# Package 'KoboconnectR'

May 23, 2022

**Type** Package

**Title** Download Data from Kobotoolbox to R

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

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

**Version** 1.1.1

**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

**RoxygenNote** 7.1.2

**Imports** httr, curl, jsonlite, mime, openssl, R6, methods, dplyr

**Suggests** knitr, rmarkdown, spelling, testthat (>= 3.0.0)

**Config/testthat/edition** 3

**Language** en-US

**VignetteBuilder** knitr

**NeedsCompilation** no

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**Repository** CRAN

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# R topics documented:

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get_kobo_token                    *Know your API token or check*

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#### Description

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

#### Usage

```
get_kobo_token(
  url = "kobo.humanitarianresponse.info",
  uname = "",
  pwd = "",
  encoding = "UTF-8"
)
```

#### Arguments

| | |
|---|---|
| url | The '[url]' of kobotoolbox. Default is "kobo.humanitarianresponse.info". |
| 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.json'

## Usage

```
kobotools_api(
  url = "kobo.humanitarianresponse.info",
  simplified = TRUE,
  uname = "",
  pwd = "",
  encoding = "UTF-8"
)
```

## Arguments

| | |
|---|---|
| url | The '[kpi-url]' of kobotoolbox. Default is "kobo.humanitarianresponse.info" |
| 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". |

## Details

The function takes two variables. First one is 'url' which is the '[kpi-url]'. For most users it will be "kobo.humanitarianresponse.info" 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 = "kobo.humanitarianresponse.info",
  uname = "",
  pwd = "",
  encoding = "UTF-8"
)
```

**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 "kobo.humanitarianresponse.info" |
| `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 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 'https://[url]/exports/..'

**Usage**

```
kobo_df_download(
  url = "kobo.humanitarianresponse.info",
  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 "kobo.humanitarianresponse.info". |
| 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)". |
| 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.

## 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://[url]/exports/'

## Usage

```
kobo_exports(
  url = "kobo.humanitarianresponse.info",
  uname = "",
  pwd = "",
  encoding = "UTF-8"
)
```

## Arguments

| | |
|---|---|
| url | The '[url]' of kobotoolbox. Default is "kobo.humanitarianresponse.info". |
| 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 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://[url]/exports/..'

## Usage

```
kobo_export_create(
  url = "kobo.humanitarianresponse.info",
  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 = 2
)
```

## Arguments

| | |
|---|---|
| url | The '[url]' of kobotoolbox Default is "kobo.humanitarianresponse.info". |
| 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)". |
| 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 submis-
                   sions. 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

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