

# Big Data: Data Wrangling Boot Camp

## Twitter Accounts

Chuck Cartledge, PhD

16 September 2016

# Table of contents I

1 Introduction

2 Twitter account

3 Twitter API

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:

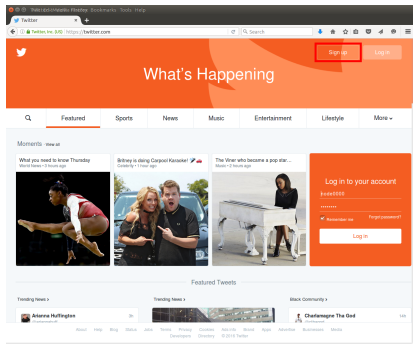
- We'll create twitter accounts (if needed).
- We'll create twitter developer accounts (if needed).
- We'll save the “special data” needed by our programs to access twitter.
- We'll get ready for lots of work over the next two days.



An account is required to access the Twitter API

# Create a Twitter account

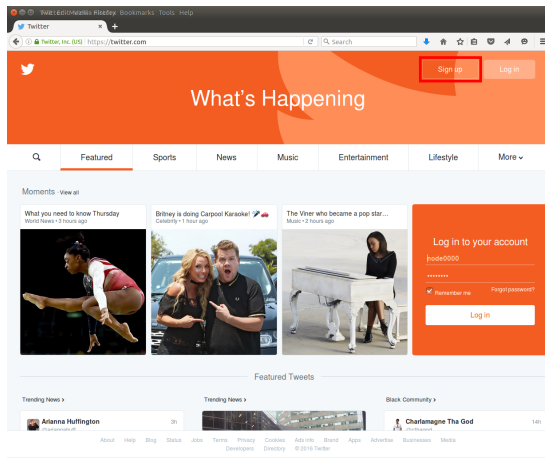
A valid twitter account is required to search the twitterverse, either through a UI or an API.



<https://twitter.com>

An account is required to access the Twitter API

# Same image.



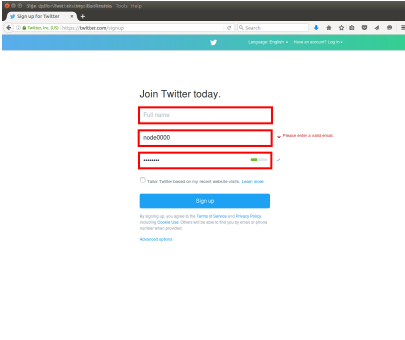
`https://twitter.com`

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

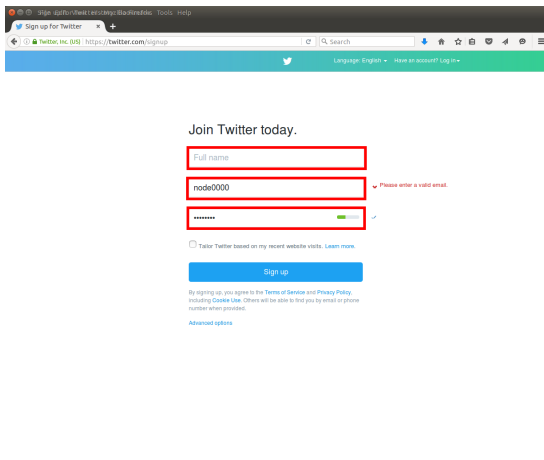


The screenshot shows the Twitter sign-up page in a web browser. The page title is "Sign up for Twitter". The URL bar shows "https://twitter.com/signup". The page content includes the heading "Join Twitter today." followed by three input fields: "Full name", "code0000", and "password". Each input field is highlighted with a red rectangular box. To the right of the "code0000" field, there is a red error message that says "Please enter a valid email". Below the input fields is a blue "Sign up" button. At the bottom, there is a checkbox for "I'm a Twitter based on my recent website visits" and a link to "Learn more". Below the checkbox, there is a small disclaimer: "By signing up, you agree to the Terms of Service and Privacy Policy. Including Cookies Use. We'll use your email or phone number when provided." and a link to "Advanced options".

You can now send and receive tweets.

An account is required to access the Twitter API

# Same image.



A screenshot of a web browser showing the Twitter sign-up page. The browser's address bar displays 'https://twitter.com/signup'. The page has a teal header with the Twitter logo and navigation links. The main content area is white and features the heading 'Join Twitter today.' followed by three input fields, each outlined with a red rectangle. The first field is labeled 'Full name' and is empty. The second field contains 'node0000' and has a red error message 'Please enter a valid email.' to its right. The third field contains masked characters '\*\*\*\*\*' and has a green progress bar and a checkmark to its right. Below these fields is a checkbox labeled 'Tailor Twitter based on my recent website visits. Learn more.' and a blue 'Sign up' button. At the bottom, there is a small disclaimer about terms of service and a link for 'Advanced options'.

Join Twitter today.

Full name

node0000 Please enter a valid email.

\*\*\*\*\* ✓

☐ Tailor Twitter based on my recent website visits. [Learn more.](#)

[Sign up](#)

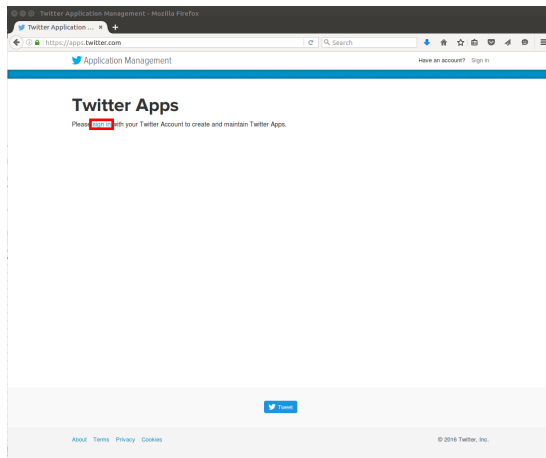
By signing up, you agree to the [Terms of Service](#) and [Privacy Policy](#), including [Cookie Use](#). Others will be able to find you by email or phone number when provided.

[Advanced options](#)

You can now send and receive tweets.

Allowing your program to access Twitter tweets

# Go to the Twitter API sign-in page

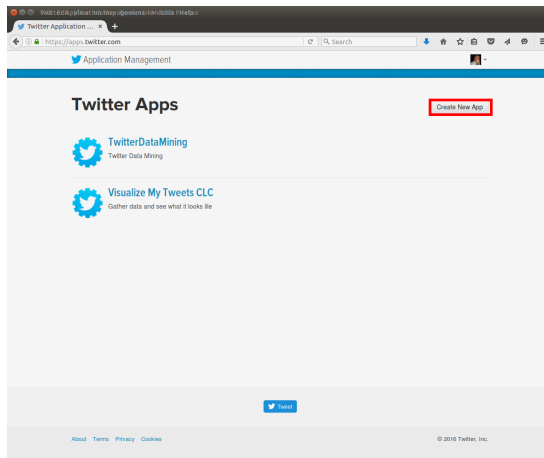


`https://apps.twitter.com/`



Allowing your program to access Twitter tweets

# Begin the application creation process.



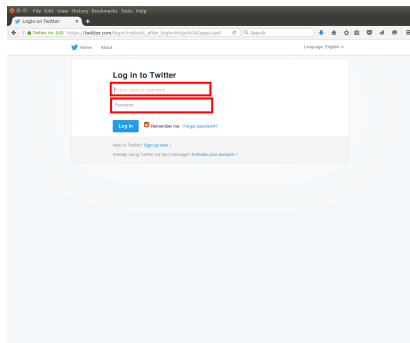
Sample data shown.

Allowing your program to access Twitter tweets

# Log into Twitter

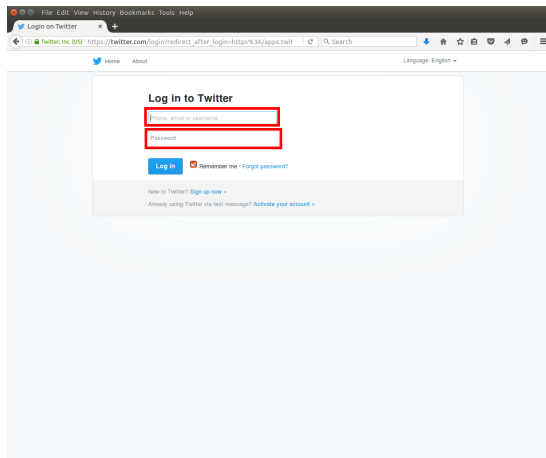
Provide the following information:

- Username
- Password



Allowing your program to access Twitter tweets

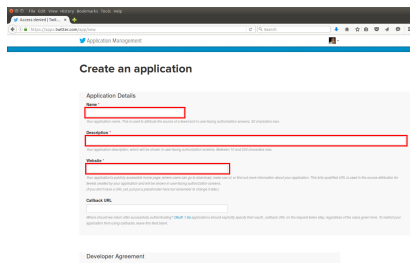
# Same image.



# 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



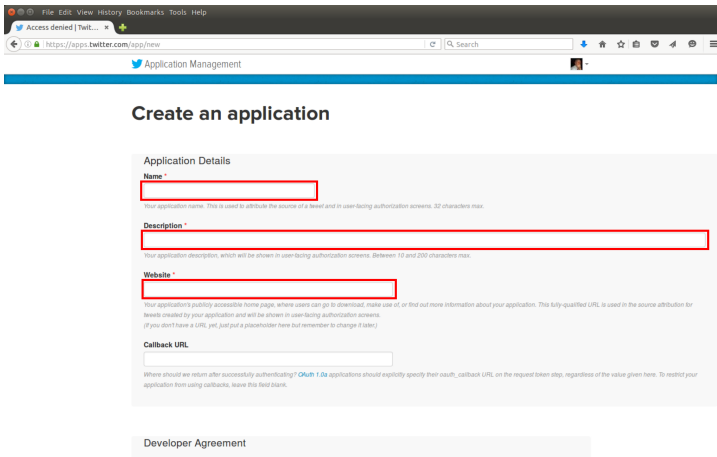
The screenshot shows the 'Create an application' form in the Twitter Application Management interface. The form includes the following fields:

- 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 section for the **Developer Agreement**.

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". Below this, there is a form titled "Application Details" with 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, there is a section titled "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:

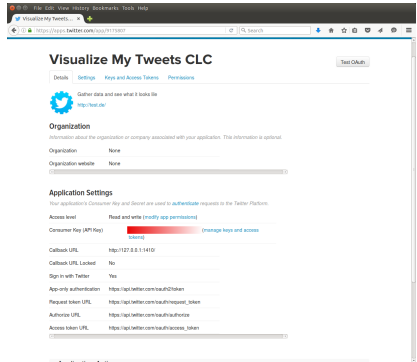
`http://127.0.0.1:1410`

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

Allowing your program to access Twitter tweets

# Twitter application API details page

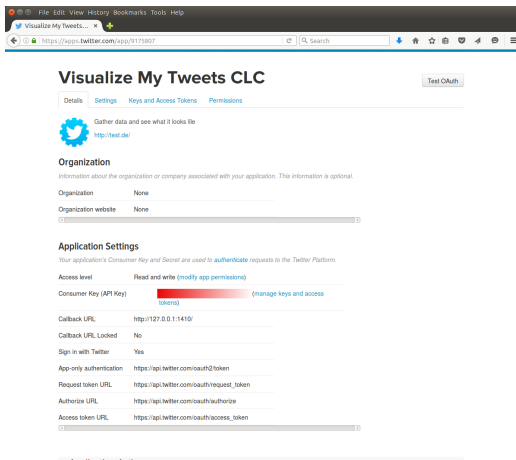
This page allows you to modify information about your application.  
Sensitive data has been redacted.



Sample data shown.

Allowing your program to access Twitter tweets

# Same image.



Sample data shown.

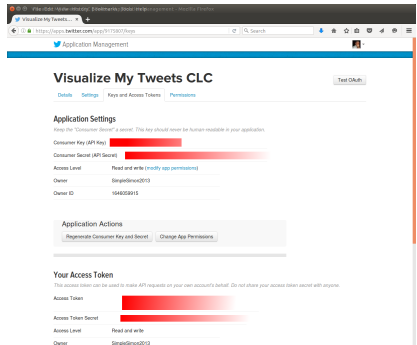


Allowing your program to access Twitter tweets

# Twitter API Keys

Sample data.

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



You will need the redacted information.

Allowing your program to access Twitter tweets

# Same image.

The screenshot shows the Twitter Application Management interface in a Mozilla Firefox browser. The page title is 'Visualize My Tweets CLC'. There are four tabs: 'Details', 'Settings', 'Keys and Access Tokens', and 'Permissions'. The 'Settings' tab is active. The page is divided into two main sections: 'Application Settings' and 'Application Actions'.

**Application Settings**

Keep the "Consumer Secret" a secret. This key should never be human-readable in your application.

Consumer Key (API Key)	[Redacted]
Consumer Secret (API Secret)	[Redacted]
Access Level	Read and write ( <a href="#">modify app permissions</a> )
Owner	SimpleSimon2013
Owner ID	1646059915

**Application Actions**

[Regenerate Consumer Key and Secret](#) [Change App Permissions](#)

**Your Access Token**

This access token can be used to make API requests on your own account's behalf. Do not share your access token secret with anyone.

Access Token	[Redacted]
Access Token Secret	[Redacted]
Access Level	Read and write
Owner	SimpleSimon2013

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.

“‘The Answer to the Great Question . . . Of Life, the Universe and Everything . . . is . . . forty-two,’ said Deep Thought, with infinite majesty and calm.”

**Douglas Adams, The Hitchhiker's Guide to the Galaxy**



# 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 Python.