Package 'radiant.data'

September 16, 2016

```
Title Business Analytics using R and Shiny
Version 0.6.2
Date 2016-9-15
Description A platform-independent browser-
      based interface for business analytics in R, based on the Shiny package.
Depends R (>= 3.3.0),
      magrittr (>= 1.5),
      ggplot2 (>= 2.0.0),
      lubridate (>= 1.5.0),
      tidyr (>= 0.6),
      dplyr (>= 0.5)
Imports tibble (>= 1.2),
      broom (>= 0.4.1),
      car (>= 2.1.3),
      gridExtra (\geq 2.0.0),
      knitr (>= 1.14),
      rmarkdown(>= 1.0),
      markdown (>= 0.7.7),
      pryr (>= 0.1.2),
      shiny (>= 0.14),
     jsonlite (>= 1.0),
     shinyAce (>= 0.2.1),
      psych (>= 1.6.6),
      DT (>= 0.2),
      readr (>= 1.0.0),
      scales (>= 0.4.0),
      curl (>= 1.1.0),
      rstudioapi (>= 0.6),
      import (>= 1.1.0),
      feather (>= 0.3),
      base64enc,
      methods
Suggests testthat (>= 1.0.0),
     covr (>= 1.2.0)
URL https://github.com/radiant-rstats/radiant.data, https:
      //radiant-rstats.github.io/docs
BugReports https://github.com/radiant-rstats/radiant.data/issues
```

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LazyData true
RoxygenNote 5.0.1

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add_class

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add_class

Convenience function to add a class

Description

Convenience function to add a class

Usage

```
add_class(x, cl)
```

Arguments

x Object

cl Vector of class labels to add

```
foo <- "some text" %>% add_class("text")
foo <- "some text" %>% add_class(c("text", "another class"))
```

as_character 5

| 20 | character |
|----|--------------|
| as | ciiai ac tei |

Wrapper for as.character

Description

Wrapper for as.character

Usage

```
as_character(x)
```

Arguments

Х

Input vector

```
as_data_frame
```

Exporting as_data_frame

Description

Exporting as_data_frame

| as_dista | nce |
|----------|-----|
|----------|-----|

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 |

6 as_dmy_hm

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

Х

Input variable

Value

Date variable of class Date

Examples

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

as_dmy_hm

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

Description

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

Usage

```
as_dmy_hm(x)
```

Arguments

Χ

Input variable

Value

Date-time variable of class Date

as_dmy_hms 7

Examples

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

as_dmy_hms

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

Description

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

Usage

```
as_dmy_hms(x)
```

Arguments

Х

Input variable

Value

Date-time variable of class Date

Examples

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

as_duration

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

Description

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

Usage

```
as_duration(x)
```

Arguments

х

Time difference

8 as_hm

as_factor

 $Wrapper\ for\ factor\ with\ ordered = FALSE$

Description

Wrapper for factor with ordered = FALSE

Usage

```
as_factor(x, ordered = FALSE)
```

Arguments

x Input vector

ordered Order factor levels (TRUE, FALSE)

as_hm

Convert input in hour-minute format to time

Description

Convert input in hour-minute format to time

Usage

```
as_hm(x)
```

Arguments

Х

Input variable

Value

Time variable of class Period

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

as_hms 9

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

Χ

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

Х

Input variable

Value

Integer

10 as_mdy

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

х

Input variable

Details

Use as.character if x is a factor

Value

Date variable of class Date

```
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 11

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

Х

Input variable

Value

Date-time variable of class Date

Examples

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

as_mdy_hms

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

Description

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

Usage

```
as_mdy_hms(x)
```

Arguments

х

Input variable

Value

Date-time variable of class Date

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

12 as_ymd

as_numeric

Convert variable to numeric avoiding potential issues with factors

Description

Convert variable to numeric avoiding potential issues with factors

Usage

```
as_numeric(x)
```

Arguments

Х

Input variable

Value

Numeric

Examples

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

as_tibble

Exporting as_tibble

Description

Exporting as_tibble

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

Х

Input variable

as_ymd_hm 13

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

Х

Input variable

Value

Date-time variable of class Date

Examples

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

as_ymd_hms

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

Description

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

Usage

```
as_ymd_hms(x)
```

Arguments

Χ

Input variable

Value

Date-time variable of class Date

14 center

Examples

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

avengers

Avengers

Description

Avengers

Usage

```
data(avengers)
```

Format

A data frame with 7 rows and 4 variables

Details

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

center

Center

Description

Center

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

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

changedata 15

changedata

Change data

Description

Change data

Usage

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

Arguments

dataset Name of the dataframe to change

vars New variables to add to the data.frame

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

Value

None

ci_label

Labels for confidence intervals

Description

Labels for confidence intervals

Usage

```
ci_label(alt = "two.sided", cl = 0.95)
```

Arguments

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

cl Confidence level

Value

A character vector with labels for a confidence interval

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

16 combinedata

Description

Values at confidence levels

Usage

```
ci_perc(dat, alt = "two.sided", cl = 0.95)
```

Arguments

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

Value

A vector with values at a confidence level

Examples

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

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 = "", add = "", type = "inner_join",
  name = "", data_filter = "")
```

Arguments

| dataset | Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant |
|-------------|---|
| cmb_dataset | Dataset name (string) to combine with 'dataset'. This can be a dataframe in the global environment or an element in an r_data list from Radiant |
| by | Variables used to combine 'dataset' and 'cmb_dataset' |
| add | Variables to add from 'cmb_dataset' |

copy_all 17

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 html for further details

name Name for the combined dataset

10000")

Details

See http://radiant-rstats.github.io/docs/data/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

```
avengers %>% combinedata(superheroes, type = "bind_cols")
combinedata("avengers", "superheroes", type = "bind_cols")
avengers %>% combinedata(superheroes, type = "bind_rows")
avengers %>% combinedata(superheroes, add = "publisher", type = "bind_rows")
```

copy_all

Source all package functions

Description

Source all package functions

Usage

```
copy_all(.from)
```

Arguments

.from

The package to pull the function from

18 copy_from

Details

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

Examples

```
copy_all(radiant.data)
```

copy_from

Source for package functions

Description

Source for package functions

Usage

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

Arguments

. from The package to pull the function from

... Functions to pull

Details

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

```
copy_from(radiant.data, getdata)
```

cv 19

C۷

Coefficient of variation

Description

Coefficient of variation

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Coefficient of variation

Examples

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

data_frame

Exporting data_frame

Description

Exporting data_frame

describe

Show dataset desription, if available, in html form in Rstudio viewer or default browser

Description

Show dataset desription, if available, in html form in Rstudio viewer or default browser

Usage

```
describe(name)
```

Arguments

name

Dataset name or a dataframe

20 does_vary

diamonds

Diamond prices

Description

Diamond prices

Usage

```
data(diamonds)
```

Format

A data frame with 3000 rows and 10 variables

Details

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

does_vary

Does a vector have non-zero variability?

Description

Does a vector have non-zero variability?

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Logical. TRUE is there is variability

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

dtab 21

dtab Method to create datatables

Description

Method to create datatables

Usage

```
dtab(object, ...)
```

Arguments

object Object of relevant class to render

... Additional arguments

dtab.explore

Make a tabel of summary statistics in DT

Description

Make a tabel of summary statistics in DT

Usage

```
## S3 method for class 'explore'
dtab(object, dec = 3, searchCols = NULL, order = NULL,
    pageLength = NULL, ...)
```

Arguments

object Return value from explore dec Number of decimals to show

searchCols Column search and filter. Used to save and restore state

order Column sorting. Used to save and restore state
pageLength Page length. Used to save and restore state

... further arguments passed to or from other methods

Details

See http://radiant-rstats.github.io/docs/data/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
```

22 dtab.pivotr

Examples

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

dtab.pivotr

Make a pivot tabel in DT

Description

Make a pivot tabel in DT

Usage

```
## $3 method for class 'pivotr'
dtab(object, format = "none", perc = FALSE, dec = 3,
    searchCols = NULL, order = NULL, pageLength = NULL, ...)
```

Arguments

object Return value from pivotr

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

perc Display numbers as percentages (TRUE or FALSE)

dec Number of decimals to show

searchCols Column search and filter. Used to save and restore state

order Column sorting. Used to save and restore state
pageLength Page length. Used to save and restore state

... further arguments passed to or from other methods

Details

See http://radiant-rstats.github.io/docs/data/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
```

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

empty_level 23

| empty_level | Convert categorical variables to factors and deal with empty/missing values (used in pivotr and explore) |
|-------------|--|
| | |

Description

Convert categorical variables to factors and deal with empty/missing values (used in pivotr and explore)

Usage

```
empty_level(x)
```

Arguments

Χ

Categorical variable used in table

Value

Variable with updated levels

explore

Explore data

Description

Explore data

Usage

```
explore(dataset, vars = "", byvar = "", fun = c("mean_rm", "sd_rm"),
  top = "fun", tabfilt = "", tabsort = "", nr = NULL,
  data_filter = "", shiny = FALSE)
```

Arguments

| dataset | Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant |
|-------------|--|
| vars | (Numerical) variables to summaries |
| byvar | Variable(s) to group data by before summarizing |
| fun | Functions to use for summarizing |
| top | The variable (type) to display at the top of the table |
| 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") |
| nr | Number of rows to display |
| 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 |

24 factorizer

Details

See http://radiant-rstats.github.io/docs/data/explore.html for an example in Radiant

Value

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

See Also

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

Examples

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

factorizer

Convert character to factors as needed

Description

Convert character to factors as needed

Usage

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

Arguments

dat Data frame

safx Values to levels ratio

Value

Data frame with factors

filterdata 25

filterdata

Filter data with user-specified expression

Description

Filter data with user-specified expression

Usage

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

Arguments

dat Data frame to filter

filt Filter expression to apply to the specified dataset (e.g., "price > 10000" if dataset

is "diamonds")

Value

Filtered data frame

find_dropbox

Find a user's dropbox folder

Description

Find a user's dropbox folder

Usage

```
find_dropbox(account = 1)
```

Arguments

account

If multiple accounts exist specifies the one to use. By default, the first account

listed is used

Value

Path to Dropbox account

26 formatdf

flip

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

Description

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

Usage

```
flip(expl, top = "fun")
```

Arguments

expl Return value from explore

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

for Variable, and "byvar" for Group by. "fun" is the default

Details

See http://radiant-rstats.github.io/docs/data/explore.html for an example in Radiant

See Also

```
explore to generate summaries dtab. explore to create the DT table
```

Examples

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

formatdf

Format a data.frame with a specified number of decimal places

Description

Format a data.frame with a specified number of decimal places

Usage

```
formatdf(tbl, dec = 3, perc = FALSE, mark = "")
```

Arguments

| tbl | Data.frame |
|-----|-------------|
| CDI | Data.Hailic |

dec Number of decimal places

perc Display numbers as percentages (TRUE or FALSE)

mark Thousand separator

formatnr 27

Value

Data.frame for printing

Examples

```
data.frame(x = c("a","b"), y = c(1L, 2L), z = c(-0.0005, 3)) %>% formatdf(dec = 3) data.frame(x = c(1L, 2L), y = c(0.05, 0.8)) %>% formatdf(dec = 2, perc = TRUE)
```

formatnr

Format a number with a specified number of decimal places, thousand sep, and a symbol

Description

Format a number with a specified number of decimal places, thousand sep, and a symbol

Usage

```
formatnr(x, sym = "", dec = 2, perc = FALSE, mark = ",")
```

Arguments

| x | Number or vector |
|------|--------------------------------|
| sym | Symbol to use |
| dec | Number of decimal places |
| perc | Display number as a percentage |
| mark | Thousand separator |

Value

Character (vector) in the desired format

```
formatnr(2000, "$")
formatnr(2000, dec = 4)
formatnr(.05, perc = TRUE)
formatnr(c(.1, .99), perc = TRUE)
formatnr(data.frame(a = c(.1, .99)), perc = TRUE)
formatnr(data.frame(a = 1000), sym = "$", dec = 0)
```

28 getdata

getclass

Get variable class

Description

Get variable class

Usage

```
getclass(dat)
```

Arguments

dat

Dataset to evaluate

Details

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

Value

Vector with class information for each variable

Examples

```
getclass(mtcars)
```

getdata

Get data for analysis functions

Description

Get data for analysis functions

Usage

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

Arguments

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

Value

Data.frame with specified columns and rows

getsummary 29

getsummary

Create data.frame summary

Description

Create data.frame summary

Usage

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

Arguments

dat Data.frame

dc Class for each variable

Details

Used in Radiant's Data > Transform tab

glance

Exporting glance from broom

Description

Exporting glance from broom

indexr

Find index corrected for missing values and filters

Description

Find index corrected for missing values and filters

Usage

```
indexr(dataset, vars = "", filt = "")
```

Arguments

dataset Dataset name
vars Variables to select

filt Data filter

is_empty

install_webshot

Install webshot and phantomjs

Description

Install webshot and phantomjs

Usage

```
install_webshot()
```

inverse

Calculate inverse of a variable

Description

Calculate inverse of a variable

Usage

```
inverse(x)
```

Arguments

Х

Input variable

Value

1/x

is_empty

Is a character variable defined

Description

Is a character variable defined

Usage

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

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

is_not 31

Value

TRUE if empty, else FALSE

Examples

```
is_empty("")
is_empty(NULL)
is_empty(NA)
is_empty(c())
is_empty("none", empty = "none")
is_empty("")
is_empty(" ")
is_empty(" something ")
```

is_not

Convenience function for is.null or is.na

Description

Convenience function for is.null or is.na

Usage

```
is_not(x)
```

Arguments

х

Input

Examples

```
is_not(NA)
is_not(NULL)
is_not(c())
```

is_string

Is input a string?

Description

Is input a string?

Usage

```
is_string(x)
```

Arguments

Х

Input

32 kurtosi

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 = ".")
```

kurtosi

Exporting the kurtosi function from the psych package

Description

Exporting the kurtosi function from the psych package

level_list 33

level_list

Generate list of levels and unique values

Description

Generate list of levels and unique values

Usage

```
level_list(dat, ...)
```

Arguments

dat A data.frame

... Unquoted variable names to evaluate

Examples

```
data.frame(a = c(rep("a",5),rep("b",5)), b = c(rep(1,5),6:10)) %>% level_list level_list(mtcars, mpg, cyl)
```

ln

Natural log

Description

Natural log

Usage

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

Arguments

x Input variable

na.rm Remove missing values (default is TRUE)

Value

Natural log of vector

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

34 loadcsv_url

| loadcsv | Load a csv file with read.csv and read_csv | |
|---------|--|--|
|---------|--|--|

Description

Load a csv file with read.csv and read_csv

Usage

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

Arguments

| . csv Use read.csv instead of read_csv to load file (default is FALSE) header Header in file (TRUE, FALSE) sep Use , (default) or ; or \t dec Decimal symbol. Use . (default) or , n_max Maximum number of rows to read 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 | fn | File name string |
|---|--------|---|
| sep Use, (default) or; or \t dec Decimal symbol. Use. (default) or, n_max Maximum number of rows to read 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 | .CSV | Use read.csv instead of read_csv to load file (default is FALSE) |
| dec Decimal symbol. Use . (default) or , n_max Maximum number of rows to read 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 | header | Header in file (TRUE, FALSE) |
| n_max Maximum number of rows to read 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 | sep | Use, (default) or; or \t |
| convert character variables to factors if (1) there are less than 100 distinct values (2) there are X (see safx) more values than levels | dec | Decimal symbol. Use . (default) or , |
| (2) there are X (see safx) more values than levels | n_max | Maximum number of rows to read |
| | saf | Convert character variables to factors if (1) there are less than 100 distinct values |
| safx Values to levels ratio | | (2) there are X (see safx) more values than levels |
| | safx | Values to levels ratio |

Value

Data frame with (some) variables converted to factors

|--|

Description

Load a csv file with from a url

Usage

```
loadcsv_url(csv_url, header = TRUE, sep = ",", dec = ".", n_max = Inf,
  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 , |
| n_max | Maximum number of rows to read |
| 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 |

loadr 35

Value

Data frame with (some) variables converted to factors

loadr

Load an rda or rds file and add it to the radiant data list (r_data) if available

Description

Load an rda or rds file and add it to the radiant data list (r_data) if available

Usage

```
loadr(fn, objname = "")
```

Arguments

fn File name and path as a string. Extension must be either rda or rds

objname Name to use for the data frame. Defaults to the file name

Value

Data frame in r_data or in the calling environment

loadrda_url

Load an rda file from a url

Description

Load an rda file from a url

Usage

```
loadrda_url(rda_url)
```

Arguments

rda_url

URL for the csv file

Value

Data frame

36 make_train

make_funs

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

Description

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

Usage

```
make_funs(x)
```

Arguments

Х

List of functions as strings

Value

List of functions to pass to dplyr in formula form

Examples

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

make_train

Generate a variable used to selected a training sample

Description

Generate a variable used to selected a training sample

Usage

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

Arguments

n Number (or fraction) of observations to label as training

nr Number of rows in the dataset

Value

0/1 variables for filtering

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

max_rm 37

max_rm

 $Max \ with \ na.rm = TRUE$

Description

Max with na.rm = TRUE

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Maximum value

Examples

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

mean_rm

 $Mean \ with \ na.rm = TRUE$

Description

Mean with na.rm = TRUE

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Mean value

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

38 min_rm

median_rm

 $Median \ with \ na.rm = TRUE$

Description

Median with na.rm = TRUE

Usage

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

Arguments

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

Value

Median value

Examples

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

min_rm

 $Min\ with\ na.rm = TRUE$

Description

Min with na.rm = TRUE

Usage

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

Arguments

Y

Input variable

na.rm

If TRUE missing values are removed before calculation

Value

Minimum value

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

mode_rm 39

mode_rm

 $Mode\ with\ na.rm = TRUE$

Description

Mode with na.rm = TRUE

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Mode value

Examples

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

month

Add ordered argument to lubridate::month

Description

Add ordered argument to lubridate::month

Usage

```
month(x, label = FALSE, abbr = TRUE, ordered = FALSE)
```

Arguments

x Input date vector

labelMonth as label (TRUE, FALSE)abbrAbbreviate label (TRUE, FALSE)orderedOrder factor (TRUE, FALSE)

See Also

See the month function in the lubridate package for additional details

40 normalize

mutate_each

Add tranformed variables to a data frame (NSE)

Description

Add tranformed variables to a data frame (NSE)

Usage

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

Arguments

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

Details

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

Examples

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

normalize

Normalize a variable x by a variable y

Description

Normalize a variable x by a variable y

Usage

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

Arguments

x Input variable

y Normalizing variable

Value

x/y

n_missing 41

n_missing

Number of missing values

Description

Number of missing values

Usage

```
n_missing(x)
```

Arguments

Х

Input variable

Value

number of missing values

Examples

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

p05

5th percentile

Description

5th percentile

Usage

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

Arguments

Х

Input variable

na.rm

If TRUE missing values are removed before calculation

Value

5th percentile

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

p25

p10

10th percentile

Description

10th percentile

Usage

```
p10(x, na.rm = TRUE)
```

Arguments

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

Value

10th percentile

Examples

```
p10(rnorm(100))
```

p25

25th percentile

Description

25th percentile

Usage

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

Arguments

Х

Input variable

na.rm

If TRUE missing values are removed before calculation

Value

25th percentile

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

p75

p75

75th percentile

Description

75th percentile

Usage

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

Arguments

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

Value

75th percentile

Examples

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

p90

90th percentile

Description

90th percentile

Usage

```
p90(x, na.rm = TRUE)
```

Arguments

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

Value

90th percentile

```
p90(rnorm(100))
```

44 pivotr

p95 95th percentile

Description

95th percentile

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

95th percentile

Examples

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

pivotr

Create a pivot table using dplyr

Description

Create a pivot table using dplyr

Usage

```
pivotr(dataset, cvars = "", nvar = "None", fun = "mean_rm",
    normalize = "None", tabfilt = "", tabsort = "", nr = NULL,
    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")

nr Number of rows to display

plot.character 45

| 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://radiant-rstats.github.io/docs/data/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")$tab
result <- pivotr("diamonds", cvars = "cut", nvar = "price")$tab
result <- pivotr("diamonds", cvars = "cut", normalize = "total")$tab</pre>
```

plot.character

Don't try to plot strings

Description

Don't try to plot strings

Usage

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

Arguments

x A character returned from a function... Any additional arguments

plot.pivotr

Plot method for the pivotr function

Description

Plot method for the pivotr function

Usage

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

46 print.gtable

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 |
| custom | Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This opion can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and http://docs.ggplot2.org/for options. |
| | further arguments passed to or from other methods |

Details

See http://radiant-rstats.github.io/docs/data/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
```

print.gtable

Print/draw method for grobs produced by gridExtra

Description

Print/draw method for grobs produced by gridExtra

Usage

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

Arguments

x a gtable object

... further arguments passed to or from other methods

Details

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

publishers 47

Value

A plot

publishers

Comic publishers

Description

Comic publishers

Usage

data(publishers)

Format

A data frame with 3 rows and 2 variables

Details

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

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

radiant.data

radiant.data

Description

radiant.data

Launch Radiant in the default browser

Usage

radiant.data()

Details

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

48 render

```
radiant.data-deprecated
```

Deprecated function(s) in the radiant.data package

Description

These functions are provided for compatibility with previous versions of radiant. They will eventually be removed.

Usage

```
dfprint(...)
```

Arguments

... Parameters to be passed to the updated functions

Details

dfprint is now a synonym for formatdf nrprint is now a synonym for formatnr

render

Method to render objects (i.e., htmlwidgets and rmarkdown files)

Description

Method to render objects (i.e., htmlwidgets and rmarkdown files)

Usage

```
render(object, ...)
```

Arguments

object Object of relevant class to render

... Additional arguments

render.character 49

render.character

Method to render rmarkdown documents

Description

Method to render rmarkdown documents

Usage

```
## S3 method for class 'character'
render(object, ...)
```

Arguments

object File path to an R-markdown file

. . . Additional arguments passed on to rmarkdown::render

render.datatables

Method to render DT tabels

Description

Method to render DT tabels

Usage

```
## S3 method for class 'datatables'
render(object, ...)
```

Arguments

object DT table plot

... Additional arguments

rounddf

Round double in a data.frame to a specified number of decimal places

Description

Round double in a data.frame to a specified number of decimal places

Usage

```
rounddf(tbl, dec = 3)
```

Arguments

tbl Data frame

dec Number of decimal places

50 saver

Value

Data frame with rounded doubles

Examples

```
data.frame(x = c("a","b"), y = c(1L, 2L), z = c(-0.0005, 3.1)) %>% rounddf(dec = 3)
```

rownames_to_column

Exporting rownames_to_column from tibble

Description

Exporting rownames_to_column from tibble

saver

Save data.frame as an rda or rds file from Radiant

Description

Save data.frame as an rda or rds file from Radiant

Usage

```
saver(objname, file)
```

Arguments

objname Name of the data frame

file File name and path as a string. Extension must be either rda or rds

Value

Data frame in r_data

sdp_rm 51

sdp_rm

Standard deviation for the population na.rm = TRUE

Description

Standard deviation for the population na.rm = TRUE

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Standard deviation for the population

Examples

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

sd_rm

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

Description

Standard deviation with na.rm = TRUE

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Standard deviation

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

52 Search

se

Standard error

Description

Standard error

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Standard error

Examples

```
se(rnorm(100))
```

Search

Search for a string in all columns of a data.frame

Description

Search for a string in all columns of a data.frame

Usage

```
Search(pattern, df, ignore.case = TRUE, fixed = FALSE)
```

Arguments

pattern String to match df Data.frame to search

ignore.case Should search be case sensitive or not (default is FALSE) fixed Allow regular expersions or not (default is FALSE)

Details

See http://radiant-rstats.github.io/docs/data/view.html for an example in Radiant

See Also

See grep1 for a more detailed description of the function arguments

set_attr 53

set_attr

Alias used to add an attribute

Description

Alias used to add an attribute

Usage

```
set_attr(x, which, value)
```

Arguments

| X | O | bjec | t |
|---|---|------|---|
| | _ | -,- | _ |

which Attribute name value Value to set

Examples

```
foo <- data.frame(price = 1:5) %>% set_attr("desc", "price set in experiment ...")
```

show_duplicated

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

Description

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

Usage

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

Arguments

Data frame to add transformed variables toVariables 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

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

54 skew

sig_stars

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

Description

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

Usage

```
sig_stars(pval)
```

Arguments

pval

Vector of p-values

Details

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

Value

A vector of stars

Examples

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

skew

Exporting the skew function from the psych package

Description

Exporting the skew function from the psych package

square 55

square

Calculate square of a variable

Description

Calculate square of a variable

Usage

```
square(x)
```

Arguments

Χ

Input variable

Value

x^2

sshh

Hide warnings and messages and return invisible

Description

Hide warnings and messages and return invisible

Usage

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

Arguments

... Inputs to keep quite

Details

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

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

56 standardize

sshhr

Hide warnings and messages and return result

Description

Hide warnings and messages and return result

Usage

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

Arguments

... Inputs to keep quite

Details

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

Examples

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

standardize

Standardize

Description

Standardize

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

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

store 57

store

Method to store variables in a dataset in Radiant

Description

Method to store variables in a dataset in Radiant

Usage

```
store(object, ...)
```

Arguments

object Object of relevant class that has required information to store
... Additional arguments

store.data.frame

Store method for the Data > View tab

Description

Store method for the Data > View tab

Usage

```
## S3 method for class 'data.frame'
store(object, new = "", org = "",
    envir = parent.frame(), ...)
```

Arguments

| object | Filtered data frame from the Data > View tab |
|--------|---|
| new | Name of the new dataset |
| org | Name of the original data |
| envir | Environment to assign 'new' dataset (optional). Used if 'new' is specified but an r_data list is not available |
| | further arguments passed to or from other methods |

Details

Store data frame in Radiant r_data list if available

58 summary.explore

store.explore

Store method for the explore function

Description

Store method for the explore function

Usage

```
## S3 method for class 'explore'
store(object, name, ...)
```

Arguments

object Return value from explore
name Name to assign to the dataset

... further arguments passed to or from other methods

Details

Add the summarized data to the r_data list in Radiant or return it. See http://radiant-rstats.github.io/docs/data/explore.html for an example in Radiant

See Also

explore to generate summaries

summary.explore

Summary method for the explore function

Description

Summary method for the explore function

Usage

```
## S3 method for class 'explore'
summary(object, dec = 3, ...)
```

Arguments

object Return value from explore dec Number of decimals to show

... further arguments passed to or from other methods

Details

See http://radiant-rstats.github.io/docs/data/explore.html for an example in Radiant

summary.pivotr 59

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.pivotr

Summary method for pivotr

Description

Summary method for pivotr

Usage

```
## $3 method for class 'pivotr'
summary(object, perc = FALSE, dec = 3, chi2 = FALSE,
    shiny = FALSE, ...)
```

Arguments

| object | Return value from pivotr |
|--------|--|
| perc | Display numbers as percentages (TRUE or FALSE) |
| dec | Number of decimals to show |
| 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://radiant-rstats.github.io/docs/data/pivotr.html for an example in Radiant

See Also

pivotr to create the pivot-table using dplyr

```
pivotr("diamonds", cvars = "cut") %>% summary(chi2 = TRUE)
pivotr("diamonds", cvars = "cut", tabsort = "-n") %>% summary
pivotr("diamonds", cvars = "cut", tabfilt = "n > 700") %>% summary
pivotr("diamonds", cvars = "cut:clarity", nvar = "price") %>% summary
```

superheroes

 sum_rm

 $Sum\ with\ na.rm = TRUE$

Description

Sum with na.rm = TRUE

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Sum of input values

Examples

sum_rm(1:200)

superheroes

Super heroes

Description

Super heroes

Usage

data(superheroes)

Format

A data frame with 7 rows and 4 variables

Details

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

table2data 61

table2data

Create data.frame from a table

Description

Create data.frame from a table

Usage

```
table2data(dat, freq = tail(colnames(dat), 1))
```

Arguments

dat Data.frame

freq Column name with frequency information

Examples

```
data.frame(price = c("$200","$300"), sale = c(10, 2)) %>% table2data
```

tibble

Exporting tibble

Description

Exporting tibble

tidy

Exporting tidy from broom

Description

Exporting tidy from broom

62 varp_rm

titanic

Survival data for the Titanic

Description

Survival data for the Titanic

Usage

```
data(titanic)
```

Format

A data frame with 1043 rows and 10 variables

Details

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

varp_rm

 $Variance\ for\ the\ population\ na.rm = TRUE$

Description

Variance for the population na.rm = TRUE

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

Value

Variance for the population

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

var_rm 63

var_rm

 $Variance\ with\ na.rm = TRUE$

Description

Variance with na.rm = TRUE

Usage

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

Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

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

64 visualize

Examples

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

visualize

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

Description

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

Usage

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

Arguments

| dataset | Dataset name (string). This can be a dataframe in the global environment or an element in an r_{data} list from Radiant |
|-----------|--|
| xvar | One or more variables to display along the X-axis of the plot |
| yvar | Variable to display along the Y-axis of the plot (default = "none") |
| comby | Combine yvars in plot (TRUE or FALSE, FALSE is the default) |
| combx | Combine xvars in plot (TRUE or FALSE, FALSE is the default) |
| type | Type of plot to create. One of Distribution ('dist'), Density ('density'), Scatter ('scatter'), Surface ('surface'), 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 | Display bar, distribution, and density plots by group, each with a different color. Also applied to surface plots to generate a 'heat map' |
| bins | Number of bins used for a histogram (1 - 50) |
| smooth | Adjust the flexibility of the loess line for scatter plots |
| fun | Set the summary measure for line and bar plots when the X-variable is a factor (default is "mean"). Also used to plot an error bar in a scatter plot when the X-variable is a factor. Options are "mean" and/or "median" |
| check | Add a regression line ("line"), a loess line ("loess"), or jitter ("jitter") to a scatter plot |

wday 65

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

Details

 $See \ http://radiant-rstats.github.io/docs/data/visualize.html \ for \ an \ example \ in \ Radiant$

Value

Generated plots

Examples

```
visualize("diamonds", "price:x", type = "dist")
visualize("diamonds", "carat:x", yvar = "price", type = "scatter")
visualize(dataset = "diamonds", yvar = "price", xvar = c("cut","clarity"),
    type = "bar", fun = "median")
visualize(dataset = "diamonds", yvar = "price", xvar = c("cut","clarity"),
    type = "line", fun = "max")
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 $")}
visualize(dataset = "diamonds", xvar = "cut", yvar = "price", type = "bar",
    facet_row = "cut", fill = "cut", custom = FALSE)
```

wday

Add ordered argument to lubridate::wday

Description

Add ordered argument to lubridate::wday

Usage

```
wday(x, label = FALSE, abbr = TRUE, ordered = FALSE)
```

66 which.pmax

Arguments

x Input date vector

labelWeekday as label (TRUE, FALSE)abbrAbbreviate label (TRUE, FALSE)orderedOrder factor (TRUE, FALSE)

See Also

See the wday function in the lubridate package for additional details

weighted.sd

Weighted standard deviation

Description

Weighted standard deviation

Usage

```
weighted.sd(x, wt, na.rm = TRUE)
```

Arguments

x Numeric vector

wt Numeric vector of weights

na.rm Remove missing values (default is TRUE)

Details

Calculated a weighted standard deviation

 $\quad \hbox{which.pmax} \quad$

Returns the index of the (parallel) maxima of the input values

Description

Returns the index of the (parallel) maxima of the input values

Usage

```
which.pmax(...)
```

Arguments

... Numeric or character vectors of the same length

Value

Vector of rankings

which.pmin 67

Examples

```
which.pmax(1:10, 10:1) which.pmax(2, 10:1)
```

which.pmin

Returns the index of the (parallel) minima of the input values

Description

Returns the index of the (parallel) minima of the input values

Usage

```
which.pmin(...)
```

Arguments

... Numeric or character vectors of the same length

Value

Vector of rankings

Examples

```
which.pmin(1:10, 10:1) which.pmin(2, 10:1)
```

xtile

Create a quintile (or decile) index

Description

Create a quintile (or decile) index

Usage

```
xtile(x, n, rev = FALSE)
```

Arguments

x Numeric variable

n number of bins to create
rev Reverse the order of the xtiles

Details

Same as stata

68 xtile

```
xtile(1:10,5)
xtile(1:10,5, rev = TRUE)
```

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