

Package ‘radiant’

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Title Business Analytics using R and Shiny

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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

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as_character	<i>Wrapper for as.character</i>
--------------	---------------------------------

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	<i>Convert input in day-month-year-hour-minute format to date-time</i>
-----------	--

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

as_dmy_hms	<i>Convert input in day-month-year-hour-minute-second format to date-time</i>
------------	---

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	<i>Wrapper for lubridate's as.duration function. Result converted to numeric</i>
-------------	--

Description

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

Usage

```
as_duration(x)
```

Arguments

x	Time difference
---	-----------------

as_factor	<i>Wrapper for as.factor</i>
-----------	------------------------------

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	<i>Convert input in month-day-year-hour-minute-second format to date-time</i>
------------	---

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	<i>Convert variable to numeric avoiding potential issues with factors</i>
------------	---

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_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")
```

<code>as_ymd_hms</code>	<i>Convert input in year-month-day-hour-minute-second format to date-time</i>
-------------------------	---

Description

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

Usage

```
as_ymd_hms(x)
```

Arguments

<code>x</code>	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)
```

<code>avengers</code>	<i>Avengers</i>
-----------------------	-----------------

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	<i>Center</i>
--------	---------------

Description

Center

Usage

```
center(x)
```

Arguments

x	Input variable
---	----------------

Value

If x is a numeric variable return $x - \text{mean}(x)$

changedata	<i>Change data</i>
------------	--------------------

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	<i>City distances</i>
------	-----------------------

Description

City distances

Usage

```
data(city)
```

Format

A data frame with 45 rows and 3 variables

Details

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

clean_loadings	<i>Sort and clean loadings</i>
----------------	--------------------------------

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 <code>r_data</code> 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 <code>r_data</code> 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	<i>Compare means for two or more variables</i>
---------------	--

Description

Compare means for two or more variables

Usage

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

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> 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 var1
samples	Are samples indepent ("independent") or not ("paired")
alternative	The alternative hypothesis ("two.sided", "greater" or "less")
conf_lev	Span of the confidence interval
adjust	Adjustment for multiple comparisons ("none" or "bonf" for Bonferroni)
test	T-test ("t") or Wilcox ("wilcox")
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

Details

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

Value

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

See Also

[summary.compare_means](#) to summarize results

[plot.compare_means](#) to plot results

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, adjust = "none", data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
var1	A grouping variable to split the data for comparisons
var2	The variable to calculate proportions for
levs	The factor level selected for the proportion comparison
alternative	The alternative hypothesis ("two.sided", "greater" or "less")
conf_lev	Span of the confidence interval
adjust	Adjustment for multiple comparisons ("none" or "bonf" for Bonferroni)
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

Details

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

Value

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

See Also

[summary.compare_props](#) to summarize results

[plot.compare_props](#) to plot results

Examples

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

computer	<i>Perceptions of computer (re)sellers</i>
----------	--

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	<i>Conjoint analysis</i>
----------	--------------------------

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 <code>r_data</code> list from Radiant
dep_var	The dependent variable (e.g., profile ratings)
indep_var	Independent variables in the regression
reverse	Reverse the values of the dependent variable ('dep_var')
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	<i>Create fractional factorial design for conjoint analysis</i>
-------------------	---

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 <code>r_data</code> 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	<i>Source all package functions</i>
----------	-------------------------------------

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 deprecated when (if) it is included in <https://github.com/smbache/import>

Examples

```
copy_all(radiant)
```

copy_from	<i>Source for package functions</i>
-----------	-------------------------------------

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 deprecated when (if) it is included in <https://github.com/smbache/import>

Examples

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

correlation	<i>Calculate correlations for two or more variables</i>
-------------	---

Description

Calculate correlations for two or more variables

Usage

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

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
vars	Variables to include in the analysis
type	Type of correlations to calculate. Options are "pearson", "spearman", and "kendall". "pearson" is the default
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

Details

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

Value

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

See Also

[summary.correlation_](#) to summarize results

[plot.correlation_](#) to plot results

Examples

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

cross_tabs	<i>Evaluate associations between categorical variables</i>
------------	--

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 <code>r_data</code> 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	<i>Coefficient of variation</i>
----	---------------------------------

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	<i>Create deciles</i>
--------------	-----------------------

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 bundled 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 if there is variability

Examples

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

dtree	<i>Create a decision tree</i>
-------	-------------------------------

Description

Create a decision tree

Usage

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

Arguments

yl	A yaml string or a list (e.g., from <code>yaml::yaml.load_file()</code>)
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	<i>Parse yaml input for dtree to provide (more) useful error messages</i>
--------------	---

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	<i>Explore data</i>
---------	---------------------

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 <code>r_data</code> 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	<i>Convert character to factors as needed</i>
------------	---

Description

Convert character to factors as needed

Usage

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

Arguments

dat	Data.frame
safox	Values to levels ratio

Value

Data.frame with factors

ff_design	<i>Function to generate a fractional factorial design</i>
-----------	---

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	<i>Filter data with user-specified expression</i>
------------	---

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

flip	<i>Flip the DT table to put Function, Variable, or Group by on top</i>
------	--

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	<i>Factor analysis (PCA)</i>
-------------	------------------------------

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 <code>r_data</code> 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	<i>Get variable class</i>
----------	---------------------------

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	<i>Get data for analysis functions</i>
---------	--

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	<i>Create data.frame summary</i>
------------	----------------------------------

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	<i>Generalized linear models (GLM)</i>
---------	--

Description

Generalized linear models (GLM)

Usage

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

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
dep_var	The dependent variable in the logit (probit) model
indep_var	Independent variables in the model
lev	The level in the dependent variable defined as <code>_success_</code>
link	Link function for <code>_glm_</code> ('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
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 <code>r_data</code> 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	<i>Is a character variable defined</i>
----------	--

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	<i>Is input a string?</i>
-----------	---------------------------

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 <code>r_data</code> list from Radiant
vars	Vector of variables to include in the analysis
hc_init	Use centers from <code>hier_clus</code> as the starting point
distance	Distance for <code>hier_clus</code>
method	Method for <code>hier_clus</code>
seed	Random seed to use for <code>kmeans</code> if <code>hc_init</code> 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)
  }
}
```

loadcsv	<i>Load a csv file with read.csv and read_csv</i>
---------	---

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	<i>Load a csv file with from a url</i>
-------------	--

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
safox	Values to levels ratio

Value

Data.frame with (some) variables converted to factors

loadrda_url	<i>Load an rda file from a url</i>
-------------	------------------------------------

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	<i>Make a tabel of summary statistics in DT</i>
-----------	---

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	<i>Make a list of functions-as-formulas to pass to dplyr</i>
-----------	--

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	<i>Generate a variable used to selected a training sample</i>
------------	---

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	<i>Max with na.rm = TRUE</i>
--------	------------------------------

Description

Max with na.rm = TRUE

Usage

```
max_rm(x)
```

Arguments

x Input variable

Value

Maximum value

Examples

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

mds	<i>(Dis)similarity based brand maps (MDS)</i>
-----	---

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

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	<i>Median with na.rm = TRUE</i>
-----------	---------------------------------

Description

Median with na.rm = TRUE

Usage

```
median_rm(x)
```

Arguments

x	Input variable
---	----------------

Value

Median value

Examples

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

median_split	<i>Median split</i>
--------------	---------------------

Description

Median split

Usage

```
median_split(x)
```

Arguments

x	Input variable
---	----------------

Value

Factor variable deciles

min_rm	<i>Min with na.rm = TRUE</i>
--------	------------------------------

Description

Min with na.rm = TRUE

Usage

```
min_rm(x)
```

Arguments

x	Input variable
---	----------------

Value

Minimum value

Examples

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

mode_rm	<i>Mode with na.rm = TRUE</i>
---------	-------------------------------

Description

Mode with na.rm = TRUE

Usage

```
mode_rm(x)
```

Arguments

x	Input variable
---	----------------

Value

Mode value

Examples

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

mp3	<i>Conjoint data for MP3 players</i>
-----	--------------------------------------

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	<i>Add transformed variables to a data frame (NSE)</i>
-------------	--

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., <code>funs(log)</code>)
...	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	<i>Newspaper readership</i>
-----------	-----------------------------

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	<i>Normalize a variable x by a variable y</i>
-----------	---

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	<i>Number of missing values</i>
-----------	---------------------------------

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	<i>5th percentile</i>
-----	-----------------------

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	<i>95th percentile</i>
-----	------------------------

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	<i>Create a pivot table using dplyr</i>
--------	---

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,"column" 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	<i>Plot method for the compare_means function</i>
--------------------	---

Description

Plot method for the compare_means function

Usage

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

Arguments

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

Details

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

See Also

[compare_means](#) to calculate results
[summary.compare_means](#) to summarize results

Examples

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

plot.compare_props	<i>Plot method for the compare_props function</i>
--------------------	---

Description

Plot method for the compare_props function

Usage

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

Arguments

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

Details

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

See Also

[compare_props](#) to calculate results
[summary.compare_props](#) to summarize results

Examples

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

plot.conjoint	<i>Plot method for the conjoint function</i>
---------------	--

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_	<i>Plot method for the correlation function</i>
-------------------	---

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 "dev_perc" for the percentage difference between the observed and expected frequencies (i.e., $(o - e) / e$)
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

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	<i>Plot method for the dtree function</i>
------------	---

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	<i>Plot method for the full_factor function</i>
------------------	---

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	<i>Plot method for the predict.glm_reg function</i>
------------------	---

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 predictions are approximations at this point.
...	further arguments passed to or from other methods

Details

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

See Also

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

Examples

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

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

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	<i>Plot method for the mds function</i>
----------	---

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	<i>Plot method for the pivotr function</i>
-------------	--

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	<i>Plot method for the probability calculator function (binomial)</i>
-----------------	---

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/probability.html> for an example in Radiant

plot.prob_norm	<i>Plot method for the probability calculator (normal)</i>
----------------	--

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/probability.html> for an example in Radiant

plot.prob_unif	<i>Plot method for the probability calculator (uniform)</i>
----------------	---

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_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/probability.html> for an example in Radiant

plot.regression	<i>Plot method for the regression function</i>
-----------------	--

Description

Plot method for the regression function

Usage

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

Arguments

x	Return value from regression
plots	Regression plots to produce for the specified regression model. Enter "" to avoid showing any plots (default). "hist" to show histograms of all variables in the model. "correlations" for a visual representation of the correlation matrix selected variables. "scatter" to show scatter plots (or box plots for factors) for the dependent variables with each independent variable. "dashboard" for a series of six plots that can be used to evaluate model fit visually. "resid_pred" to plot the independent variables against the model residuals. "coef" for a coefficient plot with adjustable confidence intervals. "leverage" to show leverage plots for each independent variable

lines	Optional lines to include in the select plot. "line" to include a line through a scatter plot. "loess" to include a polynomial regression fit line. To include both use c("line","loess")
conf_lev	Confidence level used to estimate confidence intervals (.95 is the default)
intercept	Include the intercept in the coefficient plot (TRUE, FALSE). FALSE is the default
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

Details

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

See Also

[regression](#) to generate the results

[summary.regression](#) to summarize results

[predict.regression](#) to generate predictions

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

Details

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

See Also

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

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	<i>Plot repeated simulation</i>
---------------	---------------------------------

Description

Plot repeated simulation

Usage

```
## S3 method for class 'repeater'
plot(x, sum_vars = "", byvar = "sim", fun = c("sum_rm",
  "mean_rm", "sd_rm"), 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
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	<i>Plot method for the single_mean function</i>
------------------	---

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	<i>Plot method for the single_prop function</i>
------------------	---

Description

Plot method for the single_prop function

Usage

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

Arguments

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

Details

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

See Also

[single_prop](#) to generate the result
[summary.single_prop](#) to summarize the results

Examples

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

pmap	<i>Attribute based brand maps</i>
------	-----------------------------------

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 <code>r_data</code> 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	<i>Predict method for the glm_reg function</i>
-----------------	--

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	<i>Predict method for the regression function</i>
--------------------	---

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	<i>Evaluate if data are appropriate for PCA / Factor analysis</i>
------------	---

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 <code>r_data</code> 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	<i>Print/draw method for grobs produced by gridExtra</i>
--------------	--

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	<i>Probability calculator for the binomial distrubution (binomial)</i>
------------	--

Description

Probability calculator for the binomial distrubution (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/probability.html> for an example in Radiant

prob_norm	<i>Probability calculator for the normal distrubution</i>
-----------	---

Description

Probability calculator for the normal distrubution

Usage

```
prob_norm(mean, stdev, lb = -Inf, ub = Inf, 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/probability.html> for an example in Radiant

prob_unif	<i>Probability calculator for the uniforem distrubution</i>
-----------	---

Description

Probability calculator for the uniforem distrubution

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/probability.html> for an example in Radiant

publishers	<i>Comic publishers</i>
------------	-------------------------

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	<i>radiant</i>
---------	----------------

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	<i>Exporting the recode function from the car package</i>
--------	---

Description

Exporting the recode function from the car package

regression	<i>Linear regression using OLS</i>
------------	------------------------------------

Description

Linear regression using OLS

Usage

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

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
dep_var	The dependent variable in the regression
indep_var	Independent variables in the regression
int_var	Interaction terms to include in the model
check	"standardize" to see standardized coefficient estimates. "stepwise" to apply step-wise selection of variables in estimation
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

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	<i>Repeat simulation</i>
----------	--------------------------

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 simulator function

Examples

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

repeater(sim = result)
```

rndnames	<i>100 random names</i>
----------	-------------------------

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	<i>Sample size calculation</i>
-------------	--------------------------------

Description

Sample size calculation

Usage

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

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
zval	Z-value
incidence	Incidence rate (i.e., fraction of valid respondents)
response	Response rate
pop_correction	Apply correction for population size ("yes","no")
pop_size	Population size

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	<i>Simple random sampling</i>
----------	-------------------------------

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 <code>r_data</code> 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	<i>Save factor scores to active dataset</i>
--------------	---

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	<i>Add a cluster membership variable to the active dataset</i>
-----------------	--

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	<i>Standard deviation for the population na.rm = TRUE</i>
--------	---

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))
```

sd_rm	<i>Standard deviation with na.rm = TRUE</i>
-------	---

Description

Standard deviation with na.rm = TRUE

Usage

```
sd_rm(x)
```

Arguments

x	Input variable
---	----------------

Value

Standard deviation

Examples

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

serr	<i>Standard error</i>
------	-----------------------

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	<i>Alias used to set the class for analysis function return</i>
-----------	---

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	<i>Shopping attitudes</i>
----------	---------------------------

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	<i>Show all rows with duplicated values (not just the first or last)</i>
-----------------	--

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

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	<i>Simulate data for decision analysis</i>
-----------	--

Description

Simulate data for decision analysis

Usage

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

Arguments

const	A string listing the constants to include in the analysis (e.g., "cost = 3; size = 4")
norm	A string listing the normally distributed random variables to include in the analysis (e.g., "demand 2000 1000" where the first number is the mean and the second is the standard deviation)
unif	A string listing the uniformly distributed random variables to include in the analysis (e.g., "demand 0 1" where the first number is the minimum value and the second is the maximum value)

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

Details

See <http://vnijs.github.io/radiant/quant/simulator.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)")
```

single_mean

Compare a sample mean to a population mean

Description

Compare a sample mean to a population mean

Usage

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


Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
var	The variable selected for the mean comparison
comp_value	Population value to compare to the sample mean
alternative	The alternative hypothesis ("two.sided", "greater", or "less")
conf_lev	Span for the confidence interval
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

Details

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

Value

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

See Also

`summary.single_mean` to summarize results

`plot.single_mean` to plot results

Examples

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

single_prop	<i>Compare a sample proportion to a population proportion</i>
-------------	---

Description

Compare a sample proportion to a population proportion

Usage

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

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
var	The variable selected for the proportion comparison
lev	The factor level selected for the proportion comparison
comp_value	Population value to compare to the sample proportion
alternative	The alternative hypothesis ("two.sided", "greater", or "less")
conf_lev	Span of the confidence interval
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

Details

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

Value

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

See Also

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

Examples

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

skew	<i>Exporting the skew function from the psych package</i>
------	---

Description

Exporting the skew function from the psych package

square	<i>Calculate square of a variable</i>
--------	---------------------------------------

Description

Calculate square of a variable

Usage

```
square(x)
```

Arguments

x Input variable

Value

x^2

`ssh`*Hide warnings and messages and return invisible*

Description

Hide warnings and messages and return invisible

Usage

```
ssh(...)
```

Arguments

... Inputs to keep quiet

Details

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

Examples

```
ssh( library(dplyr) )
```

`sshhr`*Hide warnings and messages and return result*

Description

Hide warnings and messages and return result

Usage

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

Arguments

... Inputs to keep quiet

Details

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

Examples

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

standardize	<i>Standardize</i>
-------------	--------------------

Description

Standardize

Usage

```
standardize(x)
```

Arguments

x	Input variable
---	----------------

Value

If x is a numeric variable return $\text{center}(x) / \text{mean}(x)$

state_init	<i>Set initial value for shiny input</i>
------------	--

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	<i>Set initial values for shiny input from a list of values</i>
----------------	---

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	<i>Set initial value for shiny input from a list of values</i>
--------------	--

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	<i>Store residuals or predicted values generated in the glm_reg function</i>
-----------	--

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	<i>Store residuals or predicted values generated in the regression function</i>
-----------	---

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, ...)
```

Arguments

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

Details

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

See Also

[compare_means](#) to calculate results
[plot.compare_means](#) to plot results

Examples

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

summary.compare_props *Summary method for the compare_props function*

Description

Summary method for the compare_props function

Usage

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

Arguments

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

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 correlations 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	<i>Summary method for the dree function</i>
---------------	---

Description

Summary method for the dree function

Usage

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

Arguments

object	Return value from simulator
...	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	<i>Summary method for the explore function</i>
-----------------	--

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	<i>Summary method for the full_factor function</i>
---------------------	--

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://vnij.s.githu.b.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	<i>Summary method for the hier_clus function</i>
-------------------	--

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	<i>Summary method for kmeans_clus</i>
---------------------	---------------------------------------

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	<i>Summary method for the mds function</i>
-------------	--

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	<i>Summary method for the pre_factor function</i>
--------------------	---

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	<i>Summary method for the probability calculator function</i>
--------------------	---

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/probability.html> for an example in Radiant

summary.prob_norm	<i>Summary method for the probability calculator function (normal)</i>
-------------------	--

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/probability.html> for an example in Radiant

summary.prob_unif	<i>Summary method for the probability calculator function (normal)</i>
-------------------	--

Description

Summary method for the probability calculator function (normal)

Usage

```
## S3 method for class 'prob_unif'
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/probability.html> for an example in Radiant

summary.regression	<i>Summary method for the regression function</i>
--------------------	---

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. "rmse" to show the root mean squared error. "sumsquares" to show the sum of squares table. "vif" to show multi-collinearity 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	<i>Summarize repeated simulation</i>
------------------	--------------------------------------

Description

Summarize repeated simulation

Usage

```
## S3 method for class 'repeater'
summary(object, sum_vars = "", byvar = "",
  fun = c("sum_rm", "mean_rm", "sd_rm"), ...)
```

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
...	further arguments passed to or from other methods

summary.sample_size	<i>Summary method for the sample_size function</i>
---------------------	--

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	<i>Summary method for the sampling function</i>
------------------	---

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	<i>Summary method for the simulater function</i>
-------------------	--

Description

Summary method for the simulater function

Usage

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

Arguments

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

Details

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

See Also

[simulator](#) to generate the results

[plot.simulator](#) to plot results

Examples

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

summary.single_mean	<i>Summary method for the single_mean function</i>
---------------------	--

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	<i>Summary method for the single_prop function</i>
---------------------	--

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	<i>Sum with na.rm = TRUE</i>
--------	------------------------------

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	<i>Super heroes</i>
-------------	---------------------

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	<i>Add interaction terms to list of test variables if needed</i>
------------	--

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	<i>Function to calculate the PW and IW table for conjoint</i>
-----------	---

Description

Function to calculate the PW and IW table for conjoint

Usage

```
the_table(model, dat, indep_var)
```

Arguments

model	Tidied model results (broom) output from conjoint passed on by summary.conjoint
dat	Conjoint data
indep_var	Independent variables used in the conjoint regression

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	<i>Survival data for the Titanic</i>
---------	--------------------------------------

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	<i>Predict survival</i>
--------------	-------------------------

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	<i>Toothpaste attitudes</i>
------------	-----------------------------

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	<i>Variance for the population na.rm = TRUE</i>
---------	---

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

Description

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

Usage

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

Arguments

iv	List of independent variables provided to _regression_ or _glm_
cn	Column names for all independent variables in _dat_
intv	Interaction terms specified

Details

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

Value

'vars' is a vector of right-hand side variables, possibly with interactions, 'iv' is the list of independent variables, and 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 = "", type = "hist", facet_row = ".",
  facet_col = ".", color = "none", fill = "none", bins = 10,
  smooth = 1, check = "", axes = "", alpha = 0.5, data_filter = "",
  shiny = FALSE, custom = FALSE)
```

Arguments

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

shiny	Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny app
custom	Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This option 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	<i>Create a launcher and updater for Windows (.bat)</i>
--------------	---

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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