

Package: csucistats (via r-universe)

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Type Package

Title CSU Channel Islands R Tools

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Description An R package containing functions for statistics courses
at CSUCI.

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Encoding UTF-8

LazyData true

Depends R (>= 4.3.0)

Imports tibble, dplyr, gmodels, rlang, stringr, styler, remotes,
rstudioapi

URL <http://www.inqs.info/csucistats/>

RoxygenNote 7.3.1

Suggests broom

Repository <https://inqs909.r-universe.dev>

RemoteUrl <https://github.com/inqs909/csucistats>

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Contents

b	2
bottom	3
cat_stats	3
descriptive	4
f	4

install_plots	4
install_themes	5
middle	5
new_hw	5
new_hw_open	6
new_presentation	7
new_presentation_open	7
num_by_cat_stats	8
num_stats	9
r2	9
reiterate	9
resample	10
shuffle	10
sse	10
top	11
Index	12

b

Extract regression coefficients from a linear regression model.

Description

The regression coefficients demonstrates how a set of predictor variables will affect the outcome of interest.

Usage

```
b(object, index = NULL, data = NULL)
```

Arguments

object	An R object that is a formula or contains the results of the ‘lm’ function.
index	Index indicating which coefficients to obtain.
data	A data frame when the object is a formula.

bottom	<i>Obtain the Bottom X Percents</i>
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Description

Obtain the Bottom X Percents

Usage

```
bottom(x, probs)
```

Arguments

x	Vector
probs	Probability

cat_stats	<i>Obtain Frequencies and Proportions for a Categorical Variable</i>
-----------	--

Description

Obtain Frequencies and Proportions for a Categorical Variable

Usage

```
cat_stats(x, y = NULL, prop = "all", df = FALSE, pie = FALSE)
```

Arguments

x	Vector
y	Vector for Cross-tabulations.
prop	Character indicating what type of proportions to provide. Defaults to "all".
df	Logical indicating to provide a tibble for cross tabulations with table proportions.
pie	Logical indicating if you need a df for a single variable pie chart.

descriptive	<i>Obtain Descriptive Statistics from a data frame.</i>
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Description

Obtain Descriptive Statistics from a data frame.

Usage

```
descriptive(df)
```

Arguments

df	An R data frame used for further analysis.
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f	<i>Extract the F Statistic</i>
---	--------------------------------

Description

Extract the F Statistic

Usage

```
f(object, data = NULL)
```

Arguments

object	An R object that is a 'formula' or contains the results of the 'lm' function.
data	A data frame when the object is a formula.

install_plots	<i>Install ggplots and other plotting packages</i>
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Description

Install ggplots and other plotting packages

Usage

```
install_plots()
```

install_themes	<i>Install Themes</i>
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Description

Install Themes

Usage

```
install_themes()
```

middle	<i>Obtain the middle X Percent</i>
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Description

Obtain the middle X Percent

Usage

```
middle(x, probs)
```

Arguments

x	Vector
probs	Probability

new_hw	<i>Generate a QMD file to create a homework template for class. Files will be saved in it's own folder.</i>
--------	---

Description

Generate a QMD file to create a homework template for class. Files will be saved in it's own folder.

Usage

```
new_hw(  
  hw_name,  
  name = "Name Here",  
  title = "Title Here",  
  date = "`r format(Sys.time(), '%m-%d-%Y')`",  
  dir_loc = getwd(),  
  data = FALSE  
)
```

Arguments

hw_name	Name of folder to store all important files for the homework assignment. This argument will remove unwanted punctuations and spaces.
name	Your name.
title	Optional title to give to assignment.
date	Optional Date to give to the document.
dir_loc	Optional location to place the folder and hw template contents.
data	If TRUE, a data folder will be constructed in hw template folder.

new_hw_open	<i>Generate a QMD file to create a homework template for class. Files will be saved in it's own folder. This function will automatically open in RStudio.</i>
-------------	---

Description

Generate a QMD file to create a homework template for class. Files will be saved in it's own folder. This function will automatically open in RStudio.

Usage

```
new_hw_open(
  hw_name,
  name = "Name Here",
  title = "Title Here",
  date = "`r format(Sys.time(), '%m-%d-%Y')`",
  dir_loc = getwd(),
  data = FALSE
)
```

Arguments

hw_name	Name of folder to store all important files for the homework assignment. This argument will remove unwanted punctuations and spaces.
name	Your name.
title	Optional title to give to assignment.
date	Optional Date to give to the document.
dir_loc	Optional location to place the folder and hw template contents.
data	If TRUE, a data folder will be constructed in hw template folder.

new_presentation	<i>Generate a QMD file to create a presentation template for class. Files will be saved in it's own folder.</i>
------------------	---

Description

Generate a QMD file to create a presentation template for class. Files will be saved in it's own folder.

Usage

```
new_presentation(
  hw_name,
  name = "Name Here",
  title = "Title Here",
  date = "`r format(Sys.time(), '%m-%d-%Y')`",
  dir_loc = getwd(),
  data = FALSE
)
```

Arguments

hw_name	Name of folder to store all important files for the homework assignment. This argument will remove unwanted punctuations and spaces.
name	Your name.
title	Optional title to give to assignment.
date	Optional Date to give to the document.
dir_loc	Optional location to place the folder and hw template contents.
data	If TRUE, a data folder will be constructed in hw template folder.

new_presentation_open	<i>Generate a QMD file to create a presentation template for class. Files will be saved in it's own folder. This function will automatically open in RStudio.</i>
-----------------------	---

Description

Generate a QMD file to create a presentation template for class. Files will be saved in it's own folder. This function will automatically open in RStudio.

Usage

```
new_presentation_open(
  hw_name,
  name = "Name Here",
  title = "Title Here",
  date = "`r format(Sys.time(), '%m-%d-%Y')`",
  dir_loc = getwd(),
  data = FALSE
)
```

Arguments

hw_name	Name of folder to store all important files for the homework assignment. This argument will remove unwanted punctuations and spaces.
name	Your name.
title	Optional title to give to assignment.
date	Optional Date to give to the document.
dir_loc	Optional location to place the folder and hw template contents.
data	If TRUE, a data folder will be constructed in hw template folder.

num_by_cat_stats	<i>Obtain Numerical Statistics for a Continuous Variable by a Categorical Variable</i>
------------------	--

Description

Obtain Numerical Statistics for a Continuous Variable by a Categorical Variable

Usage

```
num_by_cat_stats(df, num, cat)
```

Arguments

df	An R data frame used for further analysis.
num	Name of the numerical variable found in the data frame
cat	Name of the categorical variable found in the data frame

num_stats	<i>Obtain Numerical Statistics for a Continuous Variable</i>
-----------	--

Description

Obtain Numerical Statistics for a Continuous Variable

Usage

```
num_stats(x, tbl = TRUE)
```

Arguments

x	A numerical or integer vector.
tbl	A logical indicating whether to return a tibble or not, defaults to TRUE.

r2	<i>Obtained the R-Squared Value from a Linear Model</i>
----	---

Description

Obtained the R-Squared Value from a Linear Model

Usage

```
r2(object, data = NULL)
```

Arguments

object	An R object that is a 'formula' or contains the results of the 'lm' function.
data	A data frame when the object is a formula.

reiterate	<i>Repeat a task numerous times</i>
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Description

Repeat a task numerous times

Usage

```
reiterate(expr, sim)
```

Arguments

expr	Expression to be evaluated multiple times.
sim	The number of times to evaluate an the expression.

resample	<i>Sample a data frame with replacement</i>
----------	---

Description

Sample a data frame with replacement

Usage

```
resample(df)
```

Arguments

df	Data frame to be sampled with replacement
----	---

shuffle	<i>Reorder the data of a vector</i>
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Description

Reorder the data of a vector

Usage

```
shuffle(x)
```

Arguments

x	A vector to be shuffle the order of the values.
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sse	<i>Compute the sum of error squared for an R object</i>
-----	---

Description

Compute the sum of error squared for an R object

Usage

```
sse(object, data = NULL)
```

Arguments

object	An R object that is a 'formula' or contains the results of the 'lm' function.
data	A data frame when the object is a formula.

top	<i>Obtain the top X Percent</i>
-----	---------------------------------

Description

Obtain the top X Percent

Usage

top(x, probs)

Arguments

x	Vector
probs	Probability

Index

b, [2](#)
bottom, [3](#)

cat_stats, [3](#)

descriptive, [4](#)

f, [4](#)

install_plots, [4](#)
install_themes, [5](#)

middle, [5](#)

new_hw, [5](#)
new_hw_open, [6](#)
new_presentation, [7](#)
new_presentation_open, [7](#)
num_by_cat_stats, [8](#)
num_stats, [9](#)

r2, [9](#)
reiterate, [9](#)
resample, [10](#)

shuffle, [10](#)
sse, [10](#)

top, [11](#)