Package 'radiant'

August 10, 2015

```
Title Business Analytics using R and Shiny
Version 0.2.77
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Description A platform-independent browser-
      based interface for business analytics in R, based on the Shiny package.
Depends R (>= 3.2.0),
      magrittr (>= 1.5),
      ggplot2 (>= 1.0.0),
      tidyr (>= 0.2.0),
      dplyr (>= 0.4.2)
Imports DiagrammeR(>= 0.7),
      car (>= 2.0.22),
      MASS (>= 7.3),
      gridExtra (\geq 2.0.0),
      AlgDesign (>= 1.1.7.3),
      psych (>= 1.4.8.11),
      GPArotation (>= 2014.11.1),
      wordcloud (\geq 2.5),
      markdown (>= 0.7.4),
      rmarkdown (>= 0.4.2),
      knitr (>= 1.8),
      ggdendro (>= 0.1.15),
      broom (>= 0.3.6),
      pryr (>= 0.1),
      shiny (>= 0.12.1),
      shinyAce (>= 0.2.1),
      lubridate (>= 1.3.3),
      DT (>= 0.1.29),
      MathJaxR (>= 0.11),
      readr (>= 0.1.1),
      data.tree(>= 0.1.7),
      yaml(>= 2.1.13)
Suggests ggvis (>= 0.4),
      devtools (>= 1.7.0),
      testthat (>= 0.9.1),
      covr (>= 1.2.0)
```

BugReports https://github.com/vnijs/radiant/issues

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LazyData true

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Description

Avengers

Usage

data(avengers)

changedata 5

Format

A data frame with 7 rows and 4 variables

Details

List of avengers. The dataset is used to illustrate data merging / joining. Description provided in attr(avengers, "description")

changedata

Change data

Description

Change data

Usage

```
changedata(dataset, vars = c(), var_names = names(vars))
```

Arguments

dataset Name of the dataframe to change

vars New variables to add to the data.frame

var_names Names for the new variables to add to the data.frame

Value

None

```
r_data <<- list()
r_data$dat <<- data.frame(a = 1:20)
changedata("dat",20:1, "b")
head(r_data$dat)
rm(r_data, envir = .GlobalEnv)</pre>
```

6 clean_loadings

city

City distances

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")

clean_loadings

Sort and clean loadings

Description

Sort and clean loadings

Usage

```
clean_loadings(floadings, cutoff = 0, fsort = FALSE, dec = 8)
```

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

Details

```
See \label{lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html:lem:html
```

```
result <- full_factor("diamonds",c("price","carat","table","x","y"))
clean_loadings(result$floadings, TRUE, .5, 2)</pre>
```

combinedata 7

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Combine datasets using dplyr's bind and join functions

Description

Combine datasets using dplyr's bind and join functions

Usage

```
combinedata(dataset, cmb_dataset, by = "", type = "inner_join", name = "")
```

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

cmb_dataset Dataset name (string) to combine with 'dataset'. This can be a dataframe in the

global environment or an element in an r_data list from Radiant

by Variables used to combine 'dataset' and 'cmb_dataset'

type The main bind and join types from the dplyr package are provided. **inner_join**

returns all rows from x with matching values in y, and all columns from x and y. If there are multiple matches between x and y, all match combinations are returned. **left_join** returns all rows from x, and all columns from x and y. If there are multiple matches between x and y, all match combinations are returned. **right_join** is equivalent to a left join for datasets y and x. **full_join** combines two datasets, keeping rows and columns that appear in either. **semi_join** returns all rows from x with matching values in y, keeping just columns from x. A semi join differs from an inner join because an inner join will return one row of x for each matching row of y, whereas a semi join will never duplicate rows of x. **anti_join** returns all rows from x without matching values in y, keeping only columns from x. **bind_rows** and **bind_cols** are also included, as are **intersect**, **union**, and **setdiff**. See http://vnijs.github.io/radiant/base/combine.

html for further details

name Name for the combined dataset

Details

See http://vnijs.github.io/radiant/base/combine.html for an example in Radiant

Value

If list 'r_data' exists the combined dataset is added as 'name'. Else the combined dataset will be returned as 'name'

```
combinedata("titanic", "titanic_pred",c("pclass", "sex", "age")) %>% head
titanic %>% combinedata("titanic_pred",c("pclass", "sex", "age")) %>% head
titanic %>% combinedata(titanic_pred,c("pclass", "sex", "age")) %>% head
avengers %>% combinedata(superheroes, type = "bind_cols")
combinedata("avengers", "superheroes", type = "bind_cols")
avengers %>% combinedata(superheroes, type = "bind_rows")
```

8 compare_means

compare_means (Compare means for two or more variables
-----------------	---

Description

Compare means for two or more variables

Usage

```
compare_means(dataset, var1, var2, samples = "independent",
  alternative = "two.sided", conf_lev = 0.95, adjust = "none",
  test = "t", data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant		
var1	A numeric variable or factor selected for comparison		
var2	One or more numeric variables for comparison. If var1 is a factor only one variable can be selected and the mean of this variable is compared across (factor) levels of va1r		
samples	Are samples indepent ("independent") or not ("paired")		
alternative	The alternative hypothesis ("two.sided", "greater" or "less")		
conf_lev	Span of the confidence interval		
adjust	Adjustment for multiple comparisons ("none" or "bonf" for Bonferroni)		
test	T-test ("t") or Wilcox ("wilcox")		
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")		

Details

```
See \ http://vnijs.github.io/radiant/quant/compare\_means.html \ for \ an \ example \ in \ Radiant
```

Value

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

See Also

```
summary.compare_means to summarize results
plot.compare_means to plot results
```

```
result <- compare_means("diamonds","cut","price")
result <- diamonds %>% compare_means("cut","price")
```

compare_props 9

compare_props	Compare proportions across groups	

Description

Compare proportions across groups

Usage

```
compare_props(dataset, var1, var2, levs = "", alternative = "two.sided",
  conf_lev = 0.95, adjust = "none", data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
var1	A grouping variable to split the data for comparisons
var2	The variable to calculate proportions for
levs	The factor level selected for the proportion comparison
alternative	The alternative hypothesis ("two.sided", "greater" or "less")
conf_lev	Span of the confidence interval
adjust	Adjustment for multiple comparisons ("none" or "bonf" for Bonferroni)
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")

Details

```
See \ http://vnijs.github.io/radiant/quant/compare\_props.html \ for \ an \ example \ in \ Radiant
```

Value

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

See Also

```
summary.compare_props to summarize results
plot.compare_props to plot results
```

```
result <- compare_props("titanic", "pclass", "survived")
result <- titanic %>% compare_props("pclass", "survived")
```

10 conjoint

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COIII	μu	LE	

Perceptions of computer (re)sellers

Description

Perceptions of computer (re)sellers

Usage

```
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

```
conjoint(dataset, dep_var, indep_var, reverse = FALSE, data_filter = "")
```

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

dep_var The dependent variable (e.g., profile ratings)

indep_var Independent variables in the regression

reverse Reverse the values of the dependent variable ('dep_var')

expression should be a string (e.g., "price > 10000")

Details

See http://vnijs.github.io/radiant/marketing/conjoint.html for an example in Radiant

Value

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

conjoint_profiles 11

See Also

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

Examples

```
result <- conjoint("mp3", dep_var = "Rating", indep_var = "Memory:Shape")
result <- mp3 %>% conjoint(dep_var = "Rating", indep_var = "Memory:Shape")
```

conjoint_profiles

Create fractional factorial design for conjoint analysis

Description

Create fractional factorial design for conjoint analysis

Usage

```
conjoint_profiles(dataset)
```

Arguments

dataset

Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant

Details

```
See http://vnijs.github.io/radiant/marketing/conjoint_profiles.html for an example in Radiant
```

Value

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

See Also

```
summary.conjoint_profiles to summarize results
```

12 copy_from

copy_all

Source all package functions

Description

Source all package functions

Usage

```
copy_all(.from)
```

Arguments

.from

The package to pull the function from

Details

Equivalent of source with local=TRUE for all package functions. Adapted from functions by smbache, author of the import package. See https://github.com/smbache/import/issues/4 for a discussion. This function will be depracated when (if) it is included in https://github.com/smbache/import

Examples

```
copy_all(radiant)
```

copy_from

Source for package functions

Description

Source for package functions

Usage

```
copy_from(.from, ...)
```

Arguments

```
. from The package to pull the function from. . . Functions to pull
```

Details

Equivalent of source with local=TRUE for package functions. Written by smbache, author of the import package. See https://github.com/smbache/import/issues/4 for a discussion. This function will be depracated when (if) it is included in https://github.com/smbache/import

```
copy_from(radiant, state_init)
```

correlation 13

correlation Calculate correlations for two or more variables	
--	--

Description

Calculate correlations for two or more variables

Usage

```
correlation(dataset, vars, type = "pearson", data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
vars	Variables to include in the analysis
type	Type of correlations to calculate. Options are "pearson", "spearman", and "kendall". "pearson" is the default
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")

Details

```
See http://vnijs.github.io/radiant/quant/correlation.html for an example in Radiant
```

Value

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

See Also

```
summary.correlation_ to summarize results
plot.correlation_ to plot results
```

```
result <- correlation("diamonds", c("price","carat","clarity"))
result <- correlation("diamonds", "price:table")
result <- diamonds %>% correlation("price:table")
```

14 cross_tabs

eross_tabs Evaluate associations between ca	ntegorical variables
eross_tabs Evaluate associations between ca	ntegorical variables

Description

Evaluate associations between categorical variables

Usage

```
cross_tabs(dataset, var1, var2, data_filter = "")
```

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

var1 A categorical variable

var2 Another categorical variable

expression should be a string (e.g., "price > 10000")

Details

```
See http://vnijs.github.io/radiant/quant/cross_tabs.html for an example in Radiant
```

Value

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

See Also

```
summary.cross_tabs to summarize results
plot.cross_tabs to plot results
```

```
result <- cross_tabs("newspaper", "Income", "Newspaper")
result <- newspaper %>% cross_tabs("Income", "Newspaper")
```

cv 15

c۷

Coefficient of variation

Description

Coefficient of variation

Usage

```
cv(x, na.rm = TRUE)
```

Arguments

Input variable

na.rm If TRUE missing values are removed before calculation

Value

Coefficient of variation

Examples

```
cv(runif (100))
```

diamonds

Diamond prices

Description

Diamond prices

Usage

data(diamonds)

Format

A data frame with 3000 rows and 10 variables

Details

A sample of 3,000 from the diamonds dataset bundeled with ggplot2. Description provided in attr(diamonds,"description")

16 explore

dtree

Create a decision tree

Description

Create a decision tree

Usage

dtree(yl)

Arguments

yl

A yaml string or a list (e.g., from yaml::yaml.load_file())

Details

See http://vnijs.github.io/radiant/base/dtree.html for an example in Radiant

Value

A list with the initial tree and the calculated tree

See Also

```
summary.dtree to summarize results plot.dtree to plot results
```

explore

Explore data

Description

Explore data

Usage

```
explore(dataset, vars = "", byvar = "", fun = "mean_rm",
   data_filter = "", shiny = FALSE)
```

Arguments

dataset	Dataset name (string).	This can be a dataframe in the glo	bal environment or an
---------	------------------------	------------------------------------	-----------------------

element in an r_data list from Radiant

vars (Numerical) variables to summaries

byvar Variable(s) to group data by before summarizing

fun Functions to use for summarizing

expression should be a string (e.g., "price > 10000")

shiny Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny

app

factorizer 17

Details

See http://vnijs.github.io/radiant/base/explore.html for an example in Radiant

Value

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

See Also

```
summary.explore to show summaries
```

Examples

```
result <- explore("diamonds", "price:x")
summary(result)
result <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew"))
summary(result)
diamonds %>% explore("price", byvar = "cut", fun = c("length", "skew"))
```

factorizer

Convert character to factors as needed

Description

Convert character to factors as needed

Usage

```
factorizer(dat, safx = 10)
```

Arguments

dat Data.frame

safx Values to levels ratio

Value

Data.frame with factors

18 flip

ff_design

Function to generate a fractional factorial design

Description

Function to generate a fractional factorial design

Usage

```
ff_design(attr, trial = 0, rseed = 172110)
```

Arguments

attr Attributes used to generate profiles

trial Number of trials that have already been run

rseed Random seed to use

Details

See http://vnijs.github.io/radiant/marketing/conjoint_profiles.html for an example in Radiant

See Also

```
conjoint_profiles to calculate results
summary.conjoint_profiles to summarize results
```

flip

Flip the DT table to put Function, Variable, or Group by on top

Description

Flip the DT table to put Function, Variable, or Group by on top

Usage

```
flip(expl, top)
```

Arguments

expl Return value from explore

top The variable (type) to display at the top of the table ("fun" for Function, "var"

for Variable, and "byvar" for Group by

Details

See http://vnijs.github.io/radiant/base/explore.html for an example in Radiant

full_factor 19

See Also

```
explore to generate summaries
make_expl to create the DT table
```

Examples

```
result <- explore("diamonds", "price:x") %>% flip("var")
result <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew")) %>%
  flip("byvar")
```

full_factor

Factor analysis (PCA)

Description

Factor analysis (PCA)

Usage

```
full_factor(dataset, vars, method = "PCA", nr_fact = 2,
  rotation = "varimax", data_filter = "")
```

Arguments

Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant

vars

Variables to include in the analysis

method

Factor extraction method to use

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")

Details

```
See http://vnijs.github.io/radiant/marketing/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
```

```
result <- full_factor("diamonds",c("price","carat","table","x","y"))
result <- full_factor("diamonds",c("price","carat","table","x","y"), method = "maxlik")
result <- diamonds %>% full_factor(c("price","carat","table","x","y"), method = "maxlik")
```

20 getdata

getclass

Get variable class

Description

Get variable class

Usage

```
getclass(dat)
```

Arguments

dat

Dataset to evaluate

Details

Get variable class information for each column in a data.frame

Value

Vector with class information for each variable

Examples

```
getclass(mtcars)
```

getdata

Get data for analysis functions

Description

Get data for analysis functions

Usage

```
getdata(dataset, vars = "", filt = "", rows = NULL, na.rm = TRUE)
```

Arguments

dataset	Name of the dataframe
vars	Variables to extract from the dataframe
filt	Filter to apply to the specified dataset. For example "price > 10000 " if dataset is "diamonds" (default is "")
rows	Select rows in the specified dataset. For example "1:10" for the first 10 rows or " $n()-10:n()$ " for the last 10 rows (default is NULL)
na.rm	Remove rows with missing values (default is TRUE)

getsummary 21

Value

Data.frame with specified columns and rows

Examples

```
r_data <<- list()
r_data$dat <<- mtcars
getdata("dat","mpg:vs", filt = "mpg > 20", rows = 1:5)
rm(r_data, envir = .GlobalEnv)
```

getsummary

Create data.frame summary

Description

Create data.frame summary

Usage

```
getsummary(dat, dc = getclass(dat))
```

Arguments

dat Data.frame

dc Class for each variable

Details

Used by Transform

glm_reg

Generalized linear models (GLM)

Description

Generalized linear models (GLM)

Usage

```
glm_reg(dataset, dep_var, indep_var, lev = "", link = "logit",
  int_var = "", check = "", data_filter = "")
```

22 hier_clus

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant dep_var The dependent variable in the logit (probit) model indep_var Independent variables in the model lev The level in the dependent variable defined as _success_ Link function for _glm_ ('logit' or 'probit'). 'logit' is the default link int_var Interaction term to include in the model (not implement) Optional output or estimation parameters. "vif" to show the multicollinearity check diagnostics. "confint" to show coefficient confidence interval estimates. "odds" to show odds ratios and confidence interval estimates. "standardize" to output standardized coefficient estimates. "stepwise" to apply step-wise selection of variables

Expression entered in, e.g., Data > View to filter the dataset in Radiant. The

data_filter

See http://vnijs.github.io/radiant/quant/glm_reg.html for an example in Radiant

expression should be a string (e.g., "price > 10000")

Value

Details

A list with all variables defined in glm_reg as an object of class glm_reg

See Also

```
summary.glm_reg to summarize the results
plot.glm_reg to plot the results
predict.glm_reg to generate predictions
plot.glm_predict to plot prediction output
```

Examples

```
result <- glm_reg("titanic", "survived", c("pclass", "sex"), lev = "Yes")
result <- glm_reg("titanic", "survived", c("pclass", "sex"))</pre>
```

hier_clus

Hierarchical cluster analysis

Description

Hierarchical cluster analysis

Usage

```
hier_clus(dataset, vars, distance = "sq.euclidian", method = "ward.D",
   data_filter = "")
```

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Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

vars Vector of variables to include in the analysis

distance Distance method Method

expression should be a string (e.g., "price > 10000")

Details

See http://vnijs.github.io/radiant/marketing/hier_clus.html for an example in Radiant

Value

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

See Also

```
summary.hier_clus to summarize results
plot.hier_clus to plot results
```

Examples

```
result <- hier_clus("shopping", vars = c("v1:v6"))</pre>
```

is_empty

Is a character variable defined

Description

Is a character variable defined

Usage

```
is\_empty(x, empty = "")
```

Arguments

x Character value to evaluate

empty Indicate what 'empty' means. Default is empty string (i.e., "")

Details

Is a variable NULL or an empty string

Value

TRUE if empty, else FALSE

24 items

Examples

```
is_empty("")
is_empty(NULL)
```

is_string

Is input a string?

Description

Is input a string?

Usage

```
is_string(x)
```

Arguments

Χ

Input

Details

Is input a string

Value

TRUE if string, else FALSE

Examples

```
is_string("")
is_string("data")
is_string(c("data","data"))
is_string(NULL)
```

iterms

Create a vector of interaction terms

Description

Create a vector of interaction terms

Usage

```
iterms(vars, nway, sep = ":")
```

Arguments

vars	Variables lables to use	

nway 2-way (2) or 3-way (3) interactions labels to create sep Separator between variable names (default is:)

kmeans_clus 25

Value

Character vector of interaction term labels

Examples

```
paste0("var", 1:3) %>% iterms(2)
paste0("var", 1:3) %>% iterms(3)
paste0("var", 1:3) %>% iterms(2, sep = ".")
```

kmeans_clus

K-means cluster analysis

Description

K-means cluster analysis

Usage

```
kmeans_clus(dataset, vars, hc_init = TRUE, distance = "sq.euclidian",
  method = "ward.D", seed = 1234, nr_clus = 2, data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r _data list from Radiant
vars	Vector of variables to include in the analysis
hc_init	Use centers from hier_clus as the starting point
distance	Distance for hier_clus
method	Method for hier_clus
seed	Random see to use for kmeans if hc_init is FALSE
nr_clus	Number of clusters to extract
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")

Details

See $http://vnijs.github.io/radiant/marketing/kmeans_clus.html \ for \ an \ example \ in \ Radiant$

Value

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

See Also

```
summary.kmeans_clus to summarize results
plot.kmeans_clus to plot results
save_membership to add cluster membership to the selected dataset
```

```
result <- kmeans_clus("shopping", c("v1:v6"))</pre>
```

26 launcher

kurtosi

Exporting the kurtosi function from the psych package

Description

Exporting the kurtosi function from the psych package

launcher

Create a launcher on the desktop for Windows (.bat), Mac (.command), or Linux (.sh)

Description

Create a launcher on the desktop for Windows (.bat), Mac (.command), or Linux (.sh)

Usage

```
launcher(app = c("marketing", "quant", "base"))
```

Arguments

app

App to run when the desktop icon is double-clicked ("marketing", "quant", or "base"). Default is "marketing"

Details

On Windows/Mac/Linux a file named radiant.bat/radiant.command/radiant.sh will be put on the desktop. Double-click the file to launch the specified Radiant app

See Also

```
win_launcher to create a shortcut on Windows
mac_launcher to create a shortcut on Mac
lin_launcher to create a shortcut on Linux
```

lin_launcher 27

lin_launcher

Create a launcher and updater for Linux (.sh)

Description

Create a launcher and updater for Linux (.sh)

Usage

```
lin_launcher(app = c("marketing", "quant", "base"))
```

Arguments

app

App to run when the desktop icon is double-clicked ("marketing", "quant", or "base"). Default is "marketing"

Details

On Linux a file named 'radiant.sh' and one named 'update_radiant.sh' will be put on the desktop. Double-click the file to launch the specified Radiant app or update Radiant to the latest version

Examples

```
if (interactive()) {
   if (Sys.info()["sysname"] == "Linux") {
      lin_launcher()
      fn <- paste0("/home/",Sys.getenv("USER"),"/Desktop/radiant.sh")
      if (!file.exists(fn))
        stop("Linux launcher not created")
      else
        unlink(fn)
   }
}</pre>
```

loadcsv

Load a csv files with read.csv and read_csv

Description

Load a csv files with read.csv and read_csv

Usage

```
loadcsv(fn, header = TRUE, sep = ",", saf = TRUE, safx = 10)
```

28 mac_launcher

Arguments

fn File name string

header Header in file (TRUE, FALSE)

sep Use, or; or \t

saf Convert character variables to factors if (1) there are less than 100 distinct values

(2) there are X (see safx) more values than levels

safx Values to levels ratio

Value

Data.frame with (some) variables converted to factors

mac_launcher

Create a launcher and updater for Mac (.command)

Description

Create a launcher and updater for Mac (.command)

Usage

```
mac_launcher(app = c("marketing", "quant", "base"))
```

Arguments

app

App to run when the desktop icon is double-clicked ("marketing", "quant", or "base"). Default is "marketing"

Details

On Mac a file named 'radiant.command' and one named 'update_radiant.command' will be put on the desktop. Double-click the file to launch the specified Radiant app or update Radiant to the latest version

```
if (interactive()) {
   if (Sys.info()["sysname"] == "Darwin") {
     mac_launcher()
     fn <- paste0("/Users/",Sys.getenv("USER"),"/Desktop/radiant.command")
   if (!file.exists(fn))
     stop("Mac launcher not created")
   else
     unlink(fn)
  }
}</pre>
```

make_dt 29

make_dt

Make a pivot tabel in DT

Description

Make a pivot tabel in DT

Usage

```
make_dt(pvt, format = "none", check = "")
```

Arguments

pvt Return value from pivotr

format Show Color bar ("color_bar"), Heat map ("heat"), or None ("none")

check Display numbers as percentages ("perc")

Details

See http://vnijs.github.io/radiant/base/pivotr.html for an example in Radiant

See Also

```
pivotr to create the pivot-table using dplyr summary.pivotr to print a plain text table
```

Examples

```
pivotr("diamonds", cvars = "cut") %>% make_dt
pivotr("diamonds", cvars = c("cut","clarity")) %>% make_dt(format = "color_bar")
ret <- pivotr("diamonds", cvars = c("cut","clarity"), normalize = "total") %>%
    make_dt(format = "color_bar", check = "perc")
```

make_expl

Make a tabel of summary statistics in DT

Description

Make a tabel of summary statistics in DT

Usage

```
make_expl(expl, top = "fun", dec = 3)
```

Arguments

expl Return value from explore

top The variable (type) to display at the top of the table ("fun" for Function, "var"

for Variable, and "byvar" for Group by

dec Number of decimals to show

30 max_rm

Details

See http://vnijs.github.io/radiant/base/explore.html for an example in Radiant

See Also

```
pivotr to create the pivot-table using dplyr summary.pivotr to print a plain text table
```

Examples

```
tab <- explore("diamonds", "price:x") %>% make_expl
tab <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew")) %>%
    make_expl(top = "byvar")
```

make_funs

Make a list of functions-as-formulas to pass to dplyr

Description

Make a list of functions-as-formulas to pass to dplyr

Usage

```
make_funs(x)
```

Arguments

Х

List of functions as strings

Value

List of functions to pass to dplyr in formula form

Examples

```
make_funs(c("mean", "sum_rm"))
```

max_rm

Max with na.rm = TRUE

Description

Max with na.rm = TRUE

Usage

```
max_rm(x)
```

Arguments

Х

Input variable

mds 31

Value

Maximum value

Examples

```
max_rm(runif (100))
```

 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,
    data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
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
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")

Details

See http://vnijs.github.io/radiant/marketing/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
```

```
result <- mds("city", "from", "to", "distance")
summary(result)
result <- mds("diamonds", "clarity", "cut", "price")
summary(result)</pre>
```

32 median_rm

mean_rm

 $Mean\ with\ na.rm = TRUE$

Description

Mean with na.rm = TRUE

Usage

```
mean_rm(x)
```

Arguments

Х

Input variable

Value

Mean value

Examples

```
mean_rm(runif (100))
```

median_rm

 $Median \ with \ na.rm = TRUE$

Description

Median with na.rm = TRUE

Usage

```
median_rm(x)
```

Arguments

Χ

Input variable

Value

Median value

```
median_rm(runif (100))
```

min_rm 33

min_rm

 $Min\ with\ na.rm = TRUE$

Description

Min with na.rm = TRUE

Usage

min_rm(x)

Arguments

Х

Input variable

Value

Minimum value

Examples

```
min_rm(runif (100))
```

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

Conjoint data for MP3 players. Description provided in attr(mp3,"description")

nmissing nmissing

newspaper

Newspaper readership

Description

Newspaper readership

Usage

```
data(newspaper)
```

Format

A data frame with 580 rows and 2 variables

Details

Newspaper readership data for 580 consumers. Description provided in attr(newspaper,"description")

nmissing

Number of missing values

Description

Number of missing values

Usage

```
nmissing(x)
```

Arguments

Χ

Input variable

Value

number of missing values

```
nmissing(c("a","b",NA))
```

p25 35

p25

25th percentile

Description

25th percentile

Usage

```
p25(x, na.rm = TRUE)
```

Arguments

Х

Input variable

na.rm

If TRUE missing values are removed before calculation

Value

25th percentile

Examples

```
p25(rnorm(100))
```

p75

75th percentile

Description

75th percentile

Usage

```
p75(x, na.rm = TRUE)
```

Arguments

Х

Input variable

na.rm

If TRUE missing values are removed before calculation

Value

75th percentile

```
p75(rnorm(100))
```

36 plot.compare_means

vot	

Create a pivot table using dplyr

Description

Create a pivot table using dplyr

Usage

```
pivotr(dataset, cvars = "", nvar = "None", fun = "mean",
    normalize = "None", data_filter = "", shiny = FALSE)
```

Arguments

dataset Name of the dataframe to change

cvars Categorical variables

nvar Numerical variable

fun Function to apply to numerical variable

normalize Normalize the table by "row" total, "colum" totals, or overall "total"

10000")

shiny Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny

app

Details

Create a pivot-table. See http://vnijs.github.io/radiant/base/pivotr.html for an example in Radiant

Examples

```
result <- pivotr("diamonds", cvars = "cut")$tab
result <- pivotr("diamonds", cvars = c("cut","clarity","color"))$tab
result <- pivotr("diamonds", cvars = "cut:clarity", nvar = "price")$tab</pre>
```

plot.compare_means

Plot method for the compare_means function

Description

Plot method for the compare_means function

Usage

```
## S3 method for class 'compare_means'
plot(x, plots = "bar", shiny = FALSE, ...)
```

plot.compare_props 37

Arguments

X	Return value from compare_means
plots	One or more plots ("bar", "box", or "density")
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/compare_means.html for an example in Radiant

See Also

```
compare_means to calculate results
summary.compare_means to summarize results
```

Examples

```
result <- compare_means("diamonds","cut","price")
plot(result, plots = c("bar","density"))</pre>
```

plot.compare_props

Plot method for the compare_props function

Description

Plot method for the compare_props function

Usage

```
## S3 method for class 'compare_props'
plot(x, plots = "props", shiny = FALSE, ...)
```

Arguments

X	Return value from compare_props
plots	One or more plots of proportions or counts ("props" or "counts")
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/compare_props.html for an example in Radiant

See Also

```
compare_props to calculate results
summary.compare_props to summarize results
```

```
result <- compare_props("titanic", "pclass", "survived")
plot(result, plots = c("props","counts"))</pre>
```

38 plot.correlation_

plot.conjoint

Plot method for the conjoint function

Description

Plot method for the conjoint function

Usage

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

Arguments

```
x Return value from conjoint

plots Show either the part-worth ("pw") or importance-weights ("iw") plot
scale_plot Scale the axes of the part-worth plots to the same range
shiny Did the function call originate inside a shiny app
... further arguments passed to or from other methods
```

Details

See http://vnijs.github.io/radiant/marketing/conjoint.html for an example in Radiant

See Also

```
conjoint to generate results
summary.conjoint to summarize results
```

Examples

```
result <- conjoint(dataset = "mp3", dep_var = "Rating", indep_var = "Memory:Shape")
plot(result, scale_plot = TRUE)
plot(result, plots = "iw")</pre>
```

plot.correlation_

Plot method for the correlation function

Description

Plot method for the correlation function

Usage

```
## S3 method for class 'correlation_' plot(x, ...)
```

plot.cross_tabs 39

Arguments

x Return value from correlation

. . . further arguments passed to or from other methods.

Details

See http://vnijs.github.io/radiant/quant/correlation.html for an example in Radiant

See Also

```
correlation to calculate results
summary.correlation_ to summarize results
```

Examples

```
result <- correlation("diamonds",c("price","carat","clarity"))
plot(result)
diamonds %>% correlation("price:clarity") %>% plot
```

plot.cross_tabs

Plot method for the cross_tabs function

Description

Plot method for the cross_tabs function

Usage

```
## S3 method for class 'cross_tabs'
plot(x, check = "", shiny = FALSE, ...)
```

Arguments

Х

check	Show plots for variables var1 and var2. "observed" for the observed frequencies
	table, "expected" for the expected frequencies table (i.e., frequencies that would
	be expected if the null hypothesis holds), "chi_sq" for the contribution to the
	overall chi-squared statistic for each cell (i.e., (o - e)^2 / e), "dev_std" for the
	standardized differences between the observed and expected frequencies (i.e., (o
	- e) / sqrt(e)), and "dev_perc" for the percentage difference between the observed

and expected frequencies (i.e., (o - e) / e)

shiny Did the function call originate inside a shiny app
... further arguments passed to or from other methods

Return value from cross_tabs

Details

See http://vnijs.github.io/radiant/quant/cross_tabs.html for an example in Radiant

40 plot.dtree

See Also

```
cross_tabs to calculate results
summary.cross_tabs to summarize results
```

Examples

```
result <- cross_tabs("newspaper", "Income", "Newspaper")
plot(result, check = c("observed","expected","chi_sq"))
newspaper %>% cross_tabs("Income", "Newspaper") %>% plot(c("observed","expected"))
```

plot.dtree

Plot method for the dtree function

Description

Plot method for the dtree function

Usage

```
## S3 method for class 'dtree'
plot(x, final = FALSE, shiny = FALSE, ...)
```

Arguments

X	Return value from dtree
final	If TRUE plot the decision tree solution, else the initial decision tree
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/dtree.html for an example in Radiant

See Also

```
dtree to generate the result summary.dtree to summarize results
```

plot.full_factor 41

plot.full_factor

Plot method for the full_factor function

Description

Plot method for the full_factor function

Usage

```
## S3 method for class 'full_factor'
plot(x, shiny = FALSE, ...)
```

Arguments

```
    x Return value from full_factor
    shiny Did the function call originate inside a shiny app
    ... further arguments passed to or from other methods
```

Details

```
See http://vnijs.github.io/radiant/marketing/full_factor.html for an example in Radiant
```

See Also

```
full_factor to calculate results plot.full_factor to plot results
```

Examples

```
result <- full_factor("diamonds",c("price","carat","table"))
plot(result)
result <- full_factor("computer","high_end:business")
summary(result)</pre>
```

plot.glm_predict

Plot method for the predict.glm_reg function

Description

Plot method for the predict.glm_reg function

Usage

```
## S3 method for class 'glm_predict'
plot(x, xvar = "", facet_row = ".", facet_col = ".",
    color = "none", conf_lev = 0.95, ...)
```

42 plot.glm_reg

Arguments

X	Return value from predict.glm_reg.
xvar	Variable to display along the X-axis of the plot
facet_row	Create vertically arranged subplots for each level of the selected factor variable
facet_col	Create horizontally arranged subplots for each level of the selected factor variable
color	Adds color to a scatter plot to generate a heat map. For a line plot one line is created for each group and each is assigned a different colour
conf_lev	Confidence level to use for prediction intervals (.95 is the default). Note that the error bars for predictions are approximations at this point.
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/glm_reg.html for an example in Radiant

See Also

```
glm_reg to generate the result
summary.glm_reg to summarize results
plot.glm_reg to plot results
predict.glm_reg to generate predictions
```

Examples

```
result <- glm_reg("titanic", "survived", c("pclass", "sex", "age"), lev = "Yes")
pred <- predict(result, pred_cmd = "pclass = levels(pclass)")
plot(pred, xvar = "pclass")
pred <- predict(result, pred_cmd = "age = 0:100")
plot(pred, xvar = "age")
pred <- predict(result, pred_cmd = "pclass = levels(pclass), sex = levels(sex)")
plot(pred, xvar = "pclass", color = "sex")
pred <- predict(result, pred_cmd = "pclass = levels(pclass), age = seq(0,100,20)")
plot(pred, xvar = "pclass", color = "age")
plot(pred, xvar = "age", color = "pclass")
pred <- predict(result, pred_cmd="pclass=levels(pclass), sex=levels(sex), age=seq(0,100,20)")
plot(pred, xvar = "age", color = "sex", facet_col = "pclass")
plot(pred, xvar = "age", color = "pclass", facet_col = "sex")
pred <- predict(result, pred_cmd="pclass=levels(pclass), sex=levels(sex), age=seq(0,100,5)")
plot(pred, xvar = "age", color = "sex", facet_col = "pclass")
plot(pred, xvar = "age", color = "sex", facet_col = "pclass")
plot(pred, xvar = "age", color = "sex", facet_col = "pclass")
plot(pred, xvar = "age", color = "sex", facet_col = "pclass")
plot(pred, xvar = "age", color = "pclass", facet_col = "sex")</pre>
```

plot.glm_reg

Plot method for the glm_reg function

Description

Plot method for the glm_reg function

plot.hier_clus 43

Usage

```
## S3 method for class 'glm_reg'
plot(x, plots = "", conf_lev = 0.95, intercept = FALSE,
    shiny = FALSE, ...)
```

Arguments

X	Return value from glm_reg
plots	Plots to produce for the specified GLM model. Use "" to avoid showing any plots (default). "hist" shows histograms of all variables in the model. "scatter" shows scatter plots (or box plots for factors) for the dependent variable with each independent variable. "dashboard" is a series of four plots used to visually evaluate model. "coef" provides a coefficient plot
conf_lev	Confidence level to use for coefficient and odds confidence intervals (.95 is the default)
intercept	Include the intercept in the coefficient plot (TRUE or FALSE). FALSE is the default
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/glm_reg.html for an example in Radiant

See Also

```
glm_reg to generate results
plot.glm_reg to plot results
predict.glm_reg to generate predictions
plot.glm_predict to plot prediction output
```

Examples

```
result <- glm_reg("titanic", "survived", c("pclass", "sex"), lev = "Yes")
plot(result, plots = "coef")</pre>
```

plot.hier_clus

Plot method for the hier_clus function

Description

Plot method for the hier_clus function

Usage

```
## S3 method for class 'hier_clus'
plot(x, plots = c("scree", "diff"), cutoff = 0.02,
    shiny = TRUE, ...)
```

44 plot.kmeans_clus

Arguments

x	Return value from hier_clus
plots	Plots to return. "diff" shows the percentage change in within-cluster heterogeneity as respondents are group 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
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/marketing/hier_clus.html for an example in Radiant

See Also

```
summary.hier_clus to summarize results
plot.hier_clus to plot results
```

Examples

```
result <- hier_clus("shopping", vars = c("v1:v6"))
plot(result, plots = c("diff", "scree"), cutoff = .05)
plot(result, plots = "dendro", cutoff = 0)
shopping %>% hier_clus(vars = c("v1:v6")) %>% plot
```

plot.kmeans_clus

Plot method for kmeans_clus

Description

Plot method for kmeans_clus

Usage

```
## S3 method for class 'kmeans_clus'
plot(x, shiny = FALSE, ...)
```

Arguments

Х	Return value from kmeans_clus
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/marketing/kmeans_clus.html for an example in Radiant

plot.mds 45

See Also

```
kmeans_clus to generate results
summary.kmeans_clus to summarize results
save_membership to add cluster membership to the selected dataset
```

Examples

```
result <- kmeans_clus("shopping", vars = c("v1:v6"))
plot(result)</pre>
```

plot.mds

Plot method for the mds function

Description

Plot method for the mds function

Usage

```
## S3 method for class 'mds'
plot(x, rev_dim = "", fontsz = 1.3, ...)
```

Arguments

```
    x Return value from mds
    rev_dim Flip the axes in plots
    fontsz Font size to use in plots
    further arguments passed to or from other methods
```

Details

See http://vnijs.github.io/radiant/marketing/mds.html for an example in Radiant

See Also

```
mds to calculate results summary.mds to plot results
```

```
result <- mds("city","from","to","distance")
plot(result)
plot(result, rev_dim = 1:2)
plot(result, rev_dim = 1:2, fontsz = 2)</pre>
```

46 plot.pmap

plot.pivotr	Plot method for the pivotr function
-------------	-------------------------------------

Description

Plot method for the pivotr function

Usage

```
## S3 method for class 'pivotr'
plot(x, type = "dodge", flip = FALSE, shiny = FALSE, ...)
```

Arguments

X	Return value from pivotr
type	Plot type to use ("fill" or "dodge" (default))
flip	Flip the axes in a plot (FALSE or TRUE)
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/base/pivotr for an example in Radiant

See Also

```
pivotr to generate summaries summary.pivotr to show summaries
```

plot.pmap

Plot method for the pmap function

Description

Plot method for the pmap function

Usage

```
## S3 method for class 'pmap'
plot(x, plots = "", scaling = 2.1, fontsz = 1.3, ...)
```

Χ	Return value from pmap
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
	further arguments passed to or from other methods

plot.pre_factor 47

Details

See http://vnijs.github.io/radiant/marketing/pmap.html for an example in Radiant

See Also

```
pmap to calculate results
summary.pmap to plot results
```

Examples

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, ...)
```

Arguments

x Return value from pre_factor... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/marketing/pre_factor.html for an example in Radiant

See Also

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

```
result <- pre_factor("diamonds",c("price","carat","table"))
plot(result)</pre>
```

48 plot.regression

7	regression
DIOT	regression

Plot method for the regression function

Description

Plot method for the regression function

Usage

```
## S3 method for class 'regression'
plot(x, plots = "", lines = "", conf_lev = 0.95,
  intercept = FALSE, shiny = FALSE, ...)
```

Arguments

x	Return value from regression
plots	Regression plots to produce for the specified regression model. Enter "" to avoid showing any plots (default). "hist" to show histograms of all variables in the model. "correlations" for a visual representation of the correlation matrix selected variables. "scatter" to show scatter plots (or box plots for factors) for the dependent variables with each independent variable. "dashboard" for a series of six plots that can be used to evaluate model fit visually. "resid_pred" to plot the independent variables against the model residuals. "coef" for a coefficient plot with adjustable confidence intervals. "leverage" to show leverage plots for each independent variable
lines	Optional lines to include in the select plot. "line" to include a line through a scatter plot. "loess" to include a polynomial regression fit line. To include both use c("line", "loess")
conf_lev	Confidence level used to estimate confidence intervals (.95 is the default)
intercept	Include the intercept in the coefficient plot (TRUE, FALSE). FALSE is the default
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/regression.html for an example in Radiant

See Also

```
regression to generate the results
summary.regression to summarize results
predict.regression to generate predictions
```

plot.reg_predict 49

Examples

```
result <- regression("diamonds", "price", c("carat","clarity"))
plot(result, plots = "dashboard")
plot(result, plots = "dashboard", lines = c("line","loess"))
plot(result, plots = "coef", intercept = TRUE)
plot(result, plots = "coef", conf_lev = .99, intercept = TRUE)
plot(result, plots = "hist")
plot(result, plots = "scatter", lines = c("line","loess"))
plot(result, plots = "correlations")
plot(result, plots = "leverage")
plot(result, plots = "resid_pred", lines = "line")</pre>
```

plot.reg_predict

Plot method for the predict.regression function

Description

Plot method for the predict.regression function

Usage

```
## S3 method for class 'reg_predict'
plot(x, xvar = "", facet_row = ".", facet_col = ".",
    color = "none", conf_lev = 0.95, ...)
```

Arguments

X	Return value from predict.regression.
xvar	Variable to display along the X-axis of the plot
facet_row	Create vertically arranged subplots for each level of the selected factor variable
facet_col	Create horizontally arranged subplots for each level of the selected factor variable
color	Adds color to a scatter plot to generate a heat map. For a line plot one line is created for each group and each is assigned a different colour
conf_lev	Confidence level to use for prediction intervals (.95 is the default). Note that the error bars for predictions are approximations at this point.
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/regression.html for an example in Radiant

See Also

```
regression to generate the result
summary.regression to summarize results
plot.regression to plot results
predict.regression to generate predictions
```

50 plot.simulater

Examples

```
result <- regression("diamonds", "price", c("carat","clarity"))
pred <- predict(result, pred_cmd = "carat = 1:10")
plot(pred, xvar = "carat")
result <- regression("diamonds", "price", c("carat","clarity"), int_var = "carat:clarity")
dpred <- getdata("diamonds") %>% slice(1:100)
pred <- predict(result, pred_data = "dpred")
plot(pred, xvar = "carat", color = "clarity")
rm(dpred, envir = .GlobalEnv)</pre>
```

plot.repeater

Plot repeated simulation

Description

Plot repeated simulation

Usage

```
## S3 method for class 'repeater'
plot(x, sum_vars = "", byvar = "", fun = c("sum_rm",
    "mean_rm", "sd_rm"), shiny = FALSE, ...)
```

Arguments

X	Return value from simulater	
sum_vars	(Numerical) variables to summaries	
byvar Variable(s) to group data by before summarizi		
fun	Functions to use for summarizing	
shiny	Did the function call originate inside a shiny app	
	further arguments passed to or from other methods	

plot.simulater

Plot method for the simulater function

Description

Plot method for the simulater function

Usage

```
## S3 method for class 'simulater'
plot(x, shiny = FALSE, ...)
```

X	Return value from simulater
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

plot.single_mean 51

Details

See http://vnijs.github.io/radiant/quant/simulater for an example in Radiant

See Also

```
single_mean to generate the result
summary.single_mean to summarize results
```

Examples

plot.single_mean

Plot method for the single_mean function

Description

Plot method for the single_mean function

Usage

```
## S3 method for class 'single_mean'
plot(x, plots = "hist", shiny = FALSE, ...)
```

Arguments

X	Return value from single_mean
plots	Plots to generate. "hist" shows a histogram of the data along with vertical lines that indicate the sample mean and the confidence interval. "simulate" shows the location of the sample mean and the comparison value (comp_value). Simulation is used to demonstrate the sampling variability in the data under the null-hypothesis
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

Details

```
See http://vnijs.github.io/radiant/quant/single_mean.html for an example in Radiant
```

See Also

```
single_mean to generate the result
summary.single_mean to summarize results
```

```
result <- single_mean("diamonds","price", comp_value = 3500)
plot(result, plots = c("hist", "simulate"))</pre>
```

52 pmap

plot.single_prop

Plot method for the single_prop function

Description

Plot method for the single_prop function

Usage

```
## S3 method for class 'single_prop'
plot(x, plots = "hist", shiny = FALSE, ...)
```

Arguments

X	Return value from single_prop
plots	Plots to generate. "hist" shows a histogram of the data along with vertical lines that indicate the sample proportion and the confidence interval. "simulate" shows the location of the sample proportion and the comparison value (comp_value). Simulation is used to demonstrate the sampling variability in the data under the null-hypothesis
shiny	Did the function call originate inside a shiny app
• • •	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/single_prop.html for an example in Radiant

See Also

```
single_prop to generate the result
summary.single_prop to summarize the results
```

Examples

```
result <- single_prop("diamonds","clarity", lev = "IF", comp_value = 0.05)
plot(result, plots = c("hist", "simulate"))
result <- single_prop("titanic","pclass", lev = "1st")
plot(result, plots = c("hist","simulate"))</pre>
```

pmap

Attribute based brand maps

Description

Attribute based brand maps

Usage

```
pmap(dataset, brand, attr, pref = "", nr_dim = 2, data_filter = "")
```

predict.glm_reg 53

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

A character variable with brand names brand

attr Names of numeric variables

Names of numeric brand preference measures pref

nr_dim Number of dimensions

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")

Details

See http://vnijs.github.io/radiant/marketing/pmap.html for an example in Radiant

Value

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

See Also

```
summary.pmap to summarize results
plot.pmap to plot results
```

Examples

```
result <- pmap("computer","brand","high_end:business")</pre>
```

predict.glm_reg

Predict method for the glm_reg function

Description

Predict method for the glm_reg function

Usage

```
## S3 method for class 'glm_reg'
predict(object, pred_cmd = "", pred_data = "", ...)
```

Arguments

object	Return value from glm_reg
pred_cmd	Generate predictions using a command. For example, 'pclass = levels(pclass)' would produce predictions for the different levels of factor 'pclass'. To add another variable use a ',' (e.g., 'pclass = levels(pclass), age = seq(0,100,20)')
pred_data	Provide the name of a dataframe to generate predictions (e.g., "titanic"). The dataset must contain all columns used in the estimation
	further arguments passed to or from other methods

54 predict.regression

Details

See http://vnijs.github.io/radiant/quant/glm_reg.html for an example in Radiant

See Also

```
glm_reg to generate the result
summary.glm_reg to summarize results
plot.glm_reg to plot results
plot.glm_predict to plot prediction output
```

Examples

```
result <- glm_reg("titanic", "survived", c("pclass", "sex"), lev = "Yes")
predict(result, pred_cmd = "pclass = levels(pclass)")
glm_reg("titanic", "survived", c("pclass", "sex"), lev = "Yes") %>%
    predict(pred_cmd = "sex = c('male', 'female')")
```

predict.regression

Predict method for the regression function

Description

Predict method for the regression function

Usage

```
## S3 method for class 'regression'
predict(object, pred_cmd = "", pred_data = "",
    conf_lev = 0.95, ...)
```

Arguments

object	Return value from regression
pred_cmd	Command used to generate data for prediction
pred_data	Name of the dataset to use for prediction
conf_lev	Confidence level used to estimate confidence intervals (.95 is the default)
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/regression.html for an example in Radiant

See Also

```
regression to generate the result
summary.regression to summarize results
plot.regression to plot results
```

pre_factor 55

Examples

```
result <- regression("diamonds", "price", c("carat","clarity"))
predict(result, pred_cmd = "carat = 1:10")
predict(result, pred_cmd = "clarity = levels(clarity)")
result <- regression("diamonds", "price", c("carat","clarity"), int_var = c("carat:clarity"))
dpred <<- getdata("diamonds") %>% slice(1:10)
predict(result, pred_data = "dpred")
rm(dpred, envir = .GlobalEnv)
```

pre_factor

Evaluate if data are appropriate for PCA / Factor analysis

Description

Evaluate if data are appropriate for PCA / Factor analysis

Usage

```
pre_factor(dataset, vars, data_filter = "")
```

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

vars Variables to include in the analysis

expression should be a string (e.g., "price > 10000")

Details

```
See http://vnijs.github.io/radiant/marketing/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
```

```
result <- pre_factor("diamonds",c("price","carat","table"))</pre>
```

56 publishers

print.gtable

Print/draw method for grobs produced by gridExtra

Description

Print/draw method for grobs produced by gridExtra

Usage

```
## S3 method for class 'gtable'
print(x, ...)
```

Arguments

x a gtable object

... further arguments passed to or from other methods

Details

Print method for ggplot grobs created using arrangeGrob. Code is based on https://github.com/baptiste/gridextra/blob/master/inst/testing/shiny.R

Value

A plot

publishers

Comic publishers

Description

Comic publishers

Usage

```
data(publishers)
```

Format

A data frame with 3 rows and 2 variables

Details

List of comic publishers from http://stat545-ubc.github.io/bit001_dplyr-cheatsheet.

httml. The dataset is used to illustrate data merging / joining. Description provided in attr(publishers, "description")

radiant 57

radiant radiant

Description

radiant

Launch Radiant in the default browser

Usage

```
radiant(app = c("marketing", "quant", "base"))
```

Arguments

app Choose the app to run. Either "base", "quant", or "marketing". "marketing" is

the default

Details

See http://vnijs.github.io/radiant for documentation and tutorials

Examples

```
if (interactive()) {
  radiant("base")
  radiant("quant")
  radiant("marketing")
}
```

regression

Linear regression using OLS

Description

Linear regression using OLS

Usage

```
regression(dataset, dep_var, indep_var, int_var = "", check = "",
  data_filter = "")
```

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
dep_var	The dependent variable in the regression
indep_var	Independent variables in the regression
int_var	Interaction terms to include in the model
check	"standardize" to see standardized coefficient estimates. "stepwise" to apply stepwise selection of variables in estimation
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")

58 repeater

Details

See http://vnijs.github.io/radiant/quant/regression.html for an example in Radiant

Value

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

See Also

```
summary.regression to summarize results
plot.regression to plot results
predict.regression to generate predictions
```

Examples

```
result <- regression("diamonds", "price", c("carat","clarity"))
result <- regression("diamonds", "price", c("carat","clarity"), check = "standardize")</pre>
```

repeater

Repeat simulation

Description

Repeat simulation

Usage

```
repeater(nr = 12, vars = "", seed = "", sim = "")
```

nr	Number times to repeat the simulation
vars	Variables to use in repeated simulation
seed	To repeat a simulation with the same randomly generated values enter a number into Random seed input box.
sim	Return value from the simulater function

rndnames 59

rndnames	100 random names

Description

100 random names

Usage

```
data(rndnames)
```

Format

A data frame with 100 rows and 2 variables

Details

A list of 100 random names generated by <code>listofrandomnames.com</code>. Description provided in attr(rndnames, "description")

sample_size	Sample size calculation	

Description

Sample size calculation

Usage

```
sample_size(type = "mean", err_mean = 2, sd_mean = 10, err_prop = 0.1,
p_prop = 0.5, zval = 1.96, incidence = 1, response = 1,
pop_correction = "no", pop_size = 1000000)
```

type	Choose "mean" or "proportion"
err_mean	Acceptable Error for Mean
sd_mean	Standard deviation for Mean
err_prop	Acceptable Error for Proportion
p_prop	Initial proportion estimate for Proportion
zval	Z-value
incidence	Incidence rate (i.e., fraction of valid respondents)
response	Response rate
pop_correction	Apply correction for population size ("yes", "no")
pop_size	Population size

60 sampling

Details

See http://vnijs.github.io/radiant/quant/sample_size.html for an example in Radiant

Value

A list of variables defined in sample_size as an object of class sample_size

See Also

```
summary.sample_size to summarize results
```

Examples

```
result <- sample_size(type = "mean", err_mean = 2, sd_mean = 10)</pre>
```

sampling

Simple random sampling

Description

Simple random sampling

Usage

```
sampling(dataset, var, sample_size, data_filter = "")
```

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

var The variable to sample from sample_size Number of units to select

expression should be a string (e.g., "price > 10000")

Details

See http://vnijs.github.io/radiant/quant/sampling.html for an example in Radiant

Value

A list of variables defined in sampling as an object of class sampling

See Also

```
summary. sampling to summarize results
```

```
result <- sampling("rndnames", "Names", 10)</pre>
```

save_factors 61

save_factors

Save factor scores to active dataset

Description

Save factor scores to active dataset

Usage

```
save_factors(object)
```

Arguments

object

Return value from full_factor

Details

See $http://vnijs.github.io/radiant/marketing/full_factor.html for an example in Radiant$

Examples

```
result <- full_factor("diamonds",c("price","carat","table"))
save_factors(result)
head(diamonds)</pre>
```

save_glm_resid

Save residuals generated in the glm_reg function

Description

Save residuals generated in the glm_reg function

Usage

```
save_glm_resid(object)
```

Arguments

object

Return value from glm_reg

Details

See $\verb|http://vnijs.github.io/radiant/quant/glm_reg.html| for an example in Radiant| \\$

62 save_membership

Examples

```
result <- glm_reg("titanic", "survived", "pclass", lev = "Yes")
save_glm_resid(result)
head(titanic)</pre>
```

save_membership

Add a cluster membership variable to the active dataset

Description

Add a cluster membership variable to the active dataset

Usage

```
save_membership(object)
```

Arguments

object

Return value from kmeans_clus

Details

See $http://vnijs.github.io/radiant/marketing/kmeans_clus.html \ for \ an \ example \ in \ Radiant$

See Also

```
kmeans_clus to generate results
summary.kmeans_clus to summarize results
plot.kmeans_clus to plot results
```

```
result <- kmeans_clus("shopping", vars = c("v1:v6"))
save_membership(result)
head(shopping)</pre>
```

save_reg_resid 63

save_reg_resid

Save regression residuals

Description

Save regression residuals

Usage

```
save_reg_resid(object)
```

Arguments

object

Return value from regression

Details

See http://vnijs.github.io/radiant/quant/regression.html for an example in Radiant

Examples

```
result <- regression("diamonds", "price", c("carat","clarity"))
save_reg_resid(result)
head(diamonds)</pre>
```

 sd_rm

 $Standard\ deviation\ with\ na.rm = TRUE$

Description

Standard deviation with na.rm = TRUE

Usage

```
sd_rm(x)
```

Arguments

Χ

Input variable

Value

Standard deviation

```
sd_rm(rnorm(100))
```

set_class

serr

Standard error

Description

Standard error

Usage

```
serr(x, na.rm = TRUE)
```

Arguments

x Input variable

na.rm

If TRUE missing values are removed before calculation

Value

Standard error

Examples

```
serr(rnorm(100))
```

set_class

Alias used to set the class for analysis function return

Description

Alias used to set the class for analysis function return

Usage

```
set_class()
```

```
foo <- function(x) x^2 %>% set_class(c("foo", class(.)))
```

shopping 65

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")

sig_stars

Add stars '***' to a data.frame (from broom's 'tidy' function) based on p.values

Description

Add stars '***' to a data.frame (from broom's 'tidy' function) based on p.values

Usage

```
sig_stars(pval)
```

Arguments

pval

Vector of p-values

Details

Add stars to output from broom's 'tidy' function

Value

A vector of stars

```
sig_stars(c(.0009, .049, .009, .4, .09))
```

66 simulater

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Simulate data for decision analysis

Description

Simulate data for decision analysis

Usage

```
simulater(const = "", norm = "", unif = "", discrete = "", form = "", seed = "", name = "", nr = 1000, dat = NULL)
```

Arguments

const	A string listing the constants to include in the analysis (e.g., " $cost = 3$; $size = 4$ ")
norm	A string listing the normally distributed random variables to include in the analysis (e.g., "demand 2000 1000" where the first number is the mean and the second is the standard deviation)
unif	A string listing the uniformly distributed random variables to include in the analysis (e.g., "demand 0 1" where the first number is the minimum value and the second is the maximum value)
discrete	A string listing the random variables with a discrete distribution to include in the analysis (e.g., "price 5 .3 8 .7" where for each pair of numbers the first is the value and the second the probability
form	A string with the formula to evaluate (e.g., "profit = demand * (price - cost)")
seed	To repeat a simulation with the same randomly generated values enter a number into Random seed input box.
name	To save the simulated data for further analysis specify a name in the Sim name input box. You can then investigate the simulated data by choosing the specified name from the Datasets dropdown in any of the other Data tabs.
nr	Number of simulation runs
dat	Data list from previous simulation. Used by repeater function

Details

See http://vnijs.github.io/radiant/quant/simulater.html for an example in Radiant

Value

A data.frame with the created variables

See Also

```
summary.simulater to summarize results plot.simulater to plot results
```

single_mean 67

	single_mean Compare a sample mean to a population mean	
--	--	--

Description

Compare a sample mean to a population mean

Usage

```
single_mean(dataset, var, comp_value = 0, alternative = "two.sided",
  conf_lev = 0.95, data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
var	The variable selected for the mean comparison
comp_value	Population value to compare to the sample mean
alternative	The alternative hypothesis ("two.sided", "greater", or "less")
conf_lev	Span for the confidence interval
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")

Details

```
See http://vnijs.github.io/radiant/quant/single_mean.html for an example in Radiant
```

Value

A list of variables defined in single_mean as an object of class single_mean

See Also

```
summary.single_mean to summarize results
plot.single_mean to plot results
```

```
single_mean("diamonds","price")
```

68 skew

single_prop	Compare a sample proportion to a population proportion	

Description

Compare a sample proportion to a population proportion

Usage

```
single_prop(dataset, var, lev = "", comp_value = 0.5,
   alternative = "two.sided", conf_lev = 0.95, data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
var	The variable selected for the proportion comparison
lev	The factor level selected for the proportion comparison
comp_value	Population value to compare to the sample proportion
alternative	The alternative hypothesis ("two.sided", "greater", or "less")
conf_lev	Span of the confidence interval
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")

Details

See http://vnijs.github.io/radiant/quant/single_prop.html for an example in Radiant

Value

A list of variables used in single_prop as an object of class single_prop

See Also

```
summary.single_prop to summarize the results plot.single_prop to plot the results
```

Examples

```
result <- single_prop("diamonds","cut")
result <- single_prop("diamonds","clarity", lev = "IF", comp_value = 0.05)</pre>
```

skew

Exporting the skew function from the psych package

Description

Exporting the skew function from the psych package

sshh 69

sshh

Hide warnings and messages and return invisible

Description

Hide warnings and messages and return invisible

Usage

```
sshh(...)
```

Arguments

... Inputs to keep quite

Details

Adapted from http://www.onthelambda.com/2014/09/17/fun-with-rprofile-and-customizing-r-startup/

Examples

```
sshh( library(dplyr) )
```

sshhr

Hide warnings and messages and return result

Description

Hide warnings and messages and return result

Usage

```
sshhr(...)
```

Arguments

... Inputs to keep quite

Details

Adapted from http://www.onthelambda.com/2014/09/17/fun-with-rprofile-and-customizing-r-startup/

```
sshhr( library(dplyr) )
```

70 state_init

state_init

Set initial value for shiny input

Description

Set initial value for shiny input

Usage

```
state_init(inputvar, init = "")
```

Arguments

inputvar Name shiny input

init Initial value to use if state value for input not set

Details

Useful for radio button or checkbox

Value

value for inputvar

See Also

```
state_single
state_multiple
copy_from
```

```
r_state <<- list()
state_init("test")
state_init("test",0)
r_state$test <- c("a","b")
state_init("test",0)
shiny::radioButtons("rb", label = "Button:", c("a","b"), selected = state_init("rb", "a"))
r_state$rb <- "b"
shiny::radioButtons("rb", label = "Button:", c("a","b"), selected = state_init("rb", "a"))
rm(r_state)</pre>
```

state_multiple 71

state_multiple

Set initial values for shiny input from a list of values

Description

Set initial values for shiny input from a list of values

Usage

```
state_multiple(inputvar, vals, init = character(0))
```

Arguments

inputvar Name shiny input

vals Possible values for inputvar

init Initial value to use if state value for input not set

Details

Useful for select input with multiple = TRUE and when you want to use inputs selected for another tool (e.g., pre_factor and full_factor or hier_clus and kmeans_clus in Radiant)

Value

value for inputvar

See Also

```
state_init
state_single
copy_from
```

```
r_state <- list()
state_multiple("test",1:10,1:3)
r_state$test <- 8:10
state_multiple("test",1:10,1:3)
shiny::selectInput("sim", label = "Select:", c("a","b"),
    selected = state_multiple("sim", c("a","b")), multiple = TRUE)
r_state$sim <- c("a","b")
shiny::selectInput("sim", label = "Select:", c("a","b"),
    selected = state_single("sim", c("a","b")), multiple = TRUE)</pre>
```

72 state_single

state_single

Set initial value for shiny input from a list of values

Description

Set initial value for shiny input from a list of values

Usage

```
state_single(inputvar, vals, init = character(0))
```

Arguments

inputvar Name shiny input

vals Possible values for inputvar

init Initial value to use if state value for input not set

Details

Useful for select input with multiple = FALSE

Value

value for inputvar

See Also

```
state_init
state_multiple
copy_from
```

```
r_state <- list()
state_single("test",1:10,1)
r_state$test <- 8
state_single("test",1:10,1)
shiny::selectInput("si", label = "Select:", c("a","b"), selected = state_single("si"))
r_state$si <- "b"
shiny::selectInput("si", label = "Select:", c("a","b"), selected = state_single("si", "b"))</pre>
```

summary.compare_means Summary method for the compare_means function

Description

Summary method for the compare_means function

Usage

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

Arguments

object Return value from compare_means
... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/compare_means.html for an example in Radiant

See Also

```
compare_means to calculate results
plot.compare_means to plot results
```

Examples

```
result <- compare_means("diamonds","cut","price")
summary(result)
result <- diamonds %>% tbl_df %>% compare_means("x","y")
summary(result)
result <- diamonds %>% tbl_df %>% group_by(cut) %>% compare_means("x",c("x","y"))
summary(result)
```

summary.compare_props Summary method for the compare_props function

Description

Summary method for the compare_props function

Usage

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

Arguments

object Return value from compare_props
... further arguments passed to or from other methods

74 summary.conjoint

Details

See http://vnijs.github.io/radiant/quant/compare_props.html for an example in Radiant

See Also

```
compare_props to calculate results
plot.compare_props to plot results
```

Examples

```
result <- compare_props("titanic", "pclass", "survived")
summary(result)
titanic %>% compare_props("pclass", "survived") %>% summary
```

summary.conjoint

Summary method for the conjoint function

Description

Summary method for the conjoint function

Usage

```
## S3 method for class 'conjoint'
summary(object, mc_diag = FALSE, ...)
```

Arguments

object Return value from conjoint
mc_diag Shows multicollinearity diagnostics.

... further arguments passed to or from other methods

Details

```
See http://vnijs.github.io/radiant/marketing/conjoint.html for an example in Radiant
```

See Also

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

```
result <- conjoint("mp3", dep_var = "Rating", indep_var = "Memory:Shape")
summary(result, mc_diag = TRUE)
mp3 %>% conjoint(dep_var = "Rating", indep_var = "Memory:Shape") %>% summary(., mc_diag = TRUE)
```

```
summary.conjoint_profiles
```

Summary method for the conjoint_profiles function

Description

Summary method for the conjoint_profiles function

Usage

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

Arguments

object Return value from conjoint_profiles
... further arguments passed to or from other methods.

Details

See http://vnijs.github.io/radiant/marketing/conjoint_profiles.html for an example in Radiant

See Also

conjoint_profiles to calculate results

Examples

```
cp <<- readLines(system.file("examples/profiles-movie.txt", package='radiant'))
result <- conjoint_profiles("cp")
summary(result)
rm(cp, envir = .GlobalEnv)
readLines(system.file("examples/profiles-movie.txt", package='radiant')) %>%
    conjoint_profiles %>% summary
```

 ${\tt summary.correlation_} \quad \textit{Summary method for the correlation function}$

Description

Summary method for the correlation function

```
## S3 method for class 'correlation_'
summary(object, cutoff = 0, ...)
```

76 summary.cross_tabs

Arguments

object Return value from correlation

cutoff Show only corrlations larger than the cutoff in absolute value. Default is a cutoff

of 0

... further arguments passed to or from other methods.

Details

See http://vnijs.github.io/radiant/quant/correlation.html for an example in Radiant

See Also

```
correlation to calculate results plot.correlation_ to plot results
```

Examples

```
result <- correlation("diamonds",c("price","carat","clarity"))
summary(result, cutoff = .3)
diamonds %>% correlation("price:clarity") %>% summary
```

summary.cross_tabs

Summary method for the cross_tabs function

Description

Summary method for the cross_tabs function

Usage

```
## S3 method for class 'cross_tabs'
summary(object, check = "", ...)
```

Arguments

object Return value from cross_tabs

check Show table(s) for variables var1 and var2. "observed" for the observed frequen-

cies table, "expected" for the expected frequencies table (i.e., frequencies that would be expected if the null hypothesis holds), "chi_sq" for the contribution to the overall chi-squared statistic for each cell (i.e., (o - e)^2 / e), "dev_std" for the standardized differences between the observed and expected frequencies (i.e., (o - e) / sqrt(e)), and "dev_perc" for the percentage difference between the

observed and expected frequencies (i.e., (o - e) / e)

... further arguments passed to or from other methods.

Details

See http://vnijs.github.io/radiant/quant/cross_tabs.html for an example in Radiant

summary.dtree 77

See Also

```
cross_tabs to calculate results
plot.cross_tabs to plot results
```

Examples

```
result <- cross_tabs("newspaper", "Income", "Newspaper")
summary(result, check = c("observed","expected","chi_sq"))
newspaper %>% cross_tabs("Income", "Newspaper") %>% summary("observed")
```

summary.dtree

Summary method for the dree function

Description

Summary method for the dree function

Usage

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

Arguments

object Return value from simulater
... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/dtree.html for an example in Radiant

See Also

```
dtree to generate the results
plot.dtree to plot results
```

summary.explore

Summary method for the explore function

Description

Summary method for the explore function

```
## S3 method for class 'explore'
summary(object, top = "fun", ...)
```

78 summary.full_factor

Arguments

object Return value from explore

top The variable (type) to display at the top of the table ... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/base/explore.html for an example in Radiant

See Also

explore to generate summaries

Examples

```
result <- explore("diamonds", "price:x")
summary(result)
result <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew"))
summary(result)
diamonds %>% explore("price:x") %>% summary
diamonds %>% explore("price", byvar = "cut", fun = c("length", "skew")) %>% summary
```

summary.full_factor

Summary method for the full_factor function

Description

Summary method for the full_factor function

Usage

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

Arguments

object Return value from full_factor

cutoff Show only loadings with (absolute) values above cutoff (default = 0)

fsort Sort factor loadings

... further arguments passed to or from other methods

Details

See $http://vnijs.github.io/radiant/marketing/full_factor.html \ for \ an \ example \ in \ Radiant$

See Also

```
full_factor to calculate results
plot.full_factor to plot results
```

summary.glm_reg 79

Examples

```
result <- full_factor("diamonds",c("price","carat","depth","table","x"))
summary(result)
summary(result, cutoff = 0, fsort = FALSE)
summary(result, cutoff = 0, fsort = TRUE)
summary(result, cutoff = .5, fsort = TRUE)
diamonds %>% full_factor(c("price","carat","depth","table","x")) %>% summary
diamonds %>% full_factor(c("price","carat","depth","table","x")) %>% summary(cutoff = .5)
```

summary.glm_reg

Summary method for the glm_reg function

Description

Summary method for the glm_reg function

Usage

```
## S3 method for class 'glm_reg'
summary(object, sum_check = "", conf_lev = 0.95,
  test_var = "", ...)
```

Arguments

object	Return value from glm_reg
sum_check	Optional output or estimation parameters. "rsme" to show the root mean squared error. "sumsquares" to show the sum of squares table. "vif" to show multicollinearity diagnostics. "confint" to show coefficient confidence interval estimates.
conf_lev	Confidence level to use for coefficient and odds confidence intervals (.95 is the default)
test_var	Variables to evaluate in model comparison (i.e., a competing models Chi-squared test)
	further arguments passed to or from other methods

Details

```
See http://vnijs.github.io/radiant/quant/glm_reg.html for an example in Radiant
```

See Also

```
glm_reg to generate the results
plot.glm_reg to plot the results
predict.glm_reg to generate predictions
plot.glm_predict to plot prediction output
```

80 summary.hier_clus

Examples

```
result <- glm_reg("titanic", "survived", "pclass", lev = "Yes")
summary(result, test_var = "pclass")
res <- glm_reg("titanic", "survived", c("pclass", "sex"), int_var="pclass:sex", lev="Yes")
summary(res, sum_check = c("vif", "confint", "odds"))
titanic %>% glm_reg("survived", c("pclass", "sex", "age"), lev = "Yes") %>% summary("vif")
```

summary.hier_clus

Summary method for the hier_clus function

Description

Summary method for the hier_clus function

Usage

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

Arguments

object Return value from hier_clus

... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/marketing/hier_clus.html for an example in Radiant

See Also

```
summary.hier_clus to summarize results
plot.hier_clus to plot results
```

```
result <- hier_clus("shopping", vars = c("v1:v6"))
summary(result)</pre>
```

summary.kmeans_clus 81

summary.kmeans_clus

Summary method for kmeans_clus

Description

Summary method for kmeans_clus

Usage

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

Arguments

object Return value from kmeans_clus

... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/marketing/kmeans_clus.html for an example in Radiant

See Also

```
kmeans_clus to generate results
plot.kmeans_clus to plot results
save_membership to add cluster membership to the selected dataset
```

Examples

```
result <- kmeans_clus("shopping", vars = c("v1:v6"))
summary(result)
shopping %>% kmeans_clus(vars = c("v1:v6"), nr_clus = 3) %>% summary
```

summary.mds

Summary method for the mds function

Description

Summary method for the mds function

```
## S3 method for class 'mds'
summary(object, dec = 1, ...)
```

82 summary.pivotr

Arguments

object Return value from mds

dec Rounding to use for output (default = 0). +1 used for coordinates. +2 used for

stress measure. Not currently accessible in Radiant

... further arguments passed to or from other methods

Details

See $\verb|http://vnijs.github.io/radiant/marketing/mds.html| for an example in Radiant| \\$

See Also

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

Examples

```
result <- mds("city", "from", "to", "distance")
summary(result)
summary(result, dec = 2)
city %>% mds("from", "to", "distance") %>% summary
```

summary.pivotr

Summary method for pivotr

Description

Summary method for pivotr

Usage

```
## S3 method for class 'pivotr'
summary(object, chi2 = FALSE, shiny = FALSE, ...)
```

Arguments

object Return value from pivotr

chi 2 If TRUE calculate the chi-square statistic for the (pivot) table

shiny Did the function call originate inside a shiny app

... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/base/pivotr.html for an example in Radiant

See Also

```
pivotr to create the pivot-table using dplyr
```

summary.pmap 83

Examples

```
pivotr("diamonds", cvars = "cut") %>% summary
pivotr("diamonds", cvars = "cut") %>% summary
pivotr("diamonds", cvars = "cut:clarity", nvar = "price") %>% summary
```

summary.pmap

Summary method for the pmap function

Description

Summary method for the pmap function

Usage

```
## S3 method for class 'pmap'
summary(object, cutoff = 0, ...)
```

Arguments

object Return value from pmap

cutoff Show only loadings with (absolute) values above cutoff (default = 0)

... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/marketing/pmap.html for an example in Radiant

See Also

```
pmap to calculate results
plot.pmap to plot results
```

```
result <- pmap("computer","brand","high_end:business")
summary(result)
summary(result, cutoff = .3)
result <- pmap("computer","brand","high_end:dated", pref = c("innovative","business"))
summary(result)
computer %>% pmap("brand","high_end:dated", pref = c("innovative","business")) %>%
summary
```

84 summary.regression

summary.pre_factor

Summary method for the pre_factor function

Description

Summary method for the pre_factor function

Usage

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

Arguments

object Return value from pre_factor
... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/marketing/pre_factor.html for an example in Radiant

See Also

```
pre_factor to calculate results
plot.pre_factor to plot results
```

Examples

```
result <- pre_factor("diamonds",c("price","carat","table"))
summary(result)
diamonds %>% pre_factor(c("price","carat","table")) %>% summary
result <- pre_factor("computer","high_end:business")
summary(result)</pre>
```

summary.regression

Summary method for the regression function

Description

Summary method for the regression function

```
## $3 method for class 'regression'
summary(object, sum_check = "", conf_lev = 0.95,
   test_var = "", ...)
```

summary.repeater 85

Arguments

object	Return value from regression
sum_check	Optional output or estimation parameters. "rsme" to show the root mean squared error. "sumsquares" to show the sum of squares table. "vif" to show multicollinearity diagnostics. "confint" to show coefficient confidence interval estimates.
conf_lev	Confidence level used to estimate confidence intervals (.95 is the default)
test_var	Variables to evaluate in model comparison (i.e., a competing models F-test)
	further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/regression.html for an example in Radiant

See Also

```
regression to generate the results
plot.regression to plot results
predict.regression to generate predictions
```

Examples

```
result <- regression("diamonds", "price", c("carat","clarity"))
summary(result, sum_check = c("rmse","sumsquares","vif","confint"), test_var = "clarity")
result <- regression("shopping", "v1", c("v2","v3"))
summary(result, test_var = "v2")
shopping %>% regression("v1", "v2:v6") %>% summary
```

summary.repeater

Summarize repeated simulation

Description

Summarize repeated simulation

Usage

```
## $3 method for class 'repeater'
summary(object, sum_vars = "", byvar = "",
fun = c("sum_rm", "mean_rm", "sd_rm"), ...)
```

Arguments

object Return value from simulater sum_vars (Numerical) variables to summaries

byvar Variable(s) to group data by before summarizing

fun Functions to use for summarizing

... further arguments passed to or from other methods

86 summary.sampling

summary.sample_size

Summary method for the sample_size function

Description

Summary method for the sample_size function

Usage

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

Arguments

object Return value from sample_size

... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/sample_size for an example in Radiant

See Also

sample_size to generate the results

Examples

```
result <- sample_size(type = "mean", err_mean = 2, sd_mean = 10)
summary(result)</pre>
```

summary.sampling

Summary method for the sampling function

Description

Summary method for the sampling function

Usage

```
## S3 method for class 'sampling'
summary(object, print_sf = TRUE, ...)
```

Arguments

object Return value from sampling

print_sf Print full sampling frame. Default is TRUE

... further arguments passed to or from other methods

summary.simulater 87

Details

```
See http://vnijs.github.io/radiant/quant/sampling for an example in Radiant
```

See Also

```
sampling to generate the results
```

Examples

```
set.seed(1234)
result <- sampling("rndnames", "Names", 10)
summary(result)</pre>
```

summary.simulater

Summary method for the simulater function

Description

Summary method for the simulater function

Usage

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

Arguments

object Return value from simulater
... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/simulater.html for an example in Radiant

See Also

```
simulater to generate the results
plot.simulater to plot results
```

```
result <- simulater(norm = "demand 2000 1000")
summary(result)</pre>
```

88 summary.single_prop

summary.single_mean

Summary method for the single_mean function

Description

Summary method for the single_mean function

Usage

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

Arguments

object Return value from single_mean

... further arguments passed to or from other methods

Details

See http://vnijs.github.io/radiant/quant/single_mean.html for an example in Radiant

See Also

```
single_mean to generate the results
plot.single_mean to plot results
```

Examples

```
result <- single_mean("diamonds","price")
summary(result)
diamonds %>% single_mean("price") %>% summary
```

summary.single_prop

Summary method for the single_prop function

Description

Summary method for the single_prop function

Usage

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

Arguments

object Return value from single_prop

... further arguments passed to or from other methods

sum_rm

Details

See http://vnijs.github.io/radiant/quant/single_prop.html for an example in Radiant

See Also

```
single_prop to generate the results
plot.single_prop to plot the results
```

Examples

```
result <- single_prop("diamonds","clarity", lev = "IF", comp_value = 0.05)
summary(result)
diamonds %>% single_prop("clarity", lev = "IF", comp_value = 0.05) %>% summary
```

 sum_rm

 $Sum\ with\ na.rm = TRUE$

Description

Sum with na.rm = TRUE

Usage

 $sum_rm(x)$

Arguments

Х

Input variable

Value

Sum of input values

Examples

```
sum_rm(1:200)
```

superheroes

Super heroes

Description

Super heroes

Usage

```
data(superheroes)
```

Format

A data frame with 7 rows and 4 variables

90 the_table

Details

List of super heroes from http://stat545-ubc.github.io/bit001_dplyr-cheatsheet.html. The dataset is used to illustrate data merging / joining. Description provided in attr(superheroes, "description")

test_specs

Add interaction terms to list of test variables if needed

Description

Add interaction terms to list of test variables if needed

Usage

```
test_specs(test_var, int_var)
```

Arguments

test_var List of variables to use for testing for regression or glm_reg

int_var Interaction terms specified

Details

See http://vnijs.github.io/radiant/quant/regression.html for an example in Radiant

Value

A vector of variables names to test

Examples

```
test_specs("a", c("a:b", "b:c"))
```

the_table

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, dat, indep_var)
```

Arguments

model Tidied model results (broom) output from conjoint passed on by summary.conjoint

dat Conjoint data

indep_var Independent variables used in the conjoint regression

titanic 91

Details

See http://vnijs.github.io/radiant/marketing/conjoint.html for an example in Radiant

See Also

```
conjoint to generate results
summary.conjoint to summarize results
plot.conjoint to plot results
```

Examples

```
result <- conjoint(dataset = "mp3", dep_var = "Rating", indep_var = "Memory:Shape")
the_table(result$model, result$dat, result$indep_var)</pre>
```

titanic

Survival data for the Titanic

Description

Survival data for the Titanic

Usage

```
data(titanic)
```

Format

A data frame with 1309 rows and 11 variables

Details

Survival data for the Titanic. Description provided in attr(titanic,"description")

titanic_pred

Predict survival

Description

Predict survival

Usage

```
data(titanic_pred)
```

Format

A data frame with 6 rows and 3 variables

Details

Prediction data.frame for glm_reg based on the Titanic dataset

92 var_check

toothpaste

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")

var_check

Check if main effects for all interaction effects are included in the model If ':' is used to select a range _indep_var_ is updated

Description

Check if main effects for all interaction effects are included in the model If ':' is used to select a range _indep_var_ is updated

Usage

```
var_check(iv, cn, intv = "")
```

Arguments

iv List of independent variables provided to _regression_ or _glm_

cn Column names for all independent variables in _dat_

intv Interaction terms specified

Details

See http://vnijs.github.io/radiant/quant/regression.html for an example in Radiant

Value

'vars' is a vector of right-hand side variables, possibly with interactions, 'iv' is the list of independent variables, and into are interaction terms

```
var_check("a:d", c("a","b","c","d"))
var_check(c("a", "b"), c("a", "b"), "a:c")
```

viewdata 93

View	data
Vi	ew

Description

View data

Usage

```
viewdata(dataset, vars = "", filt = "", rows = NULL, na.rm = FALSE)
```

Arguments

dataset	Name of the dataframe to change
vars	Variables to so (default is all)
filt	Filter to apply to the specified dataset. For example "price > 10000 " if dataset is "diamonds" (default is "")
rows	Select rows in the specified dataset. For example "1:10" for the first 10 rows or "n()-10:n()" for the last 10 rows (default is NULL)
na.rm	Remove rows with missing values (default is FALSE)

Details

View, search, sort, etc. your data

Examples

```
if (interactive()) {
  viewdata(mtcars)
  viewdata("mtcars")
  mtcars %>% viewdata
}
```

visualize

Visualize data using ggplot2 http://docs.ggplot2.org/current/

Description

Visualize data using ggplot2 http://docs.ggplot2.org/current/

```
visualize(dataset, xvar, yvar = NULL, type = "hist", facet_row = ".",
  facet_col = ".", color = "none", fill = "none", bins = 10,
  smooth = 1, check = "", axes = "", alpha = 0.5, data_filter = "",
  shiny = FALSE, custom = FALSE)
```

94 visualize

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r _data list from Radiant
xvar	One or more variables to display along the X-axis of the plot
yvar	Variable to display along the Y-axis of the plot (default = "none")
type	Type of plot to create. One of Histogram ('hist'), Density ('density'), Scatter ('scatter'), Line ('line'), Bar ('bar'), or Box-plot ('box')
facet_row	Create vertically arranged subplots for each level of the selected factor variable
facet_col	Create horizontally arranged subplots for each level of the selected factor variable
color	Adds color to a scatter plot to generate a heat map. For a line plot one line is created for each group and each is assigned a different color
fill	Group bar, histogram, and density plots by group, each with a different color
bins	Number of bins used for a histogram (1 - 50)
smooth	Adjust the flexibility of the loess line for scatter plots (not accessible in Radiant)
check	Add a regression line ("line"), a loess line ("loess"), or jitter ("jitter") to a scatter plot
axes	Flip the axes in a plot ("flip") or apply a log transformation (base e) to the y-axis ("log_y") or the x-axis ("log_x")
alpha	Opacity for plot elements (0 to 1)
data_filter	Expression used to filter the dataset. This should be a string (e.g., "price > 10000 ")
shiny	Logical (TRUE, FALSE) to indicate if 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 opion can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and http://docs.ggplot2.org/for options.

Details

See http://vnijs.github.io/radiant/base/visualize.html for an example in Radiant

Value

Generated plots

```
visualize("diamonds", "carat", "price", type = "scatter", check = "loess")
visualize("diamonds", "price:x", type = "hist")
visualize("diamonds", "carat:x", yvar = "price", type = "scatter")
visualize(dataset = "diamonds", yvar = "price", xvar = "carat", type = "scatter", custom = TRUE) +
    ggtitle("A scatterplot") + xlab("price in $")
visualize(dataset = "diamonds", xvar = "price:carat", custom = TRUE) %>%
{.[[1]] + ggtitle("A histogram") + xlab("price in $")}
diamonds %>% visualize(c("price", "carat", "depth"), type = "density")
```

win_launcher 95

win_launcher

Create a launcher and updater for Windows (.bat)

Description

Create a launcher and updater for Windows (.bat)

Usage

```
win_launcher(app = c("marketing", "quant", "base"))
```

Arguments

арр

App to run when the desktop icon is double-clicked ("marketing", "quant", or "base"). Default is "marketing"

Details

On Windows a file named 'radiant.bat' and one named 'update_radiant.bat' will be put on the desktop. Double-click the file to launch the specified Radiant app or update Radiant to the latest version

```
if (interactive()) {
   if (Sys.info()["sysname"] == "Windows") {
      win_launcher()
      fn <- paste0(Sys.getenv("USERPROFILE") ,"/Desktop/radiant.bat")
      if (!file.exists(fn))
          stop("Windows launcher not created")
      else
          unlink(fn)
   }
}</pre>
```

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