

Package ‘brickset’

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Type Package

Title Interface with the Brickset API for Getting Data About LEGO Sets

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Description Interface with the 'Brickset' API
<<https://brickset.com/article/52664/api-version-3-documentation>> for getting data about LEGO sets. Data sets that can be used for teaching and learning without the need of a 'Brickset' account and API key are also included. Includes all LEGO since through the end of 2022.

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URL <https://github.com/jbryer/brickset>,
<https://jbryer.github.io/brickset/>

BugReports <https://github.com/jbryer/brickset/issues>

Imports dplyr, httr, jsonlite

Suggests DT, ggplot2, knitr

Encoding UTF-8

LazyData TRUE

RoxygenNote 7.2.3

NeedsCompilation no

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Depends R (>= 3.5.0)

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brickset	<i>R package to interface with the Brickset API for getting data about LEGO.</i>
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Description

R package to interface with the Brickset API for getting data about LEGO.

Details

You can request an API key on the Brickset website here: <https://brickset.com/tools/webservices/requestkey/>

The API key can be passed as function parameter or may be set globally using:

```
options(brickset_key = YOUR_API_KEY)
```

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`checkKey`*Check the Brickset API key.*

Description

You can request an API key on the Brickset website here: <https://brickset.com/tools/webservices/requestkey/>

Usage

```
checkKey(key = getOption("brickset_key"))
```

Arguments

`key` the Brickset API key

Details

The API key can be passed as function parameter or may be set globally using:

```
options(brickset_key = YOUR_API_KEY)
```

Brickset API documentation is available here: <https://brickset.com/article/52664/api-version-3-documentation>

Value

TRUE if the API key is valid.

Examples

```
## Not run:
options(brickset_key = 'BRICKSET_KEY',
        brickset_username = 'BRICKSET_UERNAME',
        brickset_password = 'BRICKSET_PASSWORD')
checkKey() # Will return TRUE if the credentials are correct

## End(Not run)
```

`checkUserHash`*Check the Brickset API key.*

Description

You can request an API key on the Brickset website here: <https://brickset.com/tools/webservices/requestkey/>

Usage

```
checkUserHash(key = getOption("brickset_key"), userHash)
```

Arguments

key	the API key
userHash	the user hash returned from login .

Details

Brickset API documentation is available here: <https://brickset.com/article/52664/api-version-3-documentation/>

Value

TRUE if the API key is fine.

getInstructions	<i>Download list of instructions for given set.</i>
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Description

Brickset API documentation is available here: <https://brickset.com/article/52664/api-version-3-documentation/>

Usage

```
getInstructions(setID, setNumber, key = getOption("brickset_key"), ...)
```

Arguments

setID	the ID of the set (see <code>data(legosets)</code>)
setNumber	the set number from on the LEGO box
key	the Brickset API key.
...	other parameters passed to getUserHash including the Brickset username and password if they are not available from <code>getOption('brickset_username')</code> and <code>getOption('brickset_password')</code> .

Value

a data.frame with the instructions.

getKeyUsageStats *Get information about frequency of API usage for the given API key.*

Description

Provides information about how frequently the API key has been used.

Usage

```
getKeyUsageStats(key = getOption("brickset_key"))
```

Arguments

key the API key

Value

a data.frame with the number of times the key has been used.

dateStamp The date

count The number of times the key was used for the given date

Examples

```
## Not run:
options(brickset_key = 'BRICKSET_KEY',
        brickset_username = 'BRICKSET_UERNAME',
        brickset_password = 'BRICKSET_PASSWORD')
getKeyUsageStats()

## End(Not run)
```

getReviews *Downloads reviews for a LEGO set.*

Description

Downloads reviews for a LEGO set.

Usage

```
getReviews(setID, key = getOption("brickset_key"), ...)
```

Arguments

setID	the ID of the set (see data(legosets))
key	the Brickset API key.
...	other parameters passed to <code>getUserHash</code> including the Brickset username and password if they are not available from <code>getOption('brickset_username')</code> and <code>getOption('brickset_password')</code> .

Value

a data.frame with the reviews.

author Author of the review

datePosted Date of the review

title Title of the review

review The text of the review

HTML TRUE if the review contains HTML

overall overall rating by the reviewer

parts rating for the parts

buildingExperience rating for the building experience

playability rating for the playability

valueForMoney rating for the value for money

Examples

```
## Not run:
options(brickset_key = 'BRICKSET_KEY',
        brickset_username = 'BRICKSET_UERNAME',
        brickset_password = 'BRICKSET_PASSWORD')
getReviews('31728') # Will return TRUE if the credentials are correct

## End(Not run)
```

getSets

Downloads LEGO data from Brickset.

Description

Brickset API documentation is available here: <https://brickset.com/article/52664/api-version-3-documentation/>

Usage

```
getSets(year, key = getOption("brickset_key"), ...)
```

Arguments

<code>year</code>	the year of data to download.
<code>key</code>	the Brickset key.
<code>...</code>	other parameters passed to getUserHash including the Brickset username and password if they are not available from <code>getOption('brickset_username')</code> and <code>getOption('brickset_password')</code> .

Value

a data.frame with all sets from the given year.

setID	integer; 18455 unique values
name	character; 15372 unique values
year	integer; 53 unique values
theme	character; 154 unique values
themeGroup	character; 16 unique values
subtheme	character; 901 unique values
category	character; 7 unique values
released	logical; 2 unique values
pieces	integer; 1403 unique values
minifigs	integer; 34 unique values
bricksetURL	character; 18455 unique values
rating	numeric; 31 unique values
reviewCount	integer; 64 unique values
packagingType	character; 18 unique values
availability	character; 10 unique values
agerange_min	integer; 16 unique values
US_retailPrice	numeric; 142 unique values
US_dateFirstAvailable	Date; 881 unique values
US_dateLastAvailable	Date; 2125 unique values
UK_retailPrice	numeric; 210 unique values
UK_dateFirstAvailable	Date; 825 unique values
UK_dateLastAvailable	Date; 1984 unique values
CA_retailPrice	numeric; 162 unique values
CA_dateFirstAvailable	Date; 641 unique values
CA_dateLastAvailable	Date; 1808 unique values
DE_retailPrice	numeric; 155 unique values
DE_dateFirstAvailable	Date; 428 unique values
DE_dateLastAvailable	Date; 1176 unique values

height numeric; 241 unique values
width numeric; 286 unique values
depth numeric; 279 unique values
weight numeric; 1046 unique values
thumbnailURL character; 17420 unique values
imageURL character; 17420 unique values

getSubthemes	<i>Returns a table of sub-themes for a given theme with number of sets and years active.</i>
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Description

Brickset API documentation is available here: <https://brickset.com/article/52664/api-version-3-documentation/>

Usage

```
getSubthemes(theme, key = getOption("brickset_key"), ...)
```

Arguments

theme	the theme.
key	the Brickset API key.
...	other parameters passed to getUserHash including the Brickset username and password if they are not available from <code>getOption('brickset_username')</code> and <code>getOption('brickset_password')</code> .

Value

a data.frame with the subthemes.

getThemes	<i>Returns a table of themes with number of sets and years active.</i>
-----------	--

Description

Brickset API documentation is available here: <https://brickset.com/article/52664/api-version-3-documentation/>

Usage

```
getThemes(key = getOption("brickset_key"), ...)
```

Arguments

key the Brickset API key.

... other parameters passed to `getUserHash` including the Brickset username and password if they are not available from `getOption('brickset_username')` and `getOption('brickset_password')`.

Value

a data.frame with the themes.

Examples

```
## Not run:
options(brickset_key = 'BRICKSET_KEY',
        brickset_username = 'BRICKSET_USERNAME',
        brickset_password = 'BRICKSET_PASSWORD')
getThemes()

## End(Not run)
```

getUserHash

Returns the user hash from Brickset.

Description

Many of the Brickset API calls require a user to login. This function wraps the `login` function to managing the user hash returned from login across multiple API calls. It will also ensure that the hash is still valid and if it expired a new hash will be requested.

Usage

```
getUserHash(
  username = getOption("brickset_username"),
  password = getOption("brickset_password"),
  key = getOption("brickset_key")
)
```

Arguments

username the Brickset username.

password the Brickset password.

key the Brickset API key.

Details

Brickset API documentation is available here: <https://brickset.com/article/52664/api-version-3-documentation/>

Value

the user hash for the current API session.

getYears	<i>Get a list of years for a given theme, with the total number of sets in each.</i>
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Description

Get a list of years for a given theme, with the total number of sets in each.

Usage

```
getYears(theme, key = getOption("brickset_key"), ...)
```

Arguments

theme	the theme
key	the Brickset API key.
...	other parameters passed to getUserHash including the Brickset username and password if they are not available from <code>getOption('brickset_username')</code> and <code>getOption('brickset_password')</code> .

Value

a data.frame with the years of a given theme.

theme Name of the theme

year Year

setCount Number of sets released in the given year and theme

Examples

```
## Not run:
options(brickset_key = 'BRICKSET_KEY',
        brickset_username = 'BRICKSET_UERNAME',
        brickset_password = 'BRICKSET_PASSWORD')
getYears('Architecture')

## End(Not run)
```

legosets

Lego sets from 1970 through 2022.

Description

This dataset was built using the [getSets](#) function. For working with the LEGO sets data frame this pre-built data is preferred as it will minimize the API requests. Note that the only disadvantage is that the rating and reviewCount may be out-of-date and inaccurate. The remaining variables are relatively static.

Format

A data.frame.

setID integer; 18455 unique values
name character; 15372 unique values
year integer; 53 unique values
theme character; 154 unique values
themeGroup character; 16 unique values
subtheme character; 901 unique values
category character; 7 unique values
released logical; 2 unique values
pieces integer; 1403 unique values
minifigs integer; 34 unique values
bricksetURL character; 18455 unique values
rating numeric; 31 unique values
reviewCount integer; 64 unique values
packagingType character; 18 unique values
availability character; 10 unique values
agerange_min integer; 16 unique values
US_retailPrice numeric; 142 unique values
US_dateFirstAvailable Date; 881 unique values
US_dateLastAvailable Date; 2125 unique values
UK_retailPrice numeric; 210 unique values
UK_dateFirstAvailable Date; 825 unique values
UK_dateLastAvailable Date; 1984 unique values
CA_retailPrice numeric; 162 unique values
CA_dateFirstAvailable Date; 641 unique values
CA_dateLastAvailable Date; 1808 unique values

DE_retailPrice numeric; 155 unique values
DE_dateFirstAvailable Date; 428 unique values
DE_dateLastAvailable Date; 1176 unique values
height numeric; 241 unique values
width numeric; 286 unique values
depth numeric; 279 unique values
weight numeric; 1046 unique values
thumbnailURL character; 17420 unique values
imageURL character; 17420 unique values

Source

<https://brickset.com>

login

Login to the Brickset API.

Description

Brickset API documentation is available here: <https://brickset.com/article/52664/api-version-3-documentation/>

Usage

```
login(  
  username = getOption("brickset_username"),  
  password = getOption("brickset_password"),  
  key = getOption("brickset_key")  
)
```

Arguments

username	the Brickset username.
password	the Brickset password.
key	the Brickset API key.

Value

the user hash used for other API calls.

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