Tamkang University

Social Media Apps Programming

Twitter API

1071SMAP14
TLMXM1A (8550) (M2143) (Fall 2018)
(MIS MBA) (2 Credits, Elective) [Full English Course]
Thu 8,9 (10:10-12:00) B206

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Tamkang University

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2018-12-27

Course Schedule (1/2)

Tamkang University

Week	Date	Subject/Topics
1	2018/09/13	Course Orientation and Introduction to Social Media and Mobile Apps Programming
2	2018/09/20	Introduction to Android / iOS Apps Programming
3	2018/09/27	Developing Android Native Apps with Java (Android Studio)
4	2018/10/04	Developing iPhone / iPad Native Apps with Swift (XCode)
5	2018/10/11	Mobile Apps using HTML5/CSS3/JavaScript
6	2018/10/18	jQuery Mobile
7	2018/10/25	Create Hybrid Apps with Phonegap
8	2018/11/01	jQuery Mobile/Phonegap
9	2018/11/08	jQuery Mobile/Phonegap

Course Schedule (2/2)

Tamkang University

Week	Date	Subject/Topics
10	2018/11/15	Midterm Exam Week / Project Presentation
11	2018/11/22	Case Study on Social Media Apps Programming and Marketing in Google Play and App Store
12	2018/11/29	Google Cloud Platform
13	2018/12/06	Google App Engine
14	2018/12/13	Google Map API
15	2018/12/20	Facebook API (Facebook JavaScript SDK) (Integrate Facebook with iOS/Android Apps)
16	2018/12/27	Twitter API
17	2019/01/03	Final Project Presentation
18	2019/01/10	Final Exam Week / Final Project Presentation

Outline

- Twitter Developers
  - –Twitter Platform Objects
- Twitter for Websites
- Twitter Search API
- Twitter REST API
- Twitter Streaming API

Twitter

Twitter, Inc. [US] | https://twitter.com

Home | Notifications | Messages | Search Twitter | Tweet

Min-Yuh Day
@iMyday

Tweets	Following	Followers
29	465	75

Trends for you · Change

- **Merry Christmas** 7.21M Tweets
- **#whaling** 1,821 Tweets
- **#WednesdayMotivation** 5,723 Tweets
- **#ThingsToWrapUpIn2018**
- **#ThingsImNotApologizingFor** 3,094 Tweets
- **Boxing Day** 111K Tweets
- **#BoxingDayTest** 14.4K Tweets
- **#StStephensDay**
- **Shaun Pollock**
- **#SAvPAK** 6,504 Tweets

What's happening?

See 2 new Tweets

Engadget @engadget · 1m
Amazon advised US government on a portal that could make it billions

Amazon advised US government on a portal that could make it billions
A key Amazon executive and former Obama administration official privately advised the US government on a procurement portal that could be worth ...
engadget.com

3

NBC News @NBCNews · 37s
'Staring contest': Trump's vulnerable, but 2020 Dems off to surprisingly slow start in early states

Who to follow · Refresh · View all

- **Richard** @RichardSocher — Follow
- **Ryan Adams** @ryan_p_ad… — Follow
- **Starbucks Partners** @… — Follow

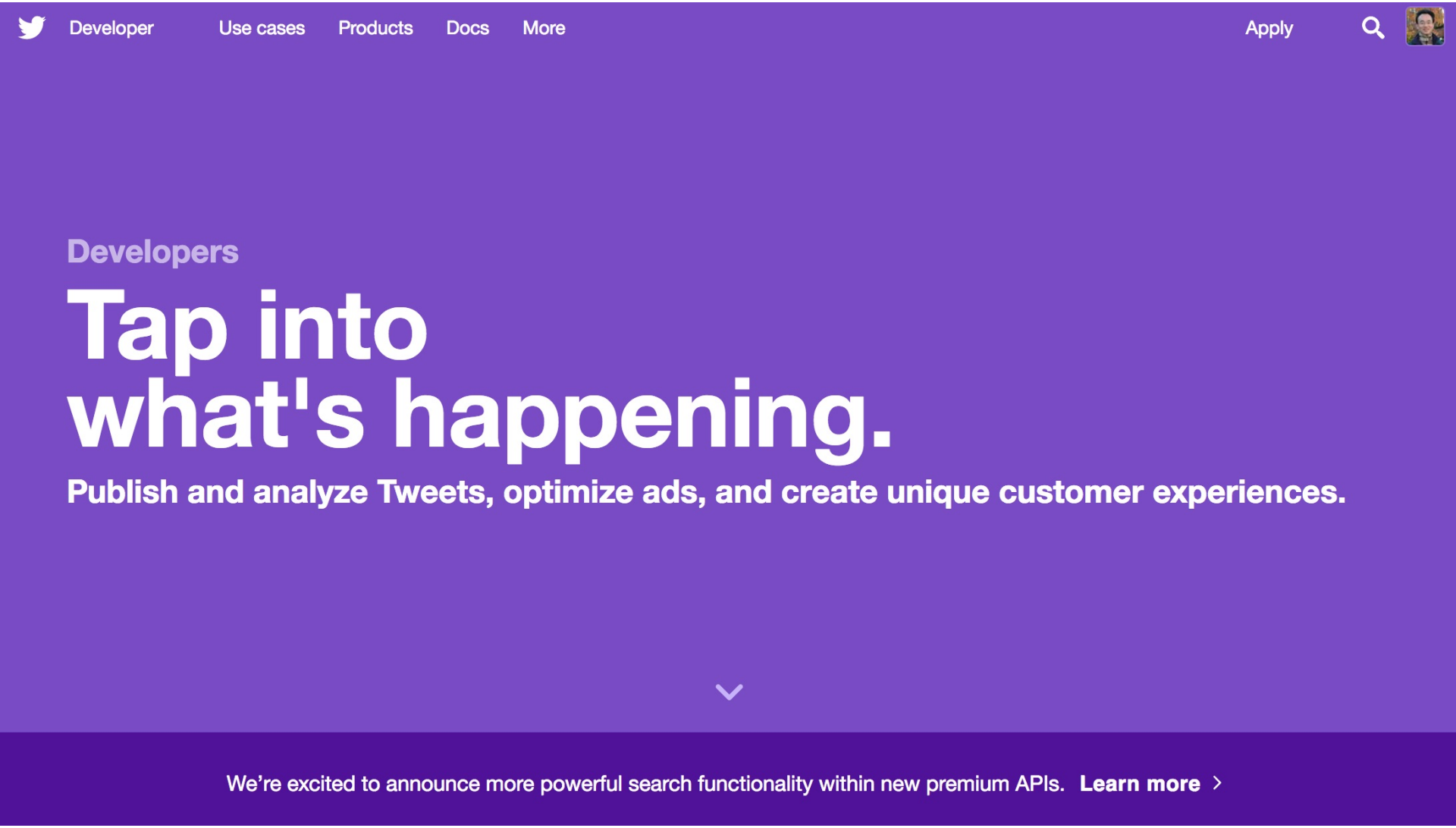
Find people you know

© 2018 Twitter About Help Center Terms Privacy policy Cookies Ads info Brand Blog Status Apps Jobs Marketing Businesses Developers

Advertise with Twitter

https://twitter.com/

Twitter Developer



https://developer.twitter.com/

Twitter Developer

Use cases

Advertise

Programmatically create and manage Twitter ad campaigns.

Learn more >

Publish and curate

Tell great stories with Twitter content.

Learn more >

Analyze

Evaluate Twitter data to inform business decisions.

Learn more >

Engage

Create connections with conversational experiences.

Learn more >

Top endpoints

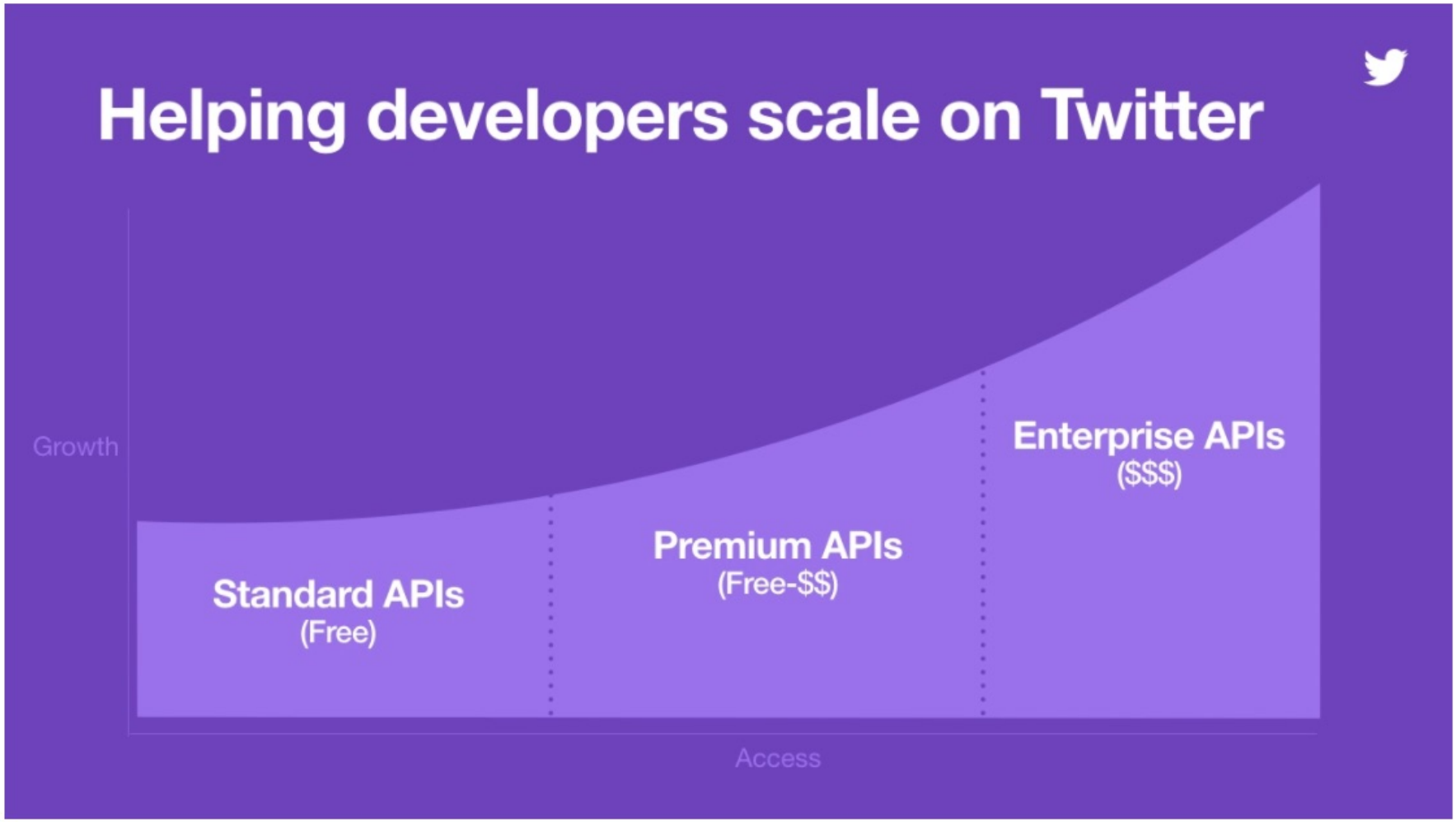
Below are a few examples of our Twitter API endpoints, requests, and responses. These examples use twurl—a command-line application that can be used to make authenticated requests to the Twitter platform. *twurl is like curl*, except that it abstracts away OAuth details once you configure it with your keys.

Search API | Ads API | Engagement API | Direct Message API | Account Activity API | Embed a Tweet

Search Tweets published in the last 7 days.

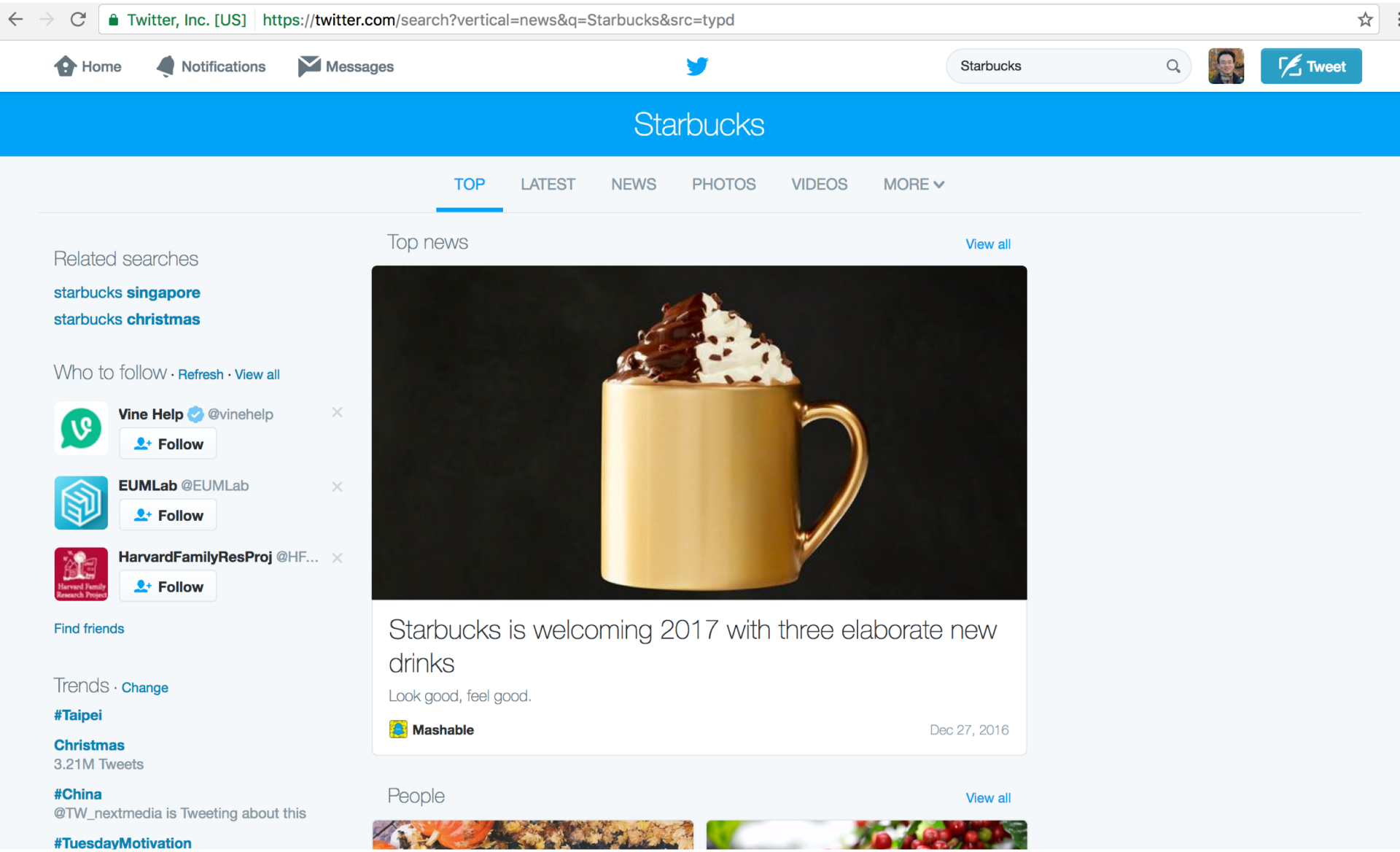
https://developer.twitter.com/

Twitter APIs
Standard, Premium, Enterprise



Source: https://blog.twitter.com/developer/en_us/topics/tools/2017/introducing-twitter-premium-apis.html

Twitter

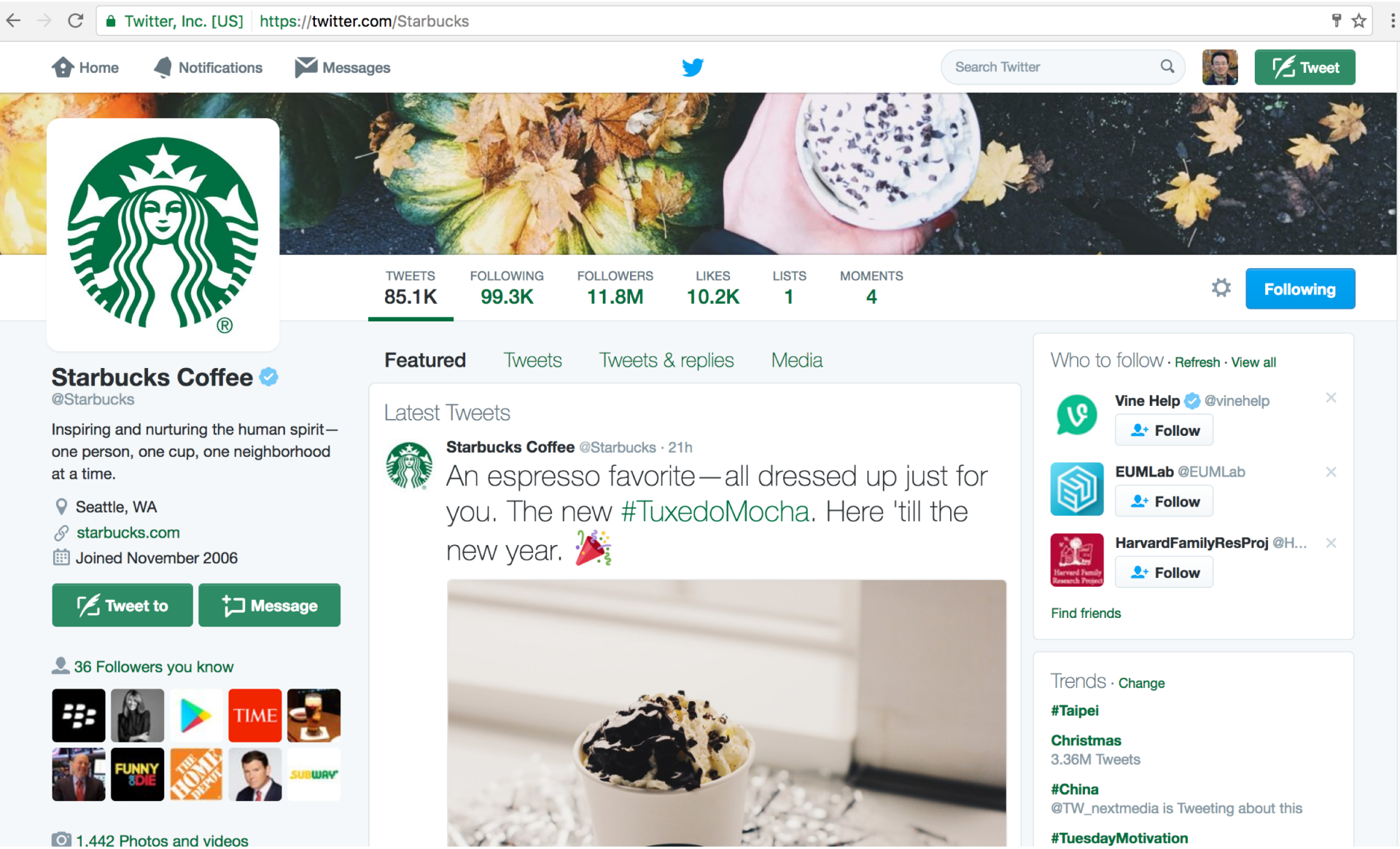


https://twitter.com/search?src=typd&q=Starbucks

What can your business do...in just 140 characters?

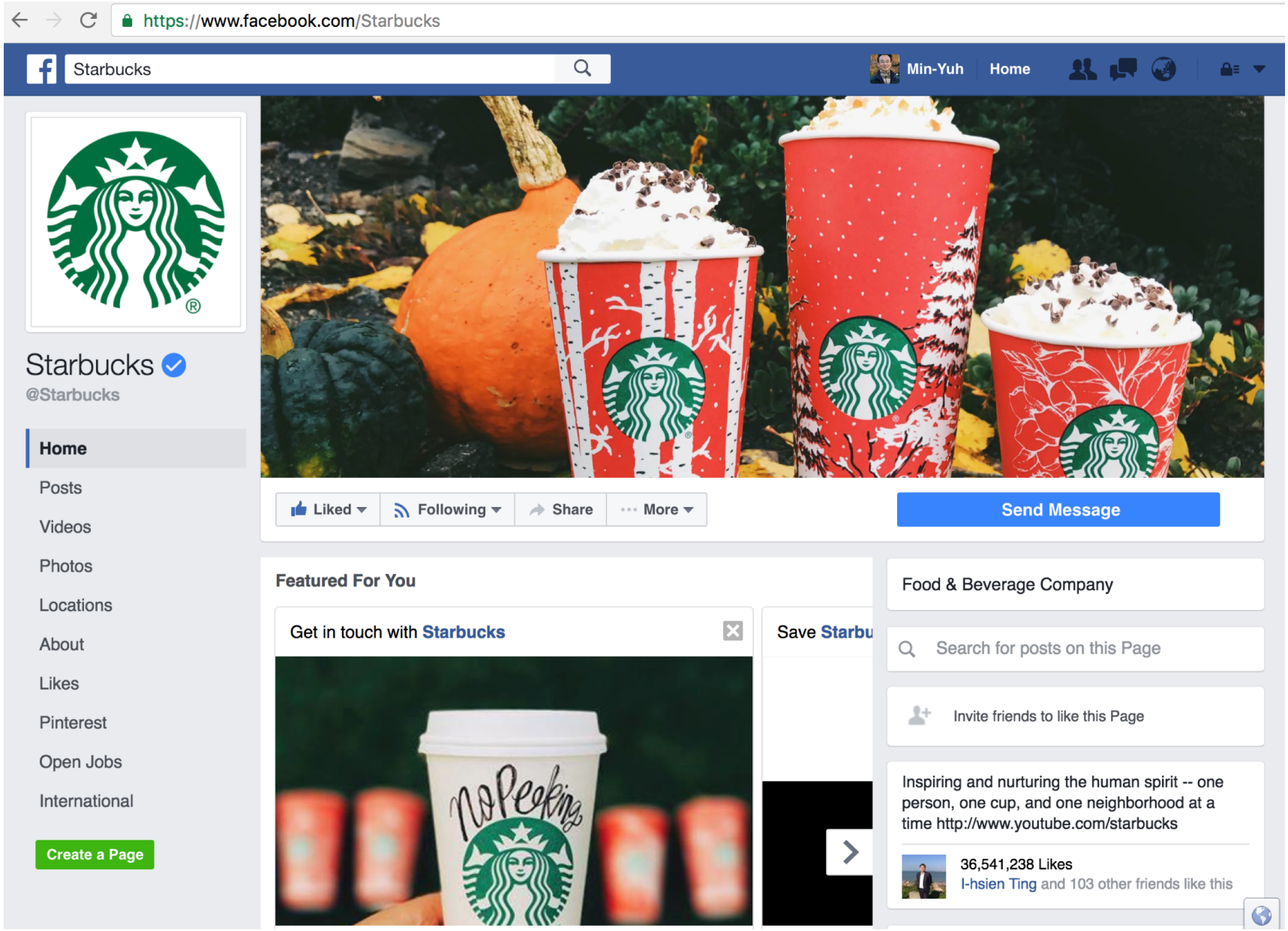
http://www.youtube.com/watch?v=BGirUZq1WtQ

Twitter



https://twitter.com/Starbucks

Facebook



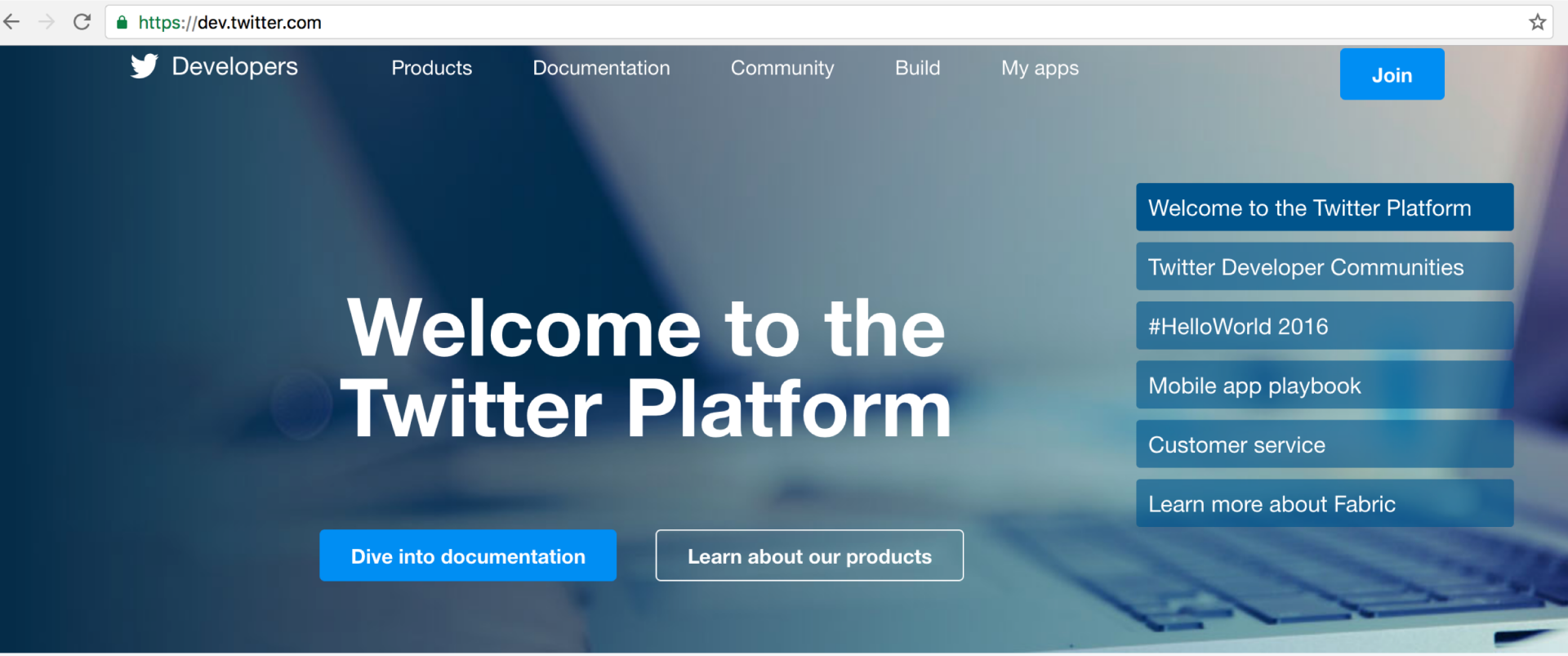
https://www.facebook.com/Starbucks

Twitter vs. Facebook

https://twitter.com/Starbucks/

https://www.facebook.com/pg/Starbucks/likes/?ref=page_internal

Twitter Developers



https://dev.twitter.com/

Twitter Developers Documentation

Documentation | Twitter D

https://dev.twitter.com/docs

Developers API Health Blog Discussions Documentation Search Sign in

Home

Documentation

Documentation

Getting Started with the Twitter Platform is easy. Jump right into the API resource documentation, explore the developer console, or manage your apps. Have a question? Read the FAQ. Don't know what to build? Check out our Case Studies.

A field guide to Twitter Platform objects

Tweets

Users

Entities

Places

Explore the Twitter platform's variety of flora and fauna with this field guide to the most frequently observed wild objects.

Twitter cards

Embedded Timelines

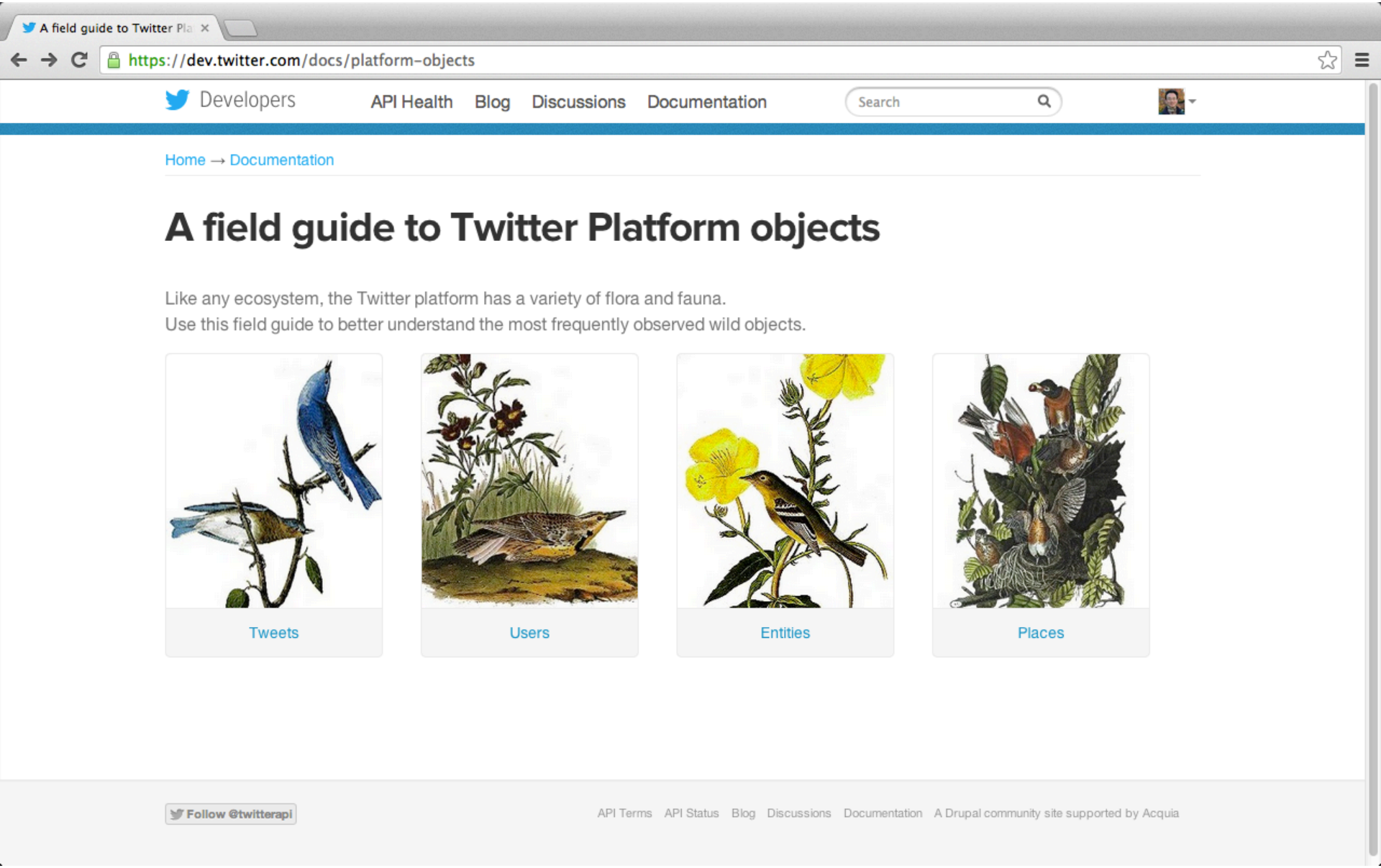
Tweets from @twitter/more-twitter-accounts

Embeddable timelines make it possible to display public timelines on your website with a single line of code.

Embedded Tweets

https://dev.twitter.com/docs

A field guide to Twitter Platform objects



https://dev.twitter.com/docs/platform-objects

Tweets

Tweets are the basic atomic building block of all things Twitter.

Source: https://dev.twitter.com/docs/platform-objects

Users

Users can be anyone or anything.

Source: https://dev.twitter.com/docs/platform-objects

Entities

Entities provide metadata and additional contextual information about content posted on Twitter.

Source: https://dev.twitter.com/docs/platform-objects

Places

Places are specific, named locations with corresponding geo coordinates.

Source: https://dev.twitter.com/docs/platform-objects

Tweets

Tweets | Twitter Developer

https://dev.twitter.com/docs/platform-objects/tweets

Developers API Health Blog Discussions Documentation Search Sign in

Home → Documentation → Platform Objects

Tweet

Tweets

View What links here

Updated on Tue, 2013-08-13 16:29

API version 1 API version 1.1

Tweets are the basic atomic building block of all things Twitter. Users tweet Tweets, also known more generically as "status updates." Tweets can be embedded, replied to, favorited, unfavorited and deleted.

Brian Sutorius
@bsuto

Follow

The "http://" at the beginning of URLs is a command to the browser. It stands for "head to this place:" followed by two laser-gun noises.

5:29 AM - 22 Feb 2012

4,300 RETWEETS **1,836** FAVORITES

Field Guide

Consumers of Tweets should tolerate the addition of new fields and variance in ordering of fields with ease. Not all fields appear in all contexts. It is generally safe to consider a nulled field, an empty set, and the absence of a field as the same thing. Please note that Tweets found in Search results vary somewhat in structure from this document.

Field	Type	Description
annotations	Object	*Unused*. Future/beta home for status annotations.

Natural habitat

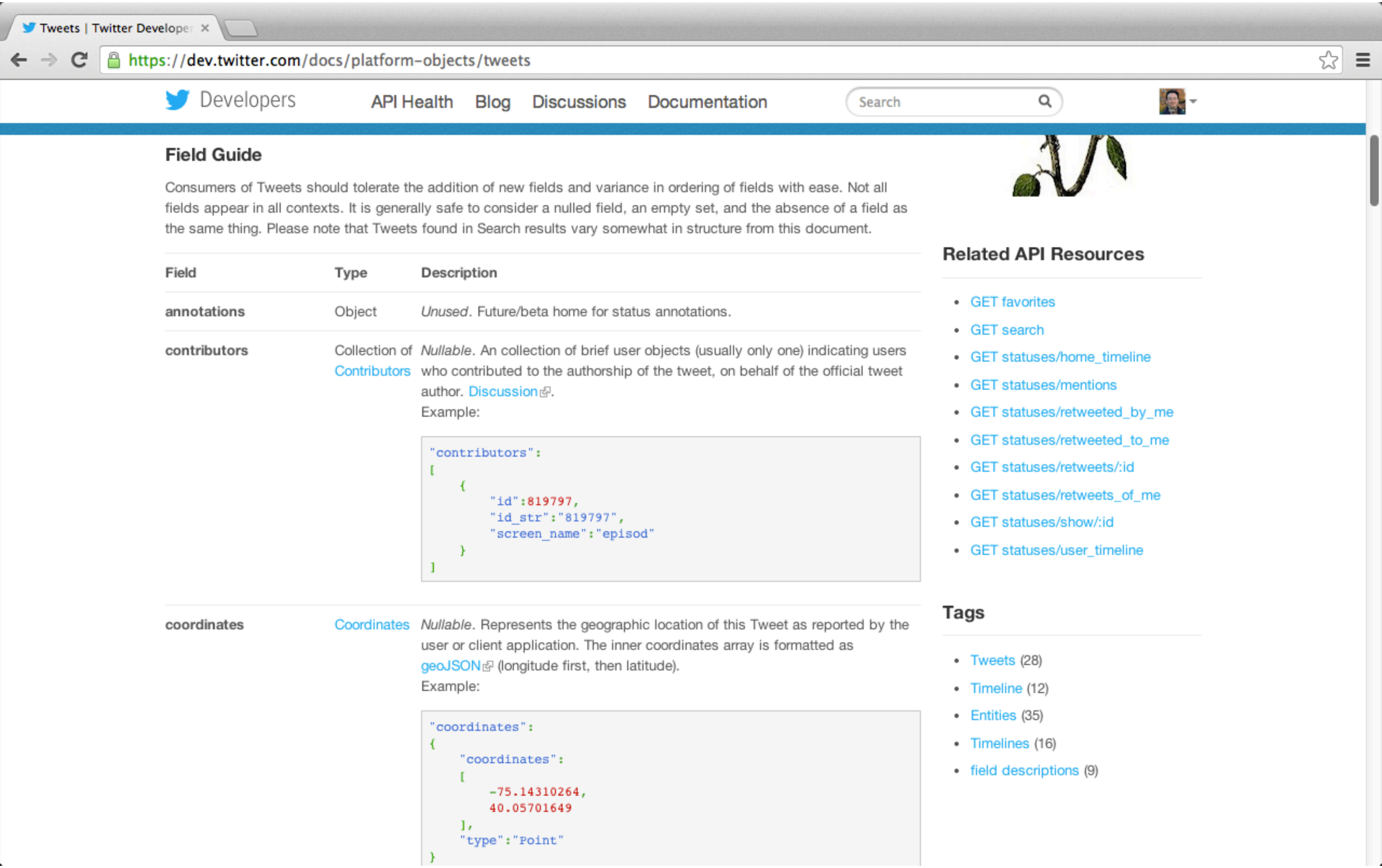
Tweets can be found alone, within user objects, but most often within timelines.

Related API Resources

- GET favorites
- GET search

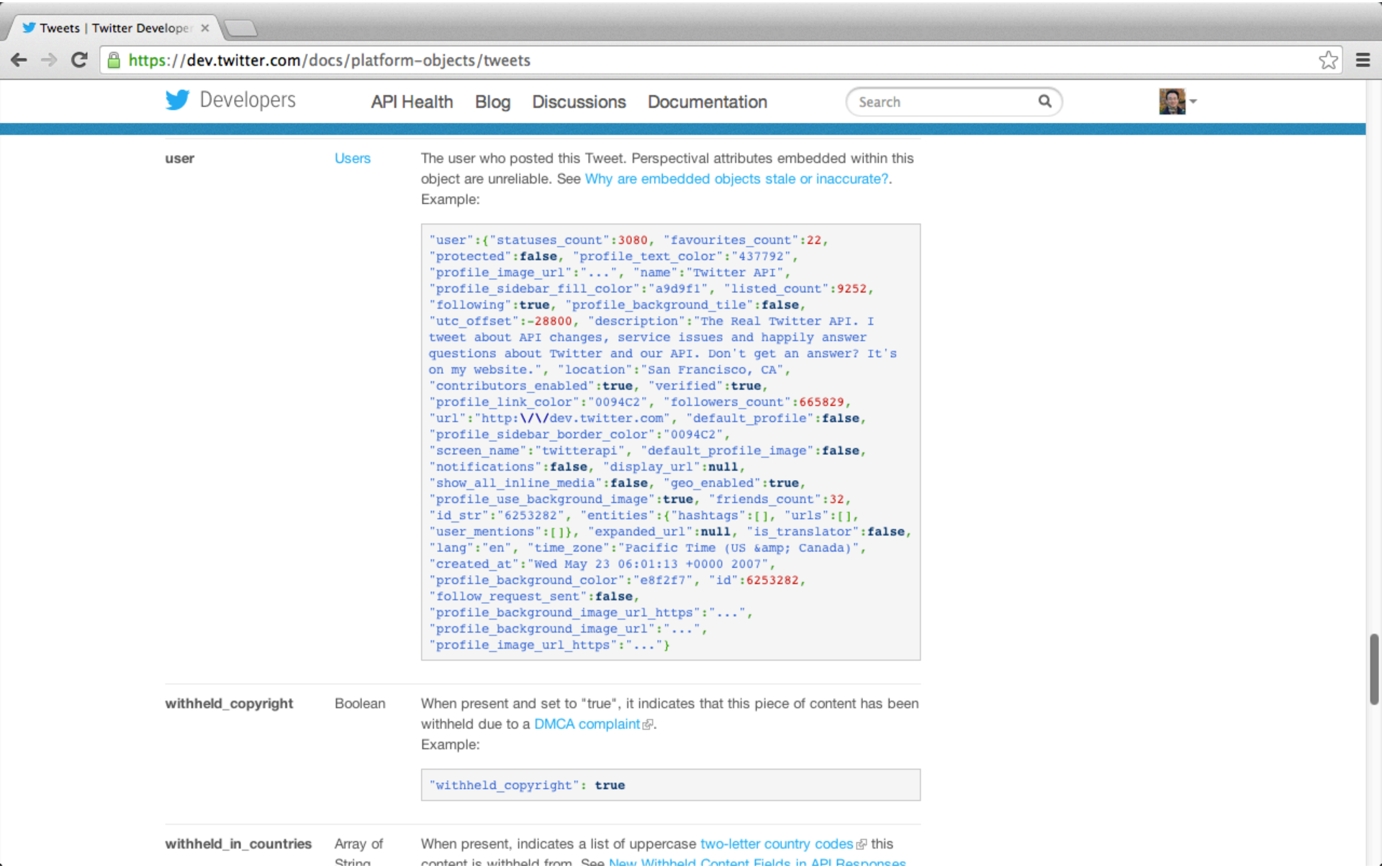
https://dev.twitter.com/docs/platform-objects/tweets

Tweets



https://dev.twitter.com/docs/platform-objects/tweets

Tweets



user Users

The user who posted this Tweet. Perspectival attributes embedded within this object are unreliable. See Why are embedded objects stale or inaccurate?.
Example:


```
"user":{"statuses_count":3080, "favourites_count":22,
"protected":false, "profile_text_color":"437792",
"profile_image_url":"...", "name":"Twitter API",
"profile_sidebar_fill_color":"a9d9f1", "listed_count":9252,
"following":true, "profile_background_tile":false,
"utc_offset":-28800, "description":"The Real Twitter API. I
tweet about API changes, service issues and happily answer
questions about Twitter and our API. Don't get an answer? It's
on my website.", "location":"San Francisco, CA",
"contributors_enabled":true, "verified":true,
"profile_link_color":"0094C2", "followers_count":665829,
"url":"http:\/\/dev.twitter.com", "default_profile":false,
"profile_sidebar_border_color":"0094C2",
"screen_name":"twitterapi", "default_profile_image":false,
"notifications":false, "display_url":null,
"show_all_inline_media":false, "geo_enabled":true,
"profile_use_background_image":true, "friends_count":32,
"id_str":"6253282", "entities":{"hashtags":[], "urls":[],
"user_mentions":[]}, "expanded_url":null, "is_translator":false,
"lang":"en", "time_zone":"Pacific Time (US &amp;amp; Canada)",
"created_at":"Wed May 23 06:01:13 +0000 2007",
"profile_background_color":"e8f2f7", "id":6253282,
"follow_request_sent":false,
"profile_background_image_url_https":"...",
"profile_background_image_url":"...",
"profile_image_url_https":"..."}
```


withheld_copyright Boolean

When present and set to "true", it indicates that this piece of content has been withheld due to a DMCA complaint.
Example:


```
"withheld_copyright": true
```


withheld_in_countries Array of String

When present, indicates a list of uppercase two-letter country codes this content is withheld from. See New Withheld Content Fields in API Responses

https://dev.twitter.com/docs/platform-objects/tweets

Users

Users | Twitter Developers

https://dev.twitter.com/docs/platform-objects/users

Developers API Health Blog Discussions Documentation Search

Home → Documentation → Platform Objects

Tweet

Users

View | What links here

Updated on Mon, 2013-05-20 07:28

API version 1 API version 1.1

Users can be anyone or anything. They tweet, follow, create lists, have a home_timeline, can be mentioned, and can be looked up in bulk.

twitterapi Twitter API

The Real Twitter API. I tweet about API changes, service issues and happily answer questions about Twitter and our API. Don't get an answer? It's on my website.

http://dev.twitter.com

Following

Followers 988,982

Following 33

(JSON)

Field Guide

Consumers of Users should tolerate the addition of new fields and variance in ordering of fields with ease. Not all fields appear in all contexts. It is generally safe to consider a nulled field, an empty set, and the absence of a field as the same thing.

Field	Type	Description
contributors_enabled	Boolean	Indicates that the user has an account with "contributor mode" enabled, allowing for Tweets issued by the user to be co-authored by another account. Rarely true

Natural habitat

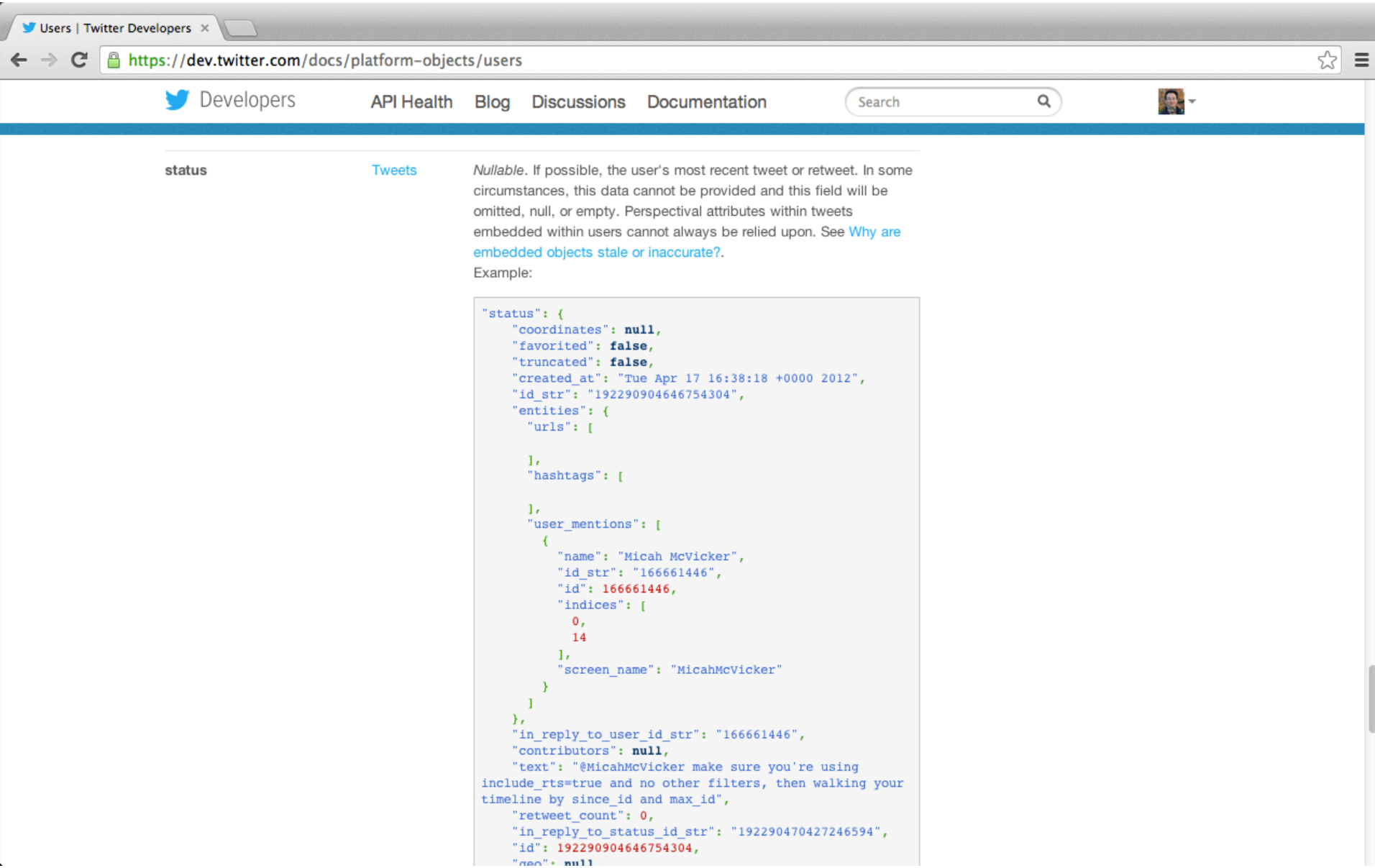
Users can be found tweeting, following, and favoriting on Twitter.

Related API Resources

- GET account/verify_credentials
- GET blocks/blocking

https://dev.twitter.com/docs/platform-objects/users

Users



https://dev.twitter.com/docs/platform-objects/users

Entities

Entities | Twitter Developer

https://dev.twitter.com/docs/platform-objects/entities

Developers API Health Blog Discussions Documentation Search

Home → Documentation → Platform Objects

Tweet

Entities

View | What links here

Updated on Mon, 2013-12-16 15:46

API version 1 API version 1.1

Entities provide metadata and additional contextual information about content posted on Twitter. Entities are never divorced from the content they describe. In API v1.1, entities will be returned wherever Tweets are found in the API. Entities are instrumental in resolving URLs.

Read Entities in Twitter Objects for a more comprehensive guide to how entities are used throughout Twitter objects.

Field Guide

Consumers of Entities should tolerate the addition of new fields and variance in ordering of fields with ease. Not all fields appear in all contexts. It is generally safe to consider a nulled field, an empty set, and the absence of a field as the same thing.

Field	Type	Description
hashtags	Array of Object	Represents hashtags which have been parsed out of the Tweet text. Example: `"hashtags":[{"indices":[32,36],"text":"lol"}]`
media	Array of Object	Represents media elements uploaded with the Tweet. Example: `"media":[{"type":"photo", "sizes":{"thumb":{"h":150, "resize":"crop", "w":150}, "large":{"h":238, "resize":"fit", "w":226}, "medium": {"h":238, "resize":"fit", "w":226}, "small":{"h":238, "resize":"fit",`

Natural habitat

Entities are most often found within Tweets.

Tags

- Tweets (28)
- Entities (35)

https://dev.twitter.com/docs/platform-objects/entities

Entities

Entities | Twitter Developer

https://dev.twitter.com/docs/platform-objects/entities

Developers API Health Blog Discussions Documentation Search

Field Guide

Consumers of Entities should tolerate the addition of new fields and variance in ordering of fields with ease. Not all fields appear in all contexts. It is generally safe to consider a nulled field, an empty set, and the absence of a field as the same thing.

Field	Type	Description
hashtags	Array of Object	Represents hashtags which have been parsed out of the Tweet text. Example:

```
"hashtags":[{"indices":[32,36],"text":"lol"}]
```

media	Array of Object	Represents media elements uploaded with the Tweet. Example:

```
"media":[{"type":"photo", "sizes":{"thumb":{"h":150, "resize":"crop",
"w":150}, "large":{"h":238, "resize":"fit", "w":226}, "medium":
{"h":238, "resize":"fit", "w":226}, "small":{"h":238, "resize":"fit",
"w":226}}, "indices":[15,35], "url":"http:\/\/t.co\/rJC5Pxsu",
"media_url":"http:\/\/p.twimg.com\/AZVLmp-CIAAbkyy.jpg",
"display_url":"pic.twitter.com\/rJC5Pxsu", "id":114080493040967680,
"id_str":"114080493040967680", "expanded_url":
"http:\/\/twitter.com\/yunorno\/status\/114080493036773378\/photo\/1",
"media_url_https":"https:\/\/p.twimg.com\/AZVLmp-CIAAbkyy.jpg"}]
```

urls	Array of Object	Represents URLs included in the text of a Tweet or within textual fields of a user object. Tweet Example:

```
"urls":[{"indices":[32,52], "url":"http:\/\/t.co\/IOwBrTZR",
"display_url":"youtube.com\/watch?v=oHg5SJ\u2026",
"expanded_url":"http:\/\/www.youtube.com\/watch?v=oHg5SJYRHA0"}]
```

User Example:

Tags

- Tweets (28)
- Entities (35)
- Mentions (20)
- t.co (43)
- field descriptions (9)
- hashtags (4)
- finding media (4)
- finding links (2)

https://dev.twitter.com/docs/platform-objects/entities

Places

Places | Twitter Developers

https://dev.twitter.com/docs/platform-objects/places

Developers API Health Blog Discussions Documentation Search

Home → Documentation → Platform Objects

Tweet

Places

View What links here

Updated on Mon, 2013-10-28 04:57

API version 1 API version 1.1

Places are specific, named locations with corresponding geo coordinates. They can be attached to Tweets by specifying a `place_id` when tweeting. Tweets associated with places are not necessarily issued from that location but could also potentially be *about* that location. Places can be searched for. Tweets can also be found by place_id. See About Geo Place Attributes for more information.

(JSON)

Field Guide

Consumers of Places should tolerate the addition of new fields and variance in ordering of fields with ease. Not all fields appear in all contexts. It is generally safe to consider a nulled field, an empty set, and the absence of a field as the same thing.

Field	Type	Description
attributes	Object	Contains a hash of variant information about the place. See About Geo Place Attributes. Example: `"attributes": { "street_address": "795 Folsom St", "623:id": "210176", "twitter": "twitter" },`
bounding_box	Object	A bounding box of coordinates which encloses this place

Natural habitat

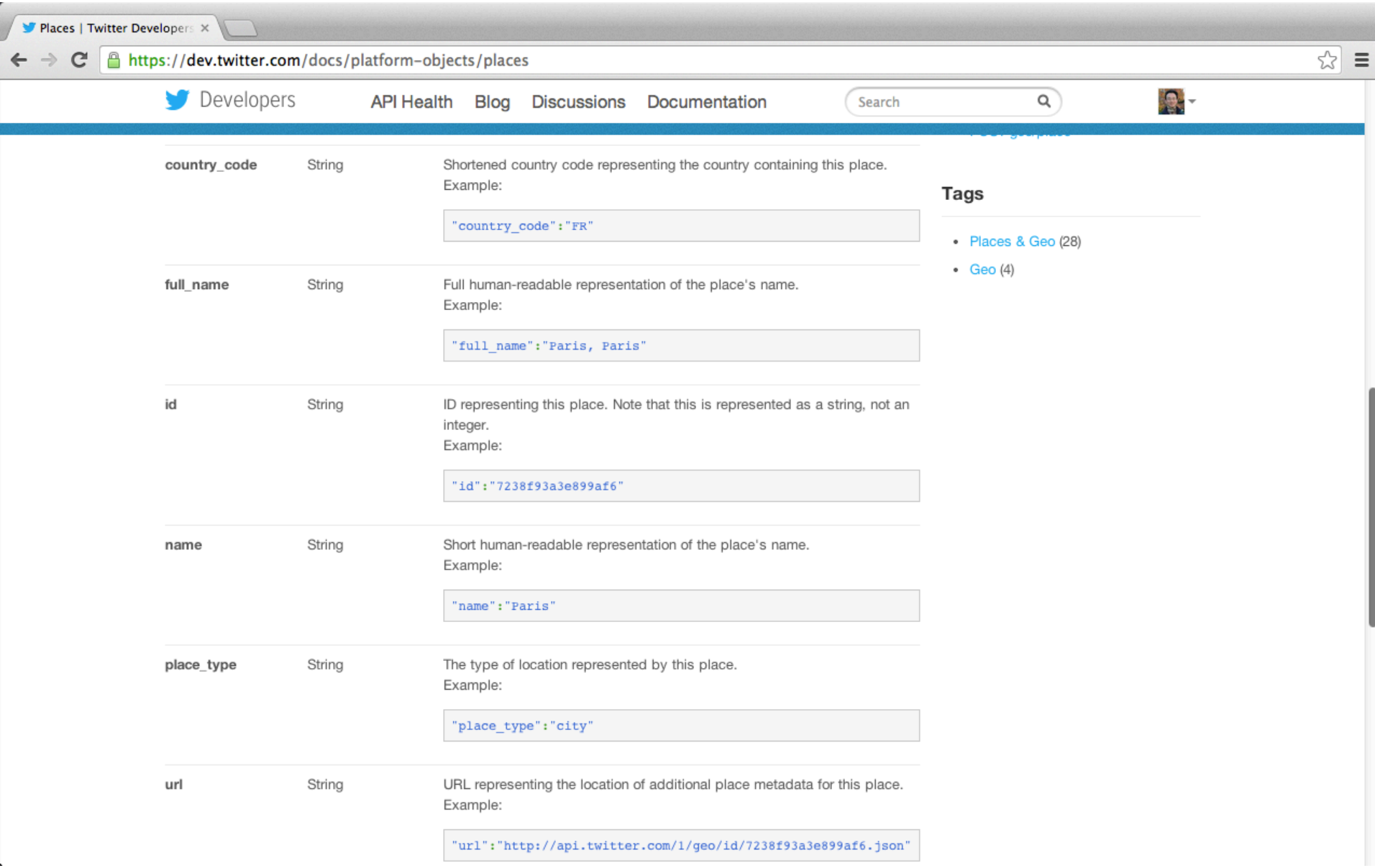
Places can be found throughout the natural universe, but typically only appear attached to Tweets on Twitter.

Related API Resources

- GET geo/id/:place_id

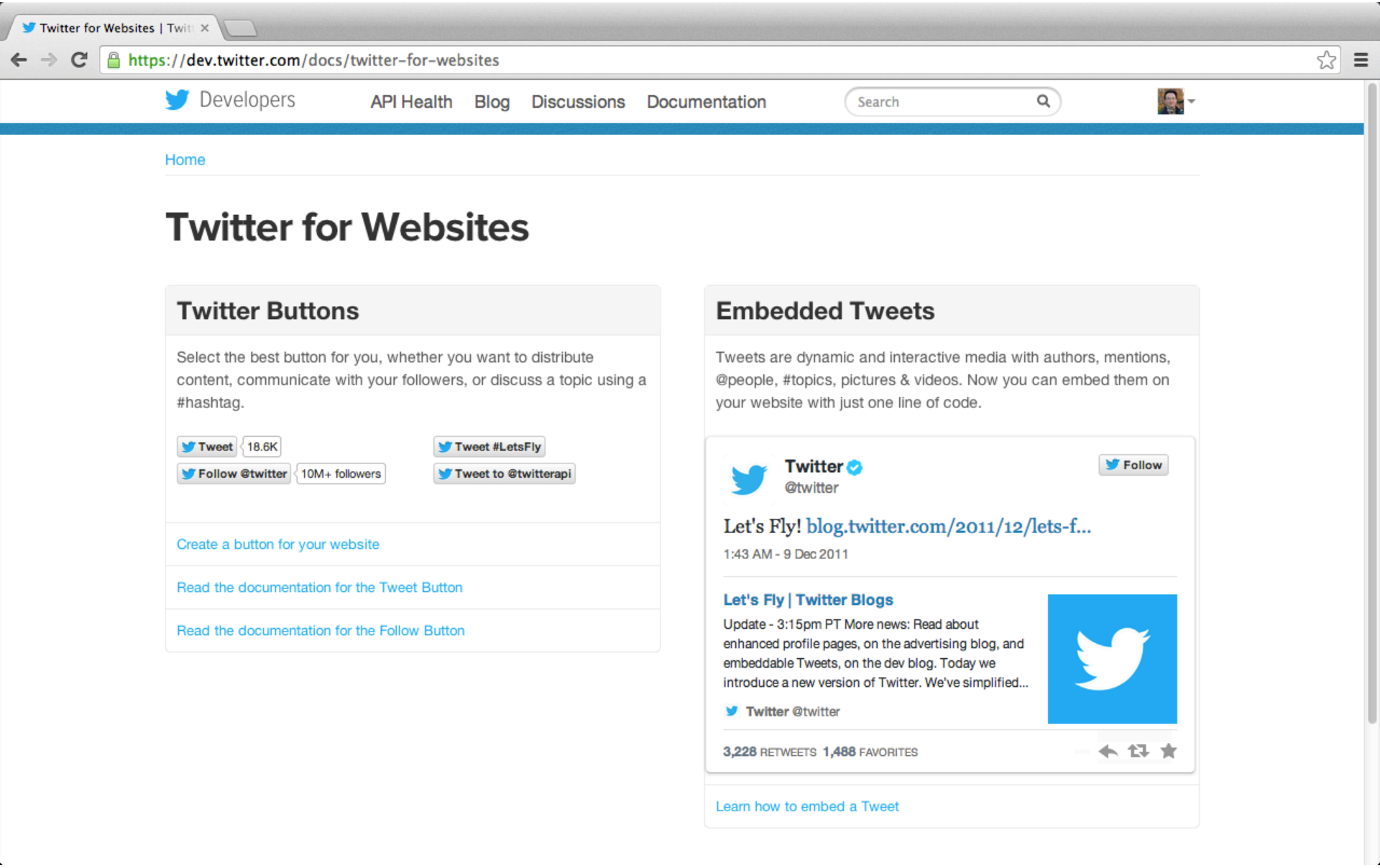
https://dev.twitter.com/docs/platform-objects/places

Places



https://dev.twitter.com/docs/platform-objects/places

Twitter for Websites



https://dev.twitter.com/docs/twitter-for-websites

Follow Button

Follow Button | Twitter De

https://dev.twitter.com/docs/follow-button

Developers API Health Blog Discussions Documentation Search

Home → Documentation Tweet

Follow Button

View What links here

Updated on Tue, 2013-12-17 13:40 API version 1 API version 1.1

The Follow Button is a small widget which allows users to easily follow a Twitter account from any webpage. The Follow Button uses the same implementation model as the Tweet Button, and its integration is just as simple.

By using the Follow Button, you agree to the Developer Rules of the Road.

Overview

The Follow Button is a small widget which allows users to easily follow a Twitter account from any webpage. The Follow Button uses the same implementation model as the Tweet Button, and its integration is just as simple.

Related Case Studies

- The Tweet and Follow Buttons deliver big value for Etsy sellers

Tags

- Twitter for Websites (32)
- Javascript (46)
- widgets (33)

https://dev.twitter.com/docs/follow-button

Follow Button

Follow Button | Twitter De

https://dev.twitter.com/docs/follow-button

Developers API Health Blog Discussions Documentation Search

Overview

The Follow Button is a small widget which allows users to easily follow a Twitter account from any webpage. The Follow Button uses the same implementation model as the Tweet Button, and its integration is just as simple.

This documentation page is for developers and users who wish to build their own Follow Buttons. If you are looking for a quick way to build a Follow Button for your website, you can visit our Follow Button Configuration Page.

User Interaction

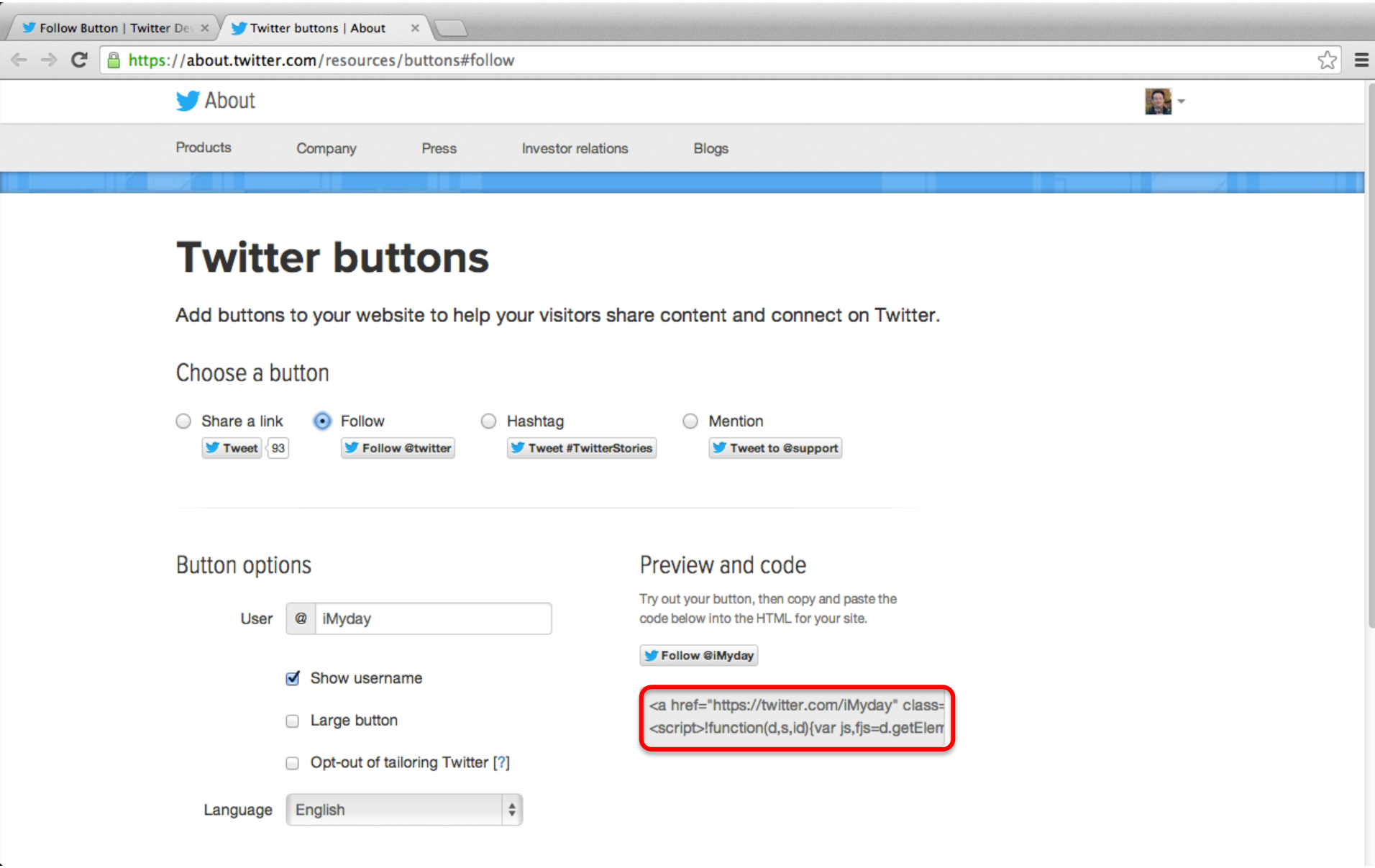
User interaction flow

Tags

- Twitter for Websites (32)
- Javascript (46)
- widgets (33)

https://dev.twitter.com/docs/follow-button

Twitter buttons

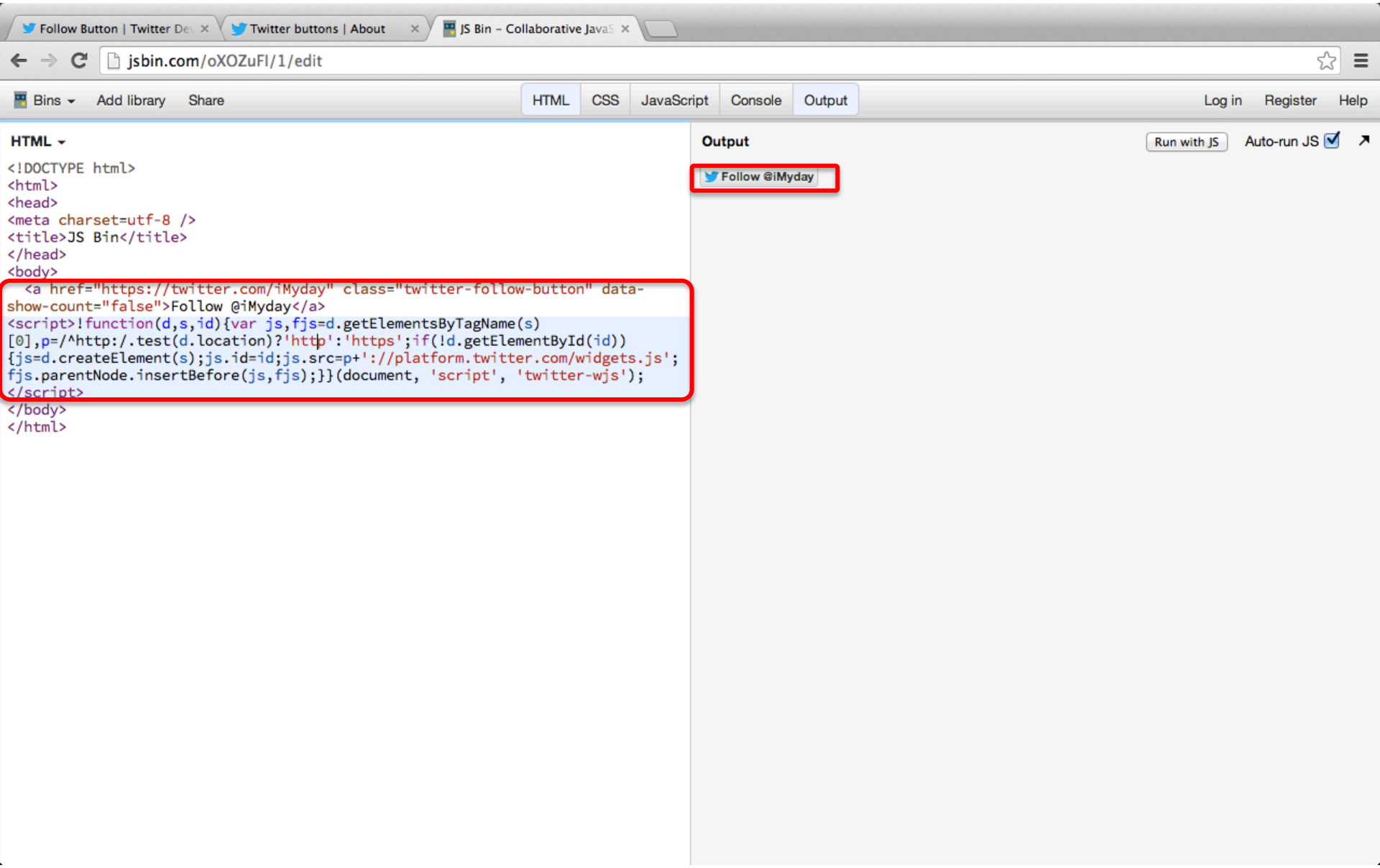


https://about.twitter.com/resources/buttons#follow

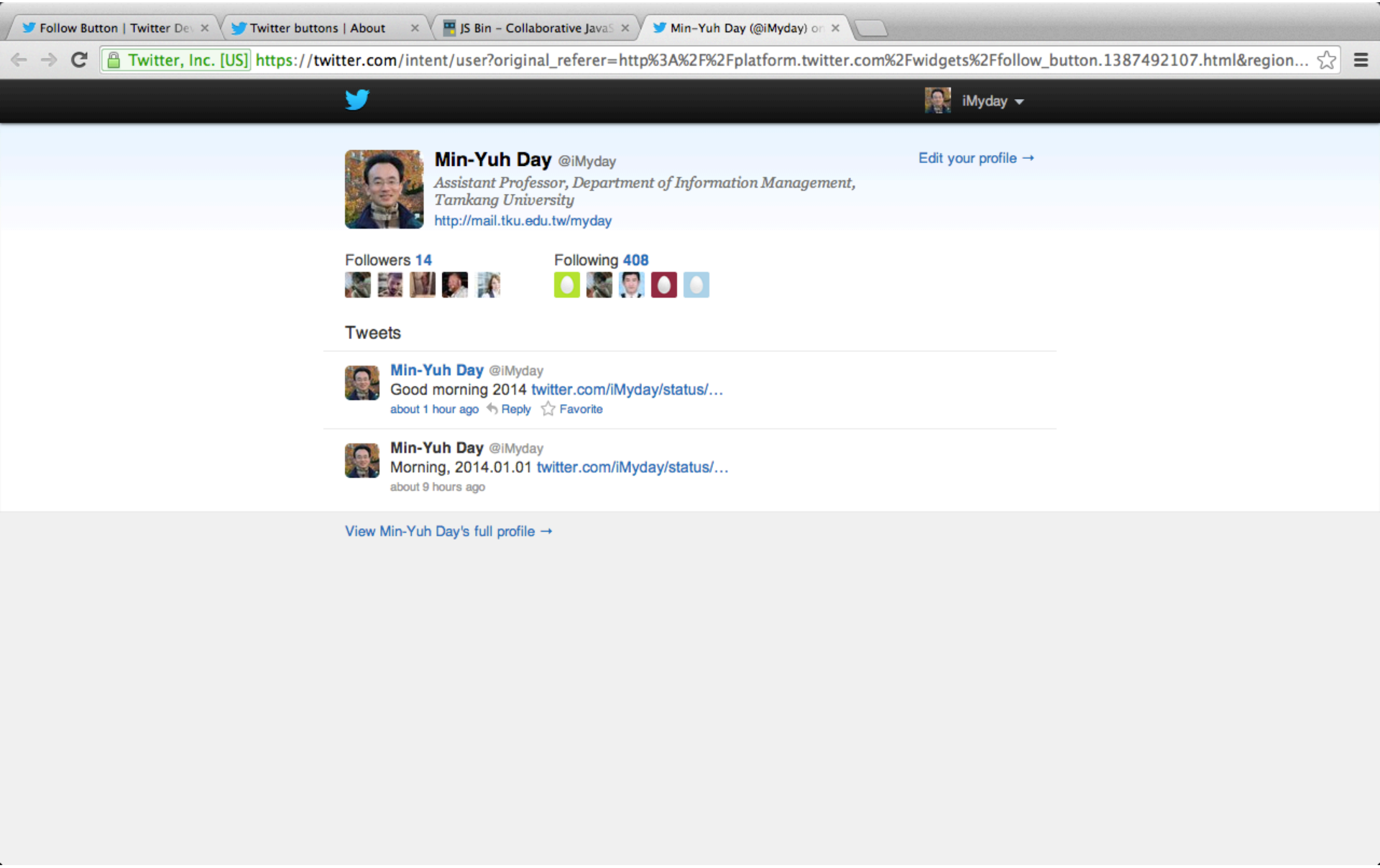
Follow @iMyday

```
<a href="https://twitter.com/iMyday" class="twitter-follow-button" data-show-count="false">Follow @iMyday</a>
<script>!function(d,s,id){var js,fjs=d.getElementsByTagName(s)[0],p=/^http:/.test(d.location)?'http':'https';if(!d.getElementById(id)){js=d.createElement(s);js.id=id;js.src=p+'://platform.twitter.com/widgets.js';fjs.parentNode.insertBefore(js,fjs);}}(document, 'script', 'twitter-wjs');</script>
```

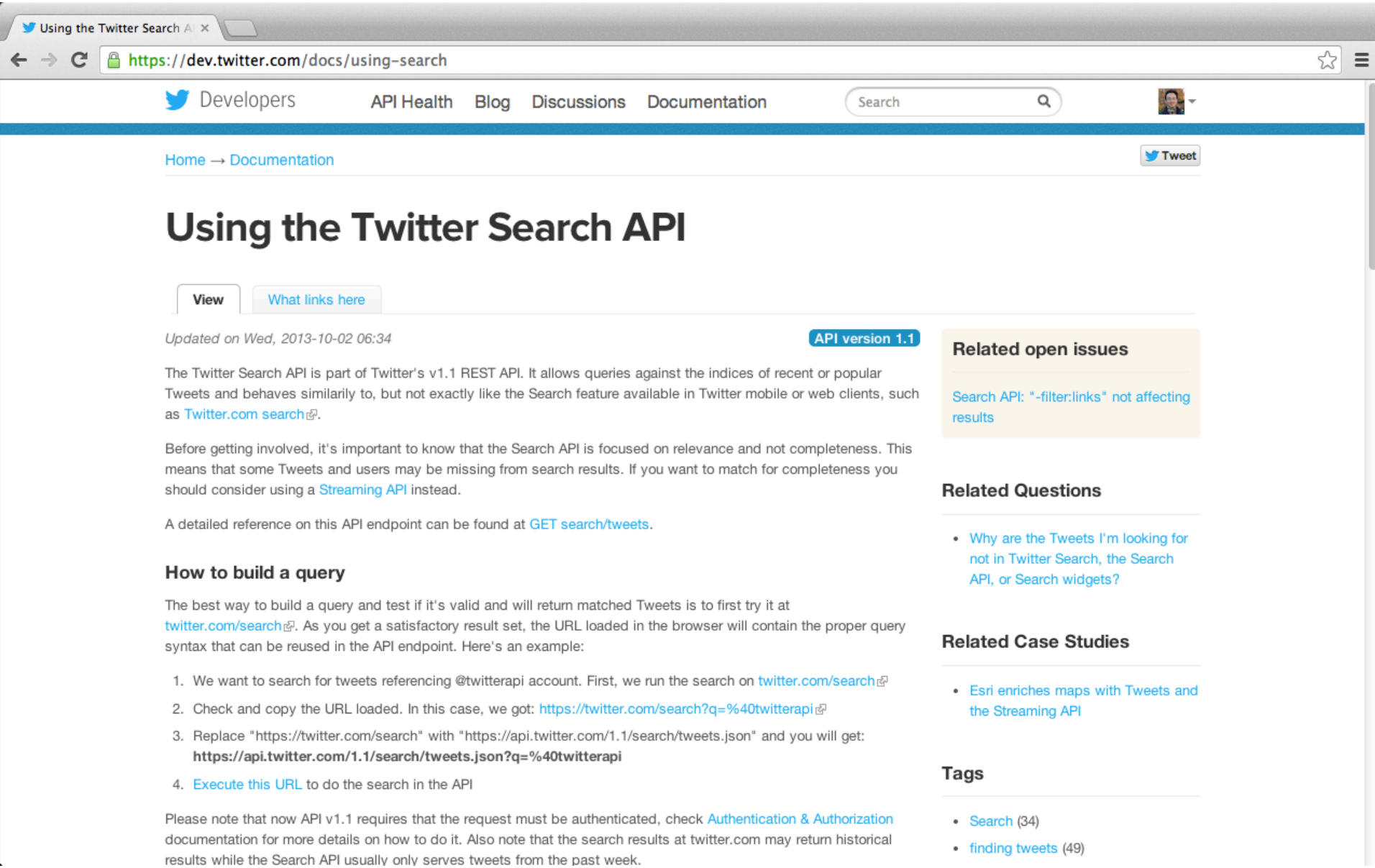
Test Twitter Button on jsbin.com



Follow @iMyday

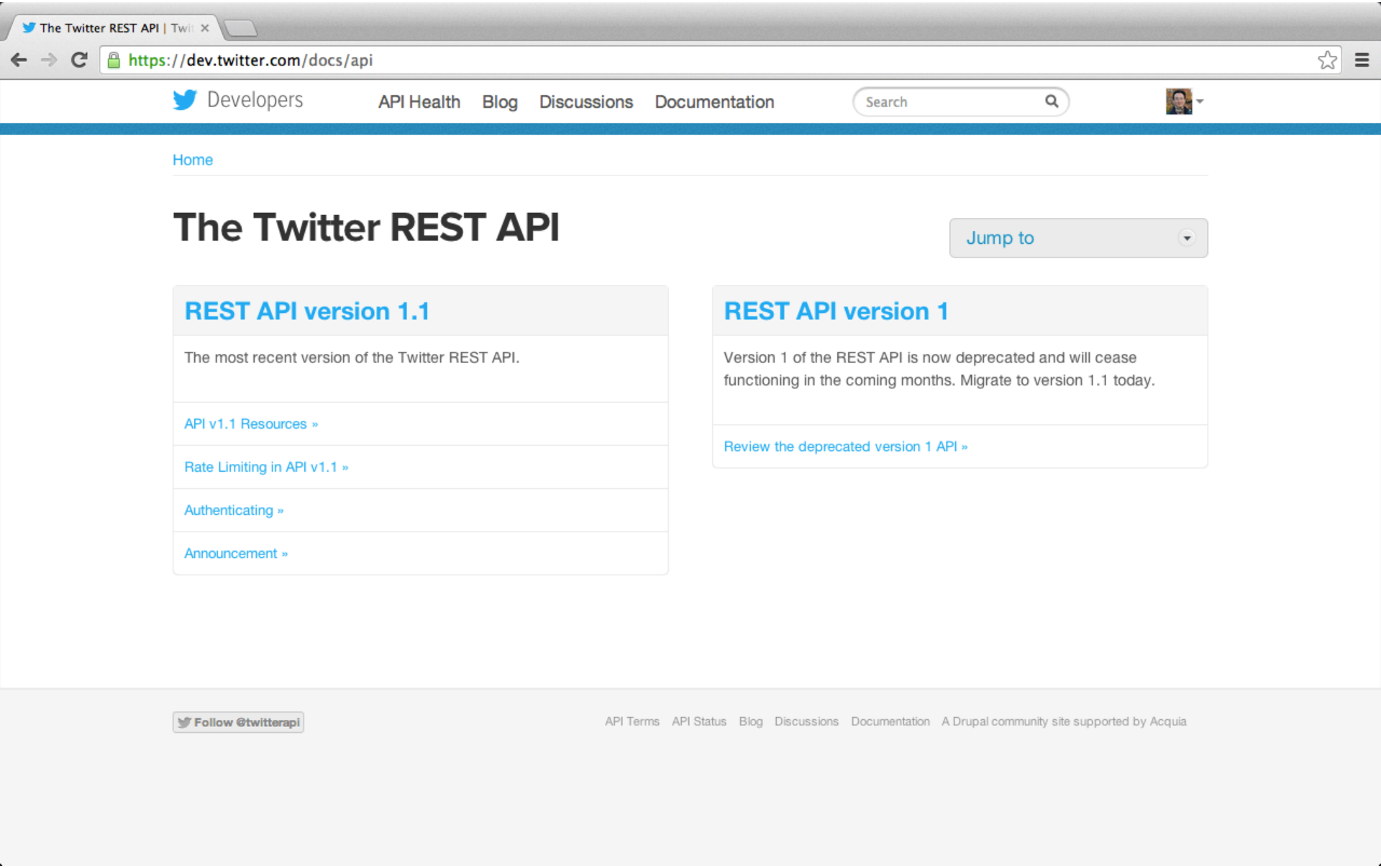


Twitter Search API



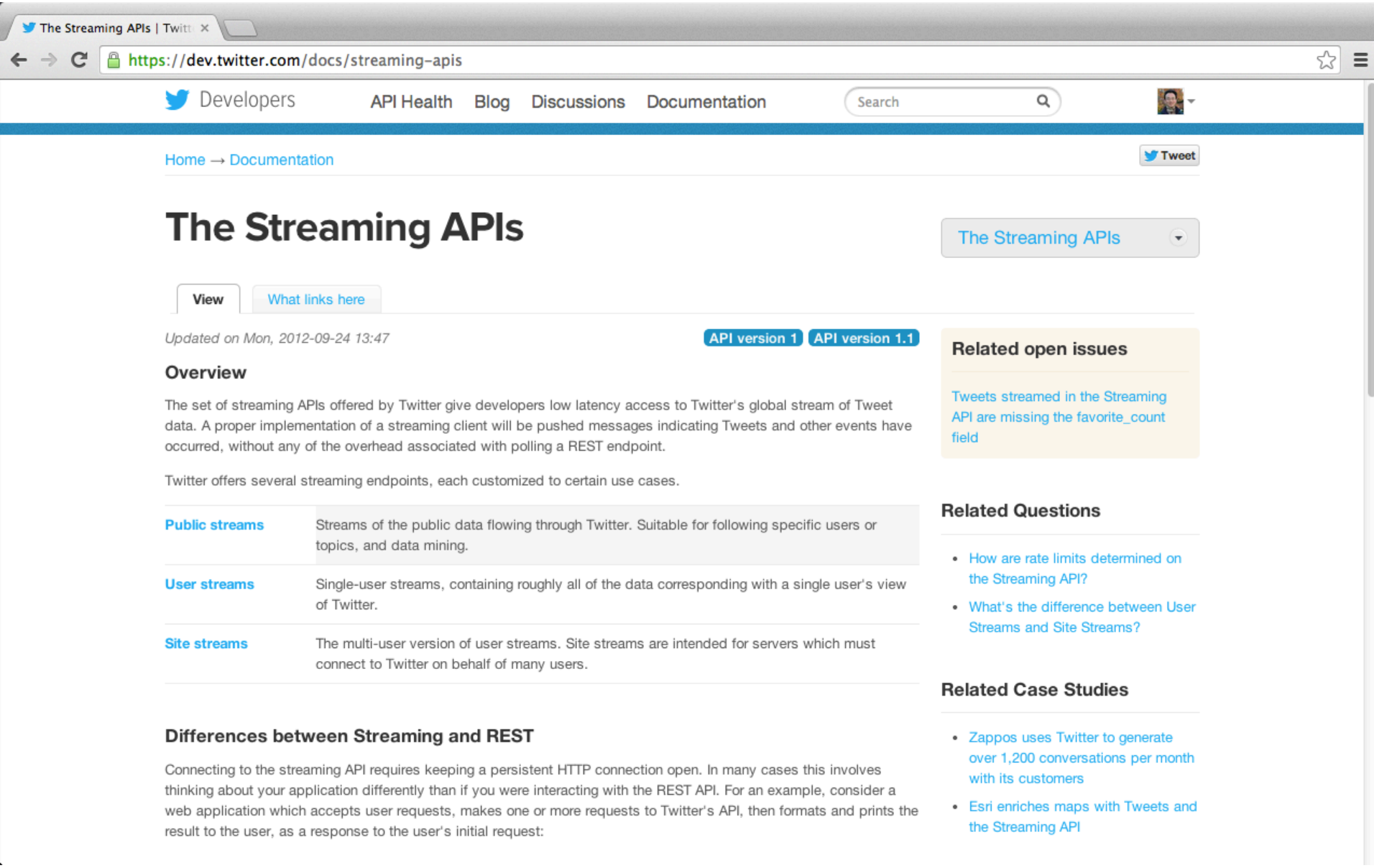
https://dev.twitter.com/docs/using-search

Twitter REST API



https://dev.twitter.com/docs/api

Streaming API



https://dev.twitter.com/docs/streaming-apis

Twitter REST API

The REST API provides simple interfaces for most Twitter functionality.

https://dev.twitter.com/docs

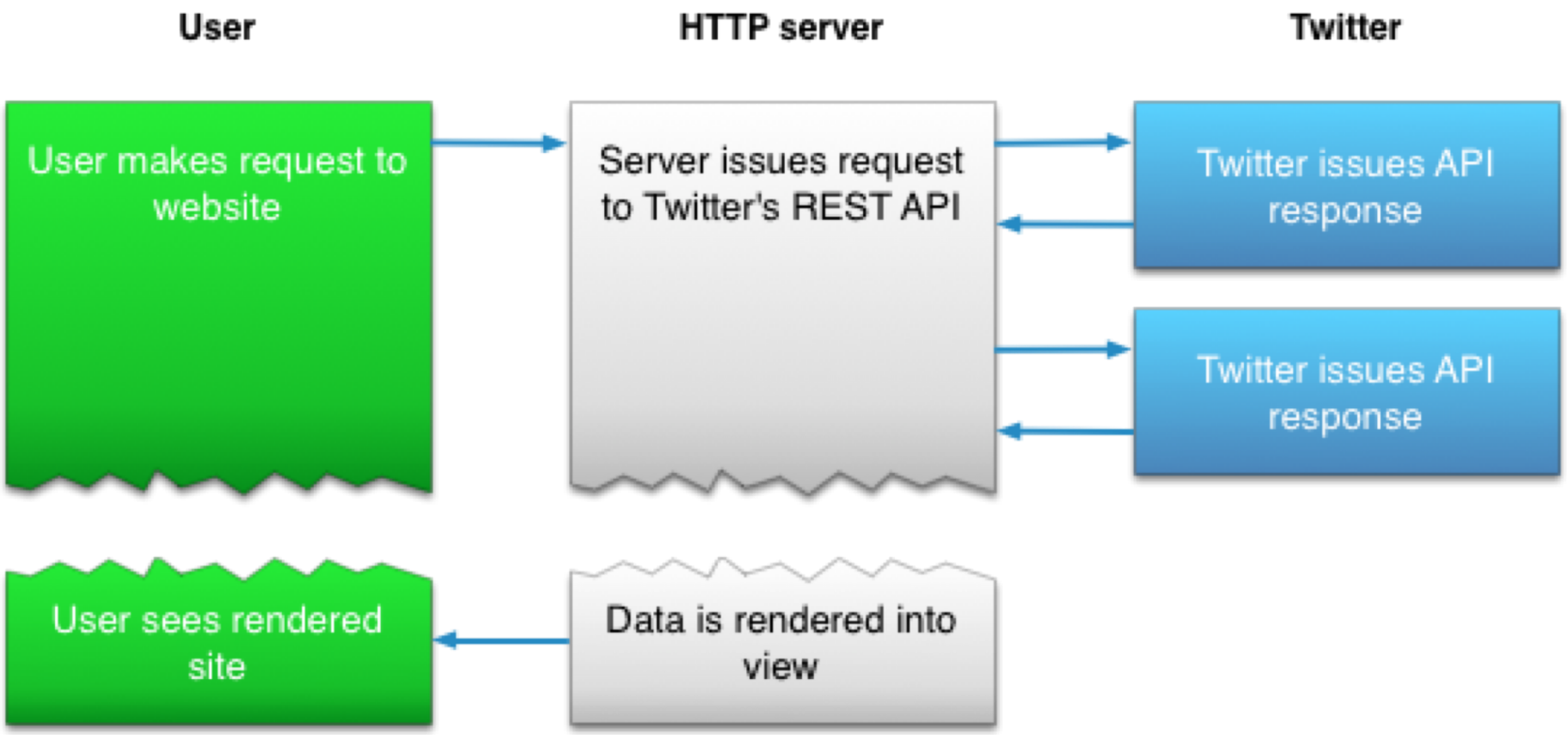
Twitter Streaming API

The Streaming API is a family of powerful real-time APIs for Tweets and other social events.

https://dev.twitter.com/docs

Differences between Streaming and REST API

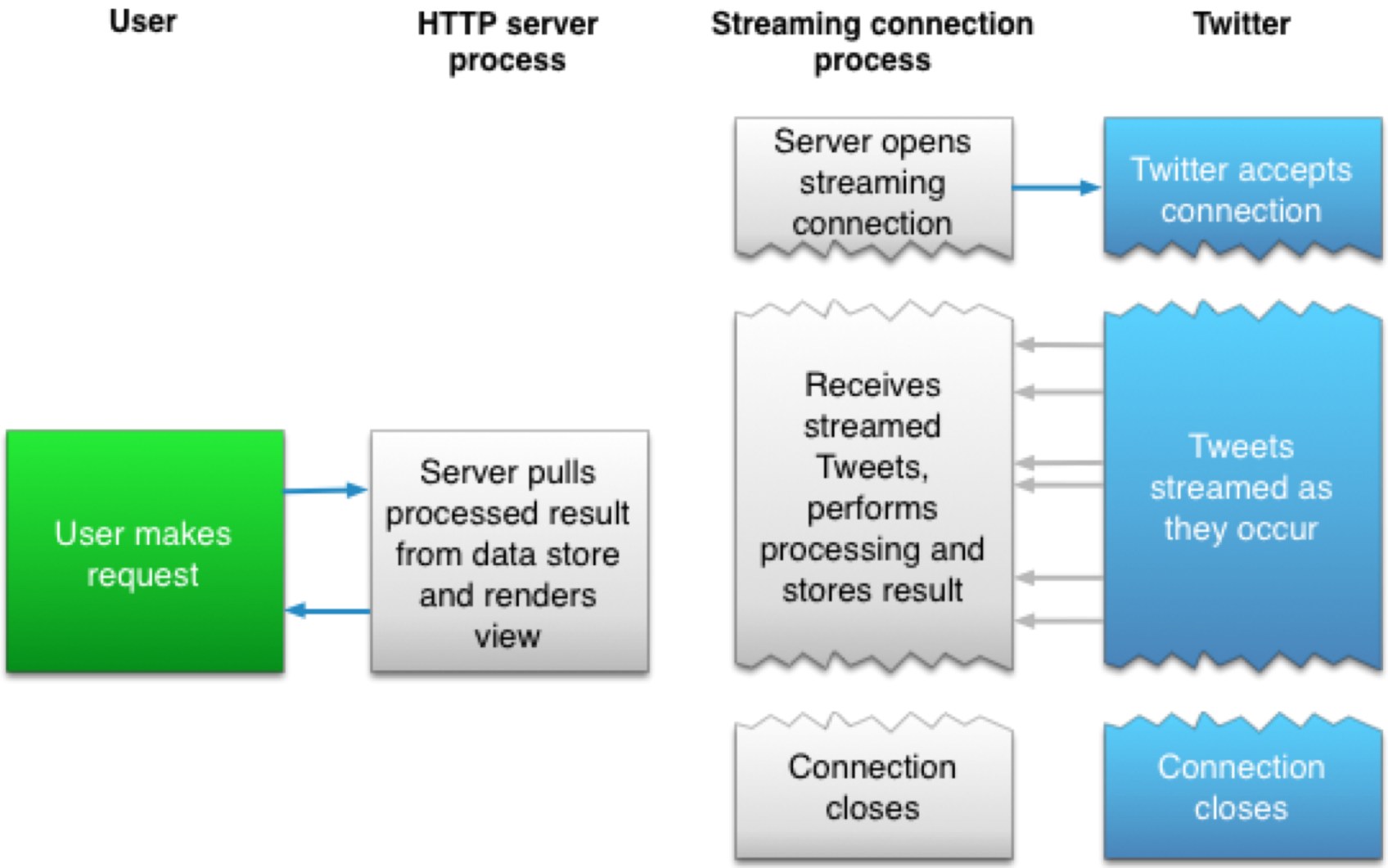
Twitter REST API



https://dev.twitter.com/docs/streaming-apis

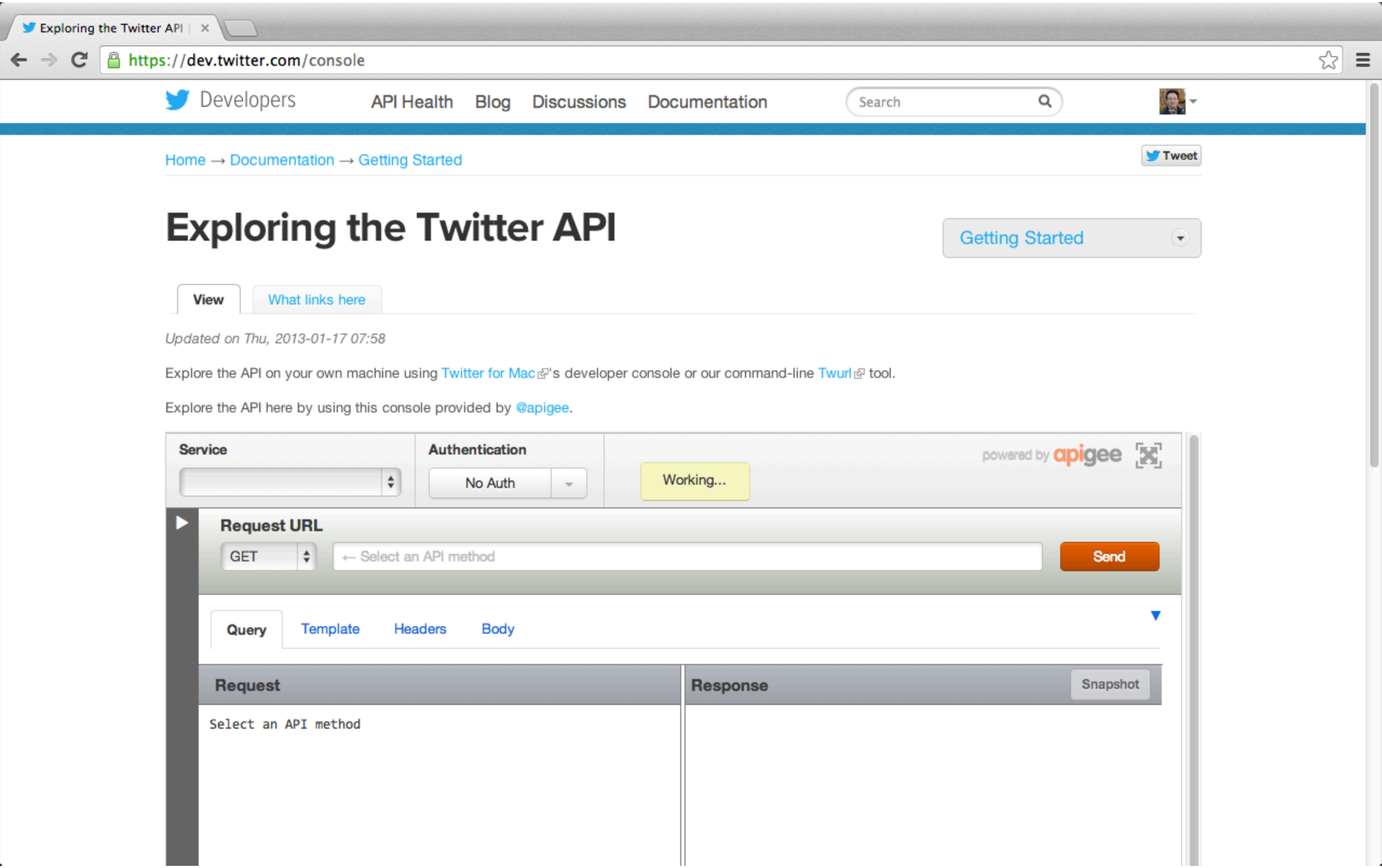
Differences between Streaming and REST API

Twitter Streaming API



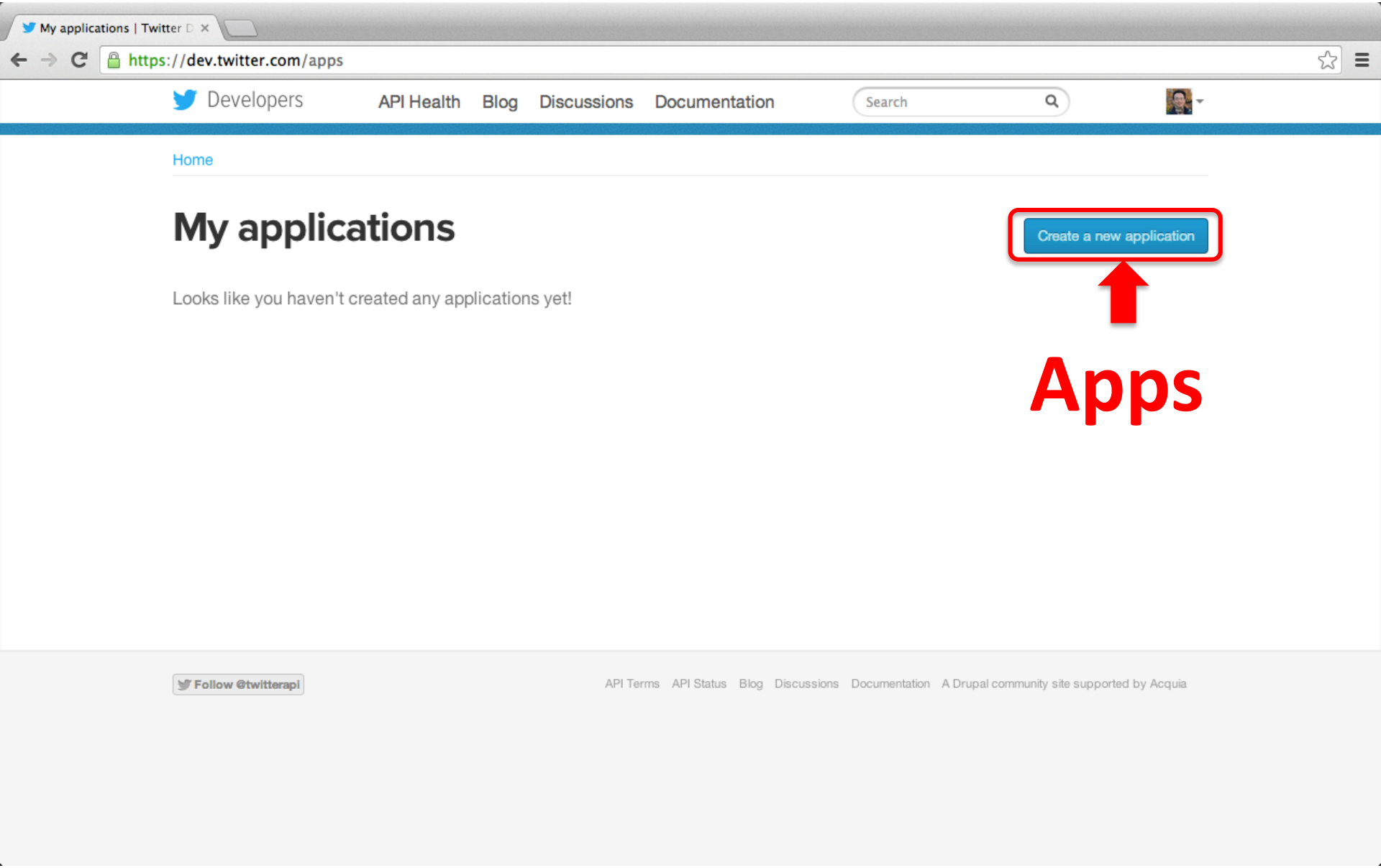
https://dev.twitter.com/docs/streaming-apis

Exploring the Twitter API



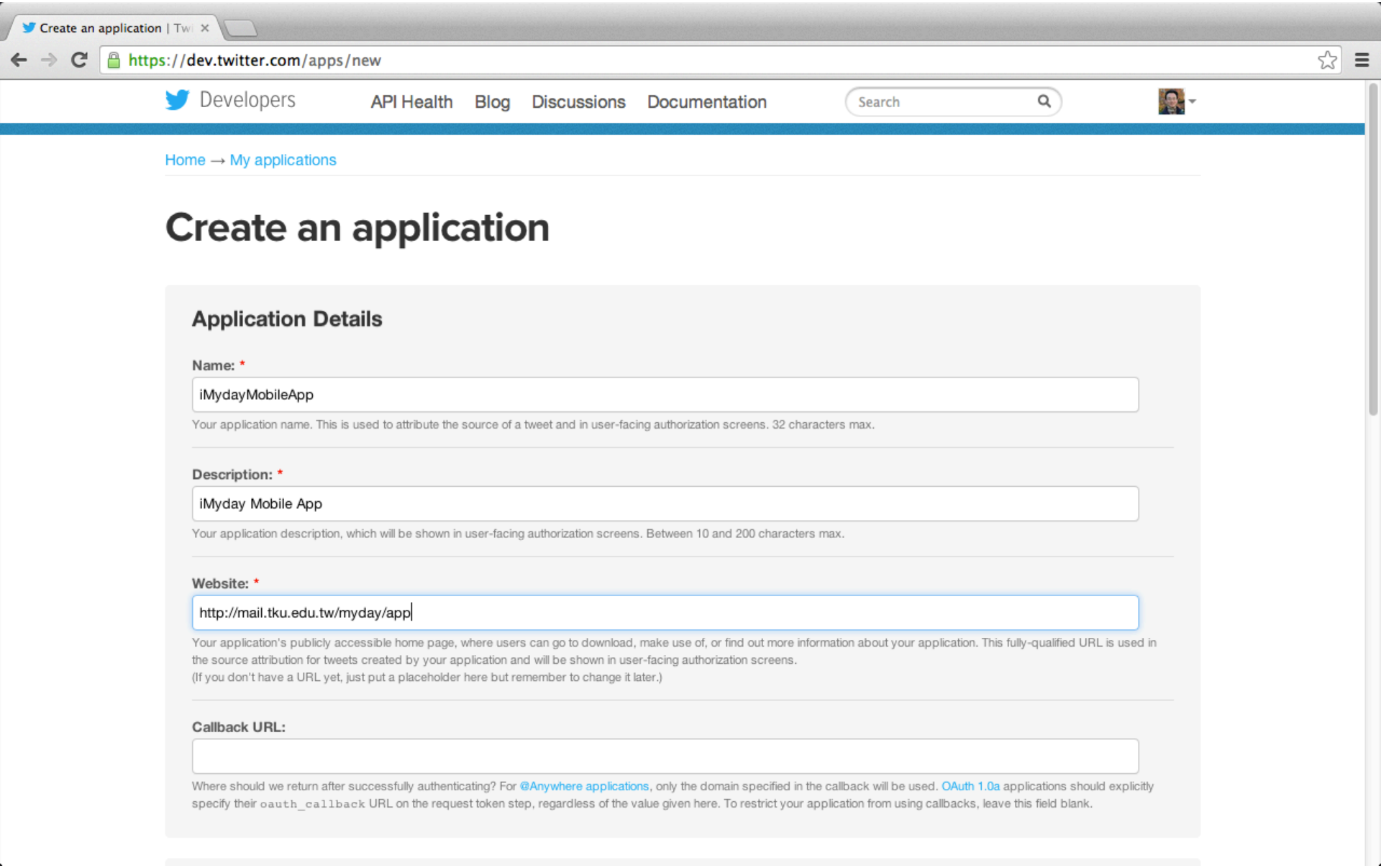
https://dev.twitter.com/console

Create a new app



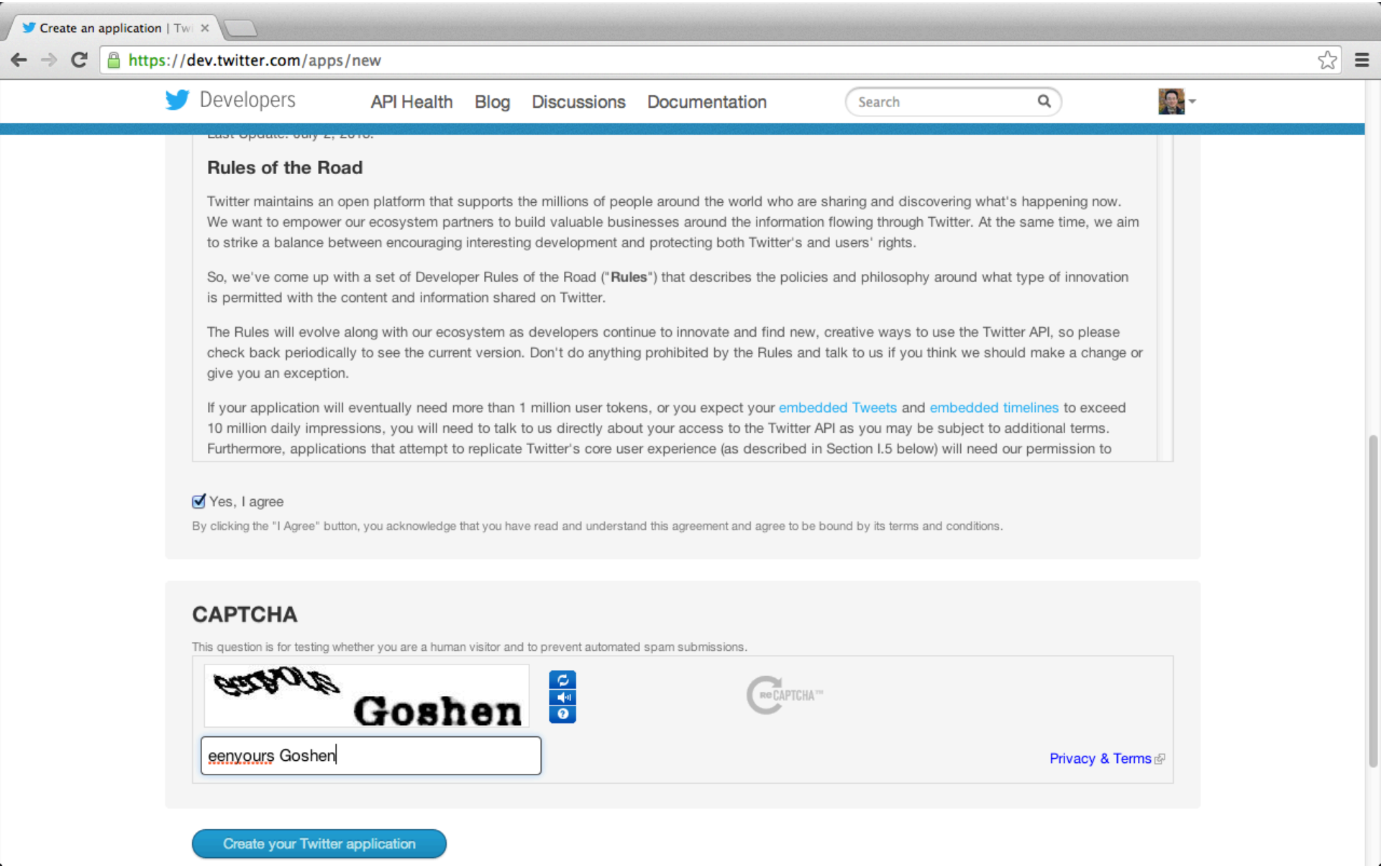
https://dev.twitter.com/apps

Create a new app



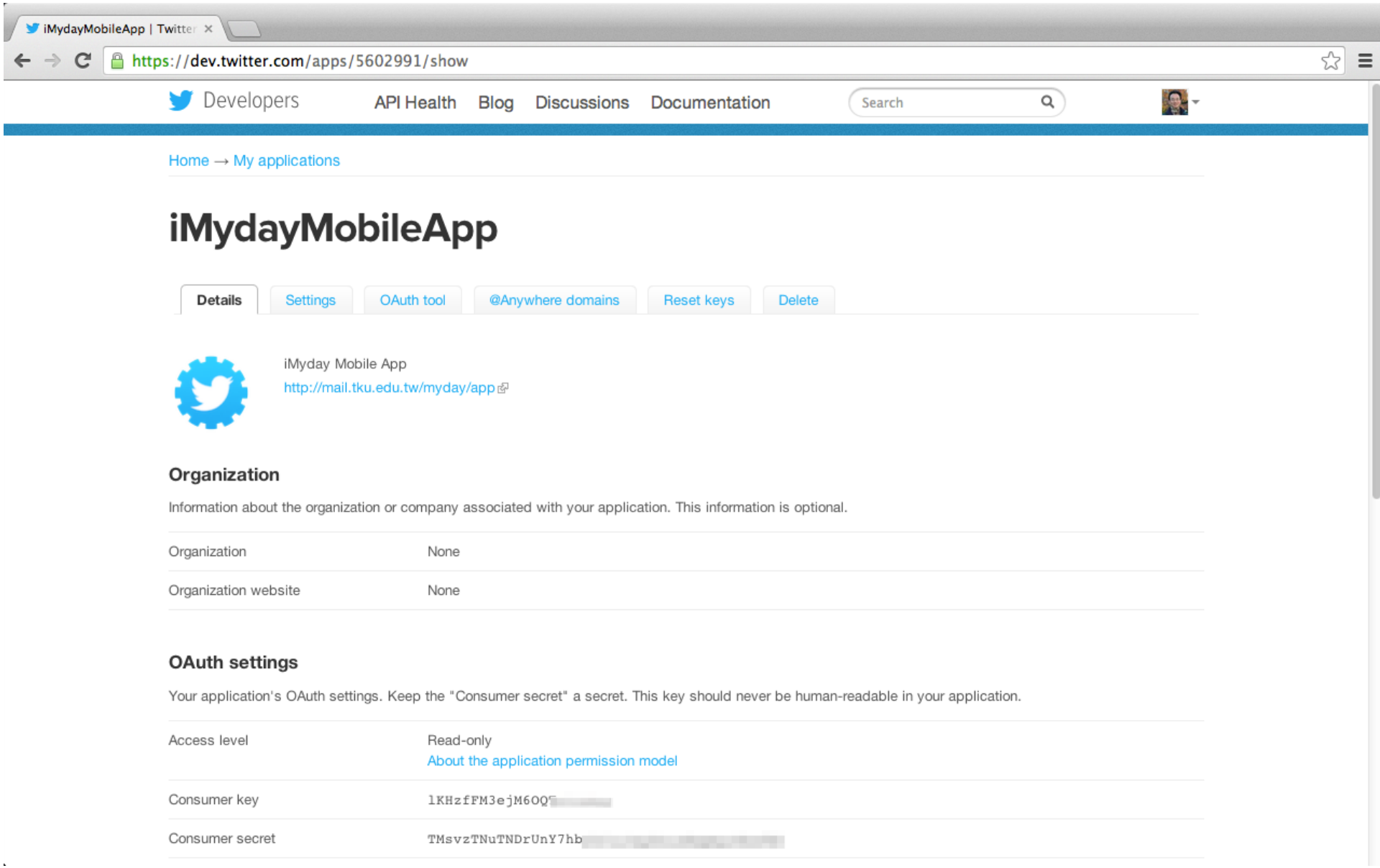
https://dev.twitter.com/apps/new

Create a new app

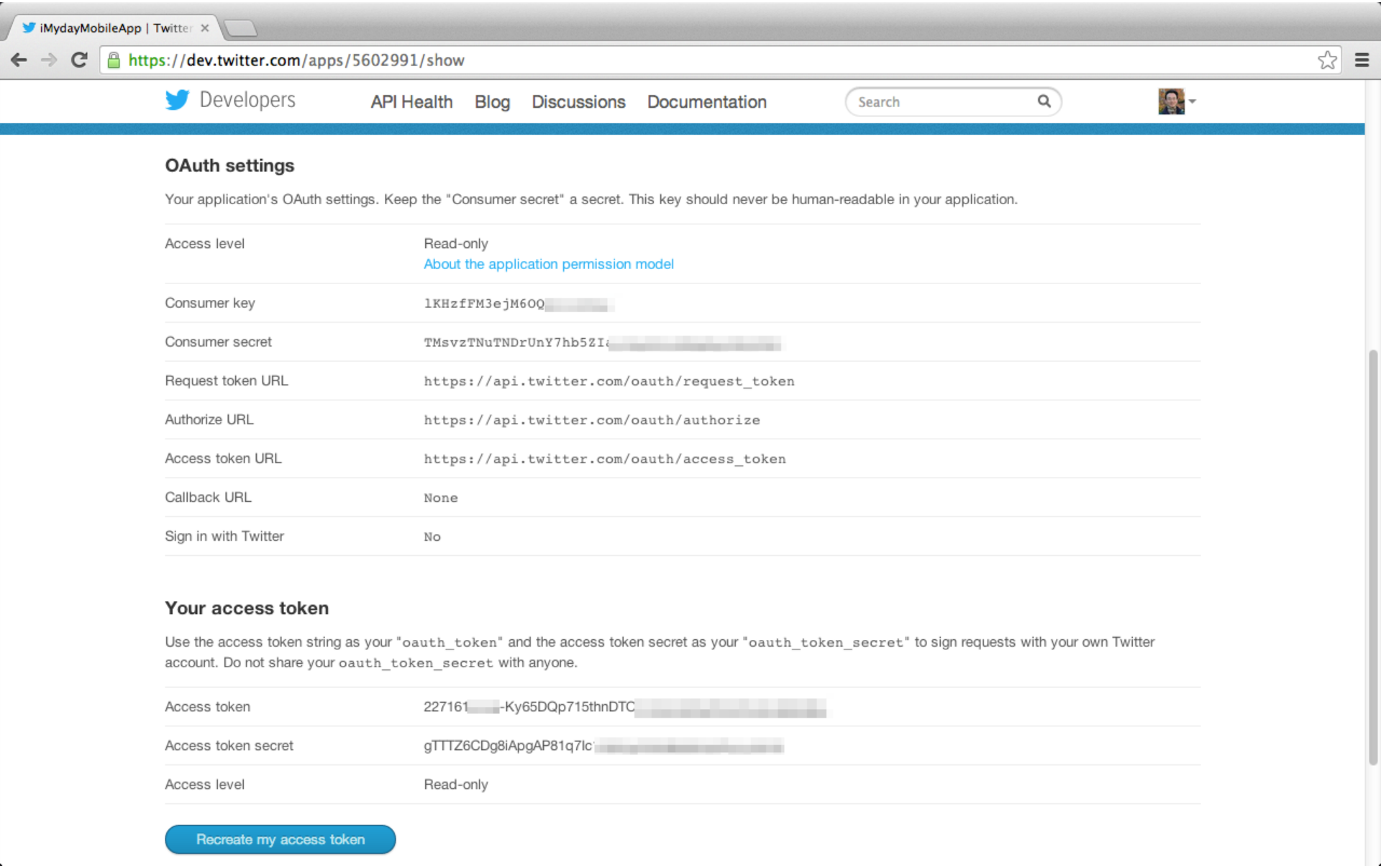


https://dev.twitter.com/apps/new

Create a new app



Create a new app



Create a new app

Consumer key lKHzfFM3ejM6O********

Consumer secret

TMsvzTNuTNDrUnY7hb5ZIarXqZDnsKW**********

Request token URL

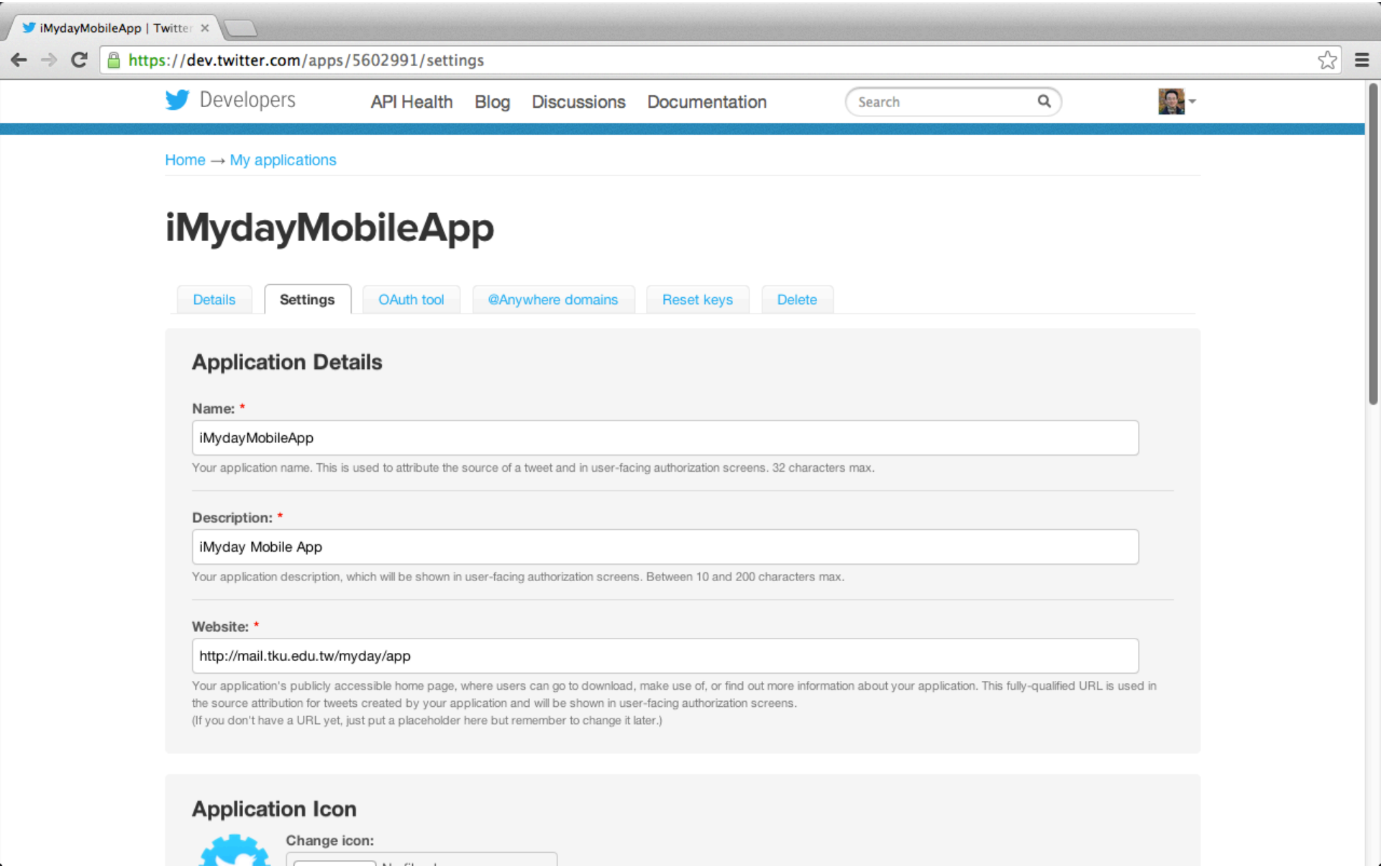
https://api.twitter.com/oauth/request_token

Authorize URL https://api.twitter.com/oauth/authorize

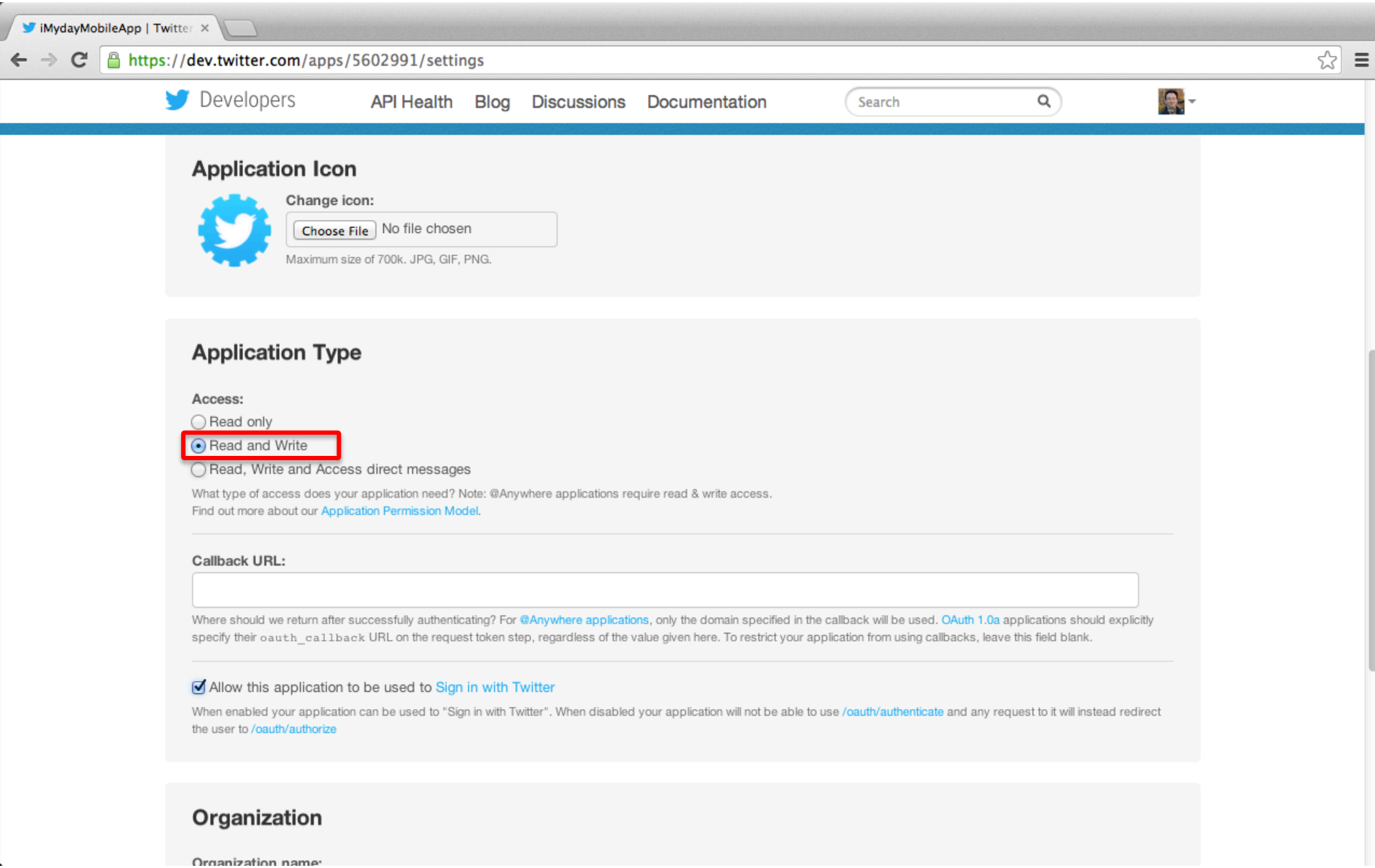
Access token URL

https://api.twitter.com/oauth/access_token

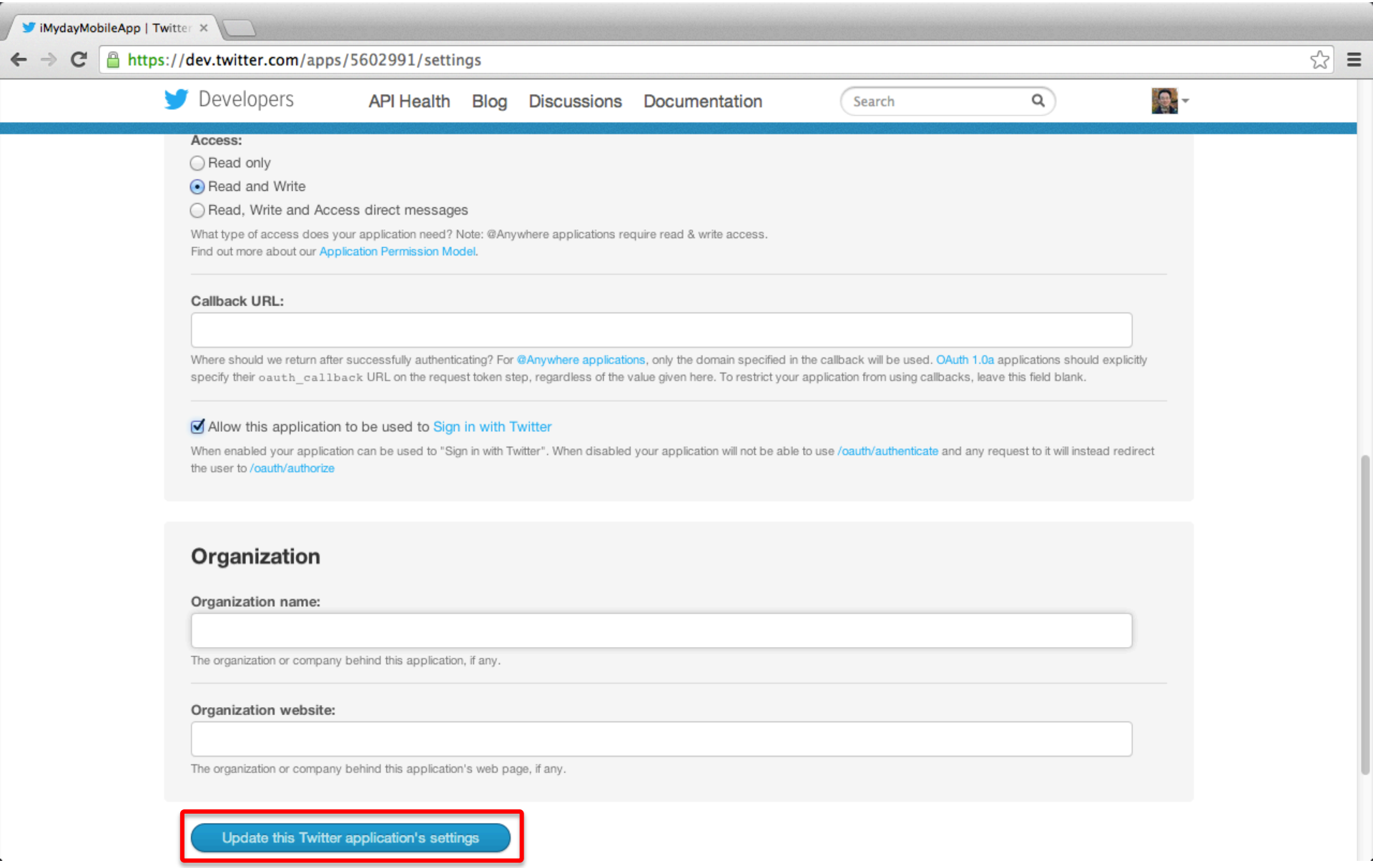
Update Twitter's App Settings



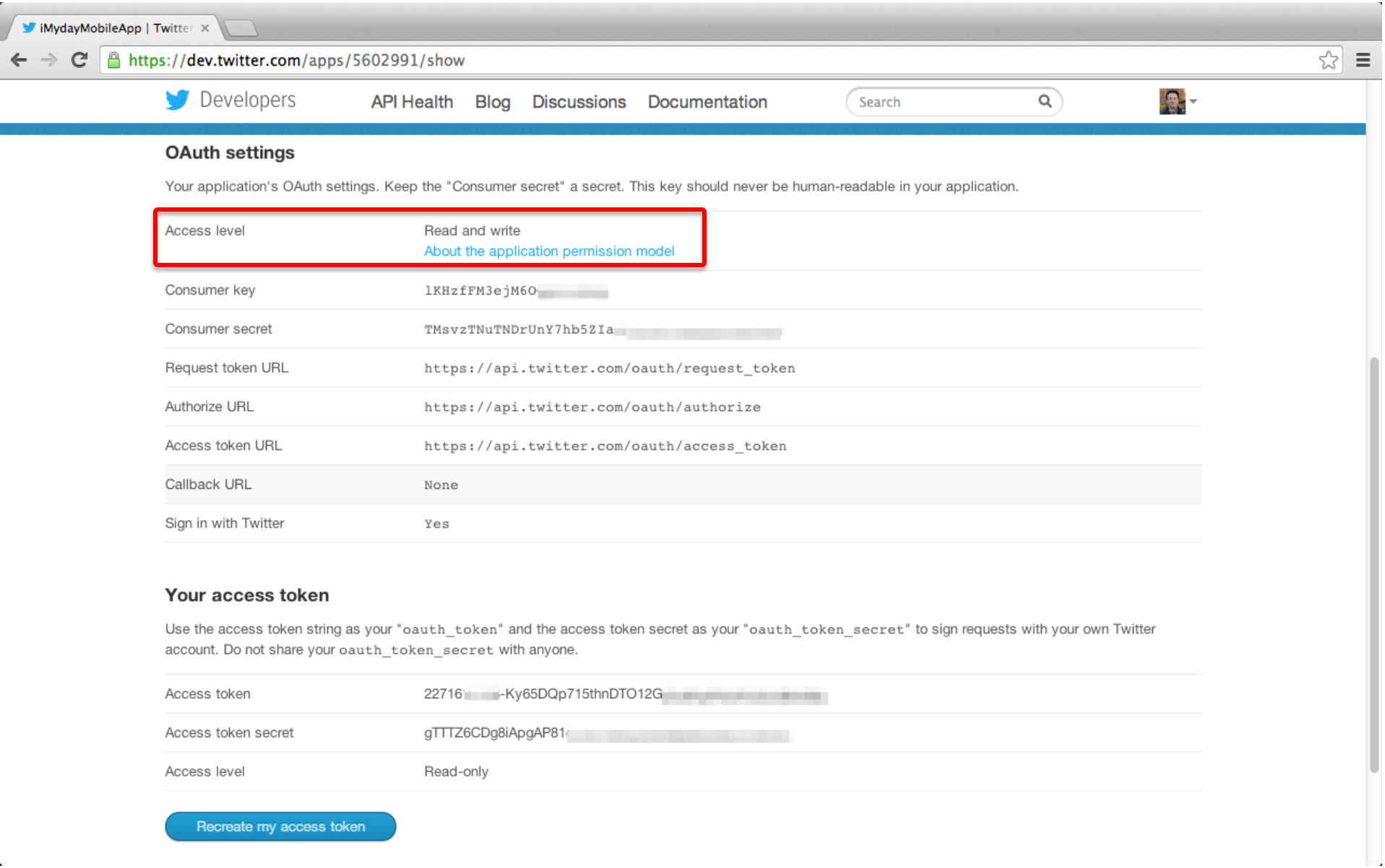
Update Twitter's App Settings



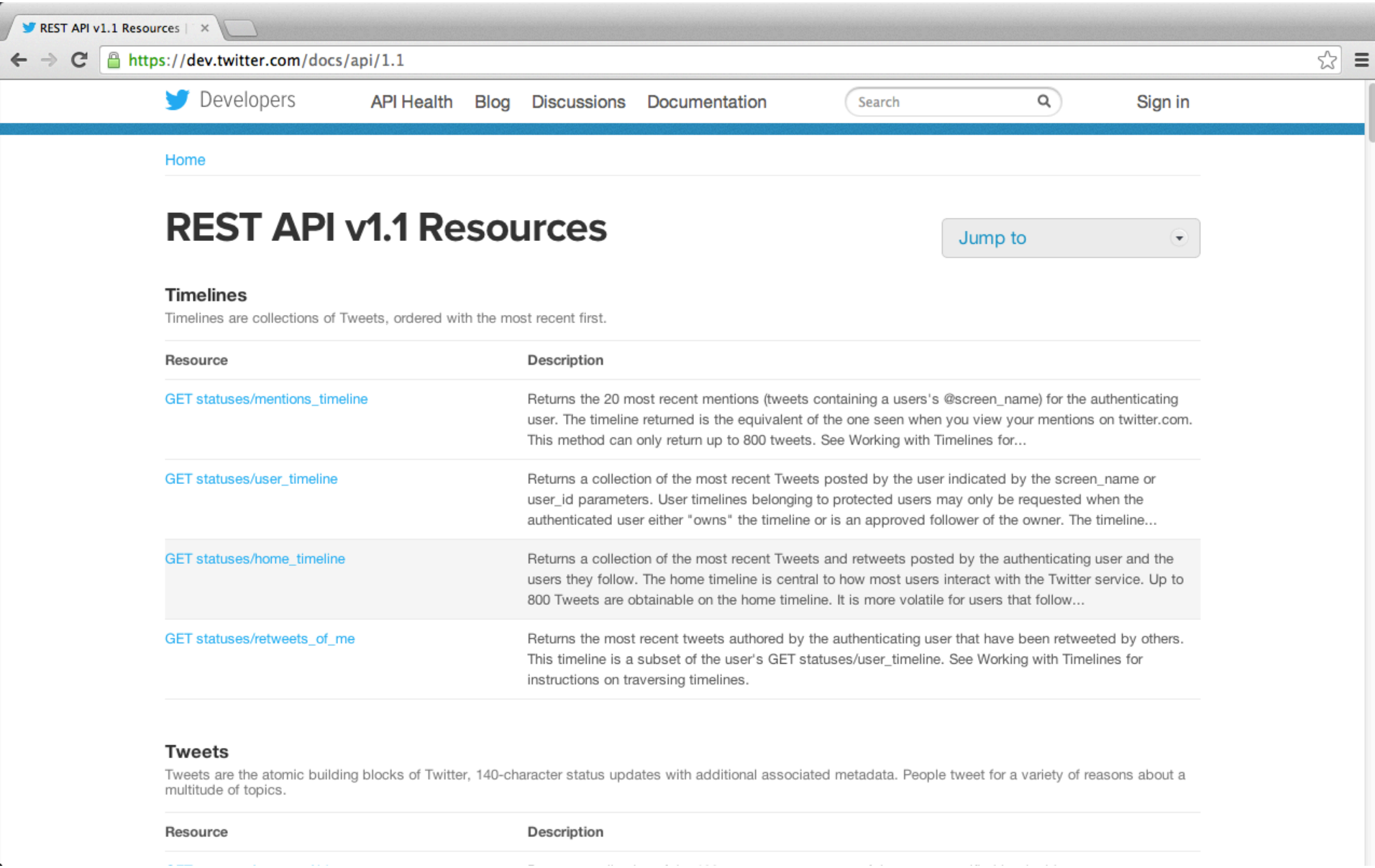
Update Twitter's App Settings



OAuth Settings Updated

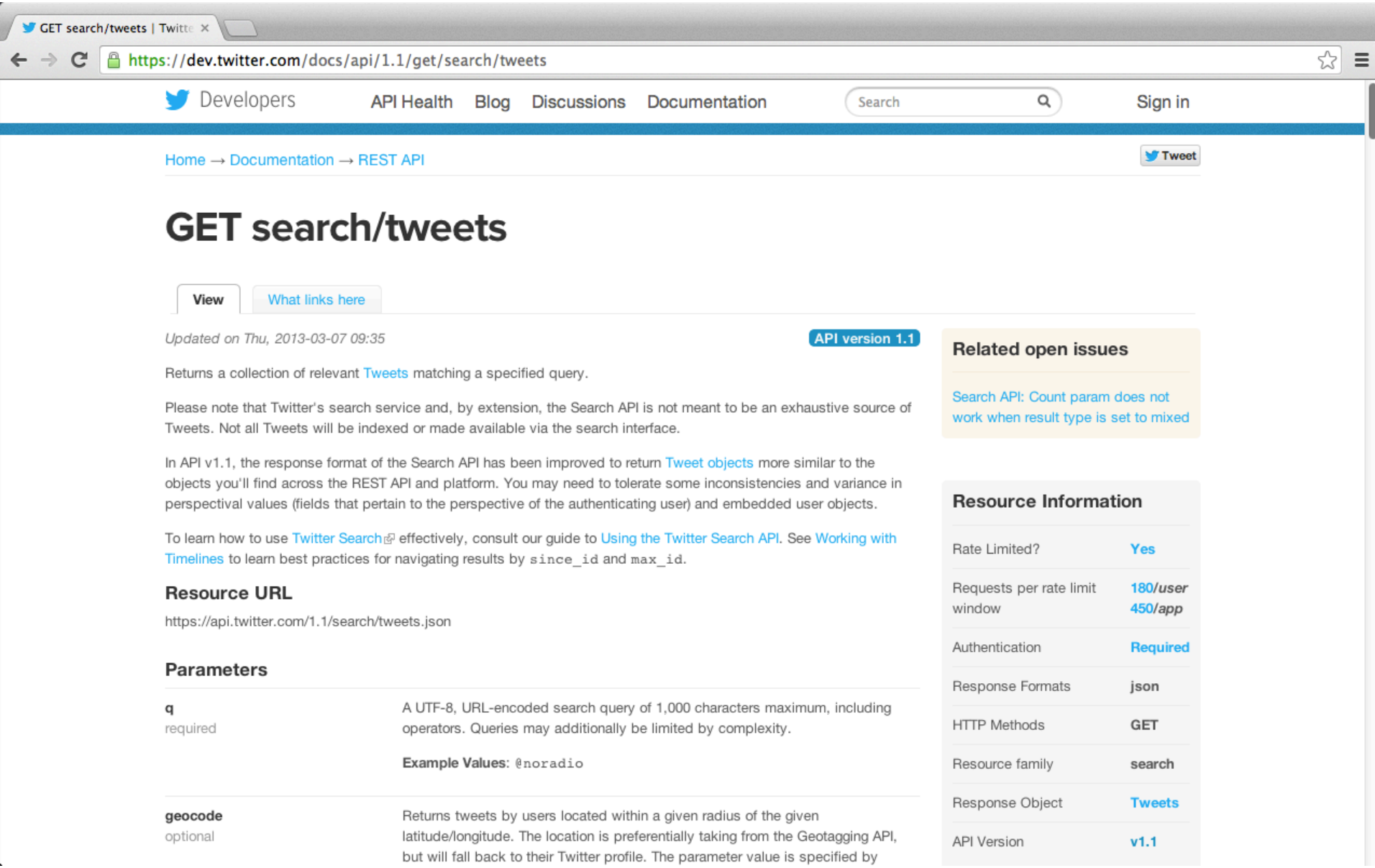


Twitter REST API v1.1 Resources



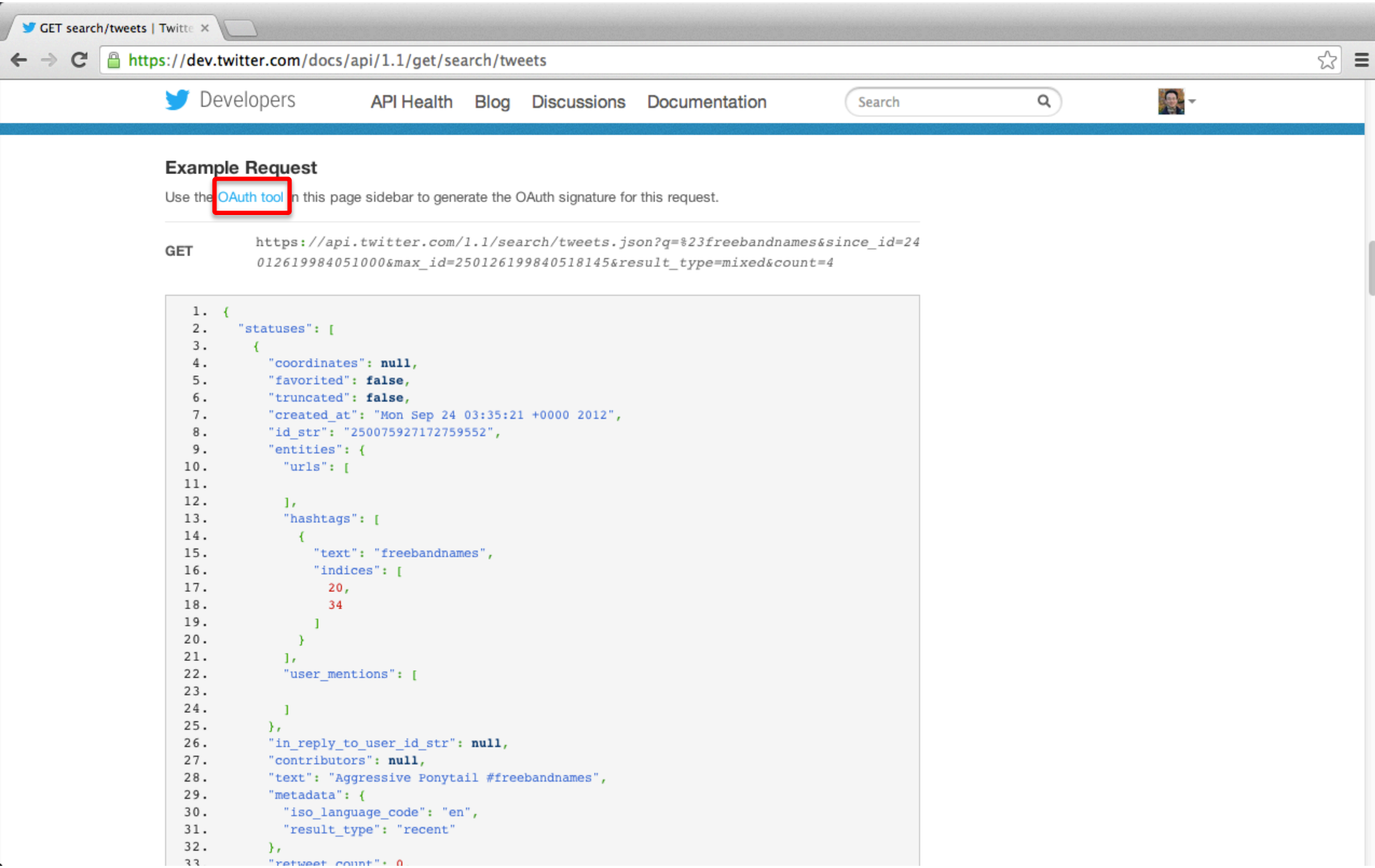
https://dev.twitter.com/docs/api/1.1

GET search/tweets



https://dev.twitter.com/docs/api/1.1/get/search/tweets

GET search/tweets



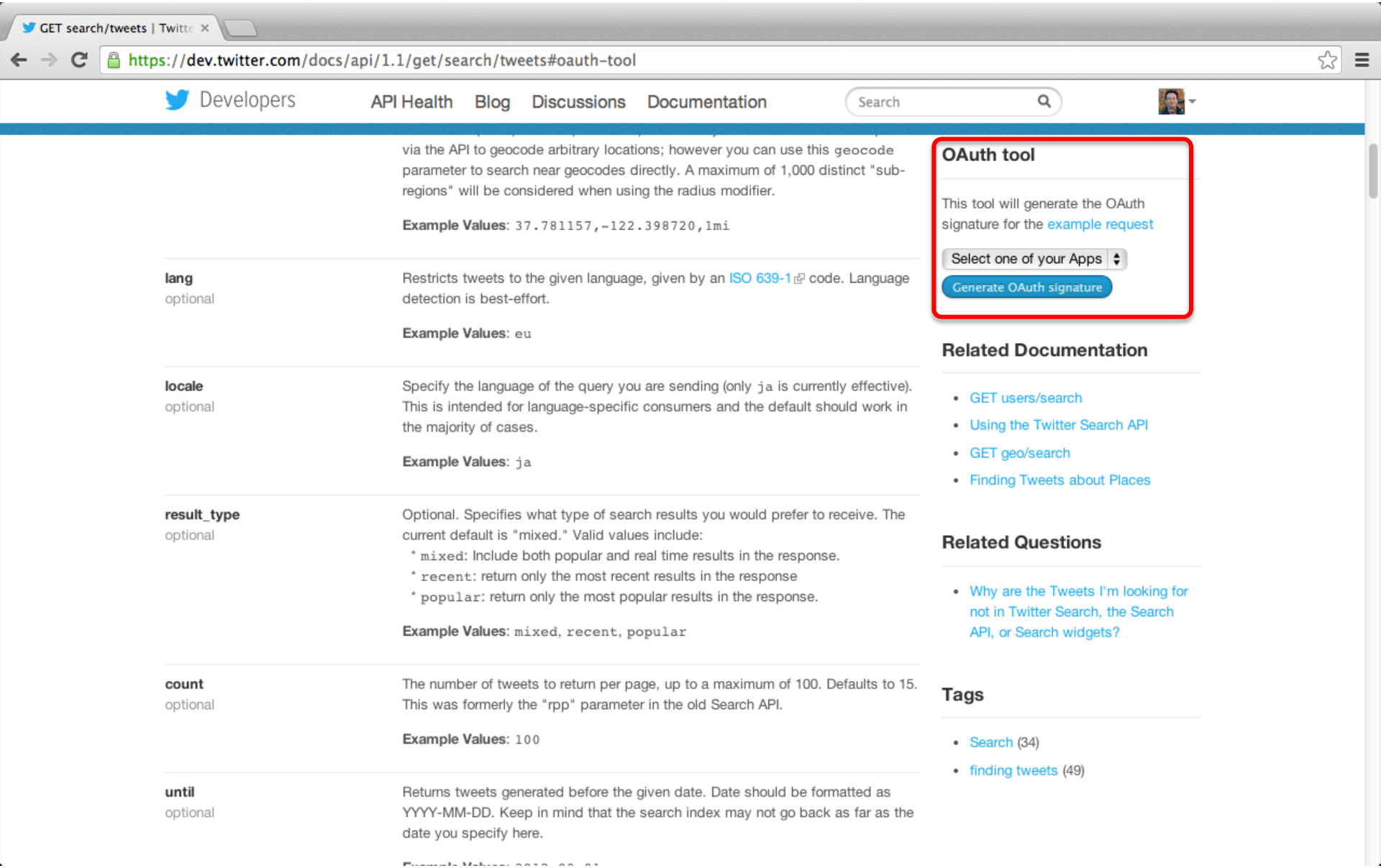
https://dev.twitter.com/docs/api/1.1/get/search/tweets

GET search/tweets

https://api.twitter.com/1.1/search/tweets.json?q=%23freebandnames&since_id=2401261998405100&max_id=250126199840518145&result_type=mixed&count=4

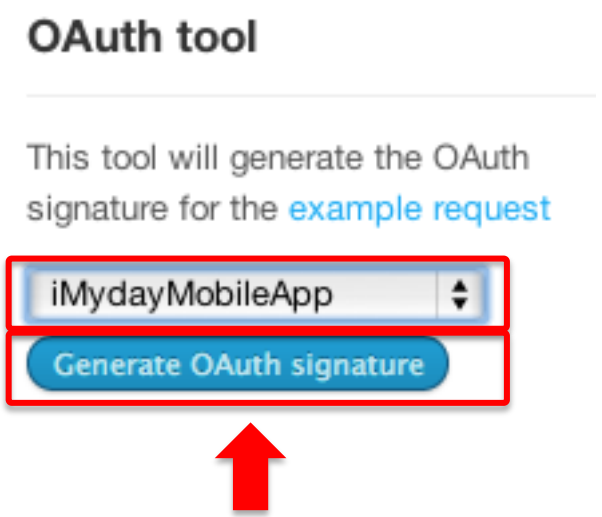
https://dev.twitter.com/docs/api/1.1/get/search/tweets

OAuth Tool



https://dev.twitter.com/docs/api/1.1/get/search/tweets#oauth-tool

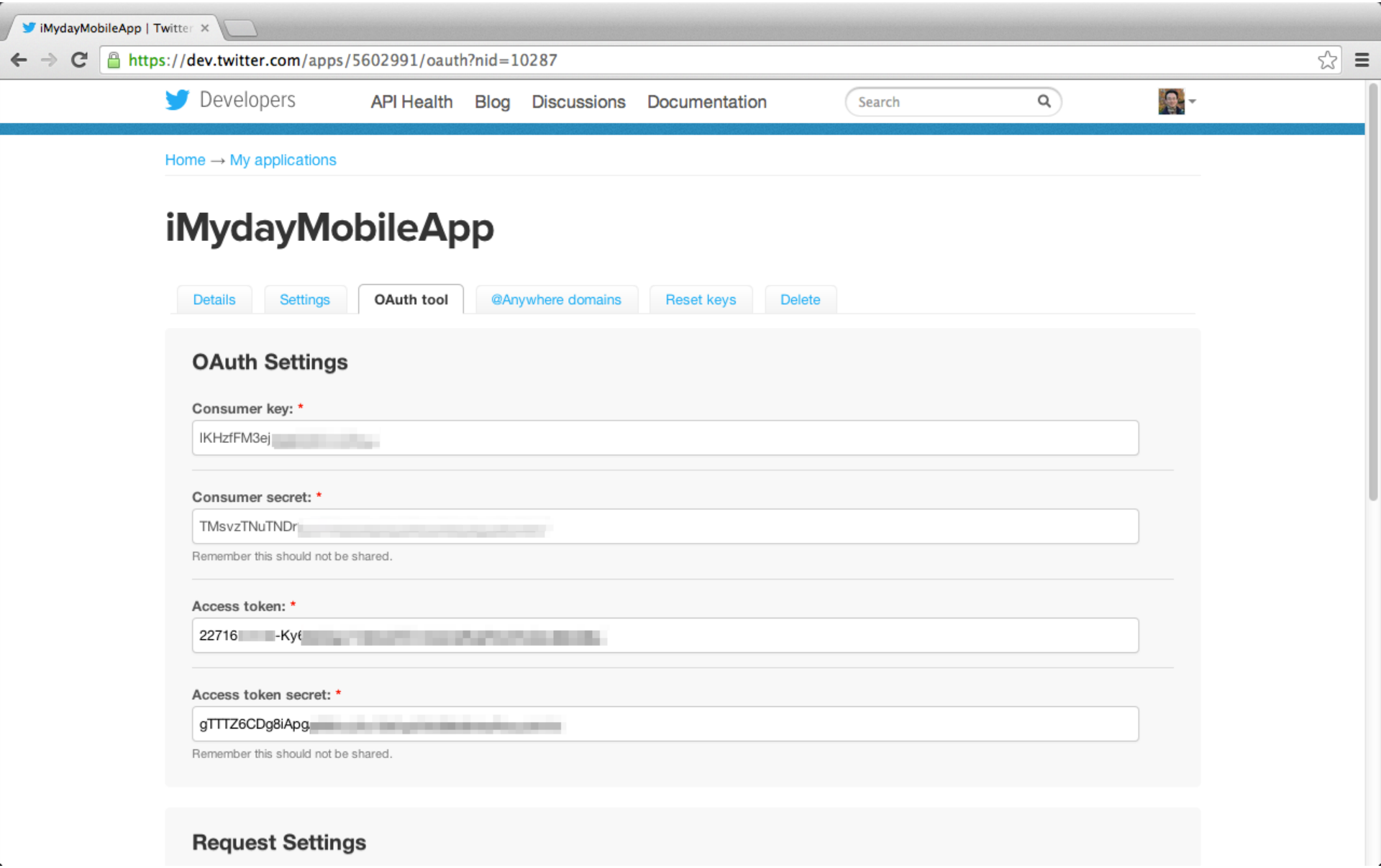
OAuth Tool



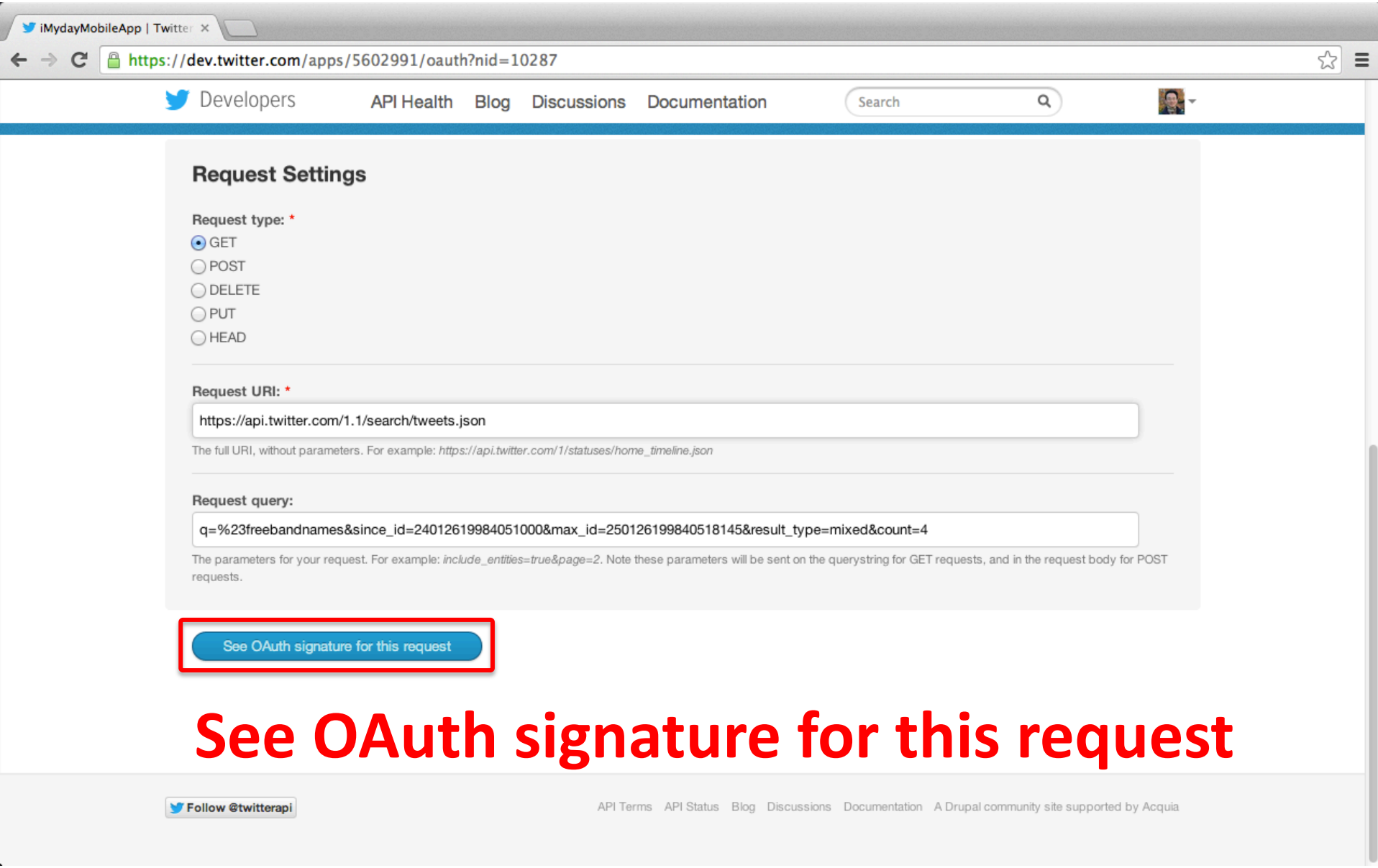
Generate OAuth signature

https://dev.twitter.com/docs/api/1.1/get/search/tweets#oauth-tool

OAuth Tool

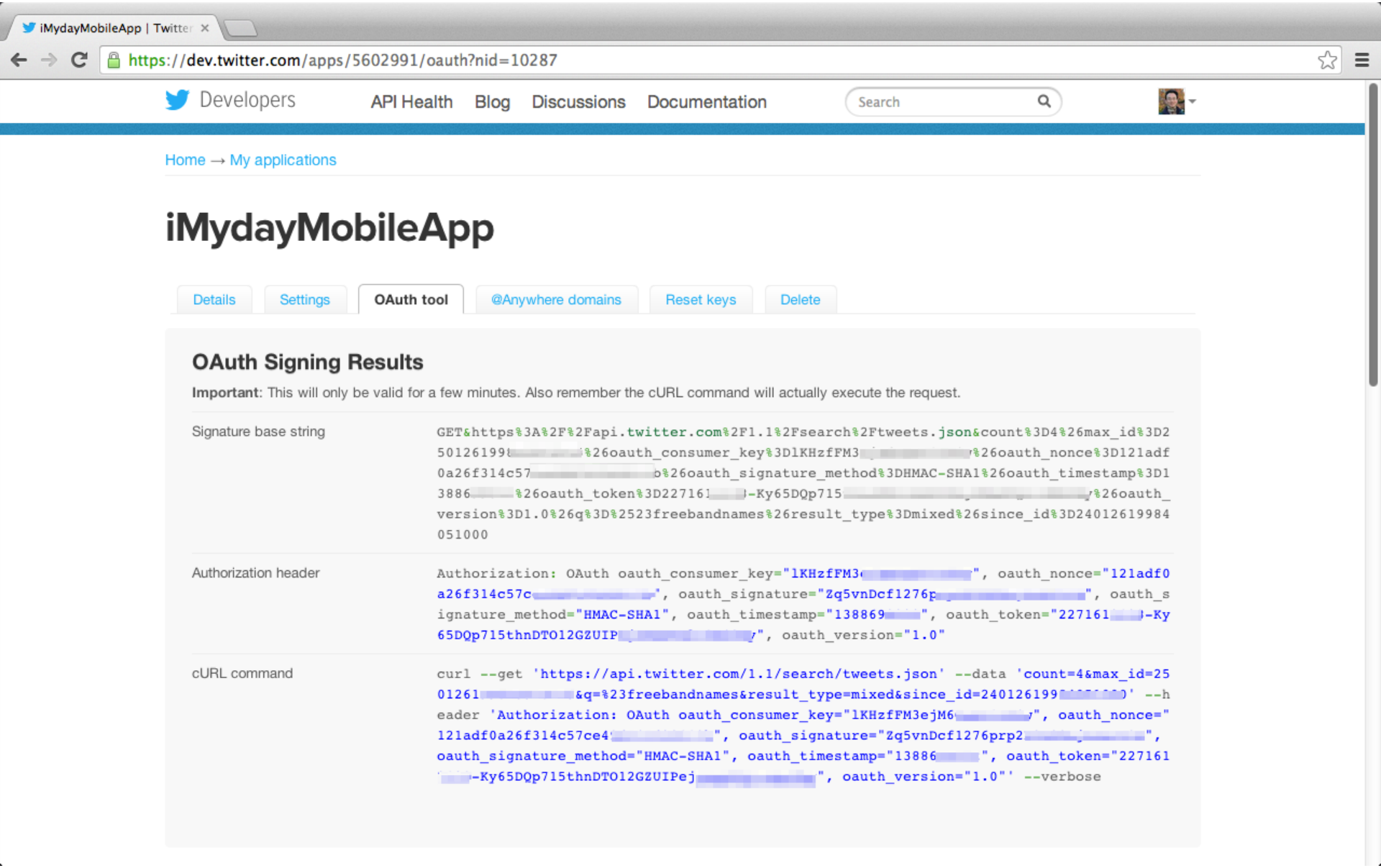

iMydayMobileApp | Twitter
https://dev.twitter.com/apps/5602991/oauth?nid=10287
Developers
API Health
Blog
Discussions
Documentation
Search
Home → My applications
iMydayMobileApp
Details
Settings
OAuth tool
@Anywhere domains
Reset keys
Delete
OAuth Settings
Consumer key: *
IKHzfFM3ej
Consumer secret: *
TMsvzTNuTNDr
Remember this should not be shared.
Access token: *
22716
-Ky
Access token secret: *
gTTTZ6CDg8iApg
Remember this should not be shared.
Request Settings

OAuth Tool



See OAuth signature for this request

OAuth Signing Results



Web Intents

Web Intents | Twitter Deve

https://dev.twitter.com/docs/intents

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Tweet

Web Intents

Web Intents

View What links here

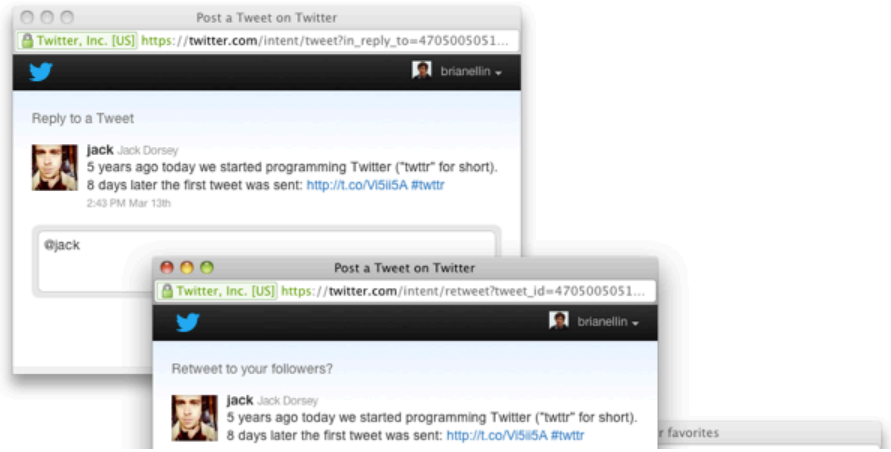
Updated on Thu, 2013-04-18 12:34

API version 1 API version 1.1

By using Web Intents, you agree to the Developer Rules of the Road.

Make it easy to bring interactivity to Tweets that you display on the web.

Web Intents provide popup-optimized flows for working with Tweets & Twitter Users: Tweet, Reply, Retweet, Favorite, and Follow. They make it possible for users to interact with Twitter content in the context of your site, without leaving the page or having to authorize a new app just for the interaction. Web intents are mobile friendly, and super easy to implement.



Related Case Studies

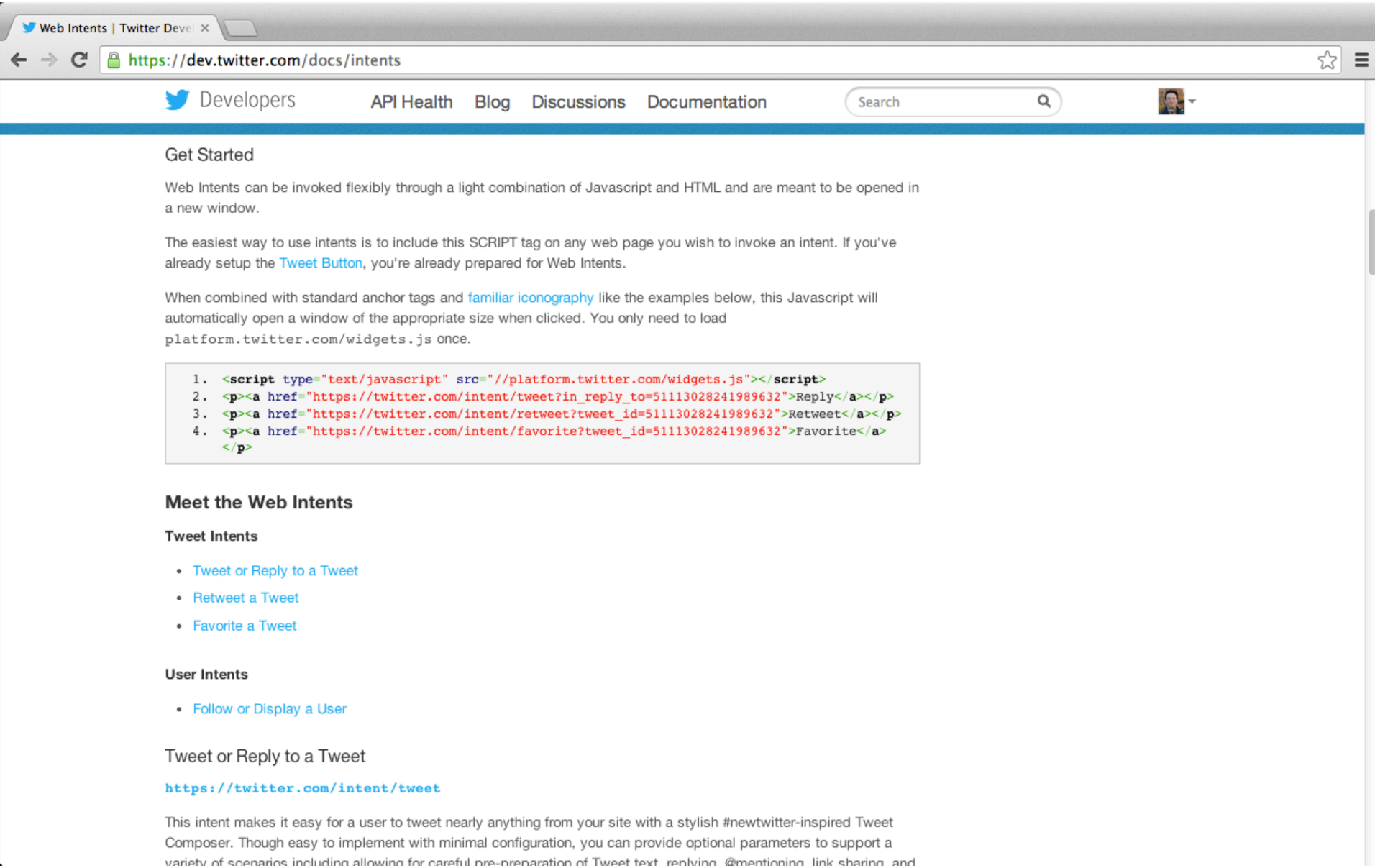
- ESPN uses Web Intents to send thousands of Tweets every day

Tags

- Web Intents (24)
- Twitter for Websites (32)
- Javascript (46)

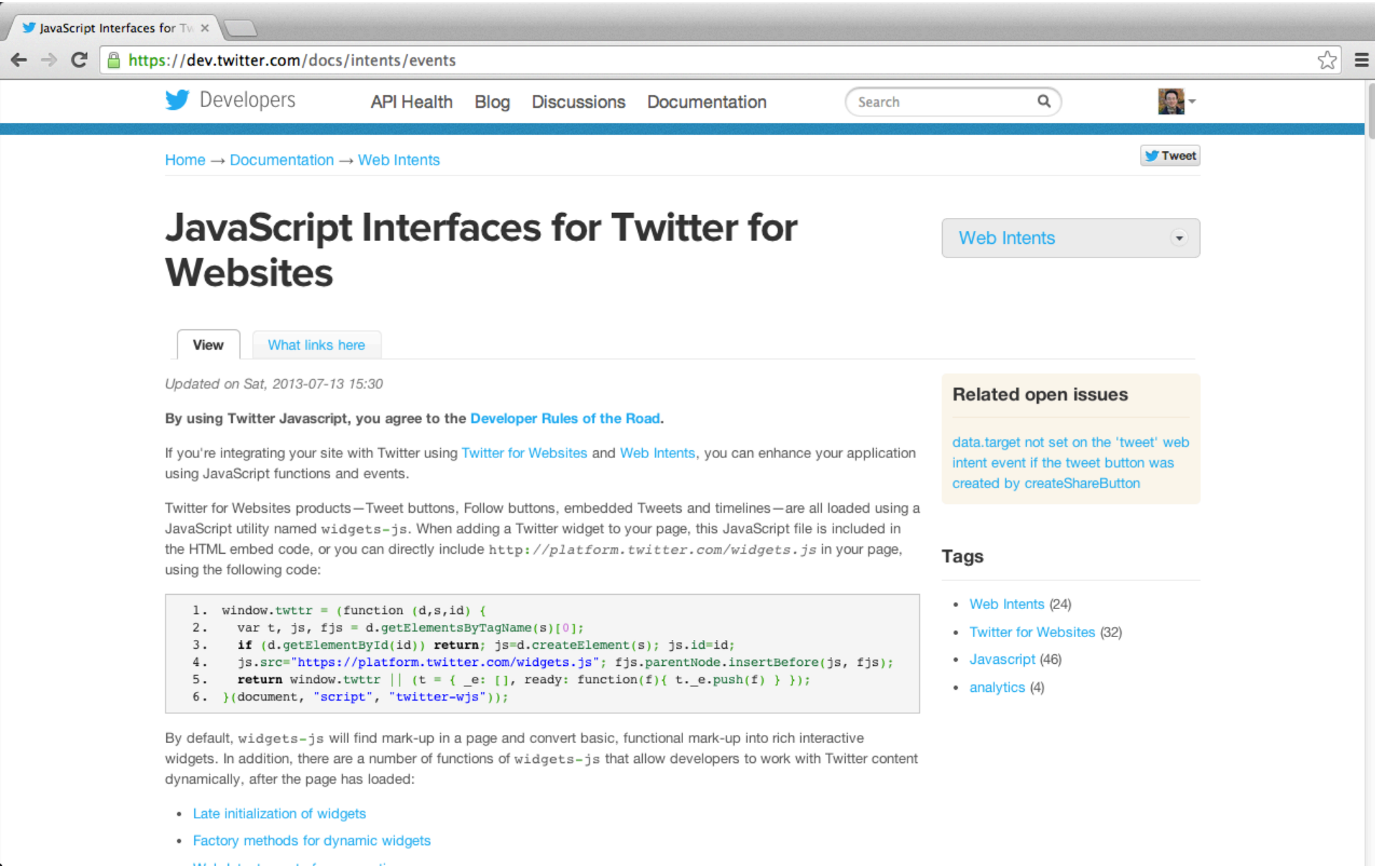
https://dev.twitter.com/docs/intents

Web Intents



https://dev.twitter.com/docs/intents

JavaScript Interfaces for Twitter for Websites



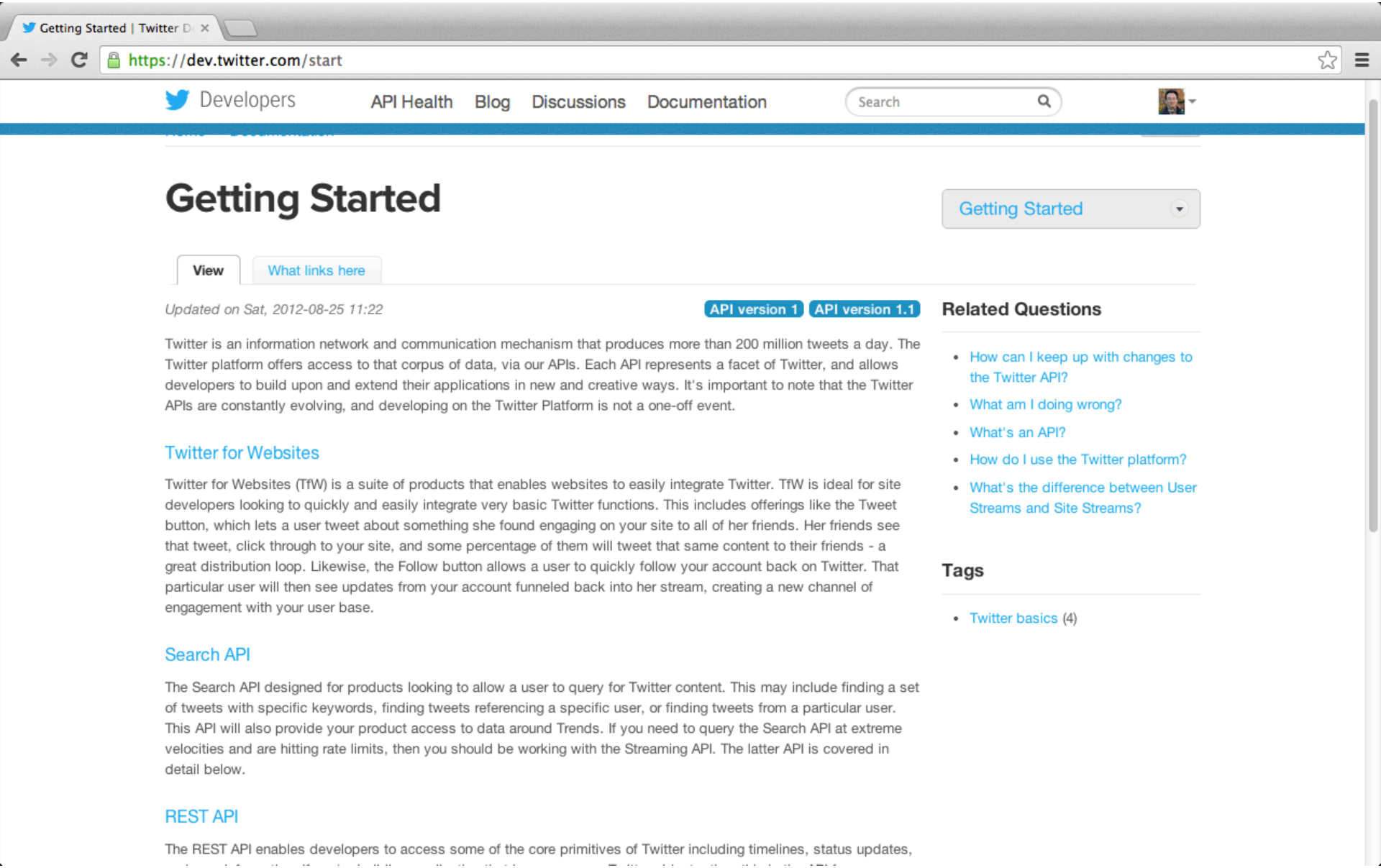
https://dev.twitter.com/docs/intents/events

JavaScript Interfaces for Twitter for Websites

```
1.  window.twttr = (function (d,s,id) {
2.    var t, js, fjs = d.getElementsByTagName(s)[0];
3.    if (d.getElementById(id)) return; js=d.createElement(s); js.id=id;
4.    js.src="https://platform.twitter.com/widgets.js"; fjs.parentNode.insertBefore(js, fjs);
5.    return window.twttr || (t = { _e: [], ready: function(f){ t._e.push(f) } });
6.  }(document, "script", "twitter-wjs"));
```

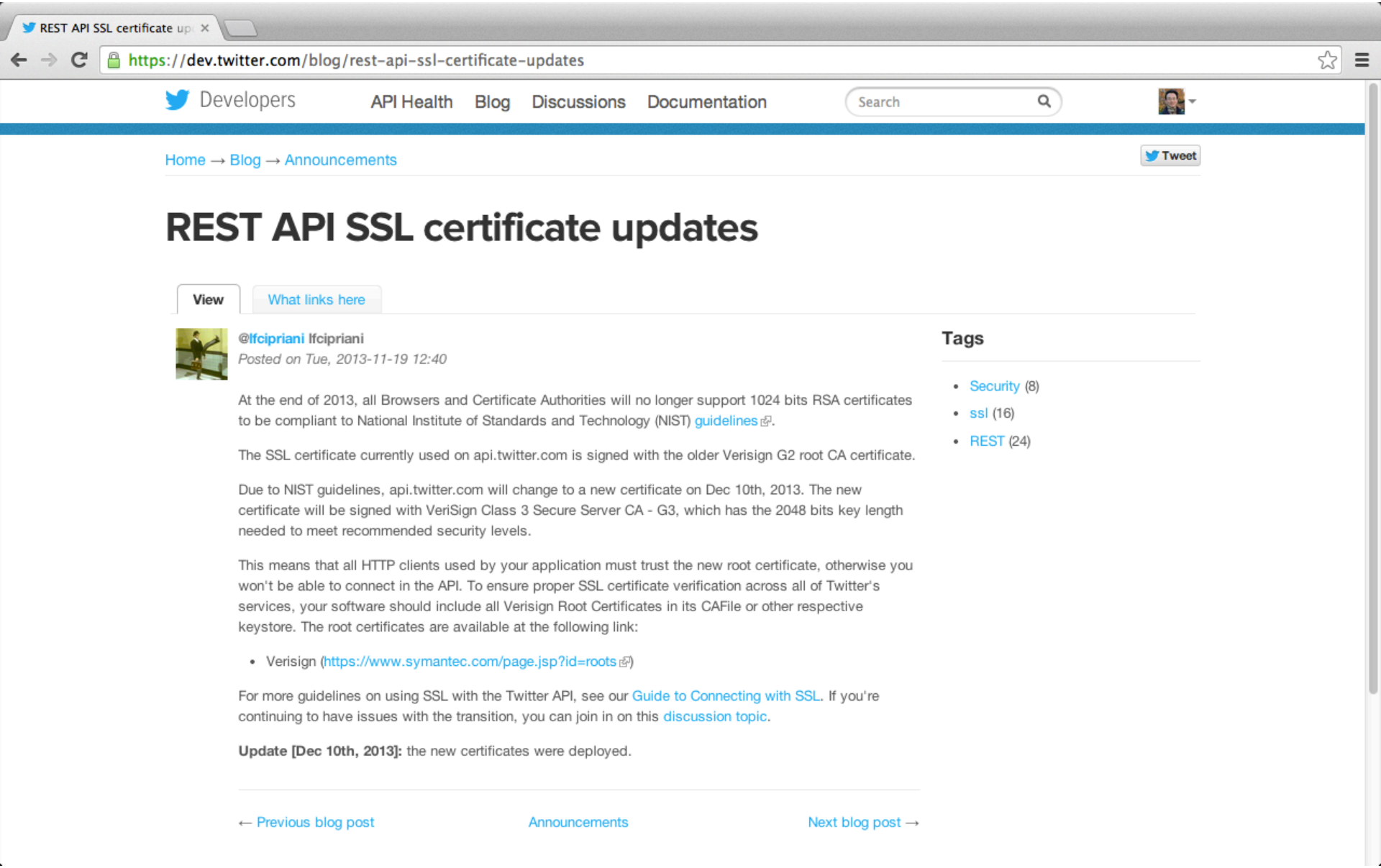
https://dev.twitter.com/docs/intents/events

Twitter API Getting Started



https://dev.twitter.com/start

Twitter REST API certificate updates

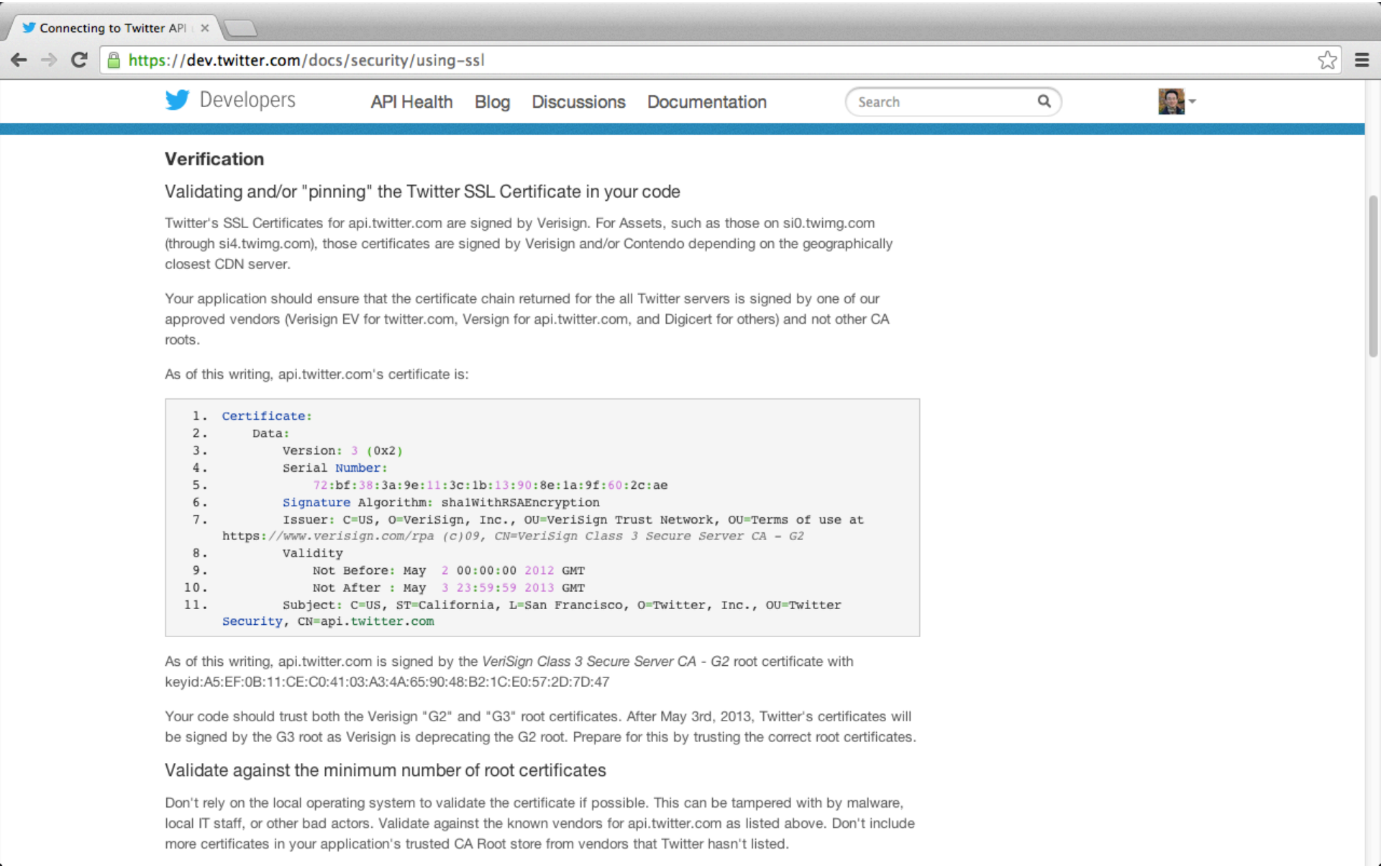


https://dev.twitter.com/blog/rest-api-ssl-certificate-updates

Connecting to Twitter API using SSL

https://dev.twitter.com/docs/security/using-ssl

Connecting to Twitter API using SSL



Verification

Validating and/or "pinning" the Twitter SSL Certificate in your code

Twitter's SSL Certificates for api.twitter.com are signed by Verisign. For Assets, such as those on si0.twimg.com (through si4.twimg.com), those certificates are signed by Verisign and/or Contendo depending on the geographically closest CDN server.

Your application should ensure that the certificate chain returned for the all Twitter servers is signed by one of our approved vendors (Verisign EV for twitter.com, Versign for api.twitter.com, and Digicert for others) and not other CA roots.

As of this writing, api.twitter.com's certificate is:

```
1.  Certificate:
2.      Data:
3.          Version: 3 (0x2)
4.          Serial Number:
5.              72:bf:38:3a:9e:11:3c:1b:13:90:8e:1a:9f:60:2c:ae
6.          Signature Algorithm: sha1WithRSAEncryption
7.          Issuer: C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at
    https://www.verisign.com/rpa (c)09, CN=VeriSign Class 3 Secure Server CA - G2
8.          Validity
9.              Not Before: May  2 00:00:00 2012 GMT
10.             Not After : May  3 23:59:59 2013 GMT
11.         Subject: C=US, ST=California, L=San Francisco, O=Twitter, Inc., OU=Twitter
    Security, CN=api.twitter.com
```

As of this writing, api.twitter.com is signed by the *VeriSign Class 3 Secure Server CA - G2* root certificate with keyid:A5:EF:0B:11:CE:C0:41:03:A3:4A:65:90:48:B2:1C:E0:57:2D:7D:47

Your code should trust both the Verisign "G2" and "G3" root certificates. After May 3rd, 2013, Twitter's certificates will be signed by the G3 root as Verisign is deprecating the G2 root. Prepare for this by trusting the correct root certificates.

Validate against the minimum number of root certificates

Don't rely on the local operating system to validate the certificate if possible. This can be tampered with by malware, local IT staff, or other bad actors. Validate against the known vendors for api.twitter.com as listed above. Don't include more certificates in your application's trusted CA Root store from vendors that Twitter hasn't listed.

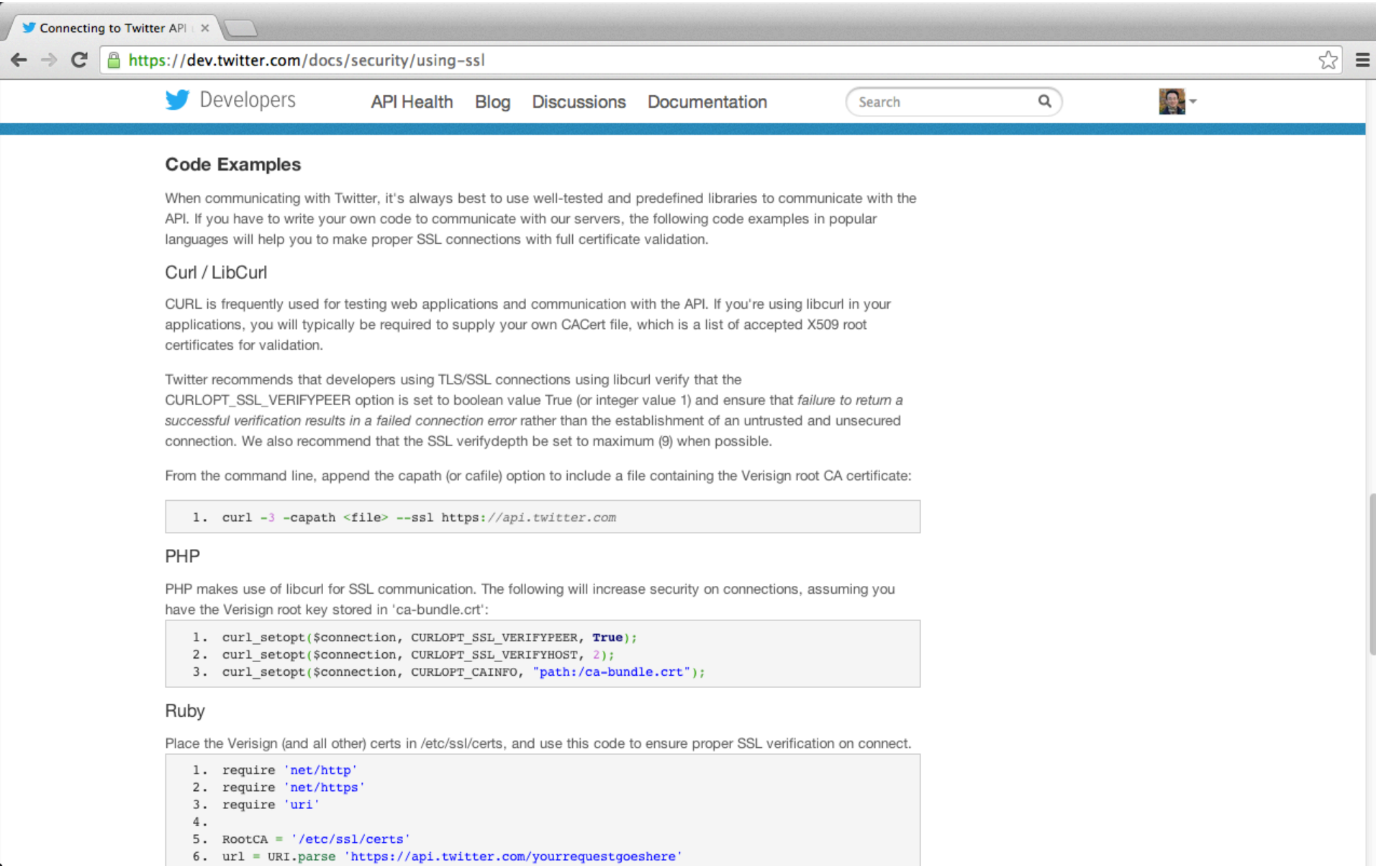
https://dev.twitter.com/docs/security/using-ssl

Connecting to Twitter API using SSL

```
1.  Certificate:
2.      Data:
3.          Version: 3 (0x2)
4.          Serial Number:
5.              72:bf:38:3a:9e:11:3c:1b:13:90:8e:1a:9f:60:2c:ae
6.          Signature Algorithm: sha1WithRSAEncryption
7.          Issuer: C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at
    https://www.verisign.com/rpa (c)09, CN=VeriSign Class 3 Secure Server CA - G2
8.          Validity
9.              Not Before: May  2 00:00:00 2012 GMT
10.             Not After : May  3 23:59:59 2013 GMT
11.         Subject: C=US, ST=California, L=San Francisco, O=Twitter, Inc., OU=Twitter
    Security, CN=api.twitter.com
```

https://dev.twitter.com/docs/security/using-ssl

Connecting to Twitter API using SSL



https://dev.twitter.com/docs/security/using-ssl

Connecting to Twitter API using SSL

From the command line, append the capath (or cafile) option to include a file containing the Verisign root CA certificate:

```
curl -3 -capath <file> --ssl https://api.twitter.com
```

PHP

PHP makes use of libcurl for SSL communication. The following will increase security on connections, assuming you have the Verisign root key stored in 'ca-bundle.crt':

```
curl_setopt($connection, CURLOPT_SSL_VERIFYPEER, True);
curl_setopt($connection, CURLOPT_SSL_VERIFYHOST, 2);
curl_setopt($connection, CURLOPT_CAINFO, "path:/ca-bundle.crt");
```

Ruby

Place the Verisign (and all other) certs in /etc/ssl/certs, and use this code to ensure proper SSL verification on connect.

```
require 'net/http'
require 'net/https'
require 'uri'

RootCA = '/etc/ssl/certs'
url = URI.parse 'https://api.twitter.com/yourrequestgoeshere'
http = Net::HTTP.new(url.host, url.port)
http.ca_path = RootCA
http.verify_mode = OpenSSL::SSL::VERIFY_PEER
http.verify_depth = 9
request = Net::HTTP::Get.new(url.path)
# handle oauth here, or whatever you need to do...
response = http.request(request)

# ... process response ...
```

Python

See this Stack Overflow post regarding SSL verification under Python. Depending on the Python version and SSL Library you are using, verification may be supported natively in the library, or you may have to extract the certificate from the connection and perform additional verification steps.

https://dev.twitter.com/docs/security/using-ssl

Summary

- Twitter Developers
  - –Twitter Platform Objects
- Twitter for Websites
- Twitter Search API
- Twitter REST API
- Twitter Streaming API

References

- Twitter Developer, https://developer.twitter.com/