

Package ‘brickset’

February 25, 2025

Type Package

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

Version 2025.0.0

Date 2025-02-25

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 2023.

License GPL (>= 3)

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

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

Depends R (>= 4.1.0)

Imports dplyr, httr, jsonlite, piggyback

Suggests bookdown, DT, ggplot2, knitr, rmarkdown, scales, shiny

VignetteBuilder knitr

Encoding UTF-8

LazyData TRUE

RoxygenNote 7.3.2

NeedsCompilation no

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

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)
```

Author(s)

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See Also

Useful links:

- <https://github.com/jbryer/brickset>
- <https://jbryer.github.io/brickset/>
- Report bugs at <https://github.com/jbryer/brickset/issues>

| | |
|----------|------------------------------------|
| checkKey | <i>Check the Brickset API key.</i> |
|----------|------------------------------------|

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 | <i>Check the Brickset API key.</i> |
|---------------|------------------------------------|

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.

download_reviews *Downloads a pre-built reviews data frame.*

Description

This function will return a data frame with all the reviews as of last package build. Since this data frame is larger than what is allowed in CRAN packages, the data files are saved as releases on Github. The [piggyback::pb_upload\(\)](#) function is used to upload the data frame.

Usage

```
download_reviews(dest = tempdir(), ...)
```

Arguments

dest directory to download the reviews.rda file to.
... other parameters passed to [piggyback::pb_download\(\)](#).

Details

To see what versions are available use the [piggyback::pb_list\(repo = 'jbryer/brickset'\)](#) function call. By default the latest version will be returned. For reproducibility you can use the tag parameter to return a specific version of the data frame.

Value

a data frame with all the reviews as of the tag date.

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

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 | <i>Get information about frequency of API usage for the given API key.</i> |
|------------------|--|

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_USERNAME',
        brickset_password = 'BRICKSET_PASSWORD')
getKeyUsageStats()

## End(Not run)
```

| | |
|------------|--|
| getReviews | <i>Downloads reviews for a LEGO set.</i> |
|------------|--|

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 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 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 <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 all sets from the given year.

setID integer; 20420 unique values
number character; 18958 unique values
numberVariant integer; 25 unique values
name character; 17057 unique values
year integer; 55 unique values
theme character; 163 unique values
themeGroup character; 17 unique values
subtheme character; 1000 unique values
category character; 7 unique values
released logical; 2 unique values
pieces integer; 1543 unique values
minifigs integer; 34 unique values

bricksetURL character; 20420 unique values
rating numeric; 29 unique values
reviewCount integer; 64 unique values
packagingType character; 19 unique values
availability character; 11 unique values
agerange_min integer; 18 unique values
thumbnailURL character; 19365 unique values
imageURL character; 19365 unique values
US_retailPrice numeric; 173 unique values
US_dateFirstAvailable Date; 1090 unique values
US_dateLastAvailable Date; 2324 unique values
UK_retailPrice numeric; 224 unique values
UK_dateFirstAvailable Date; 1019 unique values
UK_dateLastAvailable Date; 2224 unique values
CA_retailPrice numeric; 188 unique values
CA_dateFirstAvailable Date; 851 unique values
CA_dateLastAvailable Date; 2005 unique values
DE_retailPrice numeric; 179 unique values
DE_dateFirstAvailable Date; 607 unique values
DE_dateLastAvailable Date; 1402 unique values
height numeric; 264 unique values
width numeric; 317 unique values
depth numeric; 307 unique values
weight numeric; 1192 unique values

| | |
|--------------|--|
| getSubthemes | <i>Returns a table of sub-themes for a given theme 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

```
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 <code>getOption('brickset_username')</code> and <code>getOption('brickset_password')</code> . |

Value

a data.frame with the themes.

Examples

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

## End(Not run)
```

| | |
|-------------|---|
| getUserHash | <i>Returns the user hash from Brickset.</i> |
|-------------|---|

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> |
|----------|--|

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 `getOption('brickset_username')` and `getOption('brickset_password')`.

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 2024.

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; 20420 unique values

number character; 18958 unique values

numberVariant integer; 25 unique values

name character; 17057 unique values

year integer; 55 unique values

theme character; 163 unique values

themeGroup character; 17 unique values
subtheme character; 1000 unique values
category character; 7 unique values
released logical; 2 unique values
pieces integer; 1543 unique values
minifigs integer; 34 unique values
bricksetURL character; 20420 unique values
rating numeric; 29 unique values
reviewCount integer; 64 unique values
packagingType character; 19 unique values
availability character; 11 unique values
agerange_min integer; 18 unique values
thumbnailURL character; 19365 unique values
imageURL character; 19365 unique values
US_retailPrice numeric; 173 unique values
US_dateFirstAvailable Date; 1090 unique values
US_dateLastAvailable Date; 2324 unique values
UK_retailPrice numeric; 224 unique values
UK_dateFirstAvailable Date; 1019 unique values
UK_dateLastAvailable Date; 2224 unique values
CA_retailPrice numeric; 188 unique values
CA_dateFirstAvailable Date; 851 unique values
CA_dateLastAvailable Date; 2005 unique values
DE_retailPrice numeric; 179 unique values
DE_dateFirstAvailable Date; 607 unique values
DE_dateLastAvailable Date; 1402 unique values
height numeric; 264 unique values
width numeric; 317 unique values
depth numeric; 307 unique values
weight numeric; 1192 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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