Package 'myfirstRpack'

November 12, 2020

Title A Package to Provide Numerical and Graphical Summaries of a Data Set

Version 1.0.0.9000

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Description The package provides numerical and graphical summaries of a data set.

Depends R (>= 4.0.2)

License GPL-2 | GPL-3

Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

Suggests knitr,
rmarkdown

VignetteBuilder knitr

Imports dplyr,
ggplot2

R topics documented:

`dataSummary` *Statistical Summaries of a Numeric Data Set*

Description

This function provides statistical summaries of a numeric data set. It calls the `statsCalculate` function. It also plots a histogram using the `ggplot2` package.

Usage

```
dataSummary(vec, na.rm = TRUE)
```

Arguments

vec	A numeric vector containing the data
na.rm	Should NA be removed? Default value TRUE.

Value

A named vector of numerical summaries and the number of NA:

Mean The mean of the data.

Standard Deviation The standard deviation of the data.

NAs The number of missing data

Author(s)

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Examples

```
x <- rnorm(100)
dataSummary(x)
```

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eye_data *The eye data*

Description

The eye data is a nice and useful data set. It reports logMar measurements from a group of children, together with their age

Usage

```
eye_data
```

Format

A data.frame with 1500 rows and 4 columns:

Age Child age (years)

Age_Group Child age group (years)

Right_Eye_Measurement logMar measurement for right eye

Left_Eye_Measurement logMar measurement for left eye

Source

Data provided by Mario, but disclosure protected

Examples

```
with(eye_data, mean(Right_Eye_Measurement))
with(eye_data, mean(Left_Eye_Measurement))
```

qa_data *The questionnaire data*

Description

The questionnaire data shows the responses given by the a group of Plymouth students to 19 questions. The data set contains one unusual answer. An additional error (changing one age from 21 to 12) has been introduced for illustrative purposes

Usage

```
qa_data
```

Format

A data.frame with 18 rows and 19 columns, containing responses to the following questions:

Height What is your height in cms? (cms)

Age What is your age as a decimal? (years, as decimal)

Sex What is your sex? (Female or Male)

BirthPlace Where were you born?

SiblingNo How many siblings (brothers and sisters, including step-brothers and step-sisters) do you have?

EatMeat Do you eat mean? (Yes or No)

DrinkCoffee Do you drink coffee? (Yes or No)

LikeBeer Do you like beer? (Yes or No)

Sports Do you play sports? (Yes or No)

Driver Do you have a full driving licence? (Yes or No)

LeftHanded Are you left-handed? (Yes or No)

Abroad Did you go abroad on holiday this year? (Yes or No)

Sleep How much sleep do you think that you had last night (in hours)? (hours)

Rent How much do you pay each calendar month for your term time accommodation (in pounds)? (pounds)

Happy_accommodation Are you happy with the quality of your term time accommodation (Yes or No)

Distance How far is your term time accommodation from the Babbage Building (to the nearest 0.1 of a mile, best guess)? (miles, in tenths)

Travel_time How long does it take you to travel from your term time accommodation to the Babbage Building (in minutes, best guess)? (minutes)

Mode_of_transport What is your usual way of travelling to the University (if you use more than one means of transport, please state the one which takes the most time)?

Safe Do you feel safe returning to your term time accommodation at night? (Yes or No)

Source

Data provided electronically by a group of Plymouth students.

`statsCalculate` *Mean and Standard Deviation of a Numeric Data Set*

Description

This function provides two statistical summaries of a numeric data set. These comprise a measure of location in the form of a mean and a measure of spread in the form of a standard deviation.

Usage

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

Arguments

`x`	A numeric vector containing the data.
`na.rm`	Should `NA` be removed? Default value `TRUE`.

Value

A named vector of numerical summaries and the number of `NA`:

Mean The mean of the data.

Standard Deviation The standard deviation of the data.

Author(s)

Luciana Dalla Valle <luciana.dallavalle@plymouth.ac.uk>, Julian Stander <J.Stander@plymouth.ac.uk>

Examples

```
x <- rnorm(100)
statsCalculate(x)
```

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