# Package 'radiant.data'

September 20, 2017

```
Title Data Menu for Radiant: Business Analytics using R and Shiny
Version 0.8.7.5
Date 2017-9-11
Description The Radiant Data menu includes interfaces for loading, saving,
      viewing, visualizing, summarizing, transforming, and combining data. It also
      contains functionality to generate reproducible reports of the analyses
      conducted in the application.
Depends R (>= 3.3.0),
      magrittr (>= 1.5),
      ggplot2 (>= 2.1.0),
      lubridate (>= 1.6.0),
      tidyr (>= 0.7),
      dplyr (>= 0.7.2)
Imports tibble (>= 1.3),
      rlang (>= 0.1.1),
      broom (>= 0.4.2),
      car (>= 2.1.3),
      grid (>= 3.3.1),
      gridExtra (\geq 2.0.0),
      knitr (>= 1.15.1),
      rmarkdown(>= 1.4),
      markdown (>= 0.7.7),
      pryr (>= 0.1.2),
      shiny (>= 1.0.5),
      jsonlite (>= 1.0),
      shinyAce (>= 0.2.1),
      psych (>= 1.6.6),
      DT (>= 0.2),
      readr (>= 1.1.0),
      scales (>= 0.4.0),
      curl (>= 2.5),
      rstudioapi (>= 0.7),
      import (>= 1.1.0),
      plotly (>= 4.5.6),
      base64enc,
      methods
Suggests RSQLite (>= 1.1.2),
      DBI (>= 0.6.1),
```

2 R topics documented:

```
webshot (>= 0.4.0),
  feather (>= 0.3.1),
  testthat (>= 1.0.0)

URL https://github.com/radiant-rstats/radiant.data,
  https://radiant-rstats.github.io/docs

BugReports https://github.com/radiant-rstats/radiant.data/issues
License AGPL-3 | file LICENSE
LazyData true
RoxygenNote 6.0.1
```

# **R** topics documented:

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

# **Examples**

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

as\_character

Wrapper for as.character

# Description

Wrapper for as.character

# Usage

```
as_character(x)
```

# Arguments

Χ

Input vector

6 as\_dmy

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 <a href="http://www.movable-type.co.uk/scripts/latlong.html">http://www.movable-type.co.uk/scripts/latlong.html</a>. 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**

Х

Input variable

as\_dmy\_hm 7

### 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

# **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

8 as\_factor

### **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**

Χ

Time difference

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

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

# **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

Х

Input variable

# Value

Time variable of class Period

10 as\_mdy

### **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

# **Examples**

```
as_integer(rnorm(10))
as_integer(letters)
as_integer(as.factor(5:10))
as.integer(as.factor(5:10))
as_integer(c("a","b"))
```

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

as\_mdy\_hm 11

### **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**

Х

Input variable

### Value

Date-time variable of class Date

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

12 as\_numeric

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

### **Examples**

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

as\_numeric

Convert variable to numeric avoiding potential issues with factors

# Description

Convert variable to numeric avoiding potential issues with factors

# Usage

```
as_numeric(x)
```

# **Arguments**

Х

Input variable

#### Value

Numeric

```
as_numeric(rnorm(10))
as_numeric(letters)
as_numeric(as.factor(5:10))
as.numeric(as.factor(5:10))
as_numeric(c("a","b"))
as_numeric(c("3","4"))
```

as\_tibble 13

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

# 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

14 avengers

### **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

# **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 15

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

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

16 choose.files

choose.dir	Select a directory. Uses JavaScript on Mac, utils::choose.dir on Win-
	dows, and dirname(file.choose()) on Linux

# Description

 $Select\ a\ directory.\ Uses\ JavaScript\ on\ Mac, utils::choose.dir\ on\ Windows,\ and\ dirname(file.choose())$  on Linux

# Usage

```
choose.dir(...)
```

# Arguments

... Arguments passed to utils::choose.dir on Windows

### Value

Path to the directory selected by the user

# **Examples**

```
if (interactive()) {
choose.dir()
}
```

choose.files

Select files. Uses JavaScript on Mac, utils::choose.files on Windows, and file.choose() on Linux

# Description

Select files. Uses JavaScript on Mac, utils::choose.files on Windows, and file.choose() on Linux

### Usage

```
choose.files(...)
```

#### **Arguments**

. . . Strings used to determine which file types are available for selection (e.g., "csv" or "pdf")

# Value

Vector of paths to files selected by the user

ci\_label 17

### **Examples**

```
if (interactive()) {
choose.files("pdf", "csv")
}
```

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

# **Examples**

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

ci\_perc

Values at confidence levels

# Description

Values at confidence levels

# Usage

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

# Arguments

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

18 combinedata

#### 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'

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 <a href="https://radiant-rstats.github.io/docs/data/">https://radiant-rstats.github.io/docs/data/</a>

combine.html for further details

name Name for the combined dataset

10000")

copy\_all 19

#### **Details**

See https://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

#### **Details**

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

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

copy\_from

conv	attr

Copy attributes from on object to another

### Description

Copy attributes from on object to another

### Usage

```
copy_attr(to, from, attr)
```

# Arguments

to	Object to copy attributes to
from	Object to copy attributes from
attr	Vector of attributes. If missing all attributes will be copied

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 21

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))
```

describe

Show dataset description, 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

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

dtab 23

dtab

Method to create datatables

# Description

Method to create datatables

#### Usage

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

# Arguments

object Object of relevant class to render
... Additional arguments

#### See Also

See dtab.explore to create the an interactive table from an explore object See dtab.pivotr to create the an interactive table from a pivotr object See dtab.data.frame to create an interactive table from a data.frame

dtab.character

Create a DT table with bootstrap theme

### Description

Create a DT table with bootstrap theme

# Usage

```
## S3 method for class 'character'
dtab(...)
```

### **Arguments**

... Arguments to pass on to dtab.data.frame

#### **Details**

View, search, sort, etc. your data. For styling options see <a href="http://rstudio.github.io/DT/functions.html">http://rstudio.github.io/DT/functions.html</a>

```
dtab("mtcars")
```

24 dtab.data.frame

dtab.data.frame	Create a DT table with bootstrap theme
atab. data. 11 anc	create a D1 table with bootstrap theme

# Description

Create a DT table with bootstrap theme

# Usage

```
## S3 method for class 'data.frame'
dtab(object, vars = "", filt = "", rows = NULL,
    na.rm = FALSE, dec = 3, filter = "top", pageLength = 10, dom = "",
    style = "bootstrap", rownames = FALSE, ...)
```

# Arguments

object	Data.frame to display
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)
dec	Number of decimal places to show. Default is no rounding (NULL)
filter	Show filter in DT table. Options are "none", "top", "bottom"
pageLength	Number of rows to show in table
dom	Table control elements to show on the page. See <a href="https://datatables.net/reference/option/dom">https://datatables.net/reference/option/dom</a>
style	Table formatting style ("bootstrap" or "default")
rownames	Show data.frame rownames. Default is FALSE
	Additional arguments

### **Details**

View, search, sort, etc. your data. For styling options see http://rstudio.github.io/DT/functions.html

```
dtab(mtcars)
```

dtab.explore 25

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 https://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
```

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

26 dtab.pivotr

dt ah	pivotr	
utab.	DIAOTL	

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 https://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 27

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

Х

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

28 factorizer

#### **Details**

See https://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

See 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 = 30)
```

# Arguments

dat Data frame

safx Values to levels ratio

### Value

Data frame with factors

filterdata 29

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

30 flip

find\_gdrive

Find a user's Google Drive folder

#### **Description**

Find a user's Google Drive folder

# Usage

```
find_gdrive()
```

### Value

Path to Google Drive folder

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 https://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
```

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

formatdf 31

forma	atdf	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

dec Number of decimal places

perc Display numbers as percentages (TRUE or FALSE)

mark Thousand separator

### 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

32 getclass

#### Value

Character (vector) in the desired format

# **Examples**

```
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)
```

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

```
getclass(mtcars)
```

getdata 33

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	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

install\_webshot

ggplotly

Exporting the ggplotly function from the plotly package

# Description

Exporting the ggplotly function from the plotly package

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 = "", cmd = "")
```

# Arguments

dataset Dataset name
vars Variables to select
filt Data filter

cmd A command used to customize the data

 $install\_webshot$ 

Install webshot and phantomjs

# Description

Install webshot and phantomjs

### Usage

```
install_webshot()
```

inverse 35

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 = "\s*")
```

# 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

is\_string

### **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

Χ

Input

# **Details**

Is input a string

iterms 37

#### 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 = ".")
```

knit\_print

Exporting knit\_print from knitr

# Description

Exporting knit\_print from knitr

38 In

kurtosi

Exporting the kurtosi function from the psych package

#### **Description**

Exporting the kurtosi function from the psych package

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

loadcsv 39

## **Examples**

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

loadcsv

Load a csv file with read.csv and read\_csv

# Description

Load a csv file with read.csv and read\_csv

## Usage

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

# Arguments

fn	File name string
.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

#### Value

Data frame with (some) variables converted to factors

loadcsv\_url

Load a csv file with from a url

# Description

Load a csv file with from a url

# Usage

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

40 loadr

# 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

# Value

safx

Data frame with (some) variables converted to factors

Values to levels ratio

loadr	Load an rds, rda, or csv file and add it to the radiant data list (r_data)
10801	
	if available

# Description

Load an rds, rda, or csv file and add it to the radiant data list (r\_data) if available

# Usage

```
loadr(file, objname = "", rlist = TRUE)
```

# Arguments

file	File name and path as a string. Extension must be either rds, rda, or csv
objname	Name to use for the data frame. Defaults to the file name
rlist	If TRUE, uses "r_data" list to store the data.frame. If FALSE, loads data.frame into calling environment

#### Value

Data frame in r\_data or in the calling environment

loadrda\_url 41

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 rda file

# Value

Data frame

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

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

42 max\_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, seed = 1234)
```

#### **Arguments**

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

nr Number of rows in the dataset

seed Random seed

#### Value

0/1 variables for filtering

# **Examples**

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

max\_rm

 $Max\ with\ na.rm = TRUE$ 

# Description

Max with na.rm = TRUE

# Usage

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

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

## Value

Maximum value

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

mean\_rm 43

mean\_rm

 $Mean \ with \ na.rm = TRUE$ 

# Description

Mean with na.rm = TRUE

# Usage

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

# **Arguments**

Χ

na.rm If TRUE missing values are removed before calculation

Input variable

#### Value

Mean value

# **Examples**

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

median\_rm

 $Median \ with \ na.rm = TRUE$ 

# Description

Median with na.rm = TRUE

# Usage

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

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

# Value

Median value

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

mode\_rm

min\_rm

 $Min\ with\ na.rm = TRUE$ 

# Description

Min with na.rm = TRUE

# Usage

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

# **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

Minimum value

# **Examples**

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

 $mode\_rm$ 

 $Mode\ with\ na.rm = TRUE$ 

# Description

Mode with na.rm = TRUE

# Usage

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

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

# Value

Mode value

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

month 45

month	Add ordered argument to lubridate::month

#### **Description**

Add ordered argument to lubridate::month

# Usage

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

# Arguments

label Month as label (TRUE, FALSE)
abbr Abbreviate label (TRUE, FALSE)
ordered Order factor (TRUE, FALSE)

#### See Also

See the month function in the lubridate package for additional details

mutate_ext	Add tranformed variables to a data frame (NSE)	

# Description

Add tranformed variables to a data frame (NSE)

#### Usage

```
mutate_ext(.tbl, .funs, ..., .ext = "", .vars = c())
```

# 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
.vars	A list of columns generated by dplyr::vars(), or a character vector of column names, or a numeric vector of column positions.

# **Details**

Wrapper for dplyr::mutate\_at that allows custom variable name extensions

46 n\_missing

#### **Examples**

```
mutate_ext(mtcars, funs(log), mpg, cyl, .ext = "_ln")
mutate_ext(mtcars, funs(log), .ext = "_ln")
mutate_ext(mtcars, funs(log))
mutate_ext(mtcars, funs(log), .ext = "_ln", .vars = vars(mpg, cyl))
```

normalize

Normalize a variable x by a variable y

# Description

Normalize a variable x by a variable y

#### Usage

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

# Arguments

x Input variable

y Normalizing variable

#### Value

x/y

n\_missing

Number of missing values

# Description

Number of missing values

#### Usage

```
n_missing(x)
```

# Arguments

Х

Input variable

#### Value

number of missing values

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

p05

p05

5th percentile

# Description

5th percentile

# Usage

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

#### **Arguments**

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

5th percentile

# **Examples**

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

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

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

48 p75

p25

25th percentile

# Description

25th percentile

#### Usage

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

#### **Arguments**

Х

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

25th percentile

# **Examples**

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

p75

75th percentile

# Description

75th percentile

# Usage

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

# **Arguments**

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

75th percentile

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

p90 49

p90

90th percentile

# Description

90th percentile

#### Usage

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

#### **Arguments**

Х

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

90th percentile

# **Examples**

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

p95

95th percentile

# Description

95th percentile

# Usage

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

# Arguments

Х

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

95th percentile

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

50 pivotr

ni	110+n	
DI	votr	

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

cvars Categorical variables
nvar Numerical variable

Name of the dataframe to change

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

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 https://radiant-rstats.github.io/docs/data/pivotr.html for an example in Radiant

```
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 51

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,
  fillcol = "blue", ...)
```

#### **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)
fillcol	Fill color for bar-plot when only one categorical variable has been selected (default is "blue")
	further arguments passed to or from other methods

#### **Details**

See https://radiant-rstats.github.io/docs/data/pivotr for an example in Radiant

#### See Also

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

52 prop

#### **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 grid.arrange. Code is based on https://github.com/baptiste/gridextra/blob/master/inst/testing/shiny.R

#### Value

A plot

prop

Calculate proportion

# Description

Calculate proportion

## Usage

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

#### **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

publishers 53

#### Value

Proportion of first level for a factor and of the maximum value for numeric

# **Examples**

```
prop(c(rep(1L, 10), rep(0L, 10)))
prop(c(rep(4, 10), rep(2, 10)))
prop(rep(0, 10))
prop(factor(c(rep("a", 20), rep("b", 10))))
```

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 <a href="http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet">http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet</a>.

<a href="http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet">httml</a>. The dataset is used to illustrate data merging / joining. Description provided in attr(publishers, "description")</a>

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

54 refactor

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

```
mutate_each(...)
```

#### **Arguments**

Parameters to be passed to the updated functions

#### **Details**

```
mutate_each is now a synonym for mutate_ext, mutate_at, or mutate_all

dfprint is now a synonym for formatdf

nrprint is now a synonym for formatnr

varp_rm is now a synonym for varpop

sdp_rm is now a synonym for sdpop
```

refactor

Remove/reorder levels

#### **Description**

Remove/reorder levels

## Usage

```
refactor(x, levs = levels(x), repl = NA)
```

#### **Arguments**

X	Character or Factor
levs	Set of levels to use

repl String (or NA) used to replace missing levels

# **Details**

Keep only a specific set of levels in a factor. By removing levels the base for comparison in, e.g., regression analysis, becomes the first level. To relable the base use, for example, repl = 'other'

register 55

#### **Examples**

```
refactor(diamonds$cut, c("Premium","Ideal")) %>% head
refactor(diamonds$cut, c("Premium","Ideal"), "Other") %>% head
```

register

Register a data.frame in the datasetlist in Radiant

# Description

Register a data.frame in the datasetlist in Radiant

#### Usage

```
register(new = "", org = "", descr = "", envir = parent.frame(), ...)
```

# Arguments

new	Name of the new dataset
org	Name of the original data
descr	Dataset description
envir	Environment to assign 'new' dataset (optional). Used if 'new' is specified but an $r_{\rm data}$ list is not available
	further arguments passed to or from other methods

#### **Details**

Store data frame in Radiant r\_data list if available

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

56 render plotly

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

... Additional arguments

render.plotly

Method to render plotly plots

## Description

Method to render plotly plots

#### Usage

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

#### **Arguments**

```
object ggplotly object
... Additional arguments
```

```
render.shiny.render.function
```

Method to avoid re-rendering a shiny.render.function

# Description

Method to avoid re-rendering a shiny.render.function

## Usage

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

# **Arguments**

object Shiny render function
... 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

#### Value

Data frame with rounded doubles

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

58 sdpop

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 a data.frame or a data.frame

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

sdpop

Standard deviation for the population

#### **Description**

Standard deviation for the population

#### Usage

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

# **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

Standard deviation for the population

```
sdpop(rnorm(100))
```

sdprop 59

sdprop

Standard deviation for proportion

# Description

Standard deviation for proportion

#### Usage

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

#### **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

# Value

Standard deviation for proportion

## **Examples**

```
sdprop(c(rep(1L, 10), rep(0L, 10)))
```

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))
```

60 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 https://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

seprop 61

seprop

Standard error for proportion

# Description

Standard error for proportion

# Usage

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

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

# Value

Standard error for proportion

# **Examples**

```
seprop(c(rep(1L, 10), rep(0L, 10)))
```

set\_attr

Alias used to add an attribute

# Description

Alias used to add an attribute

# Usage

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

# **Arguments**

x Object

which Attribute name value Value to set

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

62 sig\_stars

show\_duplicated

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

#### **Description**

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

#### Usage

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

# **Arguments**

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

#### **Details**

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

#### **Examples**

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

sig\_stars

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

# Description

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

## Usage

```
sig_stars(pval)
```

#### **Arguments**

pval

Vector of p-values

#### **Details**

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

skew 63

#### 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

Calculate square of a variable

# Description

Calculate square of a variable

# Usage

square(x)

# Arguments

Х

Input variable

#### Value

x^2

64 sshhr

sshh

Hide warnings and messages and return invisible

#### **Description**

Hide warnings and messages and return invisible

# Usage

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

# Arguments

... Inputs to keep quite

#### **Details**

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

# **Examples**

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

sshhr

Hide warnings and messages and return result

# Description

Hide warnings and messages and return result

# Usage

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

# Arguments

... Inputs to keep quite

# Details

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

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

standardize 65

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

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

66 store.data.frame

store.character

Method for error messages that a user tries to store

#### **Description**

Method for error messages that a user tries to store

# Usage

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

# Arguments

object Object of type character
... 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

store.explore 67

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

#### See Also

explore to generate summaries

store.pivotr

Store method for the pivort function

#### **Description**

Store method for the pivort function

#### Usage

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

#### **Arguments**

object Return value from pivotr
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 https://radiant-rstats.github.io/docs/data/pivotr.html for an example in Radiant

68 summary.explore

#### See Also

pivotr to generate summaries

subplot

Exporting the subplot function from the plotly package

#### **Description**

Exporting the subplot function from the plotly package

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 \ https://radiant-rstats.github.io/docs/data/explore.html \ for \ an \ example \ in \ Radiant \ and \ radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ an \ example \ in \ Radiant \ ratio \ for \ example \ in \ Radiant \ ratio \ for \ example \ in \ Radiant \ ratio \ for \ example \ example \ example \ example \ for \ example \$ 

#### See Also

explore to generate summaries

```
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 69

summary.pivotr	Summary method for pivotr

# Description

Summary method for pivotr

# Usage

```
## S3 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 https://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", tabsort = "desc(n)") %>% summary
pivotr("diamonds", cvars = "cut", tabfilt = "n > 700") %>% summary
pivotr("diamonds", cvars = "cut:clarity", nvar = "price") %>% summary
```

70 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 <a href="http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet.html">http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet.html</a>. The dataset is used to illustrate data merging / joining. Description provided in attr(superheroes, "description")

table2data 71

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

72 varpop

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")

varpop

Variance for the population

# Description

Variance for the population

# Usage

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

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

Variance for the population

```
varpop(rnorm(100))
```

varprop 73

varprop

Variance for proportion

# **Description**

Variance for proportion

#### Usage

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

#### **Arguments**

X

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

Variance for proportion

# **Examples**

```
varprop(c(rep(1L, 10), rep(0L, 10)))
```

var\_rm

 $Variance\ with\ na.rm = TRUE$ 

# Description

Variance with na.rm = TRUE

# Usage

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

# **Arguments**

Х

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

Variance

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

74 visualize

viewdata

View data in a shiny-app

## **Description**

View data in a shiny-app

#### Usage

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

#### **Arguments**

dataset	Data.frame or name of the dataframe to view
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://ggplot2.tidyverse.org

#### **Description**

Visualize data using ggplot2 http://ggplot2.tidyverse.org

#### Usage

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

visualize 75

# 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'
size	Numeric variable used to scale the size of scatter-plot points
fillcol	Color used for bars, boxes, etc. when no color or fill variable is specified
linecol	Color for lines when no color variable is specified
pointcol	Color for points when no color variable is specified
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
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)
ylim	Set limit for y-axis
data_filter	Expression used to filter the dataset. This should be a string (e.g., "price $> 10000$ ")
shiny	Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny app
custom	Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This opion can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and http://docs.ggplot2.org/for options.

# **Details**

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

76 wday

#### Value

Generated plots

#### **Examples**

wday

Add ordered argument to lubridate::wday

#### **Description**

Add ordered argument to lubridate::wday

#### **Usage**

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

#### **Arguments**

x	Input date vector
label	Weekday as label (TRUE, FALSE)
abbr	Abbreviate label (TRUE, FALSE)
ordered	Order factor (TRUE, FALSE)

#### See Also

See the wday function in the lubridate package for additional details

weighted.sd 77

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

which.pmax

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

78 xtile

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 quantiles

# Description

Create quantiles

#### Usage

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

#### **Arguments**

x Numeric variablen number of bins to createrev Reverse the order of the xtiles

## **Details**

Approach used produces results most similar to Stata

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

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