Package 'hackeRnews'

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Title Wrapper for the 'Official Hacker News' API

Version 0.1.0

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

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Encoding UTF-8

LazyData true

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

RoxygenNote 6.1.1

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

VignetteBuilder knitr

URL <https://github.com/szymanskir/hackeRnews>

BugReports <https://github.com/szymanskir/hackeRnews/issues>

Language en-US

NeedsCompilation no

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Repository CRAN

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R topics documented:

.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   *Adds the given path to the given url*

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

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

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

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 | |
| *Converts comment to a dataframe row* | |

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 *Creates an object representing Hacker News user*

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

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 | *return specified variable or default value if specified variable is null* |

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 | *Hacker News best stories* |

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 *Retrieves the response content*

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 *Get Hacker News by ids*

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
```

---

get_item_by_id   *Get Hacker News by Id*

Description

Retrieves the item corresponding to specified id using Hacker News API

Usage

```
get_item_by_id(id)
```

Arguments

id   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

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 ask HN stories ids

Examples

```
# get the lastest 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

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

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 avail-
                   able

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   *Checks whether the given object is of the class hn_item*

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   *Checks whether the given object is of the class hn_user*

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 *Parses a json response*

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 *Print for "hn_item" type objects*

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 *Selects only limited number of ids*

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

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

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	*Checks whether the given object is correctly defined hn_item class*

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	*Checks whether the given object is correctly defined hn_user class*

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

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