

Big Data: Data Wrangling Boot Camp

Twitter Accounts

Chuck Cartledge, PhD

23 February 2018

Table of contents (1 of 1)

1 Intro.

2 Twitter account

- An account is required to access the Twitter API

3 Twitter API

- Allowing your program to access Twitter tweets

4 Twitter keys

5 Q & A

6 Conclusion

What are we going to cover?

We're going to start the “hands on” portion of the boot camp:

- We'll create twitter accounts (if needed).
- We'll create twitter developer accounts (if needed).
- We'll save the “special data” needed by our programs to access twitter.
- We'll get ready for lots of work over the next two days.



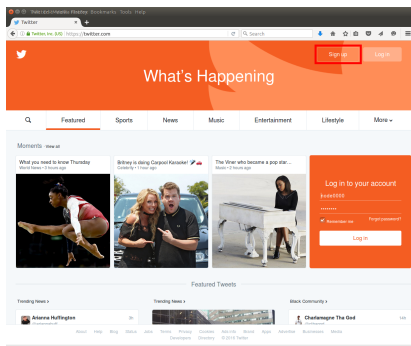


An account is required to access the Twitter API

Create a Twitter account

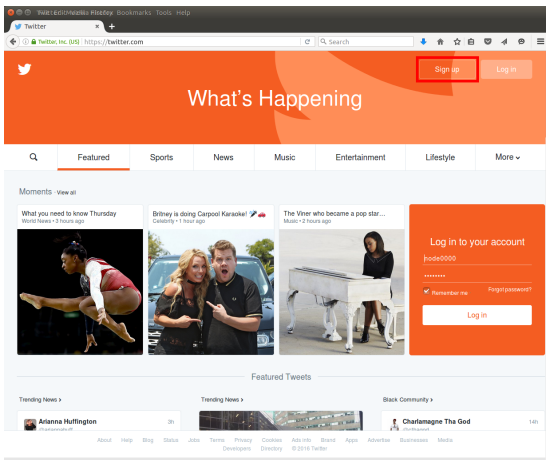
A valid twitter account is required to search the twitterverse, either through a UI or an API.

<https://twitter.com>



An account is required to access the Twitter API

Same image.



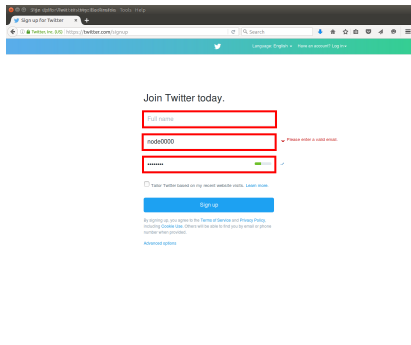
`https://twitter.com`

An account is required to access the Twitter API

Twitter ID

Enter data in the highlighted boxes:

- Full name – what you will be known as
- Email – how Twitter can contact you, and how people can find you
- Password – a password



The screenshot shows the Twitter sign-up page in a browser. The page title is "Sign up for Twitter". The main heading is "Join Twitter today." Below this, there are three input fields, each highlighted with a red box:

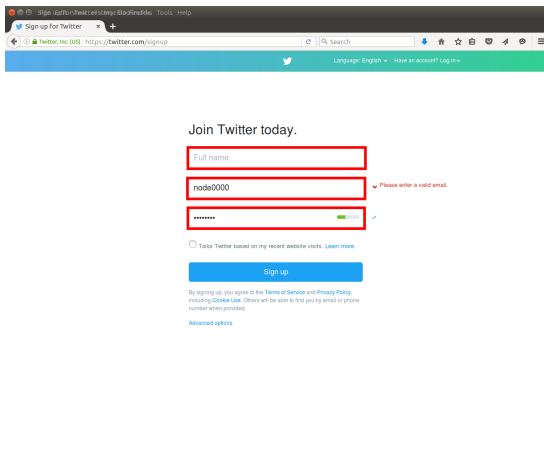
- The first field is labeled "Full name" and contains the text "Full name".
- The second field is labeled "Email" and contains the text "node0000".
- The third field is labeled "Password" and contains a series of asterisks.

There are red arrows pointing to the second and third fields with the text "Please enter a valid email". Below the input fields is a checkbox labeled "I'm signing up based on my recent website visits. Learn more." and a blue "Sign up" button. At the bottom, there is a small disclaimer: "By signing up, you agree to the Terms of Service and Privacy Policy, including Cookies Use. We'll use the data to find people we think you'll like to follow and to show you relevant content when you browse." and a link for "Advanced options".

You can now send and receive tweets.

An account is required to access the Twitter API

Same image.

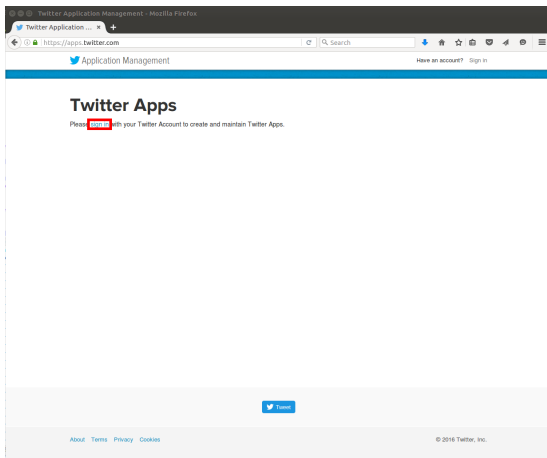


The screenshot shows the Twitter sign-up page in a browser. The browser's address bar shows the URL `https://twitter.com/signup`. The page has a green header with the Twitter logo and the text "Language: English - Have an account? Log in". The main content area is titled "Join Twitter today." and contains a sign-up form. The form has three input fields: "Full name", "node0000", and a password field with six asterisks. The "Full name" and "node0000" fields are highlighted with red boxes. To the right of the "node0000" field, there is a red error message: "Please enter a valid email." Below the password field, there is a checkbox labeled "Take Twitter based on my recent website visits. Learn more." and a blue "Sign up" button. At the bottom of the form, there is a small disclaimer: "By signing up, you agree to the Terms of Service and Privacy Policy, including Cookie Use. Others will be able to find you by email or phone number when provided." and a link for "Advanced options".

You can now send and receive tweets.

Allowing your program to access Twitter tweets

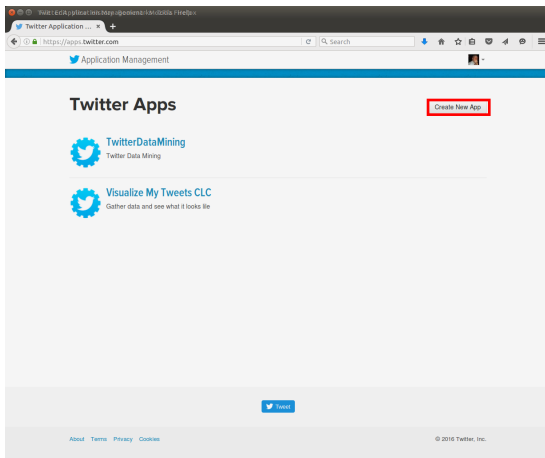
Go to the Twitter API sign-in page



`https://apps.twitter.com/`

Allowing your program to access Twitter tweets

Begin the application creation process.



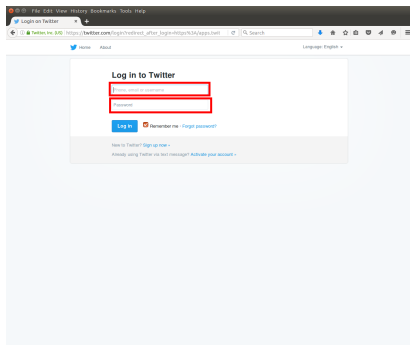
Sample data shown.

Allowing your program to access Twitter tweets

Log into Twitter

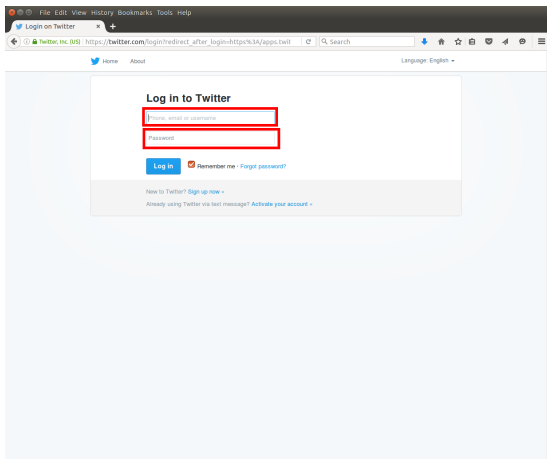
Provide the following information:

- Username
- Password



Allowing your program to access Twitter tweets

Same image.

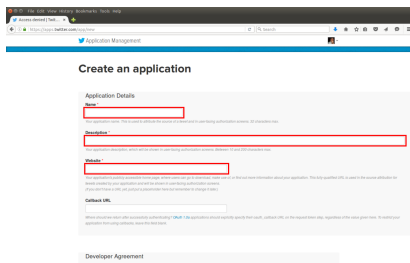


Allowing your program to access Twitter tweets

Details about your application

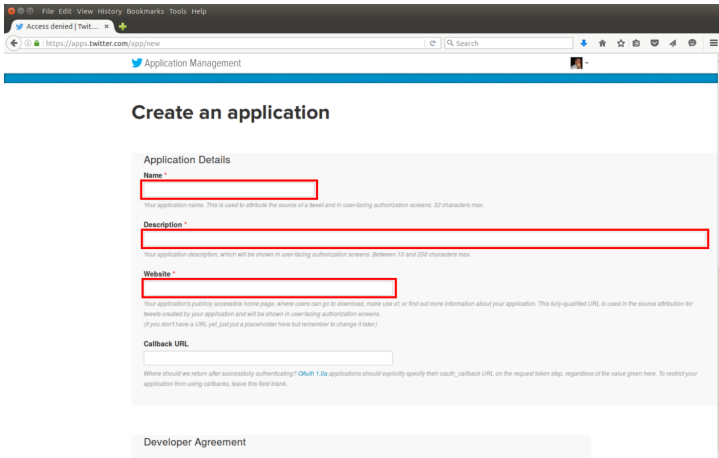
You'll need to provide this information

- 1 Name: what is the name of this application.
- 2 Description: just a short description of what the application will do.
- 3 Website: a correctly formed URL. The URL does not have to be functional.
- 4 Callback URL: optional



Allowing your program to access Twitter tweets

Same image.



The screenshot shows a web browser window with the URL `https://apps.twitter.com/app/new`. The page title is "Application Management" and the main heading is "Create an application". The form is titled "Application Details" and contains the following fields:

- Name ***: A text input field with a red border.
- Description ***: A text input field with a red border.
- Website ***: A text input field with a red border.
- Callback URL**: A text input field.

Below the form is a "Developer Agreement" section.

Application Details

Name *

Your application name. This is used to attribute the source of a tweet and in user-facing authorization screens. 32 characters max.

Description *

Your application description, which will be shown in user-facing authorization screens. Between 10 and 200 characters max.

Website *

Your application's publicly accessible home page, where users can go to download, make use of, or find out more information about your application. This fully-qualified URL is used in the source attribution for tweets created by your application and will be shown in user-facing authorization screens. (If you don't have a URL, yet, just put a placeholder here but remember to change it later.)

Callback URL

Where should we return after successfully authenticating? OAuth 1.0a applications should explicitly specify their `oauth_callback` URL on the request token step, regardless of the value given here. To restrict your application from using callbacks, leave this field blank.

Developer Agreement

Optional callback URL information

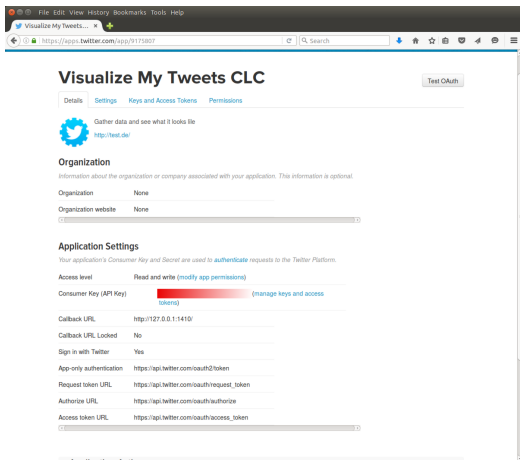
Callback URL: depending on how your software authenticates itself to Twitter, you may have to fill this in. If you do and you are using the R `httr` package, the recommended value is:

```
http://127.0.0.1:1410
```

The `httr` package creates a webserver that listens for on port 1410 of the local machine for Open Authentication (OAuth) handshake. Be sure to use the IP address `127.0.0.1` and not the common name `localhost`.

Allowing your program to access Twitter tweets

Same image.



Sample data shown.

Allowing your program to access Twitter tweets

Twitter API Keys

Sample data.

Sensitive data (Consumer Key and Consumer Secret) has been redacted.

The screenshot shows the Twitter Application Management interface for an application named "Visualize My Tweets CLC". The page is divided into several sections:

- Application Settings:** This section contains the following information:
 - Consumer Key (API Key): Redacted with a black bar.
 - Consumer Secret (API Secret): Redacted with a black bar.
 - Access Level: Read and write (mostly app permissions)
 - Owner: Singa@stunz013
 - Owner ID: 104800915
- Application Actions:** This section contains two buttons: "Regenerate Consumer Key and Secret" and "Change App Permissions".
- Your Access Token:** This section contains the following information:
 - Access Token: Redacted with a black bar.
 - Access Token Secret: Redacted with a black bar.
 - Access Level: Read and write
 - Owner: Singa@stunz013

You will need the redacted information.

Allowing your program to access Twitter tweets

Same image.

The screenshot shows the Twitter Application Management interface for an application named "Visualize My Tweets CLC". The page is divided into several sections:

- Application Settings:** This section contains fields for "Consumer Key (API Key)", "Consumer Secret (API Secret)", "Access Level" (set to "Read and write (modify app permissions)"), "Owner" (SimpleSimon2013), and "Owner ID" (1648059915). The Consumer Key and Secret fields are redacted with a red bar.
- Application Actions:** This section contains two buttons: "Regenerate Consumer Key and Secret" and "Change App Permissions".
- Your Access Token:** This section contains fields for "Access Token", "Access Token Secret", "Access Level" (set to "Read and write"), and "Owner" (SimpleSimon2013). The Access Token and Access Token Secret fields are redacted with a red bar.

The page also includes a "Test OAuth" button in the top right corner and a navigation menu with tabs for "Details", "Settings", "Keys and Access Tokens", and "Permissions".

You will need the redacted information.

These are important and sensitive

You have created a Twitter application. Your application can do things on your behalf. Your application is you.

Keep these pieces of data private.

- Consumer Key (API Key) – You'll use this later.
- Consumer Secret (API Secret) – You'll use this later.
- Access Token
- Access Token Secret

When in doubt you can go to the Twitter Application Management page and recreate them anew.

Q & A time.

Q: What was the greatest achievement in taxidermy?

A: The Royal Canadian Mounted Police.



What have we covered?

- Created a Twitter account
- Created a Twitter Developer's account
- Identified the Twitter Keys we'll need later



Next: Accessing tweets using R.