Package ‘shinyr’

December 5, 2019

Type Package

Title Easy insights through your data

Version 0.2

Description
`shinyr` is developed to build dynamic R `shiny` based dashboards to analyze any CSV files. It provides simple dashboard design to subset the data, perform exploratory data analysis and preliminary machine learning (supervised and unsupervised). It also provides filters based on columns of interest.

Depends R (>= 3.1.0),

Imports dplyr, shiny, shinydashboard, tm, wordcloud, corrplot,
randomForest, RColorBrewer, DMwR, caret, nnet, plotly

Maintainer The package maintainer <itsjay510@gmail.com>

License GPL-3

Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

Suggests testthat

URL https://github.com/rpushker/shinyr

NeedsCompilation no

R topics documented:

`check_and_install` *Check and Install*

Description

Check whether given packages are installed or not and if not installed install them

Usage

```
check_and_install(packs)
```

Arguments

`packs`	Vector of package names

Details

check_and_install

Value

data.frame, status of required packages and their installation status

Examples

```
check_and_install(c('dplyr', 'data.table'))
```

`confmatrix` *Conf Matrix*

Description

Calculates a cross-tabulation of observed and predicted classes with associated statistics.

Usage

```
confmatrix(actuals, preds)
```

Arguments

`actuals`	a numeric vector
`preds`	a numeric vector

Details

confmatrix

Value

A table same as caret::ConfusionMatrix

Author(s)

Jayachandra N

Examples

```
confmatrix(c(1,1,1,0), c(1,1,0,0))
```

`dataPartition` *Data Partition*

Description

Partition data for training and test

Usage

```
dataPartition(df, train_data_perc)
```

Arguments

`df`	data.frame which need to be devided into train and test subset
`train_data_perc`	numeric value between 1 to 100

Details

dataPartition

Value

list of length 2 which contains Train data and Test data

Author(s)

Jayachandra N

Examples

```
dataPartition(iris, 80)
```

`detectClass` *Detect Class*

Description

Detects class of given objects

Usage

```
detectClass(x)
```

Arguments

`x`	a vector

Details

detectClass

Value

type of the vector

Author(s)

Jayachandra N

Examples

```
detectClass(c(1,2,3))
detectClass(c("a","b"))
detectClass(iris$Species)
```

excludeThese *Exclude These*

Description

Exclude an item from a set of items

Usage

```
excludeThese(set, items_to_exclude)
```

Arguments

`set`	vector
`items_to_exclude`	vector to exclude from the whole set

Details

excludeThese

Value

vector

Author(s)

Jayachandra N

Examples

```
excludeThese(1:10, 1)
```

getcharacterCols *Get Character Cols*

Description

Get character columns.

Usage

```
getcharacterCols(dat)
```

Arguments

`dat`	data frame

Details

getcharacterCols

Value

A Character vector of names of numeric columns of a given data frame

Author(s)

Jayachandra N

Examples

```
getcharacterCols(iris)
getcharacterCols(mtcars)
```

`getCoefficients` *Get Coefficients*

Description

Get coefficients from the model summary

Usage

```
getCoefficients(model)
```

Arguments

`model`	lm model

Details

getCoefficients

Value

data.frame of coeffcients

Author(s)

Jayachandra N

Examples

```
 model <- lm(Sepal.Length ~ ., iris) # A linear regression model
 getCoefficients(model)
```

`getDataInsight` *get Data Insights*

Description

Get detailed insights about the data like number of rows, columns and some basic statistics such as mean

Usage

```
getDataInsight(temp)
```

Arguments

`temp`	data frame

Details

getDataInsight

Value

list of details of data

Author(s)

Jayachandra N

Examples

```
getDataInsight(mtcars)
getDataInsight(iris)
```

`getFeqTable` *Get Freq Table*

Description

Get frequency table for a given text

Usage

```
getFeqTable(text)
```

Arguments

`text`	plain text or a paragraph

Details

getFeqTable

Value

data frame of word and it’s frequency.

Author(s)

Jayachandra N

Examples

```
getFeqTable("shinyr is Incredible!")
```

---

getLibraryReport *Get Library Report*

Description

Get report on whether the given packages are installed on not

Usage

```
getLibraryReport(packages)
```

Arguments

packages	Vector of package names

Details

getLibraryReport

Value

data.frame, status of required packages and their installation status

Author(s)

Jayachandra N

Examples

```
check_and_install(c('dplyr', 'data.table'))
```

getMostRepeatedValue *Get Most Repeated Value*

Description

get most repeated value in a given vector.

Usage

```
getMostRepeatedValue(vec)
```

Arguments

vec	Vector to calculate most repeated values

Details

getMostRepeatedValue

Value

most repeated values in the given set of values

Author(s)

Jayachandra N

Examples

```
getMostRepeatedValue(c(1,2,3,3,3,2))
getMostRepeatedValue(c("R", "R", "Python", "Python", "R"))
```

getnumericCols *Get Numeric Cols*

Description

Get all columns which are numeric.

Usage

```
getnumericCols(dat)
```

Arguments

dat	data frame

Details

getnumericCols

Value

Character vector of names of numeric columns of given data frame

Author(s)

Jayachandra N

Examples

```
getnumericCols(iris)
getnumericCols(mtcars)
```

`getType` *Get Type*

Description

getType

Usage

```
getType(vec)
```

Arguments

`vec`	A vector of any choice, to detect between numeric or character

Value

type of the given vector

Author(s)

Jayachandra N

Examples

```
getType(iris$Species)
getType(as.factor(c(1,0,1,1,0,NA,1, NULL)))
getType(as.factor(c(1, NULL,0,1,1,0,1,'a')))
getType(c(1,2,3,4, NA))
getType(letters[1:4])
```

getWordCloud *Get Word Cloud*

Description

Get word cloud for given table of words' frequencies

Usage

```
getWordCloud(d)
```

Arguments

d	table of word's frequency

Details

getWordCloud

Value

Word cloud plot

Examples

```
x <- getFeqTable("Hello! R is Great")
getWordCloud(x)
```

groupByandSumarize *Group By And Summarize*

Description

Group by columns and summarize given data.

Usage

```
groupByandSumarize(df, grp_col, summarise_col, FUN = mean)
```

Arguments

df	data frame
grp_col	column name to group
summarise_col	column name to summarize
FUN	function to summarize

Details

groupByandSumarize

Value

summarized table

Author(s)

Jayachandra N

Examples

```
groupByandSumarize(mtcars, grp_col = c("am"), summarise_col = "hp", FUN = "mean")
```

imputeMyData *Impute My Data*

Description

Impute for missing values in given column in a given data by given method.

Usage

```
imputeMyData(df, col, FUN)
```

Arguments

df	data frame to impute
col	a column name of data frame to impute
FUN	a function to be used for imputing values one of(mean, median, sum, min, max)

Details

imputeMyData

Value

data frame after imputing the values

Author(s)

Jayachandra N

Examples

```
x <- head(iris)
x$Sepal.Length[1] <- NA
imputeMyData(x, "Sepal.Length", "mean")
```

make_var *Make Var*

Description

Make a variable from a given character vector.

Usage

```
make_var(prefix, var, suffix)
```

Arguments

prefix	prefix character
var	character to convert
suffix	suffix character

Details

make_var

Value

variable

Author(s)

Jayachandra N

Examples

```
make_var("", "Jay", "")
make_var("", "Incredible_India", "")
```

missing_count *Missing Count*

Description

Count the number of missing values in a vector.

Usage

```
missing_count(x)
```

Arguments

x	vector

Details

missing_count

Value

Number of missing values in the given set of values

Author(s)

Jayachandra N

Examples

```
missing_count(c(1,2,3))
missing_count(c(NA, 1, NA, "NULL", ""))
```

multinomial *Multinomial*

Description

Fit Multinomial Log-linear Models.

Usage

```
multinomial(eqn, df)
```

Arguments

eqn	formula to build model
df	data frame

Details

multinomial

Value

model

Author(s)

Jayachandra N

Examples

```
multinomial( Species ~ .,  iris)
```

plotCor *Plot Cor*

Description

Plot correlation plot

Usage

```
plotCor(cor_dat, my_method)
```

Arguments

`cor_dat`	Corelation matrix
`my_method`	method to plot, for example: circle

Details

plotCor

Value

Corelation plot

Author(s)

Jayachandra N examples cor_dat <- cor(mtcars) plotCor(cor_dat, "circle")

randomForestModel *Random Forest Model*

Description

Build Random Forest Model.

Usage

```
randomForestModel(eqn, df)
```

Arguments

`eqn`	formula
`df`	data.frame

Details

randoMForestModel

Value

rf model

Author(s)

Jayachandra N

Examples

```
randomForestModel( Species ~ .,  iris)
```

---

regressionModelMetrics

Regression Model Metrics

Description

Generate regression model metrics such as R-squared and MAPE.

Usage

```
regressionModelMetrics(actuals, predictions, model)
```

Arguments

`actuals`	numeric vector of actual values
`predictions`	numeric vector of predictions
`model`	lm model object

Details

regressionModelMetrics

Value

list

Author(s)

Jayachandra N

Examples

```
## Not run:
mod <- lm(formula = wt ~ ., data = mtcars)
predictions <- predict(mod, mtcars[,-6])
actials <- mtcars[,6]
regressionModelMetrics(actuals = actials,
predictions = predictions, model = mod)

## End(Not run)
```

shineMe *shineMe*

Description

An R shiny app for shinyr UI.

Usage

```
shineMe()
```

Details

shineMe

Value

shiny UI page

Author(s)

Jayachandra N

Examples

```
## Not run:
shineMe()

## End(Not run)
```

splitAndGet *Split And Get*

Description

Split a string by space and get

Usage

```
splitAndGet(x)
```

Arguments

x	string to split into words

Details

splitAndGet

Value

List of worrds

Author(s)

Jayachandra N

Examples

```
splitAndGet("R programming is awesome!")
```

valid_sets *Valid Sets*

Description

Get a list of all datasets available as data.frame in R

Usage

```
valid_sets(package = NULL, cols = NULL)
```

Arguments

package	package name to fetch inbuilt data sets example: "datasets"
cols	numeric to specify condition on how many columns should data frame have

Details

valid_sets

Value

data frame all available datasets of class data frame

Author(s)

Pushker Ravindra

Jayachandra N

Examples

```
valid_sets()
```

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