

Package: doudpackage (via r-universe)

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Title Create Elegant Table 1 in HTML for Bio-Statistics

Version 2.1.0

Description Creates the "table one" of bio-medical papers. Fill it with your data and the name of the variable which you'll make the group(s) out of and it will make univariate, bivariate analysis and parse it into HTML. It also allows you to visualize all your data with graphic representation.

License GPL (>= 3)

Encoding UTF-8

Language en-US

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Imports dplyr, kableExtra, methods, parallel, purrr, stats, stringi, tibble, tidyr

NeedsCompilation no

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anaBiv	<i>anaBiv generic function</i>
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Description

Generic function of anaBiv which gives bivariate analysis according to group

Usage

```
anaBiv(var, group, parallel, ...)
```

Arguments

var	listVar object or data.frame
group	Variable to make subgroups with
parallel	Logical. Make analysis using parallel from parallel::mclapply() .
...	digits.p can be specified as descTab

Value

A list of VarGroup object or data.frame

anaBiv,data.frame,character-method
anaBiv data.frame function

Description

Generic function of anaBiv which gives bivariate analysis according to group

Usage

```
## S4 method for signature 'data.frame,character'
anaBiv(var, group, parallel, ...)
```

Arguments

var	listVar object or data.frame
group	Variable to make subgroups with
parallel	Logical. Make analysis using parallel from parallel::mclapply() .
...	digits.p can be specified as descTab

Value

A list of VarGroup object or data.frame

anaBiv,listVar,character-method
anaBiv data.frame function

Description

Generic function of anaBiv which gives bivariate analysis according to group

Usage

```
## S4 method for signature 'listVar,character'
anaBiv(var, group, parallel, ...)
```

Arguments

var	listVar object or data.frame
group	Variable to make subgroups with
parallel	Logical. Make analysis using parallel from parallel::mclapply() .
...	digits.p can be specified as descTab

Value

A list of VarGroup object or data.frame

descTab	<i>Generic function to create a table of descriptive analysis of a dataset</i>
---------	--

Description

This function allows you to display all together all univariate analysis (median/mean; IQR/SD; proportions) and bivariate analysis (Wilcoxon, Chi² or Fisher). The univariate analysis can be sub-grouped by a variable of interest of n levels. Appropriate statistics test will be applied

Usage

```
descTab(
  data,
  group = NULL,
  quanti = TRUE,
  quali = TRUE,
  na.print = FALSE,
  pvalue = TRUE,
  digits.p = 3L,
  digits.qt = 1L,
  digits.ql = 1L,
  normality = "normal",
  parallel = FALSE,
  mc.cores = 0
)
```

Arguments

data	A dataset. Needs to be a data.frame/tibble object
group	Optional. The name of the variable to make sub-groups comparisons.
quanti, quali, na.print, pvalue	Logical. If false, won't display quantitative/qualitative/Missing values/pvalues variable results
digits.p	Integer. Significant digits for p value
digits.qt	Integer. Significant digits for mean/median, SD/IQR
digits.ql	Integer. Significant digits for proportions
normality	One of "assess", "normal", "manual", "non normal". See details
parallel	Logical. Make analysis using parallel from <code>parallel::mclapply()</code> .
mc.cores	If parallel is TRUE, how many Cores to used.

Value

A S4 objects `parseClass()` containing the main table accessible by ["table"] subscript.

Examples

```
data(iris)
library(stringi)
iris$fact_1<-as.factor(as.character(sample(1:5, 150, replace = TRUE)))
n_na<-sample(1:150, 30)
iris[n_na, "fact_1"]<-NA
iris$fact_2<-as.factor(as.character(sample(1:2, 150, replace = TRUE)))
n_na<-sample(1:150, 10)
iris[n_na, "fact_2"]<-NA
iris$fact_3<-as.factor(as.character(stri_rand_strings(150, 1, '[A-B]')))
iris$num<-runif(150, min = 0, max = 100)
n_na<-sample(1:150, 5)
iris[n_na, "num"]<-NA
iris_test<-descTab(iris, group = "Species", na.print = TRUE)
```

ft_ana_biv

This function is deprecated, please use `anaBiv()`. [anaBiv\(\)](#)

Description

This function is deprecated, please use `anaBiv()`. [anaBiv\(\)](#)

Usage

```
ft_ana_biv(...)
```

Arguments

... None

Value

No return value, deprecated

ft_desc_tab	<i>This function is deprecated, please use anaBiv(). descTab()</i>
-------------	--

Description

This function is deprecated, please use [anaBiv\(\)](#). [descTab\(\)](#)

Usage

```
ft_desc_tab(...)
```

Arguments

... None

Value

No return value, deprecated

ft_parse	<i>This function is deprecated, please use parseClassFun()</i>
----------	--

Description

This function is deprecated, please use [parseClassFun\(\)](#)

Usage

```
ft_parse(...)
```

Arguments

... None

Value

No return value, deprecated

initialize,parseClass-method
S4 class initialization function

Description

Initialization function for parseClass object [initialize,parseClass-method\(\)](#)

Usage

```
## S4 method for signature 'parseClass'  
initialize(  
  .Object,  
  table,  
  group,  
  pvalue,  
  na.print,  
  quanti,  
  quali,  
  var_list,  
  data,  
  digits.qt,  
  digits.q1  
)
```

Arguments

.Object	The object to create
table	The result of descTab
group	The variable from which to make subgroups
pvalue, na.print, quanti, quali	Values from descTab descTab()
var_list	An object of listVar listVar-class()
data	The dataset provided in descTab
digits.qt, digits.q1	As provided in descTab

Value

parseClass object

initialize,Var-method *S4 class initialization function*

Description

Initialization function for Var [initialize,Var-method\(\)](#)

Usage

```
## S4 method for signature 'Var'
initialize(.Object, name, type, normal)
```

Arguments

.Object	Object to be initialized
name	A character taking name of the variable
type	A character taking name of the variable type
normal	Logical, if variable, is numeric; is it normal

Value

Var Object

initialize,VarGroup-method
S4 class initialization function

Description

Initialization function for VarGroup [initialize,VarGroup-method\(\)](#)

Usage

```
## S4 method for signature 'VarGroup'
initialize(
  .Object,
  x,
  group_var,
  pvalue,
  parsed_name,
  value,
  missing.value,
  missing.value.name
)
```


Arguments

.Object	Object to be initialized
x	A Var object
group_var	The subgroup for which proportions, mean/sd were calculated and missing values
pvalue	The calculated pvalue
parsed_name	The name of the variable parsed with the n (%), mean (SD)
value	The values calculated parsed
missing.value	Missing values numbers and proportions n (%)
missing.value.name	Missing values concatenate with the level of the variable if it factor

Value

VarGroup object

listVar-class	<i>S4 class</i>
---------------	-----------------

Description

A class of list of Var object

Slots

List a list of Var

parseClass	<i>S4 class initialization function</i>
------------	---

Description

Initialization function for parseClass object [initialize,parseClass-method\(\)](#)

Usage

```

parseClass(
  table,
  group,
  pvalue,
  na.print,
  quanti,
  quali,
  var_list,
  data,
  digits.qt,
  digits ql
)

```

Arguments

table	The result of descTab
group	The variable from which to make subgroups
pvalue, na.print, quanti, quali	Values from descTab descTab()
var_list	An object of listVar listVar-class()
data	The dataset provided in descTab
digits.qt, digits ql	As provided in descTab

Value

parseClass object

parseClass-class	<i>S4 class</i>
------------------	-----------------

Description

A S4 class containing all the information needed for parsClassFun the missing values and the group for which it was calculated

Slots

table	The result of descTab
group	The variable from which to make subgroups
pvalue, na.print, quanti, quali	Values from descTab descTab()
var_list	An object of listVar listVar-class()
data	The dataset provided in descTab
digits.qt, digits ql	As provided in descTab

parseClassFun	<i>Make the LaTeX/HTML table. Generic function</i>
---------------	--

Description

Make the LaTeX/HTML table. Generic function

Usage

```
parseClassFun(
  table,
  col.order = NULL,
  levels_to_keep = NULL,
  group_rows_labels = NULL
)
```

Arguments

table	The output of <code>descTab()</code> or <code>anaBiv()</code> , an S4 object.
col.order	Optional. A vector containing the column order. If set, must contains at least all levels of group. Three columns created are "var", "Total", and "pvalue" which can be present in the vector
levels_to_keep	Optional, named list. If the variable is binary, which level to keep. Default is the last level of levels(variable). Must be as: <code>list("variable name" = "level to keep")</code> .
group_rows_labels	Optional, named list. Create row labels in order to regroup them. Must be as <code>list("label" = c("var1", "var2"), "label2" = c("var3", "var4"))</code> .

Value

An HTML/LaTex file which can be used directly in Rmarkdown and copy paste

Examples

```
data(iris)
library(stringi)
iris$fact_1<-as.factor(as.character(sample(1:5, 150, replace = TRUE)))
n_na<-sample(1:150, 30)
iris[n_na, "fact_1"]<-NA
iris$fact_2<-as.factor(as.character(stri_rand_strings(150, 1, '[A-B]')))
iris$num<-runif(150, min = 0, max = 100)
n_na<-sample(1:150, 5)
iris[n_na, "num"]<-NA
iris_test<-descTab(iris, group = "Species", na.print = TRUE)
testParse<-parseClassFun(iris_test, levels_to_keep = list("fact_2" = "A"),
  group_rows_labels = list("Size" = c("Petal.Length", "Petal.Width"),
  "My_f" = c("num", "fact_2")))
```

parseClassFun, parseClass-method

Make the LaTeX/HTML table

Description

This functions takes the S4 output of descTab to create an HTML parsed table

Usage

```
## S4 method for signature 'parseClass'
parseClassFun(
  table,
  col.order = NULL,
  levels_to_keep = NULL,
  group_rows_labels = NULL
)
```

Arguments

table	The output of <code>descTab()</code> or <code>anaBiv()</code> , an S4 object.
col.order	Optional. A vector containing the column order. If set, must contains at least all levels of group. Three columns created are "var", "Total", and "pvalue" which can be present in the vector
levels_to_keep	Optional, named list. If the variable is binary, which level to keep. Default is the last level of levels(variable). Must be as: <code>list("variable name" = "level to keep")</code> .
group_rows_labels	Optional, named list. Create row labels in order to regroup them. Must be as <code>list("label" = c("var1", "var2"), "label2" = c("var3", "var4"))</code> .

Value

An HTML/LaTeX file which can be used directly in Rmarkdown and copy paste

Examples

```
data(iris)
library(stringi)
iris$fact_1<-as.factor(as.character(sample(1:5, 150, replace = TRUE)))
n_na<-sample(1:150, 30)
iris[n_na, "fact_1"]<-NA
iris$fact_2<-as.factor(as.character(stri_rand_strings(150, 1, '[A-B]')))
iris$num<-runif(150, min = 0, max = 100)
n_na<-sample(1:150, 5)
iris[n_na, "num"]<-NA
iris_test<-descTab(iris, group = "Species", na.print = TRUE)
testParse<-parseClassFun(iris_test, levels_to_keep = list("fact_2" = "A"),
group_rows_labels = list("Size" = c("Petal.Length", "Petal.Width"),
"My_f" = c("num", "fact_2")))
```

Var	<i>S4 class initialization function</i>
-----	---

Description

Initialization function for Var `initialize,Var-method()`

Usage

```
Var(name, type = "", normal = TRUE)
```

Arguments

name	A character taking name of the variable
type	A character taking name of the variable type
normal	Logical, if variable, is numeric; is it normal

Value

Var Object

Var-class	<i>S4 class</i>
-----------	-----------------

Description

A S4 class containing name, type and normality assessment of variable

Slots

name	A character taking name of the variable
type	A character taking name of the variable type
normal	Logical, if variable, is numeric; is it normal

VarGroup-class	<i>S4 class</i>
----------------	-----------------

Description

A S4 class containing Var `initialize,Var-method()` It also contains the pvalue, the parsed value the missing values and the group for which it was calculated

Slots

group_var The subgroup for which proportions, mean/sd were calculated and missing values
 pvalue The calculated pvalue
 parsed_name The name of the variable parsed with the n (%), mean (SD)
 value The values calculated parsed
 missing.value Missing values numbers and proportions n (%)
 missing.value.name Missing values concatenate with the level of the variable if it factor

[,parseClass-method	<i>Method to access S4 Var elements</i>
---------------------	---

Description

Method to access parseClass `initialize,parseClass-method()` elements by name

Usage

```
## S4 method for signature 'parseClass'
x[i]
```

Arguments

x	: Object
i	: Element name

Value

object

[,Var-method *Method to access S4 Var elements*

Description

Method to access Var elements by name

Usage

```
## S4 method for signature 'Var'  
x[i]
```

Arguments

x : object
i : value

Value

object of Var

[,VarGroup-method *Method to access S4 Var elements*

Description

Method to access VarGroup [initialize,VarGroup-method\(\)](#) elements by name

Usage

```
## S4 method for signature 'VarGroup'  
x[i]
```

Arguments

x : object
i : value

Value

object element

[<- ,parseClass-method *Method to modify S4 Var elements*

Description

Method to modify parseClass `initialize,parseClass-method()` elements by name

Usage

```
## S4 replacement method for signature 'parseClass'
x[i] <- value
```

Arguments

x	: Object
i	: Element name
value	: Value to be added

Value

parseClass Object

[<- ,Var-method *Method to access S4 Var elements*

Description

Method to modify Var elements by name

Usage

```
## S4 replacement method for signature 'Var'
x[i] <- value
```

Arguments

x	: object
i	: Element name
value	: Value to be added

Value

object

[<- , VarGroup-method *Method to access S4 Var elements*

Description

Method to modify VarGroup `initialize, VarGroup-method()` elements by name

Usage

```
## S4 replacement method for signature 'VarGroup'  
x[i] <- value
```

Arguments

x	Object
i	Element name
value	Value to be added

Value

object

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