Package 'StatisticTeach1'

June 8, 2026

Type Package

Title Interactive Tool for Statistics and Probability

Version 0.1.2

Depends R (>= 4.1.0)

Description A Shiny application designed to support the learning of basic concepts in statistics and probability. The tool provides an interactive interface that allows students to explore and visualize different statistical concepts intuitively, including descriptive statistics for continuous and qualitative variables, and probability distributions.

License GPL-3

Imports descriptr, DescTools, dplyr, ggplot2, magrittr, mixdist, RColorBrewer, readxl, rlang, shiny, shinyBS, shinydashboard, shinyjs, shinyWidgets, tibble, tidyr, colourpicker, DT, stats

Suggests testthat (>= 3.0.0)

Encoding UTF-8

Config/testthat/edition 3

Config/roxygen2/version 8.0.0

RoxygenNote 7.3.3

NeedsCompilation no

Author Javier De La Hoz Maestre [cre, aut] (ORCID: <https://orcid.org/0000-0001-7779-0803>), Humberto Llinas Solano [aut] (ORCID: <https://orcid.org/0000-0002-5530-6416>), Alexander Rangel Vizcaino [aut]

Maintainer Javier De La Hoz Maestre <jdelahoz@unimagdalena.edu.co>

Repository CRAN

Date/Publication 2026-06-08 21:00:02 UTC

Contents

`runStatisticTeach1` *Launch the StatisticTeach1 Shiny Application*

Description

Opens the interactive Shiny interface for exploring descriptive statistics and probability distributions.

Usage

```
runStatisticTeach1(
  host = getOption("shiny.host", "127.0.0.1"),
  port = NULL,
  launch.browser = interactive()
)
```

Arguments

`host`	The IPv4 address that the application should listen on. Defaults to the `shiny.host` option, if set, or `"127.0.0.1"` otherwise.
`port`	The TCP port that the application should listen on. If `NULL` (the default) and the `shiny.port` option is set, that port will be used; otherwise a random available port is chosen.
`launch.browser`	Logical. If `TRUE` (the default in interactive sessions), the system default web browser is opened automatically after the app starts. Can also be a function that receives the application URL.

Value

No return value, called for its side effect of launching a Shiny application.

Examples

```
if (interactive()) {
  runStatisticTeach1()
}
```

ST_freq_factor *Frequency Table for Categorical Data*

Description

Computes a frequency table for a categorical (factor) variable, including absolute frequency, cumulative frequency, relative frequency percentage, and cumulative relative frequency percentage.

Usage

```
ST_freq_factor(data, variable)
```

Arguments

data	A data.frame or tibble.
variable	Unquoted name of the column (factor) in data.

Value

A data.frame with five columns: Levels, Frequency, Cum.Frequency, Percent, and Cum.Percent.

Examples

```
ST_freq_factor(iris, Species)
```

ST_freq_numeric *Frequency Table for Continuous Data*

Description

Computes a frequency table for a continuous (numeric) variable by dividing the data range into equal-width intervals (bins).

Usage

```
ST_freq_numeric(data, variable, bins = 5)
```

Arguments

data	A data.frame or tibble.
variable	Unquoted name of the numeric column in data.
bins	A positive integer giving the number of intervals into which the data range is divided. Defaults to 5.

Value

A `data.frame` with seven columns: `lower`, `upper`, `midpoint`, `frequency`, `cumulative`, `freq_percent`, and `cum_percent`.

Examples

```
ST_freq_numeric(mtcars, mpg, bins = 5)
```

Index