

Package: surveycto (via r-universe)

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Type Package

Title Manipulation of Data Collected through XLSFORM-compliant Platforms

Version 0.1.0

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Description SurveyCTO package is a metapackages that is comprised of specialized functions to organize, manipulate and analyze data collected through XLSForm-compliant platforms such as SurveyCTO, ODK, ONA, Kobotoolbox. However, some function(s) may be used with any structured. This system provides an enormous opportunity in automation of the workflow of survey data collection, processing, analysis and visualization. The main purpose this package is to compile functions that can be used to develop live dashboard(s) during data collection. This makes it easy to track data quality during data collection and also gives data manager(s) time to discover insights in the data. Using the functions in this package it is relatively easy to develop shiny dashboards.

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.2

Imports crayon, curl, dplyr, expss, httr, jsonlite, readr, readxl, stringr, tidyr, tools, xlsx

Suggests rmarkdown, knitr

VignetteBuilder knitr

URL <https://github.com/Waiguru254/surveycto>

BugReports <https://github.com/Waiguru254/surveycto/issues>

Repository <https://humanitarian-user-group.r-universe.dev>

RemoteUrl <https://github.com/Waiguru254/surveycto>

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checkbox	<i>Checkbox or Multiple choice Tabulation</i>
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Description

Tabulation of checkbox or multiple choice columns

Usage

```
ctoimport(
  column,
  decimal = 1,
)
```

Arguments

column	A multiple choice or checkbox column
decimal	Number of decimal point for the percentages

Examples

```
NOT RUN
checkbox(column,decimal)
```

ctoimport

Fetching Data from SurveyCTO server using API.

Description

The function fetch data from surveycto server using formid, which is a form identifier. It imports data in .csv format, without repeat group data.

Usage

```
ctoimport(
  servername,
  formid,
  username,
  password,
  dataName = NULL,
  language = ""
)
```

Arguments

servername	SurveyCTO servername
formid	Get this from Setting sheet in the XLSForm workbook or in the form definition in the server.
username	SurveyCTO username, without including the .survecto.com
password	SurveyCTO password, it is encouraged not to put the password in a plain text in your script. Employ it in
dataName	Name of the data to be stored in R memory, default is data.
language	This determines that labels language to be used to label the data.

Examples

```
## NOT RUN
ctoimport(Sys.getenv("servername"), 'VAVS_CRF_03', Sys.getenv("username"), Sys.getenv("password"))
```

 dup_tag

Evaluating Duplicates in a column (Indexing or Counting)

Description

Evaluating Duplicates in a column (Indexing or Counting)

Usage

```
dup_tag(
  column,
  index=FALSE,
  na.rm = TRUE,
)
```

Arguments

column	the column where duplicated are beign evaluated
index	FALSE is one wants the duplicates to be indexed, and TRUE for duplicated to be indicated by number of occurence.
na.rm	TRUE is you want NA or empty responses to be evaluated...

Examples

```
##NOT RUN
##dup_tag(column)
```

 koboimport

Fetching data from KoboToolBox using API (even Humanitarian)

Description

KoBoToolBox provides a suites of tools to collect data in challenging environment. It is free and opne source and work both online and offline. KoboTool Box also provides advanced feature and make it useful in advanced scenarios.It provide data access through RESTAPI, which automte the workflow of data colelection, processing and visualization. This is possible even the project is no public, using username and password authentication.

Usage

```
koboimport(servername, formid, username, password)
```

Arguments

servername	either 'kobo.humanitarianresponse.info/' or 'kc.kobotoolbox.org' However, the current function is largely build to stream data from kobotoolbox.org.
formid	To download data, a unique identifier of the form is needed to construct a URL used to fetch data. The fetch data from a given form login to the server and click the form and navigate the the form tab. From the link, the text between forward slash(/)(after "forms" and before "landing"). For example, https://kf.kobotoolbox.org/#/forms/aTxwr9Fg4ouTYnRN5tHq2z
username	your username
password	you password

Examples

```
###Not run
data<-koboimport(servername,form_id,username,password)
```

odkmean	<i>Calculates the mean by group</i>
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Description

Calculates the mean by group

Usage

```
odkmean(row, column, data)
```

Arguments

row	Numeric variable
column	Group variable
data	data where with row and column variables

Examples

```
odkmean('row','column','data')
```

redimport	<i>Fetching data from Project's RedCap server using API</i>
-----------	---

Description

Fetching data from Project's RedCap server using API

Usage

```
redimport(token, url)
```

Arguments

token	This is the unique identifier of projects in RedCap. This function uses the token to fetch data using API.
url	This is the link to the Redcap API. An example is 'https://redcap.xxxxxxxx/api/'

Examples

```
###NOT RUN  
redimport('token', 'url')
```

rodkmult	<i>Compiling Multiple Variable Choices.</i>
----------	---

Description

Compiling Multiple Variable Choices.

Usage

```
rodkmult(xlsform, dataName)
```

Arguments

xlsform	Latest XLSFORM used to collect data. The variable and value labels will be used to label the data.
dataName	The name of the data in the memory collected using the survey.

Examples

```
NOT run  
rodkmult(xlsform, 'dataName')
```

rodmultlab *Compile Multiple Select variable value labels into a data.frame.*

Description

Compile Multiple Select variable value labels into a data.frame.

Usage

```
rodmultlab(xlsform)
```

Arguments

xlsform Lasted XLSFORM used to collect the data.

Examples

```
NOT run  
rodmultlab(xlsform, 'dataName')
```

rodksinglelab *Compile Single Select variable value label into data.frame.*

Description

Compile Single Select variable value label into data.frame.

Usage

```
rodksinglelab(xlsform)
```

Arguments

xlsform Lastest XLSFORM used to collect data.

Examples

```
NOT run  
rodksinglelab(xlsform)
```

rodkval	<i>Generates a Script to add single variable value labels.</i>
---------	--

Description

The function uses expss package to label data.

Usage

```
rodkval(xlsform, dataName, language = "")
```

Arguments

xlsform	Latest XLSFORM used to collect the data.
dataName	Use the name used to save the data, in R memory, collected using the XLS-form stated above. stated above.
language	Enter the language to be used in value labelling. If the language is not provided, the most left label column will be used to generate the value label script. For example, language="English".

Examples

```
NOT run
rodkmult(xlsform, 'dataName', 'English')
```

rodkvar	<i>Generates Rscript to add variable labels</i>
---------	---

Description

Generates Rscript to add variable labels

Usage

```
rodkvar(dataName = "", language = "")
```

Arguments

dataName	name given to the data.frame collected using the XLSFORM stated
xlsform	Latest XLSFORM used to collect data.

Examples

```
Not run
rodkvar(xlsform, 'dataName')
```

`rodkvartype`*Compiling Variable type into a data.frame from XLSFORM*

Description

Compiling Variable type into a data.frame from XLSFORM

Usage

```
rodkvartype(xlsform)
```

Arguments

`xlsform` Latest XLSFORM used to collect the data.

Examples

```
#Not run  
rodkvartype(xlsform)
```

`surveyImport`*Import the survey Form Definition and Generates the Labels data-frames*

Description

The function stream survey Form defination and generates a list of datasets; choices survey, variable type,and variable name against the labels.

Usage

```
surveyImport(  
  servername,  
  formid,  
  username,  
  password,  
  language = "",  
  dataName = NULL  
)
```

Arguments

servername	Servername where the data is hosted
formid	Form ID is the data to be streamed
username	Server username
password	Sever password
language	XLS form language to add the labels
dataName	Name of the datset to be stored in R memory.

Examples

```
#NOT RUN
dd<-surveyImport(Sys.getenv("servername"), 'VAVS_CRF_06', Sys.getenv("username"), Sys.getenv("password"))
```

tabmult

The function generate proportion from a multiple-select variable

Description

The function generate proportion from a multiple-select variable

Usage

```
tabmult(row, column, data)
```

Arguments

row	Multiple-select variable
column	Group by variable
data	data with multiple select variable

Examples

```
tabmmult('row', 'column', 'data', 'valuelabel')
```

tabx	<i>Tabulates single select variables by group.</i>
------	--

Description

Tabulates single select variables by group.

Usage

```
tabx(row, column, data)
```

Arguments

row	Variable to tabulate
column	Group variable.
data	Data collected using the ODK platform

Examples

```
tabx('row', 'column', 'data')
```

toproper	<i>Converts String text into Proper Format</i>
----------	--

Description

Converts String text into Proper Format

Usage

```
toproper(x)
```

Arguments

x	String or variable to be converted to proper
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Examples

```
toproper(data$row)
```

varlabs	<i>Compile Variable (Column label) labels into data.frame.</i>
---------	--

Description

Compile Variable (Column label) labels into data.frame.

Usage

```
varlabs(xlsform)
```

Arguments

xlsform Lastest XLSForm used to collect data.

Examples

```
NOT RUN  
varlabs(xlsform)
```

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