

Package ‘dataesgobr’

June 18, 2019

Title Access and Use Spain Government's API

Version 1.0.0

Description Functions intended to work with the API of the Spain Government <<https://datos.gob.es/en/apidata>> that allows you to download, analyze and generate information through datasets obtained from the API. The API containing information about multiple topics from the municipalities and organizations of Spain, it is possible to find URIs corresponding to the primary sector taxonomy and the identification of geographical coverage defined in Annexes IV and V <https://www.boe.es/diario_boe/txt.php?id=BOE-A-2013-2380> (NTI).

License LGPL (>= 3) | file LICENSE

Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

Imports stringr, dplyr, readr, httr, stringi, jsonlite, graphics, readxl, readODS, yaml, shiny, shinythemes, shinycssloaders, shinyjs, DT, shinyFiles

Suggests testthat

NeedsCompilation no

Author Adrian Perez [cre],
Francisco Charte [aut]

Maintainer Adrian Perez <adrianlopez@gmail.com>

Repository CRAN

Date/Publication 2019-06-18 14:50:03 UTC

R topics documented:

check_csv_file	2
check_file	3
confirm_action	4
datos	4
download_data	5

filter_by	5
filter_by_description	6
filter_by_keywords	7
filter_by_title	8
get_all_keywords	8
get_available_formats	9
get_extension	10
get_format	10
get_formats	11
get_id	11
get_name	12
get_provinces_from_api	12
get_publisher	13
get_publishers_from_api	13
get_spatial_from_api	14
get_symbol	14
get_themes_from_api	15
graphic_data	15
graphic_keywords	16
load_data	17
load_dataset	17
make_url	18
runGUI	19
search_by	19
search_by_id	20
search_by_publisher	21
search_by_spatial	21
search_by_theme	22
search_by_title	23
Index	24

check_csv_file	<i>Check if the csv file has a correct format</i>
----------------	---

Description

Check if the csv file has a correct format

Usage

```
check_csv_file(file, noconfirm = FALSE, filename = NULL,
  outfile = NULL)
```

Arguments

file	The file's path
noconfirm	A logical, this parameter indicates if the user must confirm to change the name of the file and save in different file
filename	A character, if this parameter is present then the name of the file will be automatically set
outfile	A character the path where the file will be save if it need to be modify, NULL to use the file's directory

Value

A logical

Examples

```
library(dataesgobr)
file <- system.file("extdata", "fichero.csv", package="dataesgobr")
correct <- check_csv_file(file, noconfirm = TRUE)
correct <- check_csv_file(file, noconfirm = TRUE, outfile = tempdir())
correct <- check_csv_file(file, noconfirm = TRUE, filename = "nuevo.csv")
correct <- check_csv_file(file, noconfirm = TRUE, outfile = tempdir())
```

check_file	<i>Check if the dataset has a correct format</i>
------------	--

Description

Check if the dataset has a correct format

Usage

```
check_file(file, noconfirm = FALSE, outfile = NULL)
```

Arguments

file	A string The file to check
noconfirm	A logical, Use TRUE to skip confirmation about file writing
outfile	A character the path where the file will be save if it need to be modify, NULL to use the file's directory

Value

Return a logical, if the file is correct it will be TRUE, else FALSE

Examples

```
library(dataesgobr)
file <- system.file("extdata", "fichero.csv", package="dataesgobr")
correct <- check_file(file, noconfirm = TRUE, outfile = tempdir())
```

confirm_action	<i>Generates an interface in R console with a question and options to answer it</i>
----------------	---

Description

Generates an interface in R console with a question and options to answer it

Usage

```
confirm_action(question, options = NULL)
```

Arguments

question	character containing the question
options	vector containing the options to answer the question

Value

logical

datos	<i>Format data on dataesgobr</i>
-------	----------------------------------

Description

The dataset formats contains the extension and formats that dataesgobr can uses

Usage

```
data(formats)
```

Format

A data.frame

Examples

```
formats <- data(formats)
formats
```

download_data	<i>Download files associate with dataesgobr object</i>
---------------	--

Description

This function downloads the data associated with the dataset passed like param from datos.gob.es

Usage

```
download_data(x, format, all = TRUE, position = 0, noconfirm = FALSE,
             overwrite = NULL, outfile = NULL)
```

Arguments

x	A dataesgobr containing information and data from datos.gob.es
format	A string, the data's format to download
all	A logical, this parameter indicates if the function must download every file
position	Numeric, the number in the format list
noconfirm	Logical, this parameter indicates if the user must confirm the downloads or no
overwrite	A logical, if this parameter is TRUE then the downloaded file will replace automatically the old file if it exists
outfile	A string, the user can indicates the path to save the file

Examples

```
library(dataesgobr)

id <- "101280066-horarios-de-metro1"
dataset <- search_by_id(id)
download_data(dataset, "text/csv", noconfirm = TRUE, outfile = tempdir())
download_data(dataset, "text/csv", noconfirm = TRUE, overwrite = TRUE, outfile = tempdir())
download_data(dataset, "text/csv", FALSE, 1, noconfirm = TRUE)
download_data(dataset, "text/csv", FALSE, 1, noconfirm = TRUE, overwrite = TRUE)
download_data(dataset, "application/pdf", TRUE, noconfirm = TRUE, outfile = tempdir())
```

filter_by	<i>Filter data.frame using params passed</i>
-----------	--

Description

Filter data.frame using params passed

Usage

```
filter_by(data, title = NULL, description = NULL, keywords = NULL,  
          quiet = FALSE)
```

Arguments

data	A data.frame that will be filtered
title	A string to match with the title column in the data.frame
description	A string to match with the description column in the data.frame
keywords	A string to match with the keywords column in the data.frame
quiet	A logical param that set if the function will print info message in console

Value

A data.frame that matches

Examples

```
library(dataesgobr)  
  
datasets <- search_by_title('salud')  
datasetsFiltered <- filter_by(datasets, 'salud', 'vacuna')  
datasetsFiltered2 <- filter_by(datasets, 'salud', keywords = 'enfermedad')
```

filter_by_description *Filter data.frame by description using q param*

Description

Filter data.frame by description using q param

Usage

```
filter_by_description(data, q, quiet = FALSE)
```

Arguments

data	A data.frame that will be filtered
q	A string to match in data.frame data
quiet	Set if the function can print info messages or not

Value

A data.frame with rows that matches the description

Examples

```
library(dataesgobr)

datasets <- search_by_title('salud')
datasetsFiltered <- filter_by_description(datasets, 'salud')
```

filter_by_keywords *Filter data.frame by keywords using keywords param*

Description

Filter data.frame by keywords using keywords param

Usage

```
filter_by_keywords(data, keywords, quiet = FALSE)
```

Arguments

data	A data.frame that will be filtered
keywords	A string to match in data.frame data
quiet	Set if the function can print info messages or not

Value

A data.frame that matches any given keyword

Examples

```
library(dataesgobr)

datasets <- search_by_title('salud')
datasetsFiltered <- filter_by_keywords(datasets, 'enfermedad')
```

filter_by_title *Filter data.frame by title using q param*

Description

Filter data.frame by title using q param

Usage

```
filter_by_title(data, q, quiet = FALSE)
```

Arguments

data	A data.frame that will be filtered
q	A string to match in data.frame data
quiet	Set if the function can print info messages or not

Value

A data.frame with rows that matches the dataset title

Examples

```
library(dataesgobr)

datasets <- search_by_title('salud')
datasetsFiltered <- filter_by_title(datasets, 'encuesta')
```

get_all_keywords *Obtain keywords in data.frame with the number of occurrences*

Description

Obtain keywords in data.frame with the number of occurrences

Usage

```
get_all_keywords(data)
```

Arguments

data	A data.frame with datasets from datos.gob.es
------	--

Value

A list with keywords

Examples

```
library(dataesgobr)

datasets <- search_by_title('consumo')
keywords <- get_all_keywords(datasets)
```

`get_available_formats` *Generate a data.frame that contains the type of elements, information and repetitions for each one*

Description

Generate a data.frame that contains the type of elements, information and repetitions for each one

Usage

```
get_available_formats(data)
```

Arguments

`data` A dataesgobr object

Value

A data.frame

Examples

```
library(dataesgobr)

dataesgobrObject <- search_by_id('l01280066-horarios-de-metro1')
formats <- get_available_formats(dataesgobrObject)
formats
```

get_extension	<i>Get the extension that matches with the format passed like parameter</i>
---------------	---

Description

Get the extension that matches with the format passed like parameter

Usage

```
get_extension(format)
```

Arguments

format A string that contains the format

Value

A string

Examples

```
library(dataesgobr)
extension <- get_extension("text/csv")
extension <- get_extension("application/pdf")
```

get_format	<i>Get the format that matches with the extension passed like parameter</i>
------------	---

Description

Get the format that matches with the extension passed like parameter

Usage

```
get_format(ext)
```

Arguments

ext A string that contains the extension

Value

A string

Examples

```
library(dataesgobr)
format <- get_format(".csv")
format <- get_format(".pdf")
```

get_formats	<i>Generate a list that contains the type of elements and repetitions for each one</i>
-------------	--

Description

Generate a list that contains the type of elements and repetitions for each one

Usage

```
get_formats(data)
```

Arguments

data A dataesgobr object

Value

A list

Examples

```
library(dataesgobr)

dataesgobrObject <- search_by_id('101280066-horarios-de-metro1')
formats <- get_formats(dataesgobrObject)
formats
```

get_id	<i>This method extracts the ID from an URL</i>
--------	--

Description

This method extracts the ID from an URL

Usage

```
get_id(url)
```

Arguments

url A string

Value

A string that contains the ID

Examples

```
library(dataesgobr)
id <- get_id("https://datos.gob.es/es/catalogo/l01280066-tramites-salud1")
```

get_name	<i>Extract the name of the file in the URL</i>
----------	--

Description

Extract the name of the file in the URL

Usage

```
get_name(url, format)
```

Arguments

url	A string with URL and the name of the file
format	The data's format to check the extension

Value

A string with the file's name

Examples

```
library(dataesgobr)
name <- get_name("archivo-de-datos.csv&rnd=1234", "text/csv")
name <- get_name("https://datos.ayto-arganda.es/contratos.pdf", "application/pdf")
```

get_provinces_from_api	<i>This method send a request to datos.gob.es and return a data.frame that contains the provinces in the catalog</i>
------------------------	--

Description

This method send a request to datos.gob.es and return a data.frame that contains the provinces in the catalog

Usage

```
get_provinces_from_api()
```

Value

A data.frame

get_publisher	<i>Get the publisher of the dataset</i>
---------------	---

Description

Get the publisher of the dataset

Usage

```
get_publisher(id)
```

Arguments

id A string with the dataset's ID

Value

A data.frame

Examples

```
library(dataesgobr)
publisher <- get_publisher("L01280066")
```

get_publishers_from_api

This method send a request to datos.gob.es and return a data.frame that contains the publishers in the catalog

Description

This method send a request to datos.gob.es and return a data.frame that contains the publishers in the catalog

Usage

```
get_publishers_from_api()
```

Value

A data.frame

`get_spatials_from_api` *This method send a request to datos.gob.es and return a data.frame that contains the spatials available in the catalog*

Description

This method send a request to datos.gob.es and return a data.frame that contains the spatials available in the catalog

Usage

```
get_spatials_from_api()
```

Value

A data.frame

`get_symbol` *This function detects the delim from a csv file*

Description

This function detects the delim from a csv file

Usage

```
get_symbol(file)
```

Arguments

`file` The file with the content to check

Value

The symbol as character that split the columns

Examples

```
library(dataesgobr)
file <- system.file("extdata", "fichero.csv", package="dataesgobr")
symbol <- get_symbol(file)
```

get_themes_from_api	<i>This method send a request to datos.gob.es and return a data.frame that contains the themes available in the catalog</i>
---------------------	---

Description

This method send a request to datos.gob.es and return a data.frame that contains the themes available in the catalog

Usage

```
get_themes_from_api()
```

Value

A data.frame

graphic_data	<i>Draw a plot using the pararameters passed</i>
--------------	--

Description

Draw a plot using the pararameters passed

Usage

```
graphic_data(type, data, columns, dataSelected = NULL, xlim = NULL,
             ylim = NULL, nClasses = NULL)
```

Arguments

type	String with plot type
data	Data.frame that contains the data to plot
columns	Columns to represent in the plot
dataSelected	Rows selected from the data
xlim	Specifies the limit for x axis
ylim	Specifies the limit for y axis
nClasses	Split data in classes to draw in bloxplot

Value

plot

Examples

```
library(dataesgobr)

datasets <- search_by_title('atestados')
datasetsfiltered <- filter_by_title(datasets, "1999")
dataset <- load_dataset(datasetsfiltered)
download_data(dataset, "text/csv", TRUE, noconfirm = TRUE)
content <- load_data(file.path(tempdir(), "DB_HER_1999.csv"))
graph <- graphic_data("plot", content, "SEXO", xlim = 3, ylim = 2000)
graph
```

graphic_keywords	<i>Represent keywords in a plot</i>
------------------	-------------------------------------

Description

Represent keywords in a plot

Usage

```
graphic_keywords(list, type = "circular", nrepeats = 0)
```

Arguments

list	List with keywords
type	Visual representation of the plot
nrepeats	Minimum number of occurrences to draw in the plot

Examples

```
library(dataesgobr)

datasets <- search_by_title('salud')
keywords <- get_all_keywords(datasets)
graphic_keywords(keywords, 'circular', 10)

datasets <- search_by_title('salud')
keywords <- get_all_keywords(datasets)
graphic_keywords(keywords, 'barras', 11)
```

load_data	<i>Load data from a file</i>
-----------	------------------------------

Description

This function loads the data from the file passed like param

Usage

```
load_data(file, outfile = NULL)
```

Arguments

file	A file with data previously downloaded
outfile	A character the path where the file will be save if it need to be modify, NULL to use the file's directory

Value

A data.frame

Examples

```
library(dataesgobr)

file <- system.file("extdata", "fichero.csv", package = "dataesgobr")
load_data(file)
load_data(file, outfile = tempdir())
```

load_dataset	<i>Load dataset from a data.frame</i>
--------------	---------------------------------------

Description

Load dataset from a data.frame

Usage

```
load_dataset(dataframe, row = 1)
```

Arguments

dataframe	A data.frame with datasets from datos.gob.es
row	A number of the row in the data.frame. If the dataset has more than one element this param determinates the row to load. If row parameter is missing then the function will load the first row

Value

A dataesgobr object

Examples

```
library(dataesgobr)

datasets <- search_by_title('salud')
dataset <- load_dataset(datasets)

datasets <- search_by_title('consumo')
dataset <- load_dataset(datasets, 5)
```

make_url	<i>Loads the file url_params and make urls to extract information from the API</i>
----------	--

Description

Loads the file url_params and make urls to extract information from the API

Usage

```
make_url(field, request, params = NULL)
```

Arguments

field	String to specifies the field that we want to search
request	String with the information to search
params	Optional list with the parameters to add to the query

Value

A string containing the url generated

Examples

```
library(dataesgobr)

# Generates the url associated to the id passed
url <- make_url("id", "a13002908-residentes-en-la-comunidad-de-madrid-por-lugar-de-nacimiento")

# Generates the url associated to the title and the parameters passed
url <- make_url("title", "atestados", c("sort" = "title", "pagesize" = 50, "page" = 1))
```

runGUI	<i>Launches the web-based GUI for dataesgobr</i>
--------	--

Description

Download, load and edit using an interactive user interface in the web browser

Usage

```
runGUI()
```

Details

The **dataesgobr** package contains a basic Shiny-based GUI that you can use in order to work easily while you are using the package. You have to install the **shiny** package to use this GUI.

Value

nothing

Examples

```
## Not run:  
library(dataesgobr)  
runGUI()  
  
## End(Not run)
```

search_by	<i>Creates a data.frame containing datasets from datos.gob.es that matches the parameters passed</i>
-----------	--

Description

Creates a data.frame containing datasets from datos.gob.es that matches the parameters passed

Usage

```
search_by(title, theme, publisher)
```

Arguments

title	Title field
theme	Theme field
publisher	Publisher field

Value

A data.frame

Examples

```
library(dataesgobr)

datasets <- search_by('atestados', 'salud', 'L01280066')
```

search_by_id	<i>Creates an object of the class dataesgobr that matches with the dataset id</i>
--------------	---

Description

Creates an object of the class dataesgobr that matches with the dataset id

Usage

```
search_by_id(id)
```

Arguments

id	A string
----	----------

Value

A dataesgobr object

Examples

```
library(dataesgobr)

dataset <- search_by_id('l01280066-presupuestos-20141')
dataset <- search_by_id('https://datos.gob.es/es/catalogo/l01280066-tramites-salud1')
```

search_by_publisher *Creates a data.frame containing datasets from datos.gob.es*

Description

Send a request to datos.gob.es using the publisher param to search datasets that match with the publisher, then the results are returned as data.frame

Usage

```
search_by_publisher(publisher, numentry = 50, page = 0)
```

Arguments

publisher	Publisher to search
numentry	Number of results for page
page	The number of page to see, the first page is 0

Value

A data.frame

Examples

```
library(dataesgobr)

url <- make_url("publisher", 'L01280066')
publisherID <- get_id(url)
datasets <- search_by_publisher(publisherID)
datasets2 <- search_by_publisher('L01280066')
```

search_by_spatial *Creates a data.frame containing datasets from datos.gob.es*

Description

Send a request to datos.gob.es using spatial params to search datasets that match with the spatial1 and spatial2, then the results are returned as data.frame

Usage

```
search_by_spatial(spatial1, spatial2, numentry = 50, page = 0)
```

Arguments

spatial1	First word of spatial. It can be: "Autonomia", "Pais" or "Provincia"
spatial2	Second word of spatial
numentry	Number of results for page
page	The number of page to see, the first page is 0

Value

A data.frame

Examples

```
library(dataesgobr)

datasetsAndalucia <- search_by_spatial('Autonomia', 'Andalucia')
datasetsJaen <- search_by_spatial('Provincia', 'Jaen')
```

search_by_theme *Creates a data.frame containing datasets from datos.gob.es*

Description

Send a request to datos.gob.es using the theme param to search datasets that match with the theme, then the results are returned as data.frame

Usage

```
search_by_theme(theme, numentry = 50, page = 0)
```

Arguments

theme	Theme to search
numentry	Number of results for page
page	The number of page to see, the first page is 0

Value

A data.frame

Examples

```
library(dataesgobr)

datasetsPublic <- search_by_theme('sector-publico', 20)
datasetsSalud <- search_by_theme('salud', page = 2)
```

search_by_title	<i>Creates a data.frame containing datasets from datos.gob.es</i>
-----------------	---

Description

Send a request to datos.gob.es using the title param to search datasets that match with the title, then the results are returned as data.frame

Usage

```
search_by_title(title, numentry = 50, page = 0)
```

Arguments

title	Title to search
numentry	Number of results for page
page	The number of page to see, the first page is 0

Value

A data.frame containing information about datasets that match with the title param

Examples

```
library(dataesgobr)

# Return first 50 matches that contain puente in their title
mydataesgobr <- search_by_title('puente')

# Return the first 78 matches that contain gasto in their title
mydataesgobr <- search_by_title('gasto', 78)

# Return the first 78 matches that contain gasto in their title found in the
# second page (number 1)
mydataesgobr <- search_by_title('gasto', 78, page = 1)
```

Index

*Topic **datasets**

datos, [4](#)

check_csv_file, [2](#)

check_file, [3](#)

confirm_action, [4](#)

datos, [4](#)

download_data, [5](#)

filter_by, [5](#)

filter_by_description, [6](#)

filter_by_keywords, [7](#)

filter_by_title, [8](#)

get_all_keywords, [8](#)

get_available_formats, [9](#)

get_extension, [10](#)

get_format, [10](#)

get_formats, [11](#)

get_id, [11](#)

get_name, [12](#)

get_provinces_from_api, [12](#)

get_publisher, [13](#)

get_publishers_from_api, [13](#)

get_spatial_from_api, [14](#)

get_symbol, [14](#)

get_themes_from_api, [15](#)

graphic_data, [15](#)

graphic_keywords, [16](#)

load_data, [17](#)

load_dataset, [17](#)

make_url, [18](#)

runGUI, [19](#)

search_by, [19](#)

search_by_id, [20](#)

search_by_publisher, [21](#)

search_by_spatial, [21](#)

search_by_theme, [22](#)

search_by_title, [23](#)