Using external APIs & deploying - Session 5

CFG Advanced Python Course - Session 5 (Summer 2016)

Using external APIs & deploying

Twitter

Twitter provides a set of REST APIs in order to programmatically access, read & write Twitter data. You can access Twitter's REST APIs in many different ways; there are a whole bunch of libraries for any programming language you can imagine. In the context of this course, we will be using tweepy, a Python library enabling programmatic access to Twitter's REST APIs.

As we all know by now, installing a Python library such as tweepy is as simple as doing **pip install tweepy**. Mac users, as always, you might need to add a **sudo** at the start of that command.

As per last session's homework, you should all have a Twitter account, so go ahead and head over to apps.twitter.com; log in with your Twitter account if you are not already logged in.

Once logged in, you should see the following:

We will create a new application, so click on the **Create New App** button.

You will now be presented with a form that you need to fill in with all your application details; fill in the name, description and website fields. Before pressing the **Create your Twitter application** button, ensure you select that you agree to the Developer Agreement.

Once you do that, if everything works out fine you will be taken to your application page where you can see some basic information. Click on the **Keys and Access Tokens** tab, where you will get a chance to generate a consumer key & secret as well as an access token & secret. We will use these keys and secrets in our Python code to authenticate ourselves with Twitter so that it knows we have a genuine application to access data.

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Let’s try get some Twitter data using Tweepy, for example let’s get Tweets that mention CodeFirstGirls:

```
import tweepy

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

twitter_api = tweepy.API('auth')

cfg_tweets = twitter_api.search(
    q="CodeFirstGirls"
)

for tweet in cfg_tweets:
    print tweet.user.name + ": " + tweet.text
```

That’s cool right? That’s just a small glimpse of what you can actually do using Twitter’s API! You can look at tweepy’s API reference to discover some more things that you can do with it.

Task

- Get information related to the CodeFirstGirls Twitter user
- Get a list of all followers for the CodeFirstGirls Twitter user
- Figure out how to post a tweet using tweepy

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Deploying
Heroku is a platform built for making it easy to deploy your code so that you can solely concentrate on developing your app/website rather than spending time setting up a server yourself. Head over to heroku.com and sign up for free.

Everything you need for getting your Python/Flask app deployed on Heroku can be found in Heroku's documentation.

Task

- Figure out how to deploy a Flask app on Heroku