
newsapi-python

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This is documentation for version 0.2.6 of *newsapi-python*, a Python client for the [News API](#).
The project source repository is [hosted on GitHub](#).

1.1 Example NewsApiClient Usage

This page is a tutorial-by-example for using the `NewsApiClient` class.

1.1.1 Basic Usage

The top-level `NewsApiClient` class allows you to access News API endpoints. Initialize the client with your API key:

```
import os
from newsapi import NewsApiClient

# An API key; for example: "74f9e72a4bfd4dbaa0cbac8e9a17d34a"
key = os.environ["news_api_secret"]

api = NewsApiClient(api_key=key)
```

The only required parameter is an API key. You can also pass a persistent session object; see [Using a Dedicated Session](#).

1.1.2 Accessing the `/top-headlines` Endpoint

Use `newsapi.NewsApiClient.get_top_headlines()` to pull from the `/top-headlines` endpoint:

```
api.get_top_headlines()
api.get_top_headlines(q="hurricane")
api.get_top_headlines(category="sports")
api.get_top_headlines(sources="abc-news,ars-technica", page_size=50)
```

1.1.3 Accessing the `/everything` Endpoint

Use `newsapi.NewsApiClient.get_everything()` to pull from the `/everything` endpoint:

```
api.get_everything("hurricane OR tornado", sort_by="relevancy", language="en")
api.get_everything("(hurricane OR tornado) AND FEMA", sort_by="relevancy")
```

1.1.4 Accessing the `/sources` Endpoint

Use `newsapi.NewsApiClient.get_sources()` to pull from the `/sources` endpoint:

```
api.get_sources()
api.get_sources(category="technology")
api.get_sources(country="ru")
api.get_sources(category="health", country="us")
api.get_sources(language="en", country="in")
```

1.1.5 Using a Dedicated Session

By default, each method call from `NewsApiClient` uses a new TCP session (and `requests.Session` instance). This is not ideal if you'd like to call endpoints multiple times, whereas using a single session can provide connection-pooling and cookie persistence.

To use a single session across multiple method calls, pass the session object to `NewsApiClient`:

```
import requests

with requests.Session() as session:
    # Use a single session for multiple requests. Using a 'with'
    # context manager closes the session and TCP connection after use.
    api = NewsApiClient(api_key=key, session=session)
    data1 = api.get_top_headlines(category="technology")
    data2 = api.get_everything(q="facebook", domains="mashable.com,wired.com")
```

1.1.6 Date Inputs

The optional parameters `from_param` and `to` used in `newsapi.NewsApiClient.get_everything()` allow you to constrain the result set to articles published within a given span.

You can pass a handful of different types:

- `datetime.date`
- `datetime.datetime` (assumed to be in UTC time)
- `str` formatted as either `%Y-%m-%d` (e.g. `2019-09-07`) or `%Y-%m-%dT%H:%M:%S` (e.g. `2019-09-07T13:04:15`)
- `int` or `float` (assumed represents a Unix timestamp)
- `None` (the default, in which there is no constraint)

Here are a few valid examples:


```
import datetime as dt

api.get_everything(
    q="hurricane",
    from_param=dt.date(2019, 9, 1),
    to=dt.date(2019, 9, 3),
)

api.get_everything(
    q="hurricane",
    from_param=dt.datetime(2019, 9, 1, hour=5),
    to=dt.datetime(2019, 9, 1, hour=15),
)

api.get_everything(
    q="hurricane",
    from_param="2019-08-01",
    to="2019-09-15",
)

api.get_everything(
    q="hurricane",
    from_param="2019-08-01",
    to="2019-09-15",
)

api.get_everything(
    q="venezuela",
    from_param="2019-08-01T10:30:00",
    to="2019-09-15T14:00:00",
)
```

1.2 API Reference

This page is a technical reference to the public classes, exceptions, and data defined in newsapi-python.

While newsapi-python makes every effort to keep up with the API, please consider the official News API [docs](#) as the canonical News API reference.

1.2.1 Classes

class newsapi.**NewsApiClient** (*api_key*, *session=None*)

The core client object used to fetch data from News API endpoints.

Parameters

- **api_key** (*str*) – Your API key, a length-32 UUID string provided for your News API account. You must [register](#) for a News API key.
- **session** ([requests.Session](#) or None) – An optional `requests.Session` instance from which to execute requests. **Note:** If you provide a `session` instance, `NewsApiClient` will *not* close the session for you. Remember to call `session.close()`, or use the session as a context manager, to close the socket and free up resources.

get_everything (*q=None, qintitle=None, sources=None, domains=None, exclude_domains=None, from_param=None, to=None, language=None, sort_by=None, page=None, page_size=None*)

Call the `/everything` endpoint.

Search through millions of articles from over 30,000 large and small news sources and blogs.

Parameters

- **q** (*str or None*) – Keywords or a phrase to search for in the article title and body. See the official News API [documentation](#) for search syntax and examples.
- **qintitle** – Keywords or a phrase to search for in the article title and body. See the official News API [documentation](#) for search syntax and examples.
- **sources** (*str or None*) – A comma-separated string of identifiers for the news sources or blogs you want headlines from. Use `NewsApiClient.get_sources()` to locate these programmatically, or look at the [sources index](#).
- **domains** (*str or None*) – A comma-separated string of domains (eg `bbc.co.uk, techcrunch.com, engadget.com`) to restrict the search to.
- **exclude_domains** (*str or None*) – A comma-separated string of domains (eg `bbc.co.uk, techcrunch.com, engadget.com`) to remove from the results.
- **from_param** (*str or datetime.datetime or datetime.date or int or float or None*) – A date and optional time for the oldest article allowed. If a `str`, the format must conform to ISO-8601 specifically as one of either `%Y-%m-%d` (e.g. `2019-09-07`) or `%Y-%m-%dT%H:%M:%S` (e.g. `2019-09-07T13:04:15`). An `int` or `float` is assumed to represent a Unix timestamp. All `datetime` inputs are assumed to be UTC.
- **to** (*str or datetime.datetime or datetime.date or int or float or None*) – A date and optional time for the newest article allowed. If a `str`, the format must conform to ISO-8601 specifically as one of either `%Y-%m-%d` (e.g. `2019-09-07`) or `%Y-%m-%dT%H:%M:%S` (e.g. `2019-09-07T13:04:15`). An `int` or `float` is assumed to represent a Unix timestamp. All `datetime` inputs are assumed to be UTC.
- **language** (*str or None*) – The 2-letter ISO-639-1 code of the language you want to get headlines for. See `newsapi.const.languages` for the set of allowed values.
- **sort_by** (*str or None*) – The order to sort articles in. See `newsapi.const.sort_method` for the set of allowed values.

Returns JSON response as nested Python dictionary.

Return type dict

Raises `NewsAPIException` – If the "status" value of the response is "error" rather than "ok".

get_sources (*category=None, language=None, country=None*)

Call the `/sources` endpoint.

Fetch the subset of news publishers that `/top-headlines` are available from.

Parameters

- **category** (*str or None*) – Find sources that display news of this category. See `newsapi.const.categories` for the set of allowed values.
- **language** (*str or None*) – Find sources that display news in a specific language. See `newsapi.const.languages` for the set of allowed values.

- **country** (*str or None*) – Find sources that display news in a specific country. See [newsapi.const.countries](#) for the set of allowed values.

Returns JSON response as nested Python dictionary.

Return type dict

Raises [NewsAPIException](#) – If the "status" value of the response is "error" rather than "ok".

get_top_headlines (*q=None, qintitle=None, sources=None, language='en', country=None, category=None, page_size=None, page=None*)

Call the */top-headlines* endpoint.

Fetch live top and breaking headlines.

This endpoint provides live top and breaking headlines for a country, specific category in a country, single source, or multiple sources. You can also search with keywords. Articles are sorted by the earliest date published first.

Parameters

- **q** (*str or None*) – Keywords or a phrase to search for in the article title and body. See the official News API [documentation](#) for search syntax and examples.
- **qintitle** – Keywords or a phrase to search for in the article title and body. See the official News API [documentation](#) for search syntax and examples.
- **sources** (*str or None*) – A comma-separated string of identifiers for the news sources or blogs you want headlines from. Use [NewsApiClient.get_sources\(\)](#) to locate these programmatically, or look at the [sources index](#). **Note:** you can't mix this param with the `country` or `category` params.
- **language** (*str or None*) – The 2-letter ISO-639-1 code of the language you want to get headlines for. See [newsapi.const.languages](#) for the set of allowed values. The default for this method is "en" (English). **Note:** this parameter is not mentioned in the */top-headlines* [documentation](#) as of Sep. 2019, but *is* supported by the API.
- **country** (*str or None*) – The 2-letter ISO 3166-1 code of the country you want to get headlines for. See [newsapi.const.countries](#) for the set of allowed values. **Note:** you can't mix this parameter with the `sources` param.
- **category** (*str or None*) – The category you want to get headlines for. See [newsapi.const.categories](#) for the set of allowed values. **Note:** you can't mix this parameter with the `sources` param.
- **page_size** (*int or None*) – Use this to page through the results if the total results found is greater than the page size.
- **page** (*int or None*) – The number of results to return per page (request). 20 is the default, 100 is the maximum.

Returns JSON response as nested Python dictionary.

Return type dict

Raises [NewsAPIException](#) – If the "status" value of the response is "error" rather than "ok".

1.2.2 Exceptions

exception `newsapi.newsapi_exception.NewsAPIException(exception)`
Represents an error response status value from News API.

1.2.3 Constants

The `newsapi.const` module holds constants and allowed parameter values specified in the official News API documentation.

`newsapi.const.languages = {'ar', 'cn', 'de', 'en', 'es', 'fr', 'he', 'it', 'nl', 'no', 'pt'}`
The 2-letter ISO-639-1 code of the language you want to get articles for. If not specified, the results span all languages.

`newsapi.const.countries = {'ae', 'ar', 'at', 'au', 'be', 'bg', 'br', 'ca', 'ch', 'cn', 'co'}`
The 2-letter ISO 3166-1 code of the country you want to get headlines for. If not specified, the results span all countries.

`newsapi.const.categories = {'business', 'entertainment', 'general', 'health', 'science', 's'}`
The category you want to get articles for. If not specified, the results span all categories.

`newsapi.const.sort_method = {'popularity', 'publishedAt', 'relevancy'}`
The order to sort article results in. If not specified, the default is "publishedAt".

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