

Package ‘vvdoctor’

July 22, 2025

Title Statistical Test App with R 'shiny'

Version 0.0.1

Description Provides a user-friendly R 'shiny' app for performing various statistical tests on datasets.

It allows users to upload data in numerous formats and perform statistical analyses.

The app dynamically adapts its options based on the selected columns and supports both single and multiple column comparisons.

The app's user interface is designed to streamline the process of selecting datasets, columns, and test options,

making it easy for users to explore and interpret their data. The underlying functions for statistical tests are well-organized and can be used independently within other R scripts.

URL <https://github.com/vusaverse/vvdoctor>,
<https://vusaverse.github.io/vvdoctor/>

License MIT + file LICENSE

Encoding UTF-8

RoxygenNote 7.3.1

Imports datamods, DescTools, DT, exact2x2, irr, magrittr, rintrojs,
rstatix, shiny, shinyjs, shinyWidgets

NeedsCompilation no

Author Tomer Iwan [aut, cre],
Corneel Den Hartogh [ctb] (ORCID:
<<https://orcid.org/0000-0001-8347-7944>>),
Jesús Blanco [ctb],
VU Analytics [cph]

Maintainer Tomer Iwan <t.iwan@vu.nl>

Repository CRAN

Date/Publication 2024-04-27 18:10:02 UTC

Contents

app_server	2
app_ui	2

choose_statistical_test	3
create_dependent_variable_histogram	3
determine_dependent_variable	4
determine_independent_variable	4
diagnose	5
display_data_table	5
get_variable_class_info	6
perform_statistical_test	6
run_vvdoctor	7

Index	8
--------------	----------

app_server	<i>App Server</i>
------------	-------------------

Description

App Server

Usage

app_server(input, output, session)

Arguments

input	The input object from the Shiny app.
output	The output object from the Shiny app.
session	The session object from the Shiny app.

Value

No return value, called for side effects

app_ui	<i>App UI</i>
--------	---------------

Description

App UI

Usage

app_ui()

Value

A Shiny UI object

`choose_statistical_test`*Choose Statistical Test*

Description

Determines the appropriate statistical test based on the characteristics of the dependent and independent variables.

Usage

```
choose_statistical_test(dependent_var, independent_var)
```

Arguments

`dependent_var` The dependent variable.
`independent_var` The independent variable.

Value

The name of the chosen statistical test.

`create_dependent_variable_histogram`*Create a Histogram Plot for the Dependent Variable*

Description

This function creates a histogram plot for a numeric dependent variable.

Usage

```
create_dependent_variable_histogram(dependent_var)
```

Arguments

`dependent_var` A numeric vector representing the dependent variable.

Value

No return value, the function creates a histogram plot.

`determine_dependent_variable`*Determine the Type of Dependent Variable*

Description

This function determines the type of the dependent variable based on its data type and distribution.

Usage

```
determine_dependent_variable(dependent_var)
```

Arguments

`dependent_var` A vector representing the dependent variable.

Value

A character string indicating the type of the dependent variable.

`determine_independent_variable`*Determine the Type of Independent Variable*

Description

This function determines the type of the independent variable based on its data type and the number of unique values.

Usage

```
determine_independent_variable(independent_var)
```

Arguments

`independent_var`
A vector representing the independent variable.

Value

A character string indicating the type of the independent variable.

`diagnose`*Diagnose Data with Statistical Tests*

Description

This function launches a Shiny application that allows users to upload data and perform various statistical tests on the dataset. Users can select the dependent and independent variables, choose the appropriate statistical test, and view the results.

Usage

```
diagnose()
```

Value

NULL The function does not return a value, but launches the Shiny app.

Examples

```
if (interactive()) {  
  diagnose()  
}
```

`display_data_table`*Display Data Table*

Description

Helper function to display a data table in a Shiny app.

Usage

```
display_data_table(data)
```

Arguments

`data` The data frame to display.

Value

A Shiny output object representing the data table

`get_variable_class_info`*Get Variable Class Information*

Description

This function determines the class of the selected variable and additional information.

Usage

```
get_variable_class_info(variable)
```

Arguments

`variable` The selected variable data.

Value

A character vector containing the variable class and additional information.

`perform_statistical_test`*Perform Statistical Test*

Description

This function performs the appropriate statistical test based on the user's input.

Usage

```
perform_statistical_test(data, input)
```

Arguments

`data` A data frame containing the variables.
`input` A list containing the user's input, including the selected statistical test, dependent variable, independent variable, identifier variable, and input mean.

Value

The result of the statistical test.

`run_vvdoctor`*Run the Statistical Test App*

Description

This function starts the Shiny app, which allows users to upload data and perform statistical tests on the dataset.

Usage

```
run_vvdoctor()
```

Value

No return value, the function runs the Shiny app

Examples

```
if (interactive()) {  
  run_vvdoctor()  
}
```

Index

`app_server`, [2](#)

`app_ui`, [2](#)

`choose_statistical_test`, [3](#)

`create_dependent_variable_histogram`, [3](#)

`determine_dependent_variable`, [4](#)

`determine_independent_variable`, [4](#)

`diagnose`, [5](#)

`display_data_table`, [5](#)

`get_variable_class_info`, [6](#)

`perform_statistical_test`, [6](#)

`run_vvdoctor`, [7](#)