Package 'radiant'

December 3, 2015

Title Business Analytics using R and Shiny

Version 0.4.00

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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),
lubridate (>= 1.3.3),
tidyr (>= 0.3.1),
dplyr (>= 0.4.3)

Imports DiagrammeR(>= 0.7),
car (>= 2.0.22),
MASS (>= 7.3),
gridExtra (>= 2.0.0),
AlgDesign (>= 1.1.7.3),
psych (>= 1.4.8.11),
GPArotation (>= 2014.11.1),
wordcloud (>= 2.5),
markdown (>= 0.7.4),
knitr (>= 1.8),
ggdendro (>= 0.1.17),
broom (>= 0.3.7),
pryr (>= 0.1),
shiny (>= 0.12.2),
shinyAce (>= 0.2.1),
DT (>= 0.1.39),
MathJaxR (>= 0.11),
readr (>= 0.1.1),
data.tree(>= 0.2.1),
yaml(>= 2.1.13),
scales(>= 0.2.5),
curl(>= 0.9.1),
stringr (>= 1.0)

Suggests rmarkdown (>= 0.4.2),
devtools (>= 1.8.0),
testthat (>= 0.10.0),
covr (>= 1.2.0)

URL https://github.com/vnijs/radiant, http://vnijs.github.io/radiant/

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

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LazyData true

R topics documented:

`as_character` *Wrapper for as.character*

Description

Wrapper for as.character

Usage

```
as_character(x)
```

Arguments

`x`	Input vector

`as_distance` *Distance in kilometers or miles between two locations based on lat-long Function based on* `http://www.movable-type.co.uk/scripts/latlong.html`. *Uses the haversine formula*

Description

Distance in kilometers or miles between two locations based on lat-long Function based on `http://www.movable-type.co.uk/scripts/latlong.html`. Uses the haversine formula

Usage

```
as_distance(lat1, long1, lat2, long2, unit = "km", R = c(km = 6371, miles =
  3959)[[unit]])
```

Arguments

`lat1`	Latitude of location 1
`long1`	Longitude of location 1
`lat2`	Latitude of location 2
`long2`	Longitude of location 2
`unit`	Measure kilometers ("km", default) or miles ("miles")
`R`	Radius of the earth

Value

Distance bewteen two points

Examples

```
as_distance(32.8245525,-117.0951632, 40.7033127,-73.979681, unit = "km")
as_distance(32.8245525,-117.0951632, 40.7033127,-73.979681, unit = "miles")
```

---

as_dmy *Convert input in day-month-year format to date*

Description

Convert input in day-month-year format to date

Usage

```
as_dmy(x)
```

Arguments

x	Input variable

Value

Date variable of class Date

Examples

```
as_dmy("1-2-2014")
```

---

as_dmy_hm *Convert input in day-month-year-hour-minute format to date-time*

Description

Convert input in day-month-year-hour-minute format to date-time

Usage

```
as_dmy_hm(x)
```

Arguments

x	Input variable

Value

Date-time variable of class Date

Examples

```
as_mdy_hm("1-1-2014 12:15")
```

as_dmy_hms — *Convert input in day-month-year-hour-minute-second format to date-time*

Description

Convert input in day-month-year-hour-minute-second format to date-time

Usage

```
as_dmy_hms(x)
```

Arguments

x	Input variable

Value

Date-time variable of class Date

Examples

```
as_mdy_hms("1-1-2014 12:15:01")
```

as_duration — *Wrapper for lubridate's as.duration function. Result converted to numeric*

Description

Wrapper for lubridate's as.duration function. Result converted to numeric

Usage

```
as_duration(x)
```

Arguments

x	Time difference

as_factor *Wrapper for as.factor*

Description

Wrapper for as.factor

Usage

```
as_factor(x)
```

Arguments

x	Input vector

as_hm *Convert input in hour-minute format to time*

Description

Convert input in hour-minute format to time

Usage

```
as_hm(x)
```

Arguments

x	Input variable

Value

Time variable of class Period

Examples

```
as_hm("12:45")
## Not run:
as_hm("12:45") %>% minute

## End(Not run)
```

as_hms *Convert input in hour-minute-second format to time*

Description

Convert input in hour-minute-second format to time

Usage

```
as_hms(x)
```

Arguments

x	Input variable

Value

Time variable of class Period

Examples

```
as_hms("12:45:00")
## Not run:
as_hms("12:45:00") %>% hour
as_hms("12:45:00") %>% second

## End(Not run)
```

as_integer *Convert variable to integer avoiding potential issues with factors*

Description

Convert variable to integer avoiding potential issues with factors

Usage

```
as_integer(x)
```

Arguments

x	Input variable

Value

Integer

Examples

```
as_integer(rnorm(10))
as_integer(letters)
as_integer(5:10 %>% as.factor)
as.integer(5:10 %>% as.factor)
```

as_mdy *Convert input in month-day-year format to date*

Description

Convert input in month-day-year format to date

Usage

```
as_mdy(x)
```

Arguments

x	Input variable

Details

Use as.character if x is a factor

Value

Date variable of class Date

Examples

```
as_mdy("2-1-2014")
## Not run:
as_mdy("2-1-2014") %>% month(label = TRUE)
as_mdy("2-1-2014") %>% week
as_mdy("2-1-2014") %>% wday(label = TRUE)

## End(Not run)
```

as_mdy_hm *Convert input in month-day-year-hour-minute format to date-time*

Description

Convert input in month-day-year-hour-minute format to date-time

Usage

```
as_mdy_hm(x)
```

Arguments

x	Input variable

Value

Date-time variable of class Date

Examples

```
as_mdy_hm("1-1-2014 12:15")
```

`as_mdy_hms` *Convert input in month-day-year-hour-minute-second format to date-time*

Description

Convert input in month-day-year-hour-minute-second format to date-time

Usage

```
as_mdy_hms(x)
```

Arguments

`x`	Input variable

Value

Date-time variable of class Date

Examples

```
as_mdy_hms("1-1-2014 12:15:01")
```

`as_numeric` *Convert variable to numeric avoiding potential issues with factors*

Description

Convert variable to numeric avoiding potential issues with factors

Usage

```
as_numeric(x)
```

Arguments

`x`	Input variable

Value

Numeric

Examples

```
as_numeric(rnorm(10))
as_numeric(letters)
as_numeric(5:10 %>% as.factor)
as.numeric(5:10 %>% as.factor)
as_numeric(c("1","2"))
```

as_ymd *Convert input in year-month-day format to date*

Description

Convert input in year-month-day format to date

Usage

```
as_ymd(x)
```

Arguments

x	Input variable

Value

Date variable of class Date

Examples

```
as_ymd("2013-1-1")
```

as_ymd_hm *Convert input in year-month-day-hour-minute format to date-time*

Description

Convert input in year-month-day-hour-minute format to date-time

Usage

```
as_ymd_hm(x)
```

Arguments

x	Input variable

Value

Date-time variable of class Date

Examples

```
as_ymd_hm("2014-1-1 12:15")
```

as_ymd_hms *Convert input in year-month-day-hour-minute-second format to date-time*

Description

Convert input in year-month-day-hour-minute-second format to date-time

Usage

```
as_ymd_hms(x)
```

Arguments

x	Input variable

Value

Date-time variable of class Date

Examples

```
as_ymd_hms("2014-1-1 12:15:01")
## Not run:
as_ymd_hms("2014-1-1 12:15:01") %>% as.Date
as_ymd_hms("2014-1-1 12:15:01") %>% month
as_ymd_hms("2014-1-1 12:15:01") %>% hour

## End(Not run)
```

avengers *Avengers*

Description

Avengers

Usage

```
data(avengers)
```

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")

center *Center*

Description

Center

Usage

```
center(x)
```

Arguments

x	Input variable

Value

If x is a numberic variable return x - mean(x)

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

Examples

```
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)
```

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")

ci_label *Labels for confidence intervals*

Description

Labels for confidence intervals

Usage

```
ci_label(alt, cl)
```

Arguments

alt	Type of hypothesis ("two.sided","less","greater")
cl	Confidence level

Value

A character vector with labels for a confidence interval

Examples

```
ci_label("less",.95)
ci_label("two.sided",.95)
ci_label("greater",.9)
```

ci_perc *Values at confidence levels*

Description

Values at confidence levels

Usage

```
ci_perc(dat, alt, cl)
```

Arguments

dat	Data
alt	Type of hypothesis ("two.sided","less","greater")
cl	Confidence level

Value

A vector with values at a confidence level

Examples

```
ci_perc(0:100, "less",.95)
ci_perc(0:100, "greater",.95)
ci_perc(0:100, "two.sided",.80)
```

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

Examples

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

`combinedata` *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'

Examples

```
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")
```

---

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, comb = "",
  adjust = "none", test = "t", dec = 3, 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 independent ("independent") or not ("paired")
alternative	The alternative hypothesis ("two.sided", "greater" or "less")
conf_lev	Span of the confidence interval
comb	Combinations to evaluate
adjust	Adjustment for multiple comparisons ("none" or "bonf" for Bonferroni)
test	T-test ("t") or Wilcox ("wilcox")
dec	Number of decimals to show
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

Examples

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

---

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, comb = "", adjust = "none", dec = 3,
  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
comb	Combinations to evaluate
adjust	Adjustment for multiple comparisons ("none" or "bonf" for Bonferroni)
dec	Number of decimals to show
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

Examples

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

---

computer *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 response variable (e.g., profile ratings)
indep_var	Explanatory variables in the regression
reverse	Reverse the values of the response variable (‘dep_var‘)
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/conjoint.html for an example in Radiant

Value

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

See Also

summary.conjoint to summarize results

plot.conjoint to plot results

Examples

```
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

Examples

```
cp <<- c("price = c('$10','$13','$16')", "sight = c('Staggered','Not Staggered')",
       "comfort = c('Average no cupholder','Average cupholder','Large cupholder')",
       "audio.visual = c('Small plain','Large plain','Large digital')",
       "food = c('No food','Hot dogs and popcorn','Gourmet food')")
result <- conjoint_profiles("cp")
result <- cp %>% conjoint_profiles
rm(cp, envir = .GlobalEnv)
```

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

Examples

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

copy_imported *Import all functions that a package imports for use with Shiny*

Description

Import all functions that a package imports for use with Shiny

Usage

```
copy_imported(.from)
```

Arguments

.from	The package to pull the function from

Examples

```
copy_imported(radiant)
```

correlation *Calculate correlations for two or more variables*

Description

Calculate correlations for two or more variables

Usage

```
correlation(dataset, vars, type = "pearson", dec = 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	Variables to include in the analysis
type	Type of correlations to calculate. Options are "pearson", "spearman", and "kendall". "pearson" is the default
dec	Number of decimals to show
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

Examples

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

---

cross_tabs *Evaluate associations between categorical 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
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/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

Examples

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

cv *Coefficient of variation*

Description

Coefficient of variation

Usage

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

Arguments

x	Input variable
na.rm	If TRUE missing values are removed before calculation

Value

Coefficient of variation

Examples

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

decile_split *Create deciles*

Description

Create deciles

Usage

```
decile_split(x)
```

Arguments

x	Input variable

Value

Factor variable

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")

does_vary *Does a vector have non-zero variability?*

Description

Does a vector have non-zero variability?

Usage

```
does_vary(x)
```

Arguments

x	Input variable

Value

Logical. TRUE is there is variability

Examples

```
summarise_each(diamonds, funs(does_vary)) %>% as.logical
```

dtree *Create a decision tree*

Description

Create a decision tree

Usage

```
dtree(yl, opt = "max")
```

Arguments

yl	A yaml string or a list (e.g., from yaml::yaml.load_file())
opt	Find the maximum ("max") or minimum ("min") value for each decision node

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

dtree_parser *Parse yaml input for dtree to provide (more) useful error messages*

Description

Parse yaml input for dtree to provide (more) useful error messages

Usage

```
dtree_parser(yl)
```

Arguments

yl	A yaml string

Details

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

Value

An updated yaml string or a vector messages to return to the users

See Also

dtree to calculate tree

summary.dtree to summarize results

plot.dtree to plot results

---

explore *Explore data*

Description

Explore data

Usage

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

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	(Numerical) variables to summaries
byvar	Variable(s) to group data by before summarizing
fun	Functions to use for summarizing
tabfilt	Expression used to filter the table. This should be a string (e.g., "Total > 10000")
tabsort	Expression used to sort the table (e.g., "-Total")
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")
shiny	Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny app

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", c("price","carat"), byvar = "cut", fun = c("n_missing", "skew"))
summary(result)
diamonds %>% explore("price", byvar = "cut", fun = c("length", "n_distinct"))
```

factorizer *Convert character to factors as needed*

Description

Convert character to factors as needed

Usage

```
factorizer(dat, safx = 20)
```

Arguments

dat	Data.frame
safx	Values to levels ratio

Value

Data.frame with factors

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

filterdata *Filter data with user-specified expression*

Description

Filter data with user-specified expression

Usage

```
filterdata(dat, filt = "")
```

Arguments

dat	Data.frame to filter
filt	Filter expression to apply to the specified dataset (e.g., "price > 10000" if dataset is "diamonds")

Value

Filtered data.frame

find_max *Find maxium value of a vector*

Description

Find maxium value of a vector

Usage

```
find_max(var, val = "")
```

Arguments

var	Variable to find the maximum for
val	Variable to find the value for at the maxium of var

Value

Value of val at the maximum of var

find_min *Find minimum value of a vector*

Description

Find minimum value of a vector

Usage

```
find_min(var, val = "")
```

Arguments

var	Variable to find the minimum for
val	Variable to find the value for at the maxium of var

Value

Value of val at the minimum of var

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 = "fun")
```

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. "fun" is the default

Details

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

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	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

Examples

```
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")
```

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)

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 in Radiant's Data > Transform tab

---

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 = "", dec = 3, 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 response variable in the logit (probit) model
indep_var	Explanatory variables in the model
lev	The level in the response variable defined as _success_
link	Link function for _glm_ ('logit' or 'probit'). 'logit' is the default
int_var	Interaction term to include in the model (not implement)
check	Optional output or estimation parameters. "vif" to show the multicollinearity 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
dec	Number of decimals to show
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/glm_reg.html for an example in Radiant

Value

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"))
```

---

hier_clus *Hierarchical cluster analysis*

Description

Hierarchical cluster analysis

Usage

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

---

inverse *Calculate inverse of a variable*

Description

Calculate inverse of a variable

Usage

```
inverse(x)
```

Arguments

x	Input variable

Value

1/x

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

Examples

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

is_string *Is input a string?*

Description

Is input a string?

Usage

```
is_string(x)
```

Arguments

x	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 :)

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

Examples

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

---

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("analytics", "marketing", "quant", "base"))
```

Arguments

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

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 — *Create a launcher and updater for Linux (.sh)*

Description

Create a launcher and updater for Linux (.sh)

Usage

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

Arguments

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

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)
  }
}
```

---

ln *Natural log*

Description

Natural log

Usage

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

Arguments

x	Input variable

Value

Natural log of vector

Examples

```
ln(runif(10,1,2)
```

---

loadcsv *Load a csv file with read.csv and read_csv*

Description

Load a csv file with read.csv and read_csv

Usage

```
loadcsv(fn, header = TRUE, sep = ",", dec = ".", saf = TRUE,
  safx = 20)
```

Arguments

fn	File name string
header	Header in file (TRUE, FALSE)
sep	Use , (default) or ; or \t
dec	Decimal symbol. Use . (default) or ,
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

---

loadcsv_url *Load a csv file with from a url*

Description

Load a csv file with from a url

Usage

```
loadcsv_url(csv_url, header = TRUE, sep = ",", dec = ".", saf = TRUE,
  safx = 20)
```

Arguments

csv_url	URL for the csv file
header	Header in file (TRUE, FALSE)
sep	Use , (default) or ; or \t
dec	Decimal symbol. Use . (default) or ,
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

loadrda *Load an rda file and add it to the radiant data list (r_data)*

Description

Load an rda file and add it to the radiant data list (r_data)

Usage

```
loadrda(fn, ext = "rda")
```

Arguments

fn	File name string
ext	File extension ("rda" is the default)

Value

Data.frame in r_data

loadrda_url *Load an rda file from a url*

Description

Load an rda file from a url

Usage

```
loadrda_url(rda_url)
```

Arguments

rda_url	URL for the csv file

Value

Data.frame

mac_launcher *Create a launcher and updater for Mac (.command)*

Description

Create a launcher and updater for Mac (.command)

Usage

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

Arguments

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

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

Examples

```
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)
  }
}
```

make_dt *Make a pivot tabel in DT*

Description

Make a pivot tabel in DT

Usage

```
make_dt(pvt, format = "none", perc = FALSE, search = "",
  searchCols = NULL, order = NULL)
```

Arguments

pvt	Return value from pivotr
format	Show Color bar ("color_bar"), Heat map ("heat"), or None ("none")
perc	Display numbers as percentages (TRUE or FALSE)
search	Global search. Used to save and restore state
searchCols	Column search and filter. Used to save and restore state
order	Column sorting. Used to save and restore state

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", perc = TRUE)
```

---

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, search = "", searchCols = NULL,
  order = NULL)
```

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
search	Global search. Used to save and restore state
searchCols	Column search and filter. Used to save and restore state
order	Column sorting. Used to save and restore state

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

x	List of functions as strings

Value

List of functions to pass to dplyr in formula form

Examples

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

---

make_train *Generate a variable used to selected a training sample*

Description

Generate a variable used to selected a training sample

Usage

```
make_train(n = 0.7, nr = 100)
```

Arguments

n	Number (or fraction) of observations to label as training
nr	Number of rows in the dataset

Value

0/1 variables for filtering

Examples

```
make_train(.5, 10)
```

---

max_rm *Max with na.rm = TRUE*

Description

Max with na.rm = TRUE

Usage

```
max_rm(x)
```

Arguments

x	Input variable

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

Examples

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

---

mean_rm *Mean with na.rm = TRUE*

Description

Mean with na.rm = TRUE

Usage

```
mean_rm(x)
```

Arguments

x	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

x	Input variable

Value

Median value

Examples

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

---

median_split *Median split*

Description

Median split

Usage

```
median_split(x)
```

Arguments

x	Input variable

Value

Factor variable deciles

min_rm *Min with na.rm = TRUE*

Description

Min with na.rm = TRUE

Usage

```
min_rm(x)
```

Arguments

x	Input variable

Value

Minimum value

Examples

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

mode_rm *Mode with na.rm = TRUE*

Description

Mode with na.rm = TRUE

Usage

```
mode_rm(x)
```

Arguments

x	Input variable

Value

Mode value

Examples

```
mode_rm(diamonds$cut)
```

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")

mutate_each *Add tranformed variables to a data frame (NSE)*

Description

Add tranformed variables to a data frame (NSE)

Usage

```
mutate_each(tbl, funs, ..., ext = "")
```

Arguments

tbl	Data frame to add transformed variables to
funs	Function(s) to apply (e.g., funs(log))
...	Variables to transform
ext	Extension to add for each variable

Details

Wrapper for dplyr::mutate_each that allows custom variable name extensions

Examples

```
mutate_each(mtcars, funs(log), mpg, cyl, ext = "_log")
```

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")

normalize *Normalize a variable x by a variable y*

Description

Normalize a variable x by a variable y

Usage

```
normalize(x, y)
```

Arguments

x	Input variable
y	Normalizing variable

Value

x/y

n_missing *Number of missing values*

Description

Number of missing values

Usage

```
n_missing(x)
```

Arguments

x	Input variable

Value

number of missing values

Examples

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

p05 *5th percentile*

Description

5th percentile

Usage

```
p05(x, na.rm = TRUE)
```

Arguments

x	Input variable
na.rm	If TRUE missing values are removed before calculation

Value

5th percentile

Examples

```
p05(rnorm(100))
```

p25 *25th percentile*

Description

25th percentile

Usage

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

Arguments

x	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

x	Input variable
na.rm	If TRUE missing values are removed before calculation

Value

75th percentile

Examples

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

p95 *95th percentile*

Description

95th percentile

Usage

```
p95(x, na.rm = TRUE)
```

Arguments

x	Input variable
na.rm	If TRUE missing values are removed before calculation

Value

95th percentile

Examples

```
p95(rnorm(100))
```

pivotr *Create a pivot table using dplyr*

Description

Create a pivot table using dplyr

Usage

```
pivotr(dataset, cvars = "", nvar = "None", fun = "mean",
  normalize = "None", tabfilt = "", tabsort = "", 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"
tabfilt	Expression used to filter the table. This should be a string (e.g., "Total > 10000")
tabsort	Expression used to sort the table (e.g., "-Total")
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

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
```

---

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 = "scatter", shiny = FALSE, ...)
```

Arguments

x	Return value from compare_means
plots	One or more plots ("bar", "density", "box", or "scatter")
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"))
```

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 = "bar", shiny = FALSE, ...)
```

Arguments

x	Return value from compare_props
plots	One or more plots of proportions ("bar" or "dodge")
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

Examples

```
result <- compare_props("titanic", "pclass", "survived")
plot(result, plots = c("bar","dodge"))
```

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")
```

---

plot.correlation_ *Plot method for the correlation function*

Description

Plot method for the correlation function

Usage

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

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

x	Return value from cross_tabs
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 "row_perc", "col_perc", and "perc" for row, column, and table percentages respectively
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/cross_tabs.html for an example in Radiant

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, symbol = "$", dec = 3, final = FALSE,
  shiny = FALSE, ...)
```

Arguments

x	Return value from dtree
symbol	Monetary symbol to use ($ is the default)
dec	Decimal places to round results to
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 *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)
```

---

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, ...)
```

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 predicitions 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 = "pclass", facet_col = "sex")
```

---

plot.glm_reg *Plot method for the glm_reg function*

Description

Plot method for the glm_reg function

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 response variable with each explanatory 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")
```

---

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 = FALSE, ...)
```

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 hierachical 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

`x`	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

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)
```

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

Examples

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

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", perc = FALSE, flip = FALSE,
  shiny = FALSE, ...)
```

Arguments

x	Return value from pivotr
type	Plot type to use ("fill" or "dodge" (default))
perc	Use percentage on the y-axis
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

Examples

```
pivotr("diamonds", cvars = "cut") %>% plot
pivotr("diamonds", cvars = c("cut","clarity")) %>% plot
pivotr("diamonds", cvars = c("cut","clarity","color")) %>% plot
```

---

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, ...)
```

Arguments

x	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

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

```
result <- pmap("computer", "brand", "high_end:business")
plot(result, plots = "brand")
plot(result, plots = c("brand", "attr"))
plot(result, plots = c("brand", "attr"))
plot(result, scaling = 1, plots = c("brand", "attr"))
result <- pmap("computer", "brand", "high_end:dated",
               pref = c("innovative", "business"))
plot(result, plots = c("brand", "attr", "pref"))
```

---

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

Examples

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

plot.prob_binom *Plot method for the probability calculator function (binomial)*

Description

Plot method for the probability calculator function (binomial)

Usage

```
## S3 method for class 'prob_binom'
plot(x, type = "values", shiny = FALSE, ...)
```

Arguments

x	Return value from prob_binom
type	Probabilities or values
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/prob_calc.html for an example in Radiant

plot.prob_chisq *Plot method for the probability calculator (Chi-squared distribution)*

Description

Plot method for the probability calculator (Chi-squared distribution)

Usage

```
## S3 method for class 'prob_chisq'
plot(x, type = "values", shiny = FALSE, ...)
```

Arguments

x	Return value from prob_chisq
type	Probabilities or values
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/prob_calc.html for an example in Radiant

plot.prob_disc *Plot method for the probability calculator function (discrete)*

Description

Plot method for the probability calculator function (discrete)

Usage

```
## S3 method for class 'prob_disc'
plot(x, type = "values", shiny = FALSE, ...)
```

Arguments

x	Return value from prob_disc
type	Probabilities or values
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/prob_calc.html for an example in Radiant

plot.prob_fdist *Plot method for the probability calculator (F-distribution)*

Description

Plot method for the probability calculator (F-distribution)

Usage

```
## S3 method for class 'prob_fdist'
plot(x, type = "values", shiny = FALSE, ...)
```

Arguments

x	Return value from prob_fdist
type	Probabilities or values
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/prob_calc.html for an example in Radiant

plot.prob_norm *Plot method for the probability calculator (normal)*

Description

Plot method for the probability calculator (normal)

Usage

```
## S3 method for class 'prob_norm'
plot(x, type = "values", shiny = FALSE, ...)
```

Arguments

x	Return value from prob_norm
type	Probabilities or values
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/prob_calc.html for an example in Radiant

plot.prob_tdist *Plot method for the probability calculator (t-distribution)*

Description

Plot method for the probability calculator (t-distribution)

Usage

```
## S3 method for class 'prob_tdist'
plot(x, type = "values", shiny = FALSE, ...)
```

Arguments

x	Return value from prob_tdist
type	Probabilities or values
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/prob_calc.html for an example in Radiant

plot.prob_unif *Plot method for the probability calculator (uniform)*

Description

Plot method for the probability calculator (uniform)

Usage

```
## S3 method for class 'prob_unif'
plot(x, type = "values", shiny = FALSE, ...)
```

Arguments

x	Return value from prob_unif
type	Probabilities or values
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/prob_calc.html for an example in Radiant

plot.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 response variable with each explanatory variable. "dashboard" for a series of six plots that can be used to evaluate model fit visually. "resid_pred" to plot the explanatory variables against the model residuals. "coef" for a coefficient plot with adjustable confidence intervals. "leverage" to show leverage plots for each explanatory 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

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")
```

---

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 predicitions 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

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)
```

---

plot.repeater *Plot repeated simulation*

Description

Plot repeated simulation

Usage

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

Arguments

x	Return value from repeater
sum_vars	(Numerical) variables to summaries
byvar	Variable(s) to group data by before summarizing
fun	Functions to use for summarizing
form	A string with the formula to evaluate (e.g., "profit = demand * (price - cost)")
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, ...)
```

Arguments

x	Return value from simulater
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/simulater for an example in Radiant

See Also

single_mean to generate the result

summary.single_mean to summarize results

Examples

```
result <- simulater(const = "cost 3", norm = "demand 2000 1000",
                    discrete = "price 5 .3 8 .7",
                    form = "profit = demand * (price - cost)")
plot(result)
```

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

Examples

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

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 = "bar", shiny = FALSE, ...)
```

Arguments

x	Return value from single_prop
plots	Plots to generate. "bar" shows a bar chart of the data. The "simulate" chart 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"))
```

---

pmap *Attribute based brand maps*

Description

Attribute based brand maps

Usage

```
pmap(dataset, brand, attr, pref = "", 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
brand	A character variable with brand names
attr	Names of numeric variables
pref	Names of numeric brand preference measures
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")
```

---

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_vars = "", pred_data = "",
  pred_cmd = "", prn = TRUE, ...)
```

Arguments

object	Return value from glm_reg
pred_vars	Variables selected to generate predictions
pred_data	Provide the name of a dataframe to generate predictions (e.g., "titanic"). The dataset must contain all columns used in the estimation
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)')
prn	Print prediction results (default is TRUE)
...	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

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')")
glm_reg("titanic", "survived", c("pclass","sex"), lev = "Yes") %>%
 predict(pred_data = "titanic")
```

---

predict.regression *Predict method for the regression function*

Description

Predict method for the regression function

Usage

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

Arguments

object	Return value from regression
pred_vars	Variables to use for prediction
pred_data	Name of the dataset to use for prediction
pred_cmd	Command used to generate data for prediction
conf_lev	Confidence level used to estimate confidence intervals (.95 is the default)
prn	Print prediction results (default is TRUE)
...	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

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
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/pre_factor.html for an example in Radiant

Value

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

See Also

summary.pre_factor to summarize results

plot.pre_factor to plot results

Examples

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

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

---

prob_binom *Probability calculator for the binomial distribution (binomial)*

Description

Probability calculator for the binomial distribution (binomial)

Usage

```
prob_binom(n, p, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

Arguments

n	Number of trials
p	Probability
lb	Lower bound on the number of successes
ub	Upper bound on the number of successes
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

Details

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

prob_chisq *Probability calculator for the chi-squared distribution*

Description

Probability calculator for the chi-squared distribution

Usage

```
prob_chisq(df, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

Arguments

df	Degrees of freedom
lb	Lower bound (default is -Inf)
ub	Upper bound (default is Inf)
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

Details

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

prob_disc *Probability calculator for the discrete distribution (discrete)*

Description

Probability calculator for the discrete distribution (discrete)

Usage

```
prob_disc(v, p, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

Arguments

v	Values
p	Probabilities
lb	Lower bound on the number of successes
ub	Upper bound on the number of successes
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

Details

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

prob_fdist *Probability calculator for the F-distribution*

Description

Probability calculator for the F-distribution

Usage

```
prob_fdist(df1, df2, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

Arguments

df1	Degrees of freedom
df2	Degrees of freedom
lb	Lower bound (default is -Inf)
ub	Upper bound (default is Inf)
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

Details

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

prob_norm *Probability calculator for the normal distribution*

Description

Probability calculator for the normal distribution

Usage

```
prob_norm(mean, stdev, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

Arguments

mean	Mean
stdev	Standard deviation
lb	Lower bound (default is -Inf)
ub	Upper bound (default is Inf)
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

Details

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

prob_tdist *Probability calculator for the t distribution*

Description

Probability calculator for the t distribution

Usage

```
prob_tdist(df, mean = 0, stdev = 1, lb = NA, ub = NA, plb = NA,
  pub = NA, dec = 3)
```

Arguments

df	Degrees of freedom
mean	Mean
stdev	Standard deviation
lb	Lower bound (default is -Inf)
ub	Upper bound (default is Inf)
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

Details

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

prob_unif *Probability calculator for the uniform distribution*

Description

Probability calculator for the uniform distribution

Usage

```
prob_unif(min, max, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

Arguments

min	Minmum value
max	Maximum value
lb	Lower bound
ub	Upper bound
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

Details

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

---

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

---

radiant *radiant*

Description

radiant

Launch Radiant in the default browser

Usage

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

Arguments

app	Choose the app to run. One of "base", "quant", "analytics", "marketing". "analytics" is the default

Details

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

Examples

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

recode *Exporting the recode function from the car package*

Description

Exporting the recode function from the car package

regression *Linear regression using OLS*

Description

Linear regression using OLS

Usage

```
regression(dataset, dep_var, indep_var, int_var = "", check = "", dec = 3,
  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 response variable in the regression
indep_var	Explanatory 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
dec	Number of decimals to show
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/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")
```

repeater *Repeat simulation*

Description

Repeat simulation

Usage

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

Arguments

nr	Number times to repeat the simulation
vars	Variables to use in repeated simulation
grid	Expression to use in grid search for constants
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.
sim	Return value from the simulater function

Examples

```
result <- simulater(const = "cost 3", norm = "demand 2000 1000",
                    discrete = "price 5 .3 8 .7",
                    form = "profit = demand * (price - cost)")

repeater(sim = result)
```

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 listofrandomnames.com. 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, conf_lev = 1.96, incidence = 1, response = 1,
  pop_correction = "no", pop_size = 1000000)
```

Arguments

`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
`conf_lev`	Confidence level
`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

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)
```

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
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/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

Examples

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

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)
```

---

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

Examples

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

sdp_rm *Standard deviation for the population na.rm = TRUE*

Description

Standard deviation for the population na.rm = TRUE

Usage

```
sdp_rm(x)
```

Arguments

x	Input variable

Value

Standard deviation for the population

Examples

```
sdp_rm(rnorm(100))
```

sdw *Standard deviation of weighted sum of variables*

Description

Standard deviation of weighted sum of variables

Usage

```
sdw(...)
```

Arguments

...	A matched number of weights and stocks

Value

A vector of standard deviation estimates

sd_rm *Standard deviation with na.rm = TRUE*

Description

Standard deviation with na.rm = TRUE

Usage

```
sd_rm(x)
```

Arguments

x	Input variable

Value

Standard deviation

Examples

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

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()
```

Examples

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

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")

show_duplicated *Show all rows with duplicated values (not just the first or last)*

Description

Show all rows with duplicated values (not just the first or last)

Usage

```
show_duplicated(tbl, ...)
```

Arguments

tbl	Data frame to add transformed variables to
...	Variables used to evaluate row uniqueness

Details

If an entire row is duplicated use "duplicated" to show only one of the duplicated rows. When using a subset of variables to establish uniqueness it may be of interest to show all rows that have (some) duplicate elements

Examples

```
bind_rows(mtcars, mtcars[c(1,5,7),]) %>%
  show_duplicated(mpg, cyl)
bind_rows(mtcars, mtcars[c(1,5,7),]) %>%
  show_duplicated
```

---

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

Examples

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

`simulater` *Simulate data for decision analysis*

Description

Simulate data for decision analysis

Usage

```
simulater(const = "", lnorm = "", norm = "", unif = "", discrete = "",
  binom = "", sequ = "", grid = "", data = "", 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")
`lnorm`	A string listing the log-normally distributed random variables to include in the analysis (e.g., "demand 2000 1000" where the first number is the log-mean and the second is the log-standard deviation)
`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
`binom`	A string listing the random variables with a binomail distribution to include in the analysis (e.g., "crash 100 .01") where the first number is the number of trials and the second is the probability of success)
`sequ`	A string listing the start and end for a sequence to include in the analysis (e.g., "trend 1 100 1"). The number of 'steps' is determined by the number of simulations.
`grid`	A string listing the start, end, and step for a set of sequences to include in the analysis (e.g., "trend 1 100 1"). The number of rows in the expanded will over ride the number of simulations
`data`	Name of a dataset to be used in the calculations
`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 simulations
`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

Examples

```
result <- simulater(const = "cost 3", norm = "demand 2000 1000",
                    discrete = "price 5 .3 8 .7",
                    form = "profit = demand * (price - cost)")
```

---

sim_cleaner *Clean input command string*

Description

Clean input command string

Usage

```
sim_cleaner(x)
```

Arguments

x	Input string

Value

Cleaned string

sim_splitter *Split input command string*

Description

Split input command string

Usage

```
sim_splitter(x, symbol = " ")
```

Arguments

x	Input string
symbol	Symbol used to split the command string

Value

Split input command string

sim_summary *Print simulation summary*

Description

Print simulation summary

Usage

```
sim_summary(dat, dc = getclass(dat), fun = "", dec = 4)
```

Arguments

dat	Simulated data
dc	Variable classes
fun	Summary function to apply
dec	Number of decimals to show

`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, dec = 3, 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
`dec`	Number of decimals to show
`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

Examples

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

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, dec = 3, 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
dec	Number of decimals to show
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)
```

skew *Exporting the skew function from the psych package*

Description

Exporting the skew function from the psych package

square *Calculate square of a variable*

Description

Calculate square of a variable

Usage

```
square(x)
```

Arguments

x	Input variable

Value

x^2

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/

Examples

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

standardize *Standardize*

Description

Standardize

Usage

```
standardize(x)
```

Arguments

x	Input variable

Value

If x is a numberic variable return center(x) / mean(x)

`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`

Examples

```
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)
```

`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`

Examples

```
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)
```

`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`

Examples

```
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"))
```

store_glm *Store residuals or predicted values generated in the glm_reg function*

Description

Store residuals or predicted values generated in the glm_reg function

Usage

```
store_glm(object, data = object$dataset, type = "residuals",
  name = paste0(type, "_glm"))
```

Arguments

object	Return value from glm_reg or predict.glm_reg
data	Dataset name
type	Residuals ("residuals") or predictions ("predictions"). For predictions the dataset name must be provided
name	Variable name assigned to the residuals or predicted values

Details

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

Examples

```
result <- glm_reg("titanic", "survived", "pclass", lev = "Yes")
store_glm(result)
```

store_reg *Store residuals or predicted values generated in the regression function*

Description

Store residuals or predicted values generated in the regression function

Usage

```
store_reg(object, data = object$dataset, type = "residuals",
  name = paste0(type, "_reg"))
```

Arguments

object	Return value from regression or predict.regression
data	Dataset name
type	Residuals ("residuals") or predictions ("predictions"). For predictions the dataset name must be provided
name	Variable name assigned to the residuals or predicted values

Details

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

Examples

```
result <- regression("diamonds", "price", c("carat","clarity"))
store_reg(result)
```

---

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, show = FALSE, ...)
```

Arguments

object	Return value from compare_means
show	Show additional output (i.e., t.value, df, and confidence interval)
...	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, show = FALSE, ...)
```

Arguments

object	Return value from compare_props
show	Show additional output (i.e., chisq.value, df, and confidence interval)
...	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

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

Examples

```
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 <<- c("price = c('$10','$13','$16')", "sight = c('Staggered','Not Staggered')",
       "comfort = c('Average no cupholder','Average cupholder','Large cupholder')",
       "audio.visual = c('Small plain','Large plain','Large digital')",
       "food = c('No food','Hot dogs and popcorn','Gourmet food')")
result <- conjoint_profiles("cp")
summary(result)
rm(cp, envir = .GlobalEnv)
```

summary.correlation_ *Summary method for the correlation function*

Description

Summary method for the correlation function

Usage

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

Arguments

object	Return value from correlation
cutoff	Show only corrlations larger than the cutoff in absolute value. Default is a cutoff of 0
covar	Show the covariance matrix (default is FALSE)
...	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 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)
...	further arguments passed to or from other methods.

Details

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

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

Usage

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

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

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

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

Examples

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

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

Usage

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

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 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
chi2	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

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

Examples

```
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
```

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)
```

summary.prob_binom *Summary method for the probability calculator function*

Description

Summary method for the probability calculator function

Usage

```
## S3 method for class 'prob_binom'
summary(object, type = "values", ...)
```

Arguments

object	Return value from prob_binom
type	Probabilities or values
...	further arguments passed to or from other methods

Details

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

---

summary.prob_chisq *Summary method for the probability calculator function (Chi-squared distribution)*

Description

Summary method for the probability calculator function (Chi-squared distribution)

Usage

```
## S3 method for class 'prob_chisq'
summary(object, type = "values", ...)
```

Arguments

object	Return value from prob_chisq
type	Probabilities or values
...	further arguments passed to or from other methods

Details

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

---

summary.prob_disc *Summary method for the probability calculator function (discrete)*

Description

Summary method for the probability calculator function (discrete)

Usage

```
## S3 method for class 'prob_disc'
summary(object, type = "values", ...)
```

Arguments

object	Return value from prob_disc
type	Probabilities or values
...	further arguments passed to or from other methods

Details

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

---

`summary.prob_fdist` *Summary method for the probability calculator function (F-distribution)*

Description

Summary method for the probability calculator function (F-distribution)

Usage

```
## S3 method for class 'prob_fdist'
summary(object, type = "values", ...)
```

Arguments

`object`	Return value from `prob_fdist`
`type`	Probabilities or values
`...`	further arguments passed to or from other methods

Details

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

---

`summary.prob_norm` *Summary method for the probability calculator function (normal)*

Description

Summary method for the probability calculator function (normal)

Usage

```
## S3 method for class 'prob_norm'
summary(object, type = "values", ...)
```

Arguments

`object`	Return value from `prob_norm`
`type`	Probabilities or values
`...`	further arguments passed to or from other methods

Details

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

summary.prob_tdist *Summary method for the probability calculator function (t-distribution)*

Description

Summary method for the probability calculator function (t-distribution)

Usage

```
## S3 method for class 'prob_tdist'
summary(object, type = "values", ...)
```

Arguments

object	Return value from prob_tdist
type	Probabilities or values
...	further arguments passed to or from other methods

Details

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

summary.prob_unif *Summary method for the probability calculator function (uniform)*

Description

Summary method for the probability calculator function (uniform)

Usage

```
## S3 method for class 'prob_unif'
summary(object, type = "values", ...)
```

Arguments

object	Return value from prob_unif
type	Probabilities or values
...	further arguments passed to or from other methods

Details

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

summary.regression *Summary method for the regression function*

Description

Summary method for the regression function

Usage

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

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

```
## S3 method for class 'repeater'
summary(object, sum_vars = "", byvar = "",
  fun = "sum_rm", form = "", name = "", dec = 4, ...)
```

Arguments

object	Return value from repeater
sum_vars	(Numerical) variables to summaries
byvar	Variable(s) to group data by before summarizing
fun	Functions to use for summarizing
form	A string with the formula to evaluate (e.g., "profit = demand * (price - cost)")
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.
dec	Number of decimals to show
...	further arguments passed to or from other methods

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)
```

---

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

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)
```

summary.simulater *Summary method for the simulater function*

Description

Summary method for the simulater function

Usage

```
## S3 method for class 'simulater'
summary(object, dec = 4, ...)
```

Arguments

object	Return value from simulater
dec	Number of decimals to show
...	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

Examples

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

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

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

x	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

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	Explanatory variables used in the conjoint regression

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)
```

---

titanic *Survival data for the Titanic*

Description

Survival data for the Titanic

Usage

```
data(titanic)
```

Format

A data frame with 1043 rows and 10 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

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")

varp_rm *Variance for the population na.rm = TRUE*

Description

Variance for the population na.rm = TRUE

Usage

```
varp_rm(x)
```

Arguments

x	Input variable

Value

Variance for the population

Examples

```
varp_rm(rnorm(100))
```

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 explanatory variables provided to _regression_ or _glm_
cn	Column names for all explanatory 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 explanatory variables, and intv are interaction terms

Examples

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

var_rm — *Variance with na.rm = TRUE*

Description

Variance with na.rm = TRUE

Usage

```
var_rm(x)
```

Arguments

x	Input variable

Value

Variance

Examples

```
var_rm(rnorm(100))
```

`viewdata` *View data*

Description

View data

Usage

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

Arguments

`dataset`	Name of the dataframe to change
`vars`	Variables to show (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/

Usage

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

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")
comby	Combine yvars in plot (TRUE or FALSE, FALSE is the default)
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
sbar	Plot an error bar in a scatter plot where the xvar is a factor. Options are "mean" and/or "median". Default is "mean"
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

Examples

```
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 *Create a launcher and updater for Windows (.bat)*

Description

Create a launcher and updater for Windows (.bat)

Usage

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

Arguments

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

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

Examples

```
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)
  }
}
```

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