

LO1-LO2

Examine data mining through social media tracking

Objective

After attending this session, you should be able

- Practice how to use API (application programming interface) to collect data from various social media services
- Collect data from YouTube

What we will need

- Google API's python client package and unidecode package
- Authentication information for google API

Install package

- We will install and use a python package provider for google API-related product/service development

\$ pip install --upgrade google-api-python-client

Reference: <https://developers.google.com/api-client-library/python/>

- Another package we install is unicode, a package that handles Unicode-ascii translation

\$ pip install unicode

Reference: <https://pypi.python.org/pypi/unicode>

Google APIs set-up

Google APIs (https://developers.google.com/api-client-library/python/start/get_started#setup)

If you have never created a Google APIs Console project, read the Managing Projects page and create a project in the Google Developers Console.

<https://console.developers.google.com/apis/library>

SocialMediaAnalytics

RPI API Manager

- Dashboard
- Library**
- Credentials

Library

Google APIs

Popular APIs

Google Cloud APIs

- Compute Engine API
- BigQuery API
- Cloud Storage Service
- Cloud Datastore API
- Cloud Deployment Manager API
- Cloud DNS API
- More

Google Maps APIs

- Google Maps Android API
- Google Maps SDK for iOS
- Google Maps JavaScript API
- Google Places API for Android
- Google Places API for iOS
- Google Maps Roads API
- More

Google Apps APIs

- Drive API
- Calendar API
- Gmail API
- Sheets API
- Google Apps Marketplace SDK
- Admin SDK
- More

Mobile APIs

- Google Cloud Messaging
- Google Play Game Services
- Google Play Developer API
- Google Places API for Android

Social APIs

- Google+ API
- Blogger API
- Google+ Pages API
- Google+ Domains API

YouTube APIs

- [YouTube Data API](#)
- YouTube Analytics API
- YouTube Reporting API

Advertising APIs

- AdSense Management API
- DCM/DFA Reporting And Trafficking API
- Ad Exchange Seller API
- Ad Exchange Buyer API
- DoubleClick Search API
- DoubleClick Bid Manager API

Other popular APIs

- Analytics API
- Translate API
- Custom Search API
- URL Shortener API
- PageSpeed Insights API
- Fusion Tables API
- Web Fonts Developer API

About this API

[Documentation](#) [Try this API in API Explorer](#)

The YouTube Data API v3 is an API that provides access to YouTube data, such as videos, playlists, and channels.

Using credentials with this API

Using an API key

To use this API you need an API key. An API key identifies your project to check quotas and access. Go to the [Credentials](#) page to get an API key. You'll need a key for each platform, such as Web, Android, and iOS. [Learn more](#)



Accessing user data with OAuth 2.0

You can access user data with this API. On the [Credentials](#) page, create an OAuth 2.0 client ID. A client ID requests user consent so that your app can access user data. Include that client ID when making your API call to Google. [Learn more](#)



After YouTube Data API 3 is enabled, you are asked to create credentials for this API use.

Click the 'Create Credentials' button.



You have now the API key for your application. It looks like this:
YIzaSyCsABEu4ffovhN9WTK9mqMqewhPmO0LuRz

Youtube_search_keyboard.py

Put your API key in the variable of DEVELOPER_KEY.

Run the script using command line (console) or through Spyder 'Run configuration':

In console

```
$ python ./search_keyword.py --q olympics
```

In Spyder

Set argument as '--q olympics'

Using python to extract data from Twitter

- What we will need:
- Authorization keys from Twitter
- tweepy package for python

Summary

- Practice how to use API (application programming interface) to collect data from various social media services
- Collect data from YouTube and store in csv file



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