tweepy Documentation

Release 3.5.0

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November 02, 2016

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CHAPTER 1

Getting started

1.1 Introduction

If you are new to Tweepy, this is the place to begin. The goal of this tutorial is to get you set-up and rolling with Tweepy. We won't go into too much detail here, just some important basics.

1.2 Hello Tweepy

```
import tweepy

auth = tweepy.OAuthHandler(consumer_key, consumer_secret)
auth.set_access_token(access_token, access_token_secret)

api = tweepy.API(auth)

public_tweets = api.home_timeline()
for tweet in public_tweets:
    print tweet.text
```

This example will download your home timeline tweets and print each one of their texts to the console. Twitter requires all requests to use OAuth for authentication. The *Authentication Tutorial* goes into more details about authentication.

1.3 API

The API class provides access to the entire twitter RESTful API methods. Each method can accept various parameters and return responses. For more information about these methods please refer to *API Reference*.

1.4 Models

When we invoke an API method most of the time returned back to us will be a Tweepy model class instance. This will contain the data returned from Twitter which we can then use inside our application. For example the following code returns to us an User model:

```
# Get the User object for twitter...
user = api.get_user('twitter')
```

Models contain the data and some helper methods which we can then use:

```
print user.screen_name
print user.followers_count
for friend in user.friends():
   print friend.screen_name
```

For more information about models please see ModelsReference.

CHAPTER 2

Authentication Tutorial

2.1 Introduction

Tweepy supports oauth authentication. Authentication is handled by the tweepy.AuthHandler class.

2.2 OAuth Authentication

Tweepy tries to make OAuth as painless as possible for you. To begin the process we need to register our client application with Twitter. Create a new application and once you are done you should have your consumer token and secret. Keep these two handy, you'll need them.

The next step is creating an OAuthHandler instance. Into this we pass our consumer token and secret which was given to us in the previous paragraph:

```
auth = tweepy.OAuthHandler(consumer_token, consumer_secret)
```

If you have a web application and are using a callback URL that needs to be supplied dynamically you would pass it in like so:

```
auth = tweepy.OAuthHandler(consumer_token, consumer_secret,
callback_url)
```

If the callback URL will not be changing, it is best to just configure it statically on twitter.com when setting up your application's profile.

Unlike basic auth, we must do the OAuth "dance" before we can start using the API. We must complete the following steps:

1. Get a request token from twitter
2. Redirect user to twitter.com to authorize our application
3. If using a callback, twitter will redirect the user to us. Otherwise the user must manually supply us with the verifier code.
4. Exchange the authorized request token for an access token.

So let's fetch our request token to begin the dance:

```
try:
    redirect_url = auth.get_authorization_url()
except tweepy.TweepError:
    print 'Error! Failed to get request token.'
```

This call requests the token from twitter and returns to us the authorization URL where the user must be redirect to authorize us. Now if this is a desktop application we can just hang onto our OAuthHandler instance until the user returns back. In a web application we will be using a callback request. So we must store the request token in the session since we will need it inside the callback URL request. Here is a pseudo example of storing the request token in a session:

```
session.set('request_token', auth.request_token)
```

So now we can redirect the user to the URL returned to us earlier from the get_authorization_url() method.

If this is a desktop application (or any application not using callbacks) we must query the user for the "verifier code" that twitter will supply them after they authorize us. Inside a web application this verifier value will be supplied in the callback request from twitter as a GET query parameter in the URL.

```
# Example using callback (web app)
verifier = request.GET.get('oauth_verifier')

# Example w/o callback (desktop)
verifier = raw_input('Verifier:')
```

The final step is exchanging the request token for an access token. The access token is the "key" for opening the Twitter API treasure box. To fetch this token we do the following:

```
# Let's say this is a web app, so we need to re-build the auth handler
# first...
auth = tweepy.OAuthHandler(consumer_key, consumer_secret)
token = session.get('request_token')
session.delete('request_token')
auth.request_token = token

try:
    auth.get_access_token(verifier)
except tweepy.TweepError:
    print 'Error! Failed to get access token.'
```

It is a good idea to save the access token for later use. You do not need to re-fetch it each time. Twitter currently does not expire the tokens, so the only time it would ever go invalid is if the user revokes our application access. To store the access token depends on your application. Basically you need to store 2 string values: key and secret:

```
auth.access_token
auth.access_token_secret
```

You can throw these into a database, file, or where ever you store your data. To re-build an OAuthHandler from this stored access token you would do this:

```
auth = tweepy.OAuthHandler(consumer_key, consumer_secret)
auth.set_access_token(key, secret)
```

So now that we have our OAuthHandler equipped with an access token, we are ready for business:

```
api = tweepy.API(auth)
api.update_status('tweepy + oauth!')
```

CHAPTER 3

Code Snippets

3.1 Introduction

Here are some code snippets to help you out with using Tweepy. Feel free to contribute your own snippets or improve the ones here!

3.2 OAuth

```
auth = tweepy.OAuthHandler("consumer_key", "consumer_secret")

# Redirect user to Twitter to authorize
redirect_user(auth.get_authorization_url())

# Get access token
auth.get_access_token("verifier_value")

# Construct the API instance
api = tweepy.API(auth)
```

3.3 Pagination

```
# Iterate through all of the authenticated user's friends
for friend in tweepy.Cursor(api.friends).items():
    # Process the friend here
    process_friend(friend)

# Iterate through the first 200 statuses in the friends timeline
for status in tweepy.Cursor(api.friends_timeline).items(200):
    # Process the status here
    process_status(status)
```

3.4 FollowAll

This snippet will follow every follower of the authenticated user.

```
for follower in tweepy.Cursor(api.followers).items():
    follower.follow()
```

3.5 Handling the rate limit using cursors

Since cursors raise `RateLimitErrors` in their `next()` method, handling them can be done by wrapping the cursor in an iterator.

Running this snippet will print all users you follow that themselves follow less than 300 people total - to exclude obvious spambots, for example - and will wait for 15 minutes each time it hits the rate limit.

```
# In this example, the handler is time.sleep(15 * 60),
# but you can of course handle it in any way you want.

def limit_handled(cursor):
    while True:
        try:
            yield cursor.next()
        except tweepy.RateLimitError:
            time.sleep(15 * 60)

for follower in limit_handled(tweepy.Cursor(api.followers).items()):
    if follower.friends_count < 300:
        print follower.screen_name
```

CHAPTER 4

Cursor Tutorial

This tutorial describes details on pagination with Cursor objects.

4.1 Introduction

We use pagination a lot in Twitter API development. Iterating through timelines, user lists, direct messages, etc. In order to perform pagination we must supply a page/cursor parameter with each of our requests. The problem here is this requires a lot of boiler plate code just to manage the pagination loop. To help make pagination easier and require less code Tweepy has the Cursor object.

4.1.1 Old way vs Cursor way

First let's demonstrate iterating the statues in the authenticated user's timeline. Here is how we would do it the "old way" before Cursor object was introduced:

```
page = 1
while True:
    statuses = api.user_timeline(page=page)
    if statuses:
        for status in statuses:
            # process status here
            process_status(status)
    else:
        # All done
        break
    page += 1  # next page
```

As you can see we must manage the "page" parameter manually in our pagination loop. Now here is the version of the code using Cursor object:

```
for status in tweepy.Cursor(api.user_timeline).items():
    # process status here
    process_status(status)
```

Now that looks much better! Cursor handles all the pagination work for us behind the scene so our code can now focus entirely on processing the results.

4.1.2 Passing parameters into the API method

What if you need to pass in parameters to the API method?

```
api.user_timeline(id="twitter")
```

Since we pass Cursor the callable, we can not pass the parameters directly into the method. Instead we pass the parameters into the Cursor constructor method:

```
tweepy.Cursor(api.user_timeline, id="twitter")
```

Now Cursor will pass the parameter into the method for us when ever it makes a request.

4.1.3 Items or Pages

So far we have just demonstrated pagination iterating per an item. What if instead you want to process per a page of results? You would use the pages() method:

```
for page in tweepy.Cursor(api.user_timeline).pages():
    # page is a list of statuses
    process_page(page)
```

4.1.4 Limits

What if you only want n items or pages returned? You pass into the items() or pages() methods the limit you want to impose.

```
# Only iterate through the first 200 statuses
for status in tweepy.Cursor(api.user_timeline).items(200):
    process_status(status)

# Only iterate through the first 3 pages
for page in tweepy.Cursor(api.user_timeline).pages(3):
    process_page(page)
```

CHAPTER 5

API Reference

This page contains some basic documentation for the Tweepy module.

CHAPTER 6

tweepy.api — Twitter API wrapper

class API([*auth_handler=None*][, *host='api.twitter.com'*][, *search_host='search.twitter.com'*][, *cache=None*][, *api_root='/1'*][, *search_root=''*][, *retry_count=0*][, *retry_delay=0*][, *retry_errors=None*][, *timeout=60*][, *parser=ModelParser*][, *compression=False*][, *wait_on_rate_limit=False*][, *wait_on_rate_limit_notify=False*][, *proxy=None*])

This class provides a wrapper for the API as provided by Twitter. The functions provided in this class are listed below.

Parameters

- **auth_handler** – authentication handler to be used
- **host** – general API host
- **search_host** – search API host
- **cache** – cache backend to use
- **api_root** – general API path root
- **search_root** – search API path root
- **retry_count** – default number of retries to attempt when error occurs
- **retry_delay** – number of seconds to wait between retries
- **retry_errors** – which HTTP status codes to retry
- **timeout** – The maximum amount of time to wait for a response from Twitter
- **parser** – The object to use for parsing the response from Twitter
- **compression** – Whether or not to use GZIP compression for requests
- **wait_on_rate_limit** – Whether or not to automatically wait for rate limits to replenish
- **wait_on_rate_limit_notify** – Whether or not to print a notification when Tweepy is waiting for rate limits to replenish
- **proxy** – The full url to an HTTPS proxy to use for connecting to Twitter.

6.1 Timeline methods

API.**home_timeline**([*since_id*][, *max_id*][, *count*][, *page*])

Returns the 20 most recent statuses, including retweets, posted by the authenticating user and that user's friends. This is the equivalent of /timeline/home on the Web.

Parameters

- **since_id** – Returns only statuses with an ID greater than (that is, more recent than) the specified ID.
- **max_id** – Returns only statuses with an ID less than (that is, older than) or equal to the specified ID.
- **count** – Specifies the number of statuses to retrieve.
- **page** – Specifies the page of results to retrieve. Note: there are pagination limits.

Return type list of `Status` objects

`API.`**`statuses_lookup`**(*id*[, *include_entities*][, *trim_user*][, *map*])
Returns full Tweet objects for up to 100 tweets per request, specified by the *id* parameter.

Parameters

- **id** – A list of Tweet IDs to lookup, up to 100
- **include_entities** – A boolean indicating whether or not to include [entities](https://dev.twitter.com/docs/entities) in the returned tweets. Defaults to False.
- **trim_user** – A boolean indicating if user IDs should be provided, instead of full user information. Defaults to False.
- **map** – A boolean indicating whether or not to include tweets that cannot be shown, but with a value of None. Defaults to False.

Return type list of `Status` objects

`API.`**`user_timeline`**([*id/user_id/screen_name*][, *since_id*][, *max_id*][, *count*][, *page*])
Returns the 20 most recent statuses posted from the authenticating user or the user specified. It's also possible to request another user's timeline via the id parameter.

Parameters

- **id** – Specifies the ID or screen name of the user.
- **user_id** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.
- **screen_name** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.
- **since_id** – Returns only statuses with an ID greater than (that is, more recent than) the specified ID.
- **max_id** – Returns only statuses with an ID less than (that is, older than) or equal to the specified ID.
- **count** – Specifies the number of statuses to retrieve.
- **page** – Specifies the page of results to retrieve. Note: there are pagination limits.

Return type list of `Status` objects

`API.`**`retweets_of_me`**([*since_id*][, *max_id*][, *count*][, *page*])
Returns the 20 most recent tweets of the authenticated user that have been retweeted by others.

Parameters

- **since_id** – Returns only statuses with an ID greater than (that is, more recent than) the specified ID.

- **max_id** – Returns only statuses with an ID less than (that is, older than) or equal to the specified ID.
- **count** – Specifies the number of statuses to retrieve.
- **page** – Specifies the page of results to retrieve. Note: there are pagination limits.

Return type list of `Status` objects

6.2 Status methods

`API.`**`get_status`**(*id*)

Returns a single status specified by the ID parameter.

Parameters **id** – The numerical ID of the status.

Return type `Status` object

`API.`**`update_status`**(*status*[, *in_reply_to_status_id*][, *lat*][, *long*][, *source*][, *place_id*])

Update the authenticated user's status. Statuses that are duplicates or too long will be silently ignored.

Parameters

- **status** – The text of your status update.
- **in_reply_to_status_id** – The ID of an existing status that the update is in reply to.
- **lat** – The location's latitude that this tweet refers to.
- **long** – The location's longitude that this tweet refers to.
- **source** – Source of the update. Only supported by Identi.ca. Twitter ignores this parameter.
- **place_id** – Twitter ID of location which is listed in the Tweet if geolocation is enabled for the user.

Return type `Status` object

`API.`**`update_with_media`**(*filename*[, *status*][, *in_reply_to_status_id*][, *lat*][, *long*][, *source*][, *place_id*][, *file*])

Update the authenticated user's status. Statuses that are duplicates or too long will be silently ignored.

Parameters

- **filename** – The filename of the image to upload. This will automatically be opened unless *file* is specified
- **status** – The text of your status update.
- **in_reply_to_status_id** – The ID of an existing status that the update is in reply to.
- **lat** – The location's latitude that this tweet refers to.
- **long** – The location's longitude that this tweet refers to.
- **source** – Source of the update. Only supported by Identi.ca. Twitter ignores this parameter.
- **place_id** – Twitter ID of location which is listed in the Tweet if geolocation is enabled for the user.
- **file** – A file object, which will be used instead of opening *filename*. *filename* is still required, for MIME type detection and to use as a form field in the POST data

Return type `Status` object

`API.`**`destroy_status`**(*id*)
Destroy the status specified by the id parameter. The authenticated user must be the author of the status to destroy.

Parameters **`id`** – The numerical ID of the status.

Return type `Status` object

`API.`**`retweet`**(*id*)
Retweets a tweet. Requires the id of the tweet you are retweeting.

Parameters **`id`** – The numerical ID of the status.

Return type `Status` object

`API.`**`retweets`**(*id*[, *count*])
Returns up to 100 of the first retweets of the given tweet.

Parameters

- **`id`** – The numerical ID of the status.
- **`count`** – Specifies the number of retweets to retrieve.

Return type list of `Status` objects

6.3 User methods

`API.`**`get_user`**(*id/user_id/screen_name*)
Returns information about the specified user.

Parameters

- **`id`** – Specifies the ID or screen name of the user.
- **`user_id`** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.
- **`screen_name`** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.

Return type `User` object

`API.`**`me`**()
Returns the authenticated user's information.

Return type `User` object

`API.`**`followers`**([*id/screen_name/user_id*][, *cursor*])
Returns an user's followers ordered in which they were added 100 at a time. If no user is specified by id/screen name, it defaults to the authenticated user.

Parameters

- **`id`** – Specifies the ID or screen name of the user.
- **`user_id`** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.
- **`screen_name`** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.

- **cursor** – Breaks the results into pages. Provide a value of -1 to begin paging. Provide values as returned to in the response body's next_cursor and previous_cursor attributes to page back and forth in the list.

Return type list of `User` objects

`API.`**search_users**(*q*[, *per_page*][, *page*])

Run a search for users similar to Find People button on Twitter.com; the same results returned by people search on Twitter.com will be returned by using this API (about being listed in the People Search). It is only possible to retrieve the first 1000 matches from this API.

Parameters

- **q** – The query to run against people search.
- **per_page** – Specifies the number of statuses to retrieve. May not be greater than 20.
- **page** – Specifies the page of results to retrieve. Note: there are pagination limits.

Return type list of `User` objects

6.4 Direct Message Methods

`API.`**direct_messages**([*since_id*][, *max_id*][, *count*][, *page*][, *full_text*])

Returns direct messages sent to the authenticating user.

Parameters

- **since_id** – Returns only statuses with an ID greater than (that is, more recent than) the specified ID.
- **max_id** – Returns only statuses with an ID less than (that is, older than) or equal to the specified ID.
- **count** – Specifies the number of statuses to retrieve.
- **page** – Specifies the page of results to retrieve. Note: there are pagination limits.
- **full_text** – A boolean indicating whether or not the full text of a message should be returned. If False the message text returned will be truncated to 140 chars. Defaults to False.

Return type list of `DirectMessage` objects

`API.`**get_direct_message**([*id*][, *full_text*])

Returns a specific direct message.

Parameters

- **id** – **|id|**
- **full_text** – A boolean indicating whether or not the full text of a message should be returned. If False the message text returned will be truncated to 140 chars. Defaults to False.

Return type `DirectMessage` object

`API.`**sent_direct_messages**([*since_id*][, *max_id*][, *count*][, *page*][, *full_text*])

Returns direct messages sent by the authenticating user.

Parameters

- **since_id** – Returns only statuses with an ID greater than (that is, more recent than) the specified ID.
- **max_id** – Returns only statuses with an ID less than (that is, older than) or equal to the specified ID.
- **count** – Specifies the number of statuses to retrieve.
- **page** – Specifies the page of results to retrieve. Note: there are pagination limits.
- **full_text** – A boolean indicating whether or not the full text of a message should be returned. If False the message text returned will be truncated to 140 chars. Defaults to False.

Return type list of `DirectMessage` objects

`API.`**send_direct_message**(*user/screen_name/user_id*, *text*)
Sends a new direct message to the specified user from the authenticating user.

Parameters

- **user** – The ID or screen name of the recipient user.
- **screen_name** – screen name of the recipient user
- **user_id** – user id of the recipient user

Return type `DirectMessage` object

`API.`**destroy_direct_message**(*id*)
Destroy a direct message. Authenticating user must be the recipient of the direct message.

Parameters **id** – The ID of the direct message to destroy.

Return type `DirectMessage` object

6.5 Friendship Methods

`API.`**create_friendship**(*id/screen_name/user_id*[, *follow*])
Create a new friendship with the specified user (aka follow).

Parameters

- **id** – Specifies the ID or screen name of the user.
- **screen_name** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.
- **user_id** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.
- **follow** – Enable notifications for the target user in addition to becoming friends.

Return type `User` object

`API.`**destroy_friendship**(*id/screen_name/user_id*)
Destroy a friendship with the specified user (aka unfollow).

Parameters

- **id** – Specifies the ID or screen name of the user.
- **screen_name** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.

- **user_id** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.

Return type `User` object

`API.`**exists_friendship**(*user_a*, *user_b*)
Checks if a friendship exists between two users. Will return True if user_a follows user_b, otherwise False.

Parameters

- **user_a** – The ID or screen_name of the subject user.
- **user_b** – The ID or screen_name of the user to test for following.

Return type True/False

`API.`**show_friendship**(*source_id/source_screen_name*, *target_id/target_screen_name*)
Returns detailed information about the relationship between two users.

Parameters

- **source_id** – The user_id of the subject user.
- **source_screen_name** – The screen_name of the subject user.
- **target_id** – The user_id of the target user.
- **target_screen_name** – The screen_name of the target user.

Return type `Friendship` object

`API.`**friends_ids**(*id/screen_name/user_id*[, *cursor*])
Returns an array containing the IDs of users being followed by the specified user.

Parameters

- **id** – Specifies the ID or screen name of the user.
- **screen_name** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.
- **user_id** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.
- **cursor** – Breaks the results into pages. Provide a value of -1 to begin paging. Provide values as returned to in the response body's next_cursor and previous_cursor attributes to page back and forth in the list.

Return type list of Integers

`API.`**followers_ids**(*id/screen_name/user_id*)
Returns an array containing the IDs of users following the specified user.

Parameters

- **id** – Specifies the ID or screen name of the user.
- **screen_name** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.
- **user_id** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.
- **cursor** – Breaks the results into pages. Provide a value of -1 to begin paging. Provide values as returned to in the response body's next_cursor and previous_cursor attributes to page back and forth in the list.

Return type list of Integers

6.6 Account Methods

API.**verify_credentials**()
Verify the supplied user credentials are valid.

Return type User object if credentials are valid, otherwise False

API.**rate_limit_status**()
Returns the remaining number of API requests available to the requesting user before the API limit is reached for the current hour. Calls to rate_limit_status do not count against the rate limit. If authentication credentials are provided, the rate limit status for the authenticating user is returned. Otherwise, the rate limit status for the requester's IP address is returned.

Return type JSON object

API.**set_delivery_device**(*device*)
Sets which device Twitter delivers updates to for the authenticating user. Sending "none" as the device parameter will disable SMS updates.

Parameters **device** – Must be one of: sms, none

Return type User object

API.**update_profile_colors**([*profile_background_color*][, *profile_text_color*][, *profile_link_color*][, *profile_sidebar_fill_color*][, *profile_sidebar_border_color*])
Sets one or more hex values that control the color scheme of the authenticating user's profile page on twitter.com.

Parameters

- **profile_background_color** –
- **profile_text_color** –
- **profile_link_color** –
- **profile_sidebar_fill_color** –
- **profile_sidebar_border_color** –

Return type User object

API.**update_profile_image**(*filename*)
Update the authenticating user's profile image. Valid formats: GIF, JPG, or PNG

Parameters **filename** – local path to image file to upload. Not a remote URL!

Return type User object

API.**update_profile_background_image**(*filename*)
Update authenticating user's background image. Valid formats: GIF, JPG, or PNG

Parameters **filename** – local path to image file to upload. Not a remote URL!

Return type User object

API.**update_profile**([*name*][, *url*][, *location*][, *description*])
Sets values that users are able to set under the "Account" tab of their settings page.

Parameters

- **name** – Maximum of 20 characters

- **url** – Maximum of 100 characters. Will be prepended with "http://" if not present
- **location** – Maximum of 30 characters
- **description** – Maximum of 160 characters

Return type `User` object

6.7 Favorite Methods

`API.`**`favorites`**(*[id][, page]*)
Returns the favorite statuses for the authenticating user or user specified by the ID parameter.

Parameters

- **id** – The ID or screen name of the user to request favorites
- **page** – Specifies the page of results to retrieve. Note: there are pagination limits.

Return type list of `Status` objects

`API.`**`create_favorite`**(*id*)
Favorites the status specified in the ID parameter as the authenticating user.

Parameters **id** – The numerical ID of the status.

Return type `Status` object

`API.`**`destroy_favorite`**(*id*)
Un-favorites the status specified in the ID parameter as the authenticating user.

Parameters **id** – The numerical ID of the status.

Return type `Status` object

6.8 Block Methods

`API.`**`create_block`**(*id/screen_name/user_id*)
Blocks the user specified in the ID parameter as the authenticating user. Destroys a friendship to the blocked user if it exists.

Parameters

- **id** – Specifies the ID or screen name of the user.
- **screen_name** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.
- **user_id** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.

Return type `User` object

`API.`**`destroy_block`**(*id/screen_name/user_id*)
Un-blocks the user specified in the ID parameter for the authenticating user.

Parameters

- **id** – Specifies the ID or screen name of the user.

- **screen_name** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.
- **user_id** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.

Return type `User` object

`API.`**`blocks`**`(`[*page*]`)`
Returns an array of user objects that the authenticating user is blocking.

Parameters **page** – Specifies the page of results to retrieve. Note: there are pagination limits.

Return type list of `User` objects

`API.`**`blocks_ids`**`()`
Returns an array of numeric user ids the authenticating user is blocking.

Return type list of Integers

6.9 Spam Reporting Methods

`API.`**`report_spam`**`(`[*id/user_id/screen_name*]`)`
The user specified in the id is blocked by the authenticated user and reported as a spammer.

Parameters

- **id** – Specifies the ID or screen name of the user.
- **screen_name** – Specifies the screen name of the user. Helpful for disambiguating when a valid screen name is also a user ID.
- **user_id** – Specifies the ID of the user. Helpful for disambiguating when a valid user ID is also a valid screen name.

Return type `User` object

6.10 Saved Searches Methods

`API.`**`saved_searches`**`()`
Returns the authenticated user's saved search queries.

Return type list of `SavedSearch` objects

`API.`**`get_saved_search`**`(`*id*`)`
Retrieve the data for a saved search owned by the authenticating user specified by the given id.

Parameters **id** – The id of the saved search to be retrieved.

Return type `SavedSearch` object

`API.`**`create_saved_search`**`(`*query*`)`
Creates a saved search for the authenticated user.

Parameters **query** – The query of the search the user would like to save.

Return type `SavedSearch` object

API.**destroy_saved_search**(*id*)
Destroys a saved search for the authenticated user. The search specified by id must be owned by the authenticating user.

Parameters **id** – The id of the saved search to be deleted.

Return type SavedSearch object

6.11 Help Methods

API.**search**(*q*[, *lang*][, *locale*][, *rpp*][, *page*][, *since_id*][, *geocode*][, *show_user*])
Returns tweets that match a specified query.

Parameters

- **q** – the search query string
- **lang** – Restricts tweets to the given language, given by an ISO 639-1 code.
- **locale** – Specify the language of the query you are sending. This is intended for language-specific clients and the default should work in the majority of cases.
- **rpp** – The number of tweets to return per page, up to a max of 100.
- **page** – The page number (starting at 1) to return, up to a max of roughly 1500 results (based on rpp * page.
- **since_id** – Returns only statuses with an ID greater than (that is, more recent than) the specified ID.
- **geocode** – Returns tweets by users located within a given radius of the given latitude/longitude. The location is preferentially taking from the Geotagging API, but will fall back to their Twitter profile. The parameter value is specified by "latitide,longitude,radius", where radius units must be specified as either "mi" (miles) or "km" (kilometers). Note that you cannot use the near operator via the API to geocode arbitrary locations; however you can use this geocode parameter to search near geocodes directly.
- **show_user** – When true, prepends "<user>:" to the beginning of the tweet. This is useful for readers that do not display Atom's author field. The default is false.

Return type list of SearchResult objects

6.12 List Methods

API.**create_list**(*name*[, *mode*][, *description*])
Creates a new list for the authenticated user. Accounts are limited to 20 lists.

Parameters

- **name** – The name of the new list.
- **mode** – Whether your list is public or private. Values can be public or private. Lists are public by default if no mode is specified.
- **description** – The description of the list you are creating.

Return type List object

API.**destroy_list**(*slug*)
Deletes the specified list. Must be owned by the authenticated user.

Parameters **slug** – the slug name or numerical ID of the list

Return type List object

API.**update_list**(*slug*[, *name*][, *mode*][, *description*])
Updates the specified list. Note: this current throws a 500. Twitter is looking into the issue.

Parameters

- **slug** – the slug name or numerical ID of the list
- **name** – What you'd like to change the lists name to.
- **mode** – Whether your list is public or private. Values can be public or private. Lists are public by default if no mode is specified.
- **description** – What you'd like to change the list description to.

Return type List object

API.**lists**([*cursor*])
List the lists of the specified user. Private lists will be included if the authenticated users is the same as the user who's lists are being returned.

Parameters **cursor** – Breaks the results into pages. Provide a value of -1 to begin paging. Provide values as returned to in the response body's next_cursor and previous_cursor attributes to page back and forth in the list.

Return type list of List objects

API.**lists_memberships**([*cursor*])
List the lists the specified user has been added to.

Parameters **cursor** – Breaks the results into pages. Provide a value of -1 to begin paging. Provide values as returned to in the response body's next_cursor and previous_cursor attributes to page back and forth in the list.

Return type list of List objects

API.**lists_subscriptions**([*cursor*])
List the lists the specified user follows.

Parameters **cursor** – Breaks the results into pages. Provide a value of -1 to begin paging. Provide values as returned to in the response body's next_cursor and previous_cursor attributes to page back and forth in the list.

Return type list of List objects

API.**list_timeline**(*owner*, *slug*[, *since_id*][, *max_id*][, *per_page*][, *page*])
Show tweet timeline for members of the specified list.

Parameters

- **owner** – the screen name of the owner of the list
- **slug** – the slug name or numerical ID of the list
- **since_id** – Returns only statuses with an ID greater than (that is, more recent than) the specified ID.
- **max_id** – Returns only statuses with an ID less than (that is, older than) or equal to the specified ID.

- **per_page** – Number of results per a page
- **page** – Specifies the page of results to retrieve. Note: there are pagination limits.

Return type list of `Status` objects

`API.`**`get_list`**(*owner*, *slug*)
Show the specified list. Private lists will only be shown if the authenticated user owns the specified list.

Parameters

- **owner** – the screen name of the owner of the list
- **slug** – the slug name or numerical ID of the list

Return type `List` object

`API.`**`add_list_member`**(*slug*, *id*)
Add a member to a list. The authenticated user must own the list to be able to add members to it. Lists are limited to having 500 members.

Parameters

- **slug** – the slug name or numerical ID of the list
- **id** – the ID of the user to add as a member

Return type `List` object

`API.`**`remove_list_member`**(*slug*, *id*)
Removes the specified member from the list. The authenticated user must be the list's owner to remove members from the list.

Parameters

- **slug** – the slug name or numerical ID of the list
- **id** – the ID of the user to remove as a member

Return type `List` object

`API.`**`list_members`**(*owner*, *slug*, *cursor*)
Returns the members of the specified list.

Parameters

- **owner** – the screen name of the owner of the list
- **slug** – the slug name or numerical ID of the list
- **cursor** – Breaks the results into pages. Provide a value of -1 to begin paging. Provide values as returned to in the response body's next_cursor and previous_cursor attributes to page back and forth in the list.

Return type list of `User` objects

`API.`**`is_list_member`**(*owner*, *slug*, *id*)
Check if a user is a member of the specified list.

Parameters

- **owner** – the screen name of the owner of the list
- **slug** – the slug name or numerical ID of the list
- **id** – the ID of the user to check

Return type `User` object if user is a member of list, otherwise False.

API.**subscribe_list**(*owner*, *slug*)
Make the authenticated user follow the specified list.

Parameters

- **owner** – the screen name of the owner of the list
- **slug** – the slug name or numerical ID of the list

Return type `List` object

API.**unsubscribe_list**(*owner*, *slug*)
Unsubscribes the authenticated user form the specified list.

Parameters

- **owner** – the screen name of the owner of the list
- **slug** – the slug name or numerical ID of the list

Return type `List` object

API.**list_subscribers**(*owner*, *slug*[, *cursor*])
Returns the subscribers of the specified list.

Parameters

- **owner** – the screen name of the owner of the list
- **slug** – the slug name or numerical ID of the list
- **cursor** – Breaks the results into pages. Provide a value of -1 to begin paging. Provide values as returned to in the response body's next_cursor and previous_cursor attributes to page back and forth in the list.

Return type list of `User` objects

API.**is_subscribed_list**(*owner*, *slug*, *id*)
Check if the specified user is a subscriber of the specified list.

Parameters

- **owner** – the screen name of the owner of the list
- **slug** – the slug name or numerical ID of the list
- **id** – the ID of the user to check

Return type `User` object if user is subscribed to the list, otherwise False.

6.13 Trends Methods

API.**trends_available**()
Returns the locations that Twitter has trending topic information for. The response is an array of "locations" that encode the location's WOEID (a Yahoo! Where On Earth ID) and some other human-readable information such as a canonical name and country the location belongs in.

Return type `JSON` object

API.**trends_place**(*id*[, *exclude*])
Returns the top 10 trending topics for a specific WOEID, if trending information is available for it.

The response is an array of "trend" objects that encode the name of the trending topic, the query parameter that can be used to search for the topic on Twitter Search, and the Twitter Search URL.

This information is cached for 5 minutes. Requesting more frequently than that will not return any more data, and will count against your rate limit usage.

Parameters

- **id** – The Yahoo! Where On Earth ID of the location to return trending information for. Global information is available by using 1 as the WOEID.
- **exclude** – Setting this equal to hashtags will remove all hashtags from the trends list.

Return type JSON object

API.**trends_closest**(*lat*, *long*)

Returns the locations that Twitter has trending topic information for, closest to a specified location.

The response is an array of "locations" that encode the location's WOEID and some other human-readable information such as a canonical name and country the location belongs in.

A WOEID is a Yahoo! Where On Earth ID.

Parameters

- **lat** – If provided with a long parameter the available trend locations will be sorted by distance, nearest to furthest, to the co-ordinate pair. The valid ranges for longitude is -180.0 to +180.0 (West is negative, East is positive) inclusive.
- **long** – If provided with a lat parameter the available trend locations will be sorted by distance, nearest to furthest, to the co-ordinate pair. The valid ranges for longitude is -180.0 to +180.0 (West is negative, East is positive) inclusive.

Return type JSON object

6.14 Geo Methods

API.**reverse_geocode**([*lat*][, *long*][, *accuracy*][, *granularity*][, *max_results*])

Given a latitude and longitude, looks for places (cities and neighbourhoods) whose IDs can be specified in a call to *update_status()* to appear as the name of the location. This call provides a detailed response about the location in question; the nearby_places() function should be preferred for getting a list of places nearby without great detail.

Parameters

- **lat** – The location's latitude.
- **long** – The location's longitude.
- **accuracy** – Specify the "region" in which to search, such as a number (then this is a radius in meters, but it can also take a string that is suffixed with ft to specify feet). If this is not passed in, then it is assumed to be 0m
- **granularity** – Assumed to be 'neighborhood' by default; can also be 'city'.
- **max_results** – A hint as to the maximum number of results to return. This is only a guideline, which may not be adhered to.

API.**reverse_geocode**([*lat*][, *long*][, *ip*][, *accuracy*][, *granularity*][, *max_results*])

Given a latitude and longitude, looks for nearby places (cities and neighbourhoods) whose IDs can be specified in a call to *update_status()* to appear as the name of the location. This call provides a detailed response about the location in question; the nearby_places() function should be preferred for getting a list of places nearby without great detail.

Parameters

- **lat** – The location's latitude.
- **long** – The location's longitude.
- **ip** – The location's IP address. Twitter will attempt to geolocate using the IP address.
- **accuracy** – Specify the "region" in which to search, such as a number (then this is a radius in meters, but it can also take a string that is suffixed with ft to specify feet). If this is not passed in, then it is assumed to be 0m
- **granularity** – Assumed to be 'neighborhood' by default; can also be 'city'.
- **max_results** – A hint as to the maximum number of results to return. This is only a guideline, which may not be adhered to.

API.**geo_id**(*id*)

Given *id* of a place, provide more details about that place.

Parameters **id** – Valid Twitter ID of a location.

CHAPTER 7

tweepy.error — Exceptions

The exceptions are available in the `tweepy` module directly, which means `tweepy.error` itself does not need to be imported. For example, `tweepy.error.TweepError` is available as `tweepy.TweepError`.

exception tweepy.error.TweepError

The main exception Tweepy uses. Is raised for a number of things.

When a `TweepError` is raised due to an error Twitter responded with, the error code (as described in the API documentation) can be accessed at `TweepError.message[0]['code']`. Note, however, that `TweepError`s also may be raised with other things as message (for example plain error reason strings).

exception tweepy.error.RateLimitError

Is raised when an API method fails due to hitting Twitter's rate limit. Makes for easy handling of the rate limit specifically.

Inherits from *TweepError*, so `except TweepError` will catch a `RateLimitError` too.

CHAPTER 8

Streaming With Tweepy

Tweepy makes it easier to use the twitter streaming api by handling authentication, connection, creating and destroying the session, reading incoming messages, and partially routing messages.

This page aims to help you get started using Twitter streams with Tweepy by offering a first walk through. Some features of Tweepy streaming are not covered here. See streaming.py in the Tweepy source code.

API authorization is required to access Twitter streams. Follow the *Authentication Tutorial* if you need help with authentication.

8.1 Summary

The Twitter streaming API is used to download twitter messages in real time. It is useful for obtaining a high volume of tweets, or for creating a live feed using a site stream or user stream. See the Twitter Streaming API Documentation.

The streaming api is quite different from the REST api because the REST api is used to *pull* data from twitter but the streaming api *pushes* messages to a persistent session. This allows the streaming api to download more data in real time than could be done using the REST API.

In Tweepy, an instance of **tweepy.Stream** establishes a streaming session and routes messages to **StreamListener** instance. The **on_data** method of a stream listener receives all messages and calls functions according to the message type. The default **StreamListener** can classify most common twitter messages and routes them to appropriately named methods, but these methods are only stubs.

Therefore using the streaming api has three steps.

1. Create a class inheriting from **StreamListener**
2. Using that class create a **Stream** object
3. Connect to the Twitter API using the **Stream**.

8.2 Step 1: Creating a StreamListener

This simple stream listener prints status text. The **on_data** method of Tweepy's **StreamListener** conveniently passes data from statuses to the **on_status** method. Create class **MyStreamListener** inheriting from **StreamListener** and overriding **on_status**.:

```
import tweepy
#override tweepy.StreamListener to add logic to on_status
class MyStreamListener(tweepy.StreamListener):
```

```
    def on_status(self, status):
        print(status.text)
```

8.3 Step 2: Creating a Stream

We need an api to stream. See *Authentication Tutorial* to learn how to get an api object. Once we have an api and a status listener we can create our stream object.:

```
myStreamListener = MyStreamListener()
myStream = tweepy.Stream(auth = api.auth, listener=myStreamListener())
```

8.4 Step 3: Starting a Stream

A number of twitter streams are available through Tweepy. Most cases will use filter, the user_stream, or the sitestream. For more information on the capabilities and limitations of the different streams see Twitter Streaming API Documentation.

In this example we will use **filter** to stream all tweets containing the word *python*. The **track** parameter is an array of search terms to stream.

```
myStream.filter(track=['python'])
```

8.5 A Few More Pointers

8.5.1 Async Streaming

Streams not terminate unless the connection is closed, blocking the thread. Tweepy offers a convenient **async** parameter on **filter** so the stream will run on a new thread. For example

```
myStream.filter(track=['python'], async=True)
```

8.5.2 Handling Errors

When using Twitter's streaming API one must be careful of the dangers of rate limiting. If clients exceed a limited number of attempts to connect to the streaming API in a window of time, they will receive error 420. The amount of time a client has to wait after receiving error 420 will increase exponentially each time they make a failed attempt.

Tweepy's **Stream Listener** usefully passes error messages to an **on_error** stub. We can use **on_error** to catch 420 errors and disconnect our stream.

```
class MyStreamListener(tweepy.StreamListener):

    def on_error(self, status_code):
        if status_code == 420:
            #returning False in on_data disconnects the stream
            return False
```

For more information on error codes from the twitter api see Twitter Response Codes Documentation.

CHAPTER 9

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