The dataset is used to illustrate multidimensional scaling (MDS). Description provided in attr(tpbrands, "description")
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