Package 'KoboconnectR'

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Type Package

Title Download Data from Kobotoolbox to R

URL <https://github.com/asitav-sen/KoboconnectR>,

<https://asitav-sen.github.io/KoboconnectR/>

BugReports <https://github.com/asitav-sen/koboconnectR/issues>

Version 2.0.0

Description Wrapper for 'Kobotoolbox' APIs ver 2 mentioned at <<https://support.kobotoolbox.org/api.html>>, to download data from 'Kobotoolbox' to R. Small and simple package that adds immense convenience for the data professionals using 'Kobotoolbox'.

License GPL (>= 3)

Encoding UTF-8

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Author Asitav Sen [aut, cre, cph]

Maintainer Asitav Sen <codes@asitavsen.com>

Repository CRAN

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Contents

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get_kobo_token *Know your API token or check*

Description

'get_kobo_token' is a wrapper for kobotoolbox API 'https://"[url]"/token/?format=json'

Usage

```
get_kobo_token(
  url = "eu.kobotoolbox.org",
  uname = "",
  pwd = "",
  encoding = "UTF-8"
)
```

Arguments

url	The '[url]' of kobotoolbox. Default is "eu.kobotoolbox.org".
uname	is username of your kobotoolbox account
pwd	is the password of the account
encoding	is the encoding to be used. Default is "UTF-8".

Details

The function returns the API token.

Value

The function returns the token associated with your id and password in the given url.

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kobotools_api	*Check kobotoolbox API and retrieve overall info about the projects/assets*

Description

'kobotools_api' is a wrapper for kobotoolbox API 'https://[kpi-url]/api/v2/assets/'

Usage

```
kobotools_api(
  url = "eu.kobotoolbox.org",
  simplified = TRUE,
  uname = "",
  pwd = "",
  encoding = "UTF-8",
  qry = ""
)
```

Arguments

url	The '[kpi-url]' of kobotoolbox. Default is "eu.kobotoolbox.org"
simplified	A logical value, default is true
uname	takes the username
pwd	takes the password
encoding	is the encoding to be used. Default is "UTF-8".
qry	to add queries

Details

The function takes two variables. First one is 'url' which is the '[kpi-url]'. For most users it will be "eu.kobotoolbox.org" or "kf.kobotoolbox.org". Former is the default. The second parameter is 'simplified' which takes a logical value. If set to true, the function will return selected values from the parsed data and return a data frame. When set to false, a json will be returned with all the details.

Value

The function returns the asset details from the API, inform of a data frame or json.

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kobotools_kpi_data *Extract data from kobotoolbox*

Description

'kobotools_kpi_data' is a wrapper for kobotoolbox API 'https://[URL]/api/v2/assets/[assetid]/data/'

Usage

```
kobotools_kpi_data(
  assetid,
  url = "eu.kobotoolbox.org",
  uname = "",
  pwd = "",
  encoding = "UTF-8",
  format = "json"
)
```

Arguments

assetid	is the asset id of the asset for which the data is to be downloaded. The id can be found by running [kobotools_data_list_kc()]
url	The '[kpi-url]' of kobotoolbox. Default is "eu.kobotoolbox.org"
uname	is username of your kobotoolbox account
pwd	is the password of the account
encoding	is the encoding to be used. Default is "UTF-8".
format	lets you define the format of output for e.g. json or xml

Details

The function takes the url as one of the inputs. And asset id as another. Both are strings. The asset id is found by running the [kobotools_api()] function.Other parameters are username and password.

Value

The function returns the data in json format

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kobo_df_download   *Creates a data frame after creating a 'csv' export and downloading it*

Description

'kobo_df_download' is a wrapper for kobotoolbox API

Usage

```
kobo_df_download(
  url = "eu.kobotoolbox.org",
  uname = "",
  pwd = "",
  assetid = "",
  all = "false",
  lang = "_default",
  hierarchy = "false",
  include_grp = "true",
  grp_sep = "/",
  fsep = ";",
  multi_sel = "both",
  media_url = "true",
  fields = NULL,
  sub_ids = NULL,
  sleep = 2
)
```

Arguments

url	The '[url]' of kobotoolbox Default is "eu.kobotoolbox.org".
uname	is username of your kobotoolbox account
pwd	is the password of the account
assetid	is the id of the asset for which the export is to be created
all	takes logical value in string format. Used to specify whether fields from all form versions will be included in the export.Acceptable values are "true" or "false". Default value is "false".
lang	takes the language. For e.g. "English (en)". For "XML Values as headers", use '_xml'.
hierarchy	takes logical value in string format. Used to specify whether the group hierarchy will be displayed in labels. Acceptable values are "true" or "false". Default value is "false".
include_grp	defines whether or not to include groups. Default value is "true".
grp_sep	is the group separator. Default value is "/".

fsep	is the separator of the downloaded csv file. In most of the cases, it is ";", which is the default. However, if you notice that the separator is the downloaded data is "," or something else, you can change it.
multi_sel	is used to specify the display of multiple_select-type responses. Valid inputs include "both", "summary" or "details". Default is "both".
media_url	This will include an additional column for media-type questions ("question_name_URL") with the URL link to the hosted file. Valid inputs are "true" or "false". Default value is true.
fields	is an array of column names to be included in the export (including their group hierarchy). Valid inputs include: An array containing any string value that matches the XML column name, An empty array which will result in all columns being included, If "fields" is not included in the "export_settings", all columns will be included in the export
sub_ids	is an array of submission ids that will filter exported submissions to only the specified array of ids. Valid inputs include an array containing integer values or an empty array.
sleep	is the sleep time between API actions. For example, it takes time to download an export. But R does not wait for the download to finish before going to next step. Hence the need to provide a break between consecutive API actions. Default value is 2 (seconds).

Details

The function creates an export of survey data in 'csv'. If successful, it attempts to download the data and and return a data frame. Finally, the function attempts to delete the export.

Value

The function returns a data frame of data downloaded from 'Kobotoolbox'.

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kobo_exports	*See list of exports created*

Description

'kobo_exports' is a wrapper for kobotoolbox API 'https://[kpi-url]/api/v2/assets/[assetid]/exports/'

Usage

```
kobo_exports(
  url = "eu.kobotoolbox.org",
  uname = "",
  pwd = "",
  encoding = "UTF-8",
  assetid = "",
  simplified = FALSE
)
```

Arguments

url	The '[url]' of kobotoolbox. Default is "eu.kobotoolbox.org".
uname	is username of your kobotoolbox account
pwd	is the password of the account
encoding	is the encoding to be used. Default is "UTF-8"
assetid	the asset id
simplified	if TRUE, then return a simple data frame with selected data, if FALSE returns the full list.

Details

The function returns the export views.

Value

The function returns a list of exports available for the account id and password entered.

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kobo_export_create   *Create an export*

Description

'kobo_export_create' is a wrapper for kobotoolbox API 'https://[kpi-URL]/api/v2/assets/[asset-uid]/exports/'

Usage

```
kobo_export_create(
  url = "eu.kobotoolbox.org",
  uname = "",
  pwd = "",
  assetid = "",
  type = "csv",
  all = "false",
  lang = "_default",
  hierarchy = "false",
  include_grp = "true",
  grp_sep = "/",
  multi_sel = "both",
  fields = NULL,
  media_url = "true",
  sub_ids = NULL,
  qry = NULL,
  flatten = "true",
  sleep = 3
)
```

Arguments

url	The '[url]' of kobotoolbox Default is "eu.kobotoolbox.org".
uname	is username of your kobotoolbox account
pwd	is the password of the account
assetid	is the id of the asset for which the export is to be created
type	specifies the export format. Valid formats include "csv","xls", "spss_labels" and "geojson"
all	takes logical value in string format. Used to specify whether fields from all form versions will be included in the export.Acceptable values are "true" or "false". Default value is "false".
lang	takes the language. For e.g. "English (en)". For "XML Values as headers", use '_xml'.
hierarchy	takes logical value in string format. Used to specify whether the group hierarchy will be displayed in labels. Acceptable values are "true" or "false". Default value is "false".
include_grp	defines whether or not to include groups. Default value is "true".
grp_sep	is the group separator. Default value is "/".
multi_sel	is used to specify the display of multiple_select-type responses. Valid inputs include "both", "summary" or "details". Default is "both".
fields	is an array of column names to be included in the export (including their group hierarchy). Valid inputs include: An array containing any string value that matches the XML column name, An empty array which will result in all columns being included, If "fields" is not included in the "export_settings", all columns will be included in the export
media_url	This will include an additional column for media-type questions ("question_name_URL") with the URL link to the hosted file. Valid inputs are "true" or "false". Default value is true.
sub_ids	is an array of submission ids that will filter exported submissions to only the specified array of ids. Valid inputs include an array containing integer values or an empty array.#'
qry	is a JSON object containing a Mongo filter query for filtering exported submissions. Valid inputs include a JSON object containing a valid Mongo query or An empty JSON object (no filtering)
flatten	is a is a boolean (in form of string) value and only relevant when exporting to "geojson" format. Valid inputs are "true" and "false"
sleep	is the sleep time between API actions. For example, it takes time to download an export. But R does not wait for the download to finish before going to next step. Hence the need to provide a break between consecutive API actions. Default value is 2 (seconds).

Details

The function creates an export of survey data. If successful, returns the URL of the data that can be directly downloaded/read/imported in R.

Value

The function creates an export, prints and returns the URL of the export created

---

kobo_media_downloader   *Downloads media data from Kobotoolbox*

Description

'kobo_media_downloader' downloads media from data downloaded using 'kobo_df_download'. Loops through media columns and downloads files individually.

Usage

```
kobo_media_downloader(
  url = "eu.kobotoolbox.org",
  uname,
  pwd,
  assetid,
  fsep = ";",
  sleep = 2,
  identifier = "URL",
  timeoutval = 300,
  destfolder = "media"
)
```

Arguments

url	The '[url]' of kobotoolbox Default is "eu.kobotoolbox.org".
uname	is username of your kobotoolbox account
pwd	is the password of the account
assetid	is the id of the asset for which the export is to be created
fsep	is the separator of the downloaded csv file. In most of the cases, it is ";", which is the default. However,
sleep	is the sleep time between API actions. For example, it takes time to download an export. But R does not wait for the download to finish before going to next step. Hence the need to provide a break between consecutive API actions. Default value is 2 (seconds).
identifier	is the key using with the columns with URL is identified. Default value is "URL" because in most of the cases, the columns containing the URL values end with "URL". Please note that any other column name with similar value may cause error.
timeoutval	is the timeout value in seconds to download the media files. Default is 300 seconds.
destfolder	is the folder where the media is to be stored.

Details

The function creates an export of survey data in 'csv'. If successful, it attempts to download the
data and and returns a data frame. From that data frame, the function extracts the URLs of media
and attempts to download them.

Value

The function returns a data frame of data downloaded from 'Kobotoolbox'.

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kobo_xls_dl   *Downloads data (xls type) from Kobotoolbox*

Description

'kobo_xls_dl' is a wrapper for kobotoolbox API that attemps to download data in excel compatible
formal.

Usage

```
kobo_xls_dl(
  url = "eu.kobotoolbox.org",
  uname = "",
  pwd = "",
  assetid = "",
  all = "false",
  lang = "_default",
  hierarchy = "false",
  include_grp = "true",
  grp_sep = "/",
  multi_sel = "both",
  media_url = "true",
  fields = NULL,
  sub_ids = NULL,
  sleep = 2
)
```

Arguments

url	The '[url]' of kobotoolbox Default is "eu.kobotoolbox.org".
uname	is username of your kobotoolbox account
pwd	is the password of the account
assetid	is the id of the asset for which the export is to be created
all	takes logical value in string format. Used to specify whether fields from all form versions will be included in the export.Acceptable values are "true" or "false". Default value is "false".

lang	takes the language. For e.g. "English (en)". For "XML Values as headers", use '_xml'.
hierarchy	takes logical value in string format. Used to specify whether the group hierarchy will be displayed in labels. Acceptable values are "true" or "false". Default value is "false".
include_grp	defines whether or not to include groups. Default value is "true".
grp_sep	is the group separator. Default value is "/".
multi_sel	is used to specify the display of multiple_select-type responses. Valid inputs include "both", "summary" or "details". Default is "both".
media_url	This will include an additional column for media-type questions ("question_name_URL") with the URL link to the hosted file. Valid inputs are "true" or "false". Default value is true.
fields	is an array of column names to be included in the export (including their group hierarchy). Valid inputs include: An array containing any string value that matches the XML column name, An empty array which will result in all columns being included, If "fields" is not included in the "export_settings", all columns will be included in the export
sub_ids	is an array of submission ids that will filter exported submissions to only the specified array of ids. Valid inputs include an array containing integer values or an empty array.
sleep	is the sleep time between API actions. For example, it takes time to download an export. But R does not wait for the download to finish before going to next step. Hence the need to provide a break between consecutive API actions. Default value is 2 (seconds).

Details

The function creates an export of survey data in 'xls'. If successful, it attempts to download the data and and return a data frame (reading using 'readxl::read_excel').

Value

The function returns a data frame of data downloaded from 'Kobotoolbox'.

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