

Package ‘hackerNews’

December 13, 2019

Title Wrapper for the 'Official Hacker News' API

Version 0.1.0

Maintainer Ryszard Szymanski <ryszard.szymanski@outlook.com>

Description Use the <<https://hacker-news.firebaseio.com/v0/>> API through R. Retrieve posts, articles and other items in form of convenient R objects.

License MIT + file LICENSE

Encoding UTF-8

LazyData true

Suggests covr, testthat (>= 2.1.0), httpptest, knitr, rmarkdown, spelling

RoxygenNote 6.1.1

Imports utils, httr, jsonlite, tibble, future.apply

VignetteBuilder knitr

URL <https://github.com/szymanski/hackerNews>

BugReports <https://github.com/szymanski/hackerNews/issues>

Language en-US

NeedsCompilation no

Author Ryszard Szymanski [aut, cre],
Piotr Janus [aut],
Zuzanna Magierska [aut],
Rafal Muszynski [aut],
Andrzej Nowikowski [aut]

Repository CRAN

Date/Publication 2019-12-13 13:20:05 UTC

R topics documented:

.base_url	3
.send_request	3

add_json_extension	3
add_path	4
assert	4
assert_ids	5
assert_max_items	5
comment_to_dataframe_row	5
create_hn_api_response	6
create_hn_item	6
create_hn_user	7
create_request_url	7
default_if_null	8
get_best_stories	8
get_best_stories_ids	9
get_comments	9
get_comments_with_root	10
get_content	11
get_items_by_ids	11
get_item_by_id	12
get_latest_ask_stories	13
get_latest_ask_stories_ids	14
get_latest_job_stories	14
get_latest_job_stories_ids	15
get_latest_show_stories	16
get_latest_show_stories_ids	17
get_max_item_id	17
get_new_stories	18
get_new_stories_ids	18
get_top_stories	19
get_top_stories_ids	20
get_updates	20
get_user_by_username	21
is_hn_api_response	21
is_hn_item	22
is_hn_user	22
parse_json	23
print.hn_item	23
print.hn_user	24
to_datetime_origin	24
trim_ids_list	25
validate_hn_api_response	25
validate_hn_item	26
validate_hn_user	26

.base_url *Returns the base url of the Hacker News API*

Description

Returns the base url of the Hacker News API

Usage

.base_url()

.send_request *Sends a request to the specified url and retrieves it's content.*

Description

Sends a request to the specified url and retrieves it's content.

Usage

.send_request(request_url)

Arguments

request_url url to be used

Value

parsed content of the response object

add_json_extension *Adds the json extension to the given url*

Description

Adds the json extension to the given url

Usage

add_json_extension(url)

Arguments

url base url to which the json extension should be added

Value

url with the json extension added

add_path	<i>Adds the given path to the given url</i>
----------	---

Description

Adds the given path to the given url

Usage

```
add_path(url, path)
```

Arguments

url	base url to which the path should be added
path	path that should be added to the url

Value

url with the given path added

assert	<i>Asserts a given expression and throws an error if it returns FALSE</i>
--------	---

Description

Asserts a given expression and throws an error if it returns FALSE

Usage

```
assert(expression, error)
```

Arguments

expression	R expression to be evaluated
error	message to be displayed when the expression is not fulfilled

assert_ids	<i>Checks whether ids are correctly defined. If not throws an error</i>
------------	---

Description

Checks whether ids are correctly defined. If not throws an error

Usage

```
assert_ids(ids)
```

Arguments

ids	maximum number of ids to retrieve
-----	-----------------------------------

assert_max_items	<i>Checks whether max_items is correctly defined. If not throws an error</i>
------------------	--

Description

Checks whether max_items is correctly defined. If not throws an error

Usage

```
assert_max_items(max_items)
```

Arguments

max_items	maximum number of ids to retrieve
-----------	-----------------------------------

comment_to_dataframe_row	<i>Converts comment to a dataframe row</i>
--------------------------	--

Description

Converts comment to a dataframe row

Usage

```
comment_to_dataframe_row(comment)
```

Arguments

comment	comment to be converted to dataframe
---------	--------------------------------------

Value

a dataframe containing a single entry with data from passed comment

create_hn_api_response

Creates an object representing a response from the Hacker News API

Description

Creates an object representing a response from the Hacker News API

Usage

```
create_hn_api_response(response)
```

Arguments

response response object

Value

object representing a response from the Hacker News API

create_hn_item

Creates an object representing Hacker News item

Description

Creates an object representing Hacker News item

Usage

```
create_hn_item(item)
```

Arguments

item list returned by Hacker News API

Value

object representing a hn_item

create_hn_user	<i>Creates an object representing Hacker News user</i>
----------------	--

Description

Creates an object representing Hacker News user

Usage

```
create_hn_user(user)
```

Arguments

user	list returned by Hacker News API via get_user_by_username function
------	--

Value

object representing a hn_user

create_request_url	<i>Creates a request url based on the given base url and passed paths. The json extensions is added automatically.</i>
--------------------	--

Description

Creates a request url based on the given base url and passed paths. The json extensions is added automatically.

Usage

```
create_request_url(url, paths)
```

Arguments

url	base url of the request
paths	vector of paths that should be added to the url

Value

request url with added paths and the json extension

default_if_null	<i>return specified variable or default value if specified variable is null</i>
-----------------	---

Description

return specified variable or default value if specified variable is null

Usage

```
default_if_null(variable, default)
```

Arguments

variable	specified variable
default	default return value

Value

specified variable or default value

get_best_stories	<i>Hacker News best stories</i>
------------------	---------------------------------

Description

Retrieves best stories using Hacker News API

Usage

```
get_best_stories(max_items = NULL)
```

Arguments

max_items	Maximum number of items to retrieve. If max_items = NULL, returns all available
-----------	---

Details

Parallel api requests can be enabled by running `future::plan(future::multiprocess)`

Value

list of best stories

Examples

```
# get the best story on Hacker News
best_story <- get_best_stories(max_items = 1)
best_story

# get top 20 best stories on Hacker News
best_20_stories <- get_best_stories(max_items = 20)
best_20_stories

# get all best stories on Hacker News
best_stories <- get_best_stories()
best_stories
```

`get_best_stories_ids` *Hacker News best stories ids*

Description

Retrieves best stories ids using Hacker News API

Usage

```
get_best_stories_ids()
```

Value

list of best stories ids

Examples

```
# get the ids of best stories on Hacker News
best_stories_ids <- get_best_stories_ids()
best_stories_ids
```

`get_comments` *Hacker News nested comments*

Description

Retrieves all comments under an item using Hacker News API

Usage

```
get_comments(item)
```

Arguments

`item` item whose children (comments) will be retrieved

Value

dataframe of all comments under an item

Examples

```
story <- get_item_by_id(21499889)
comments <- get_comments(story)
comments
```

```
get_comments_with_root
```

Hacker News nested comments with root comment

Description

Returns specified item and all comments under it. Comments are retrieved using the Hacker News API

Usage

```
get_comments_with_root(item)
```

Arguments

`item` item whose children (comments) will be retrieved

Value

dataframe containing specified item and all comments under that item

get_content	<i>Retrieves the response content</i>
-------------	---------------------------------------

Description

Retrieves the response content

Usage

```
get_content(x)
```

Arguments

x hn_api_response object to retrieve content from

Value

content of the given hn_api_response object

get_items_by_ids	<i>Get Hacker News by ids</i>
------------------	-------------------------------

Description

Retrieves items corresponding to specified list of ids using Hacker News API

Usage

```
get_items_by_ids(ids)
```

Arguments

ids list of ids

Details

Parallel api requests can be enabled by running `future::plan(future::multiprocess)`

Value

list of hn_item objects

See Also

<https://github.com/HenrikBengtsson/future> <https://github.com/HenrikBengtsson/future.apply>

Examples

```
# retrieve the first two items on Hacker News
items <- get_items_by_ids(c(1,2))
items
```

<code>get_item_by_id</code>	<i>Get Hacker News by Id</i>
-----------------------------	------------------------------

Description

Retrieves the item corresponding to specified id using Hacker News API

Usage

```
get_item_by_id(id)
```

Arguments

<code>id</code>	id of the item that should be retrieved
-----------------	---

Details

The API in some cases returns a null response. When this situation occurs it is assumed that the item does not exist and NA is returned.

Value

item corresponding to the specified id

Examples

```
# retrieve the id of the latest Hacker News item
last_item_id <- get_max_item_id()
last_item_id

# retrieve the latest Hacker News item
last_hn_item <- get_item_by_id(last_item_id)
last_hn_item
```

`get_latest_ask_stories`*Hacker News latest ask stories*

Description

Retrieves latest ask stories using Hacker News API

Usage

```
get_latest_ask_stories(max_items = NULL)
```

Arguments

<code>max_items</code>	Maximum number of items to retrieve. If <code>max_items = NULL</code> , returns all available
------------------------	---

Details

Parallel api requests can be enabled by running `future::plan(future::multiprocess)`

Value

list of latest ask HN stories ids

Examples

```
# get the latest ask story on Hacker News
latest_ask_story <- get_latest_ask_stories(max_items = 1)
latest_ask_story

# get 10 latest ask stories on Hacker News
latest_10_ask_stories <- get_latest_ask_stories(max_items = 10)
latest_10_ask_stories

# get all latest ask stories on Hacker News
latest_ask_stories <- get_latest_ask_stories()
latest_ask_stories
```

get_latest_ask_stories_ids

Hacker News latest ask stories ids

Description

Retrieves latest ask stories ids using Hacker News API

Usage

```
get_latest_ask_stories_ids()
```

Value

list of latest ask Hacker News stories ids

Examples

```
# get ids of latest ask stories
ask_stories_ids <- get_latest_ask_stories_ids()
ask_stories_ids
```

get_latest_job_stories

Hacker News latest job stories

Description

Retrieves latest job stories using Hacker News API

Usage

```
get_latest_job_stories(max_items = NULL)
```

Arguments

max_items	Maximum number of items to retrieve. If max_items = NULL, returns all available
-----------	---

Details

Parallel api requests can be enabled by running `future::plan(future::multiprocess)`

Value

list of latest job stories

Examples

```
# get the latest job story on Hacker News
latest_job_story <- get_latest_job_stories(max_items = 1)
latest_job_story

# get 10 latest job stories on Hacker News
latest_10_job_stories <- get_latest_job_stories(max_items = 10)
latest_10_job_stories

# get all latest job stories on Hacker News
latest_job_stories <- get_latest_job_stories()
latest_job_stories
```

```
get_latest_job_stories_ids
      Hacker News latest job stories ids
```

Description

Retrieves latest job stories ids using Hacker News API

Usage

```
get_latest_job_stories_ids()
```

Value

list of latest job stories ids

Examples

```
# get ids of latest job stories
latest_job_stories_ids <- get_latest_job_stories_ids()
latest_job_stories_ids
```

`get_latest_show_stories`*Hacker News latest show stories*

Description

Retrieves latest show stories using Hacker News API

Usage

```
get_latest_show_stories(max_items = NULL)
```

Arguments

<code>max_items</code>	Maximum number of items to retrieve. If <code>max_items = NULL</code> , returns all available
------------------------	---

Details

Parallel api requests can be enabled by running `future::plan(future::multiprocess)`

Value

list of latest show HN stories

Examples

```
# get the latest show story on Hacker News
latest_show_story <- get_latest_show_stories(max_items = 1)
latest_show_story

# get 10 latest show stories on Hacker News
latest_10_show_stories <- get_latest_show_stories(max_items = 10)
latest_10_show_stories

# get all latest show stories on Hacker News
latest_show_stories <- get_latest_show_stories()
latest_show_stories
```

`get_latest_show_stories_ids`
Hacker News latest show stories ids

Description

Retrieves latest show stories ids using Hacker News API

Usage

```
get_latest_show_stories_ids()
```

Value

list of latest show Hacker News stories ids

Examples

```
# get ids of latest show stories on Hacker News
show_stories_ids <- get_latest_show_stories_ids()
show_stories_ids
```

`get_max_item_id` *Hacker News item largest id*

Description

Retrieves largest item id available via Hacker News API

Usage

```
get_max_item_id()
```

Value

current largest item id

Examples

```
# retrieve the id of the latest item
get_max_item_id()
```

get_new_stories *Hacker News newest stories*

Description

Retrieves newest stories using Hacker News API

Usage

```
get_new_stories(max_items = NULL)
```

Arguments

max_items Maximum number of items to retrieve. If max_items = NULL, returns all available

Details

Parallel api requests can be enabled by running `future::plan(future::multiprocess)`

Value

list of new stories

Examples

```
# get the newest story on Hacker News
newest_story <- get_new_stories(max_items = 1)
newest_story
```

```
# get all new stories on Hacker News
new_stories <- get_new_stories()
new_stories
```

get_new_stories_ids *Hacker News newest stories ids*

Description

Retrieves newest stories ids using Hacker News API

Usage

```
get_new_stories_ids()
```

Value

list of new stories ids

Examples

```
# get ids of new stories on Hacker News
new_stories_ids <- get_new_stories_ids()
new_stories_ids
```

get_top_stories *Hacker News top stories*

Description

Retrieves top stories using Hacker News API

Usage

```
get_top_stories(max_items = NULL)
```

Arguments

`max_items` Maximum number of items to retrieve. If `max_items = NULL`, returns all available stories

Details

Parallel api requests can be enabled by running `future::plan(future::multiprocess)`

Value

List of top stories

Examples

```
# get the top story on Hacker News
top_story <- get_top_stories(max_items = 1)
top_story

# get all top stories on Hacker News
top_stories <- get_top_stories()
top_stories
```

get_top_stories_ids *Hacker News top stories ids*

Description

Retrieves top stories ids using Hacker News API

Usage

```
get_top_stories_ids()
```

Value

list of top stories ids

Examples

```
# retrieve the ids of current top stories on Hacker News
top_stories_ids <- get_top_stories_ids()
top_stories_ids
```

get_updates *Hacker News updated profiles*

Description

Retrieves changed item ids and changed profile usernames using Hacker News API

Usage

```
get_updates()
```

Value

list of changed item ids and list of changed profile usernames

Examples

```
# get ids/usernames of updated items/profiles
hn_updates <- get_updates()
hn_updates
```

get_user_by_username *Get Hacker News user*

Description

Get user corresponding to the specified username

Usage

```
get_user_by_username(username)
```

Arguments

username of the user that should be retrieved

Value

user corresponding to the specified username

Examples

```
# Retrieve information about the jl user
get_user_by_username("jl")
```

is_hn_api_response *Checks whether the given object is of the class hn_api_response.*

Description

Checks whether the given object is of the class hn_api_response.

Usage

```
is_hn_api_response(x)
```

Arguments

x object to test if it is of the class hn_api_response

Value

TRUE if the object is of the class hn_api_response

is_hn_item	<i>Checks whether the given object is of the class hn_item</i>
------------	--

Description

Checks whether the given object is of the class hn_item

Usage

```
is_hn_item(x)
```

Arguments

x object to test if it is of the class hn_item

Value

TRUE if the object is of the class hn_item

is_hn_user	<i>Checks whether the given object is of the class hn_user</i>
------------	--

Description

Checks whether the given object is of the class hn_user

Usage

```
is_hn_user(x)
```

Arguments

x object to test if it is of the class hn_user

Value

TRUE if the object is of the class hn_user

parse_json	<i>Parses a json response</i>
------------	-------------------------------

Description

Parses a json response

Usage

```
parse_json(response)
```

Arguments

response	response object to parse
----------	--------------------------

Value

parsed content of the given response

print.hn_item	<i>Print for "hn_item" type objects</i>
---------------	---

Description

Print for "hn_item" type objects

Usage

```
## S3 method for class 'hn_item'  
print(x, ...)
```

Arguments

x	"hn_item" type list
...	further arguments passed to or from other methods

print.hn_user *Print for "hn_user" type objects*

Description

Print for "hn_user" type objects

Usage

```
## S3 method for class 'hn_user'  
print(x, ...)
```

Arguments

x "hn_user" type list
... further arguments passed to or from other methods

to_datetime_origin *Converts numeric value into POSIXct datetime type*

Description

Converts numeric value into POSIXct datetime type

Usage

```
to_datetime_origin(x)
```

Arguments

x numeric value to be converted

Details

Hacker News API supplies time as a Unix Time, which origin date is "1970-01-01". This value has to be passed to as.POSIXct function in order to get proper time representation

Value

time object of class POSIXct

See Also

[as.POSIXct](#)

<https://github.com/HackerNews/API>

https://en.wikipedia.org/wiki/Unix_time

trim_ids_list	<i>Selects only limited number of ids</i>
---------------	---

Description

Selects only limited number of ids

Usage

```
trim_ids_list(ids_list, max_items)
```

Arguments

ids_list	list of ids to be trimmed
max_items	maximum number of ids to retrieve

Value

trimmed list of ids

validate_hn_api_response	<i>Checks if the given response is not empty and that it did not return an error http code.</i>
--------------------------	---

Description

Checks if the given response is not empty and that it did not return an error http code.

Usage

```
validate_hn_api_response(hn_api_response)
```

Arguments

hn_api_response	hn_api_response object to be checked
-----------------	--------------------------------------

validate_hn_item	<i>Checks whether the given object is correctly defined hn_item class</i>
------------------	---

Description

Checks whether the given object is correctly defined hn_item class

Usage

```
validate_hn_item(hn_item)
```

Arguments

hn_item	object of the class hn_item
---------	-----------------------------

validate_hn_user	<i>Checks whether the given object is correctly defined hn_user class</i>
------------------	---

Description

Checks whether the given object is correctly defined hn_user class

Usage

```
validate_hn_user(hn_user)
```

Arguments

hn_user	object of the class hn_user
---------	-----------------------------

Index

`.base_url`, 3
`.send_request`, 3

`add_json_extension`, 3
`add_path`, 4
`as.POSIXct`, 24
`assert`, 4
`assert_ids`, 5
`assert_max_items`, 5

`comment_to_dataframe_row`, 5
`create_hn_api_response`, 6
`create_hn_item`, 6
`create_hn_user`, 7
`create_request_url`, 7

`default_if_null`, 8

`get_best_stories`, 8
`get_best_stories_ids`, 9
`get_comments`, 9
`get_comments_with_root`, 10
`get_content`, 11
`get_item_by_id`, 12
`get_items_by_ids`, 11
`get_latest_ask_stories`, 13
`get_latest_ask_stories_ids`, 14
`get_latest_job_stories`, 14
`get_latest_job_stories_ids`, 15
`get_latest_show_stories`, 16
`get_latest_show_stories_ids`, 17
`get_max_item_id`, 17
`get_new_stories`, 18
`get_new_stories_ids`, 18
`get_top_stories`, 19
`get_top_stories_ids`, 20
`get_updates`, 20
`get_user_by_username`, 21

`is_hn_api_response`, 21
`is_hn_item`, 22

`is_hn_user`, 22

`parse_json`, 23
`print.hn_item`, 23
`print.hn_user`, 24

`to_datetime_origin`, 24
`trim_ids_list`, 25

`validate_hn_api_response`, 25
`validate_hn_item`, 26
`validate_hn_user`, 26