

Twitter Data Extractor

User Manual

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Introduction

This command-line tool extracts user and tweet data from Twitter and reports the results to CSV, Excel, Google Sheets documents or MongoDB, SQLite databases.

Supported Features

- Extract single/multiple user data.
- Extract user's friends/followers data.
- Extract tweets data for a user.
- Extract tweets data for a search keyword.
- Report results to CSV, Excel or Google Sheets documents.
- Report results to MongoDB or SQLite databases.

Basic package only contains results in the requested output file/database.

Premium package contains the source code and installation of the script on the user side. User of the tool should have the Twitter API access, otherwise they will be limited to my account's limits that can also be shared by other users who bought the tool.

How to Setup

Installing Dependencies

Run the following commands to install required packages in the project directory.

```
python -m venv env  
source env/bin/activate  
python -m pip install -r requirements.txt
```

Setting Environment Variables

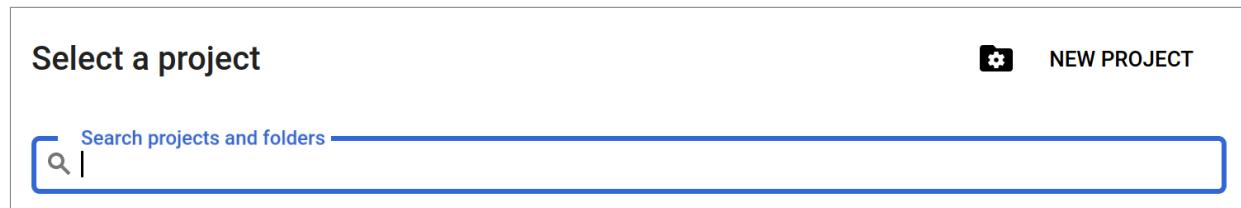
If you will use your own Twitter API credentials, set the *TWITTER_BEARER_TOKEN_CODE* environment variable with your bearer token value.

If you will use my account on behalf of your account, send email to support email at the end of this document to get my consumer key and secret tokens and set these to *TWITTER_CONSUMER_KEY_CODE* and *TWITTER_CONSUMER_SECRET_CODE* environment variables.

You can see the instructions to set environment variables [here for Linux](#), [here for Windows](#), and [here for Mac](#).

Creating a Project on Google Cloud Platform for Google Sheets Usage

1. Go to [Google Developers Console](#) and create a new project (or select the one you already have).



Write a name for your project and click the *CREATE* button.

Project name * ?

Project ID: twitter-data-extractor. It cannot be changed later. [EDIT](#)

Location * [BROWSE](#)

Parent organization or folder

CREATE **CANCEL**

2. Select APIs & Services → Library from the side menu. First search for “Google Drive API” and enable it.



Google Drive API

Google Enterprise API

The Google Drive API allows clients to access resources from Google Drive

ENABLE **TRY THIS API ↗**

Then search for “Google Sheets API” and enable it.

←



Google Sheets API

Google Enterprise API

The Sheets API gives you full control over the content and appearance of your spreadsheet data.

ENABLE **TRY THIS API ↗**

3. Create credentials for service account.

Since it's a separate account, by default it does not have access to any spreadsheet until you share it with this account. Just like any other Google account.

1. Go to APIs & Services → Credentials from the side menu.
2. Choose “CREATE CREDENTIALS > Service account”.

API APIs & Services	Credentials	+ CREATE CREDENTIALS	DELETE
Enabled APIs & services	Create credentials to access	API key	Identifies your project using a simple API key to check quota and access
Library	<input checked="" type="checkbox"/> Remember me	OAuth client ID	Requests user consent so your app can access the user's data
Credentials	<input checked="" type="checkbox"/> Name	Service account	Enables server-to-server, app-level authentication using robot accounts
OAuth consent screen	No API keys to display	Help me choose	Asks a few questions to help you decide which type of credential to use
Domain verification			
Page usage agreements			

3. Fill out the form.

4. Click “CREATE AND CONTINUE” and “DONE”.

1 Service account details

Service account name

Display name for this service account

Service account ID * X C

Email address: twitter-data-extractor@twitter-data-extractor.iam.gserviceaccount.com

Service account description

Describe what this service account will do

[CREATE AND CONTINUE](#)

5. Click on the email link under Service Accounts section.

Service Accounts

<input type="checkbox"/>	Email
<input type="checkbox"/>	twitter-data-extractor@twitter-data-extractor.iam.gserviceaccount.com

6. Go to KEYS tab and select “Create new key” from “ADD KEY” drop down menu.

[←](#) Twitter Data Extractor

[DETAILS](#)[PERMISSIONS](#)[KEYS](#)[METRICS](#)[LOGS](#)

Keys



Service account keys could pose a security risk if compromised. We recommend [here](#).

Add a new key pair or upload a public key certificate from an existing key pair.

Block service account key creation using [organization policies](#).

[Learn more about setting organization policies for service accounts](#)

[ADD KEY ▾](#)[Create new key](#)

Key creation date

Key expiration date

[Upload existing key](#)

7. Select JSON from the popup menu and click CREATE.

Create private key for "Twitter Data Extractor"

Downloads a file that contains the private key. Store the file securely because this key can't be recovered if lost.

Key type

 [JSON](#)

Recommended

 [P12](#)

For backward compatibility with code using the P12 format

[CANCEL](#)[CREATE](#)

8. JSON file with credentials will be downloaded automatically. It may look like this

```
{  
  "type": "service_account",  
  "project_id": "twitter-data-extractor",  
  "private_key_id": "5f4...f6a",  
  "private_key": "-----BEGIN PRIVATE KEY-----\nMIIEvQIBADANBgkqhkiG9w0BAQEFAASCBKcwg  
  "client_email": "twitter-data-extractor@twitter-data-extractor.iam.gserviceaccount.com",  
  "client_id": "102...063",  
  "auth_uri": "https://accounts.google.com/o/oauth2/auth",  
  "token_uri": "https://oauth2.googleapis.com/token",  
  "auth_provider_x509_cert_url": "https://www.googleapis.com/oauth2/v1/certs",  
  "client_x509_cert_url": "https://www.googleapis.com/robot/v1/metadata/x509/twitter-data-extractor"}  
}
```

4. Rename the downloaded file as “credentials.json” and copy it to the project directory.

MongoDB Installation

If you will use MongoDB to save users/tweets data, install it from [here](#).

You can check the running status after installation and start the database server with the following commands on Linux.

```
sudo service mongod status  
sudo service mongod start
```

How to Use

Basic Usage

The following commands are a few examples of getting user data, user's friends, tweets or tweets of a given keyword.

```
python twitter_data_extractor.py -u gvanrossum
python twitter_data_extractor.py --forme -ul "gvanrossum, nedbat"
python twitter_data_extractor.py -u gvanrossum -fr
python twitter_data_extractor.py --forme -u gvanrossum -ut
python twitter_data_extractor.py -s python
```

Results are written to *results.xlsx* file by default. Logs can be seen in the *tw_data_extractor.log* file in the project directory.

Supported Arguments

Short Argument	Long Argument	Description	Default Value
-h	--help	Show help message and exit.	
-c	--useconfig	Read configuration from json file.	False
-cf	--configfile	Read configuration from given json file.	config.json
-	--forme	Determine API user (account owner or on behalf of a user)	False
-u	--user	Extract user data for the given username	
-ul	--users	Extract user data for the given comma separated usernames	
-fr	--friends	Extract friends data for the given username	False
-fl	--followers	Extract followers data for the given username	False
-ut	--user_tweets	Extract tweets of user for the given username	False
-s	--search	Extract latest tweets for the given search keyword	

-tc	--tweet_count	Limit the number of tweets gathered	20
-e	--excludes	Fields to exclude from tweets queried as comma separated values (replies,retweets)	retweets
-ot	--output_type	Output file type (csv, xlsx, gsheets, mongodb or sqlite)	xlsx
-of	--output_file	Output file name	results.xlsx
-sm	--share_mail	Mail address to share Google Sheets document	

If config file will be used for getting parameters, boolean parameters like --forme, --friends still must be passed as command-line option.

The following is an example of config.json content.

```
{
  "user": "gvanrossum",
  "users": "",
  "search": "",
  "excludes": "retweets",
  "tweet_count": 20,
  "output_type": "xlsx",
  "output_file": "results.xlsx",
  "share_mail": "your email address"
}
```

If you use this file with a command like `python twitter_data_extractor.py -c`, it will get the user data for `gvanrossum` handle and write the results to `results.xlsx` file.

If `search` keyword will be used, `user` and `users` fields should be empty.

Fields to extract for user data

- User ID
- Username
- Name
- Account creation date
- Bio
- URLs, Hashtags, Mentions

- Location
- Pinned Tweet ID
- Pinned Tweet
- Profile image URL
- Account protected flag
- Public metrics (followers/following/tweet/listed counts)
- External URL
- Verified flag

Fields to extract for tweet data

- Tweet ID
- Tweet text
- Tweet creation date
- Source
- Language
- Public metrics (retweet/reply/like/quote count)
- URLs, Hashtags, Mentions
- Media (key, type, url, duration_ms(for video), width, height, public_metrics)
- Place (ID, full name, country, country code, place type, geo coordinates)
- Author data (for search tweets)

Example Commands

- Get user data for username *gvanrossum* and save results to *results.xlsx* file.
`python twitter_data_extractor.py -u gvanrossum`
- Get user data for username *gvanrossum* and save results to *results.xlsx* file with your own Twitter API credentials.
`python twitter_data_extractor.py --forme -u gvanrossum`
- Get user data for usernames *gvanrossum* and *nedbat*.
`python twitter_data_extractor.py -ul "gvanrossum,nedbat"`
- Get friends data for username *gvanrossum* and save results to *results.csv* file.
`python twitter_data_extractor.py -u gvanrossum -fr -ot csv -of results.csv`

- Get followers data for username *gvanrossum*.

```
python twitter_data_extractor.py -u gvanrossum -fl
```

- Get the last tweets data for username *gvanrossum*.

```
python twitter_data_extractor.py --forme -u gvanrossum -ut
```

- Get the last 50 tweets data for username *gvanrossum* and exclude both replies and retweets.

```
python twitter_data_extractor.py --forme -u gvanrossum -ut -tc 50 -e  
"replies,retweets"
```

- Get the last 50 tweets data for keyword *python*.

```
python twitter_data_extractor.py -s python -tc 50
```

- Get last tweets data for keyword *python* and write results to *Google Sheets document* with name *last_tweets* and share with the given email.

```
python twitter_data_extractor.py -s python -ot gsheets -of last_tweets -sm  
codenineeight@gmail.com
```

Screenshots

User Data

```
18-09-2022 16:15:14 [ INFO] 56: Getting data for username=gvanrossum
18-09-2022 16:15:15 [ INFO] 34: Saving user data...
18-09-2022 16:15:15 [ INFO] 39: 15804774:gvanrossum:Guido van Rossum
    Created at: 2008-08-11 04:02:18+00:00
    Bio: Python's BDFL-emeritus, Distinguished Engineer at Microsoft, Computer History Fellow, fully vaccinated. Opinions are my own. He/him.
    URLs
        https://t.co/d7KfaZMnNU
    Location: San Francisco Bay Area
    Pinned tweet id: 1306082472443084801
    Pinned tweet: Python 4 FAQ.
1. The version after 3.9 is 3.10; in fact it already exists (in github master).
2. If there ever is a version 4, the transition from 3 to 4 will be more like that from 1 to 2 rather than 2 to 3.
    Profile image url: https://pbs.twimg.com/profile_images/424495004/GuidoAvatar_normal.jpg
    Is account private: NO
    Public metrics
        followers_count: 267333
        following_count: 514
        tweet_count: 3553
        listed_count: 4700
    Url: https://t.co/d7KfaZMnNU
    Verified: True
Screenshot from 2022-0... Screenshot from 2022-0... Screenshot from 2022-0... Screenshot from 2022-0...
18-09-2022 16:15:15 [ INFO] 74: Data saved to results.xlsx
```

A	B	C	D	E	F	G	H	I	J	
ID	Username	Name	Created At	Bio	URLs	Hashtags	Mentions	Location	Pinned Tweet ID	Pinned Tweet
15804774:gvanrossum	gvanrossum	Guido van Rossum	2008-08-11T04:02:18+00:00	Python's BDFL-emeritus, Distinguished Engineer at Microsoft, Computer History Fellow, fully vaccinated. Opinions are my own. He/him.	https://t.co/d7KfaZMnNU			San Francisco Bay Area	1306082472443084801	If there ever is a version 4, the transi

A	B	C	D	E
ID	Username	Name	Created At	Bio
15804774:gvanrossum	gvanrossum	Guido van Rossum	2008-08-11T04:02:18+00:00	Python's BDFL-emeritus, Distinguished Engineer at Microsoft, Computer History Fellow, fully vaccinated. Opinions are my own. He/him.
16273417:nedbat	nedbat	Ned Batchelder	2008-09-13T16:56:32+00:00	Python, software, @coveragepy, typography, juggling, Boston, autism. Laughing at the world doesn't mean I don't take it seriously. He/him.

```
1 ID,Username,Name,Created At,Bio,URLs,Hashtags,Mentions,Location,Pinned Tweet ID,Pinned Tweet,Profile Image URL,Account Protected,Public Metrics,
2 14076724,john_lam,John Lam,2008-03-04T06:46:09+00:00,"I work @Microsoft, making Python more awesome across the company.
3
4 Podcast at https://t.co/N5RyiMqABD 🎙️,https://t.co/jSh0FARAAn,,Microsoft "Redmond, WA" 1546642919565578240,"In this week's podcast episode, I i
5 187196955,Mariacamilagl30,Camila Gutiérrez (she/her),2010-09-05T15:03:13+00:00,"Intl. Relations & MPP Grad 🌏 noob intersectional feminist 🌈 lo
6 12497,simonw,Simon Willison,2006-11-15T13:18:50+00:00,"Creator of @datasetteproj, co-creator Django. PSF board member. Collector of @nichemuseum
7 19481808,davidfowl,David Fowler 🇺🇸,2009-01-25T08:20:53+00:00,"Partner Software Architect at Microsoft on .NET, Creator of NuGet, SignalR and h
8 3098427092,TalkPython,Talk Python Podcast,2015-03-19T23:06:15+00:00,The #1 Python-focused podcast covering the people and ideas in Python. Creat
9 18185983,anthonypjshaw,Anthony Shaw 🇬🇧,2008-12-17T09:20:45+00:00,"Python, Cloud and OSS at Microsoft. Author of ""CPython Internals"". x3 Fa
10
11 I'm a Python and Open-Source advocate at Microsoft
12
13 I tweet about:
14 🐍 Python
15 🚦 Python Performance
16 📊 Python Best Practices
17 🛡️ Python Security and Testing
18 🕵️ Reverse Engineering
19 🎨 Compilers
20 💻 VS Code
21 🐶 My Dog
22 🇦🇺 Life in Australia",https://pbs.twimg.com/profile_images/1516998870668316672/LVyls001_normal.jpg,False,followers count: 21051 | following coun
23 1456119298892517378,margo_seltzer,Margo Seltzer,2021-11-04T04:41:19+00:00,,,,,,None,,https://pbs.twimg.com/profile_images/1456119451925893124/l8
24 297081267,gauravsingh961,Gaurav Singh,2011-05-11T22:13:45+00:00,I decode great leadership by sharing inspiring stories with actionable insights.
25
26 To build it I had to take 8 main decisions.
27
28 Here's my thinking behind each of them...",https://pbs.twimg.com/profile_images/1529805925313552384/wq0XAo1L_normal.jpg,False,followers count: 237
29 116928727521015808,dongheena92,Dong-hee Na,2019-09-04T16:35:45+00:00,SDE @ Line corp & CPython Core-dev: Opinions are my own not my employer,ht
30 30270986,cherlysabella,Cheryl Sabella,2009-04-10T17:55:02+00:00,,,,,,None,,https://pbs.twimg.com/profile_images/1098251679240253447/bLDhEcsn nor
31 25663453,dsymetweets,Don Syme,2009-03-21T11:17:51+00:00,"GitHub Next, F#, Linebreaker, also tweet about politics and other things.",https://t.co
32
```

	A	B	C	D	E	F
1	ID	Username	Name	Created At	Bio	URLs
2	14076724	john_jam	John Lam	2008-03-04T06:46:09+00:00	Podcast at https://t.co/NSRyMoABD #	https://t.co/SjOFA9Aq
3	187196955	Mariacamilag130	Camila Gutierrez (she/her)	2010-09-05T15:03:13+00:00	Intl. Relations & MPP Grad 🌍 googl intersectional feminist 🌈 loving UX, social data science & GIS 🌈 Sometimes I do i18n & Python 🌈	https://t.co/HmMsQ
4	12497	simonw	Simon Willison	2006-11-15T13:18:50+00:00	Creator of datesetproj , co-creator Django. PSF board member. Collector of achemuseums . Usually hanging out with psabat and cleopaws . He/Him	https://t.co/4R0XW1Gc
5	19481808	davidfowl	David Fowler 🇺🇸	2009-01-25T08:20:53+00:00	Partner Software Architect at Microsoft on .NET, Creator of NuGet Signer and https://t.co/PydKAJFg Core, Barbadian 🇧🇧 Tennis Player, Father, other half sympathizer	https://t.co/tuYUxVks
6	3098427092	TalkPython	Talk Python Podcast	2015-03-19T23:06:15+00:00	The #1 Python-focused podcast covering the people and ideas in Python. Created and hosted by https://t.co/0n60959	https://t.co/tuYUxVks
7				*	*	
8	18185983	anthonyphay	Anthony Shaw 🇬🇧	2008-12-17T09:20:45+00:00	Python, Cloud and OSS at Microsoft. Author of "CPython Internals". x3 Father, Christian, https://t.co/ASF member, https://t.co/ASF Fellow, https://t.co/Pluralsight Author, https://t.co/realython author	https://t.co/kxnESm016T
9	14561192989252E+18	margo_seltzer	Margo Seltzer	2021-11-04T04:41:19+00:00		
10	297081267	gauravsingh961	Gaurav Singh	2011-05-11T22:13:45+00:00	I decode great leadership by sharing inspiring stories with actionable insights. Grew 321 Foundation from 0 ~ 75 people. Now turned solopreneur.	https://t.co/UkwiiSLcs
11	116928782752102E+18	DongBee_Na	DongBee Na	2019-09-04T16:35:45+00:00	SDE @ Line corp & CPython Core dev. Opinions are my own not my employer	https://t.co/cp1udguOSty
12	30270986	cherylsabella	Cheryl Sabella	2009-04-10T17:55:02+00:00		
13	25663453	donnytweets	Don Syme	2009-03-21T11:11:51+00:00	Github Next, F# Linabreaker, also tweet about politics and other things.	https://t.co/lKffHQc9Zce
14	78942899	belmontcapolice	Belmont Police Dept.	2009-10-01T16:23:40+00:00	Official Belmont Police Twitter account-Not monitored real-time for crime reporting. Call 650.595.7400 or 911 for assistance.	https://t.co/cuahOApJ38
15	1686322288	TimSweeneyFor	Tim Sweeney	2013-08-20T17:37:03+00:00	CEO of Epic Games. We make games and to make our games we made an engine and we share that engine with everyone else so we can all make games.	https://t.co/cp3FAY41Rdv
16	708784997151620E+17	RichTurner_ms	Rich Turner	2016-03-12T17:41:35+00:00	Microsoft PM Lead, currently focusing on enabling Windows a great platform for developers. x64 & ARM. Formerly PM of Windows Terminal & Windows Subsystem for Linux (WSL)	https://t.co/cp0XoDNTqHn
17	1326645452830313E+18	ClaudiaReggio	Claudia Reggio	2020-11-11T21:58:53+00:00	for NET interactive. Currently focusing on enabling multi-language notebook experiences! @Microsoft @code (@she/her) Opinions are my own not my employer	https://t.co/LvVgKEK1Q
18	2231617016	Captain_Leanne	Leanne Nauyekke	2013-12-05T15:13:30+00:00	I know something about software and aerautical engineering. Python core developer. Director (vice chair) https://t.co/TheASF passionate aviator. Show me the code! Celebrating 50 years in this wonderful music business.	
19	1462580222	ArmatradingJoan	Joan Armatrading	2013-05-27T16:30:30+00:00	The Weekless To Me a new book of my lyrics out 3 Nov. https://t.co/9500204008	https://t.co/qhYctEMeb
20				*	*	

Tweet Data

	A	B
1	ID	Text
2	1.56831721640339E+018	The current state of AI is like this. A marketing person talks to an engineer. After 5 minutes the marketing person can speak the engineer's lingo perfectly, e.g. "async server protocol." But under
3	1.56831516371518E+018	will be there, with @st1. https://t.co/8mBluaXGY
4	1.56831424306127E+018	If you'd asked me "when was the reign of king Charles III" I would have assumed it was somewhere in the 1400s.
5	1.56477022990894E+018	See you there in 11 days! https://t.co/JA5Eqoy5fa
6	1.54657207336701E+018	Python 3.11b4 is *finally* released. WE NEED YOU TO TEST YOUR PACKAGES WITH THIS! https://t.co/gijx2VOUi
7	1.54221499639999E+018	Last day for this https://t.co/N16zKnCfbx
8	1.54218887269555E+018	@Oxfabaceae @vpoldspace No it is not. This is not an API, just an implementation crutch (it was easier to make it a built-in function than dedicate an opcode to it). Don't use <code>_build_class_</code> !
9	1.53965101596784E+018	@ayatos @jeduyd Thank you for not asking. Fan photo requests are the worst part of conferences for me.
10	1.53963925747978E+018	Another @py_bay event is coming up. Call for papers is still open! https://t.co/BvLW54TJC
11	1.5266772982162E+018	@markodrama @robhooij Helaas, ik heb Battus nooit ontmoet. Ben wel sinds mijn tienerjaren een groot fan, maar toen ik op het MC kwam werken was hij daar al lang weg. Er waren ook weinig
12	1.52184945185321E+018	Programming languages really haven't changed that much, if you can see through the fads of the day (like numbers, upper case, no indentation).
13	1.52184883493968E+018	@AmanDQD You need <code>@pwang</code> , not me.
14	1.5132213035939434E+018	It's just about done! https://t.co/GfAfGmq3M is dead. Long live https://t.co/wM2m1BrDr8 . https://t.co/XV7Webvmdc
15	1.51258120414222E+018	After two delays, it's now "really" happening. https://t.co/eddy is ready-only. Take the weekend off. :-)
16	1.50895926090592E+018	@tech_update0 @ethereum @solana Let web3 die in a flaming ball of fire.
17	1.5089587124084E+018	(yedba any), all() were meant as ways to spell 3, https://t.co/exists too long, awkward. We argued endlessly about whether they should return examples/counterexamples or always a bool:
18	1.50895562830313E+018	Just discovered Hedy, a gradual programming language. It's a new idea on how to teach programming to beginners. Very cool! @hedycode
19	1.507038003454E+018	It's happening! BPO is migrating to GitHub tomorrow. https://t.co/kOcoaEdull
20	1.50092317671216E+018	@GiuliaWillcox Have you seen this? https://t.co/oPs5PCZGcf
21	1.49505601988128E+018	@intvrtkovic @AlexWaygood @hynek Apology accepted. We'll write it off as youthful enthusiasm. :)
22		

	C	D	E	F	G
1	Created At	Source	Language	Public Metrics	URLs
2	2022-09-09T19:15:36+00:00	Twitter Web App	en	retweet_count: 29 reply_count: 5 like_count: 191 quote_count: 1	https://t.co/Hjcbn93ERO
3	2022-09-09T19:07:27+00:00	Twitter Web App	en	retweet_count: 6 reply_count: 4 like_count: 47 quote_count: 0	https://t.co/8mBluaXGY
4	2022-09-09T19:07:48+00:00	Twitter Web App	en	retweet_count: 35 reply_count: 22 like_count: 568 quote_count: 3	
5	2022-08-31T00:21:09+00:00	Twitter Web App	en	retweet_count: 9 reply_count: 4 like_count: 80 quote_count: 2	https://t.co/JA5Eqoy5fa
6	2022-07-11T19:08:10+00:00	Twitter Web App	en	retweet_count: 201 reply_count: 20 like_count: 660 quote_count: 11	https://t.co/iijX2VOUi
7	2022-06-29T18:34:23+00:00	Twitter Web App	en	retweet_count: 10 reply_count: 1 like_count: 57 quote_count: 0	https://t.co/N16zKnCfbx
8	2022-06-29T16:50:54+00:00	Twitter Web App	en	retweet_count: 0 reply_count: 2 like_count: 10 quote_count: 0	
9	2022-06-22T16:46:22+00:00	Twitter Web App	en	retweet_count: 0 reply_count: 0 like_count: 3 quote_count: 0	
10	2022-06-22T15:59:38+00:00	Twitter Web App	en	retweet_count: 11 reply_count: 0 like_count: 61 quote_count: 2	https://t.co/BvLW54TJC
11	2022-05-17T21:33:26+00:00	Twitter Web App	nl	retweet_count: 0 reply_count: 1 like_count: 2 quote_count: 0	
12	2022-05-04T13:49:18+00:00	Twitter Web App	en	retweet_count: 0 reply_count: 7 like_count: 61 quote_count: 1	
13	2022-05-04T13:46:51+00:00	Twitter Web App	en	retweet_count: 1 reply_count: 2 like_count: 8 quote_count: 0	
14	2022-04-10T18:24:08+00:00	Twitter Web App	en	retweet_count: 74 reply_count: 14 like_count: 460 quote_count: 5	https://t.co/GfAfGmq3M https://t.co/wM2m1BrDr8
15	2022-04-09T00:00:36+00:00	Twitter Web App	en	retweet_count: 30 reply_count: 2 like_count: 218 quote_count: 1	https://t.co/XV7Webvmdc
16	2022-03-30T00:08:17+00:00	Twitter Web App	en	retweet_count: 1644 reply_count: 109 like_count: 6506 quote_count: 434	
17	2022-03-30T00:06+00:00	Twitter Web App	en	retweet_count: 6 reply_count: 2 like_count: 128 quote_count: 0	
18	2022-03-29T23:53:51+00:00	Twitter Web App	en	retweet_count: 151 reply_count: 16 like_count: 732 quote_count: 16	https://t.co/3dBnmTqfAs
19	2022-03-24T19:55:52+00:00	Twitter Web App	en	retweet_count: 109 reply_count: 7 like_count: 570 quote_count: 12	https://t.co/kOcoaEdull
20	2022-03-07T19:55:45+00:00	Twitter Web App	en	retweet_count: 1 reply_count: 2 like_count: 3 quote_count: 0	https://t.co/oPnPSPCZGcf
21	2022-02-19T15:21:46+00:00	Twitter Web App	en	retweet_count: 1 reply_count: 0 like_count: 6 quote_count: 0	
22					

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1	URLs	Hashtags	Mentions	Media
2			theprincessxena simonw	
3			simonw	
4	https://t.co/dJRF0bp8TK			Key: 3_1571124551760625664, Type: photo URL: https://pbs.twimg.com/media/Fc3BdKWWQAAoMPJ.jpg Width: 1360, Height: 1360
5			adygupte	
6			adygupte	
7			urbanscribesays	
8	https://t.co/9qC0Mwregn		therelacicn	
9			tony_copr	
10	https://t.co/ia44dtSt2o	Python		Key: 3_1570742824018001922, Type: photo URL: https://pbs.twimg.com/media/FcxmRrsWQAIQhl2.jpg Width: 1314, Height: 1314
11			raphaelschaad dodecahedron	
12			cvwillegen DotEvoke lewisfogden	
13			dreftymac	
14			AndrewBeanAl	
15			cvwillegen lewisfogden	
16			cvwillegen	
17			sastuvel	
18	https://t.co/wVba8PEyFv	Python		Key: 3_1569658018488360960, Type: photo URL: https://pbs.twimg.com/media/FcILpsLXoAATTIP.jpg Width: 1336, Height: 1336
19			jalfonso21	
20			StefanP08342519	
21			moebio	
22				

	A	Text
1	ID	
2	1.571492739099E+18	Si c'est pour l'école d'ingénieur, y a quelques tests à effectuer et tu pourras intégrer... https://t.co/FQeqSgjch
3	1.5714926946352E+18	#ICPLAZA open source #code languages, like #Perl, #PHP, #Python, #Ruby, #Go, #Rust, and #Swift, and #Java, provide a reference for #global #blockchain #geeks to jointly provide a #fundamental #
4	1.5714926868498E+18	Hit our Bio https://t.co/Fu6EBT5f7b
5	1.5714926857834E+18	https://t.co/PefoxKEpOV
6	1.5714926376848E+18	@NellyKelly89 @HigherPoweredXO @JosephArmand1 @missberry93 @read_claudine @BabyAng62495676 @Mr_Chuckleteeth @JohnnyDeppBot @rain_hay @Michelleeo @KaseyRocks @sjkcampbell1
7	1.5714926258652E+18	Our Bio https://t.co/NqC7LnHK
8	1.5714925310362E+18	@pradumna_sara Now at gym but I will finish my math and Python @
9	1.571492481858E+018	Os Scripts do Mr robot são feitos em python mucho bom
10	1.5714924653997E+18	#プログラミング #Discord #Python https://t.co/f372Qdkgc1
11	1.5714924641876E+18	knowledge on Python is poor
12	1.5714924355866E+18	pythonのコマンドラインからpythonファイルは実行できない? cmdからしか実行できない?
13	1.5714924217454E+18	Indonesia adalah Tempat dimulainya ular terpanjang di dunia yaitu, Python Reticulates sepanjang 10 meter di Sulawesi.
14	1.5714924135791E+18	@tech9icals Now I know what to do not while running away from a python 🐍
15	1.5714923778101E+18	@yukari3652 天文部のPython使いに度肝抜かれたみたい。仕事で使ってるようなことを17歳でやってる〜俺は今まで何をしていたんだろうかって人生後悔してる(笑)
16	1.5714923355774E+18	
17	1.5714923331407E+18	وفي واجهت صعوبة منها التغلق إلى لغة C مع المدخلات المطلوبة من قبل في هذه الموجة ستعمل على
18	1.5714923242027E+18	https://t.co/Yx7xP9w7kd
19	1.5714923150462E+18	Di https://t.co/WBwy1d9HBE
20	1.5714923035574E+18	cual curso esta haciendo? si se permite la indiscrecion.
21	1.5714922802796E+18	#Aleks #Pearson #Canvas #ncat https://t.co/nEzK29RhD
22	1.5714922363654E+18	#DataScience #programming #DataScientists #Analytics #BigData #AI #Python #DataScience #ML #NLP #javascript #TensorFlow #Coding #Serverless #100DaysOfCode #Dataviz #MachineLearn
23	1.57149223525457E+18	We just kept seeing this issue over and over again, of companies making a big investment in #MachineLearning and believing that it is going to have a transformative effect on their organizations, t
24	1.5714922337733E+18	#vikram #KamalHassan #Suruya #viyayethupathi #faahfaisil #lokeshanagarasi #LGU #bot #trend #movie #tamil #python
25	1.5714922141732E+18	Hit our Bio for More Info! https://t.co/drGNjtL6sf
26	1.5714922084271E+18	Te apuntas? Acabo de inscribirme a este Máster de @Udemey: Master en Python: Aprender Python 3, Django, Flask y Tkinter https://t.co/yoDtNPKId
27	1.5714922048747E+18	python難しそうよ
28	1.571492197459E+018	#programming #reinforcementlearning #pythonprogramming #coding
29	1.5714921153051E+18	@HigherPoweredXO @JosephArmand1 @missberry93 @read_claudine @BabyAng62495676 @Mr_Chuckleteeth @JohnnyDeppBot @rain_hay @Michelleeo @KaseyRocks @sjkcampbell1 @ZoeGold69 @
30	1.5714921010447E+18	No possibility to sort committee & board members https://t.co/BeV7F3ubcj #github #Ruby #HTML #JavaScript #CSS #Shell #Profile #Python #HTML #CSS #JavaScript
31	1.5714920789701E+18	#programming #programmingjoke #programminghumor #Python #javascript #Java
32	1.5714920771748E+18	#USA #Canada #Australia #Newzealand #Singapore
33	1.5714920219358E+18	How can I set up a virtual environment for Python in Visual Studio Code? - Visit https://t.co/H1Yu25Ye7 for the answer. #python #visual_studio_code #virtualenv #programming #code
34	1.5714920183119E+18	⌚ 1663507868
35	1.5714920086484E+18	Time and date: 19:01 09-18-2022
36	1.5714920058338E+18	Hard knock: 8-foot-long python swallows goat in Palamau Tiger Reserve; rescued https://t.co/oZwnlibIKhI

	C	D	E	F	G
1	Created At	Source	Language	Public Metrics	URLs
2	2022-09-18T13:34:00+00:00	Twitter for Android	fr	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	https://t.co/FQeqSgj1ch
3	2022-09-18T13:33:49+00:00	Twitter Web App	en	retweet_count: 1 reply_count: 1 like_count: 0 quote_count: 0	
4	2022-09-18T13:33:48+00:00	Twitter for Android	en	retweet_count: 2 reply_count: 0 like_count: 0 quote_count: 0	https://t.co/Fu6EBT5f7b
5	2022-09-18T13:33:40+00:00	Twitter Web App	en	retweet_count: 1 reply_count: 0 like_count: 0 quote_count: 0	https://t.co/02Ow53jESv https://t.co/PefoxKep0V
6	2022-09-18T13:33:36+00:00	Twitter for Android	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
7	2022-09-18T13:33:33+00:00	Twitter for Android	en	retweet_count: 3 reply_count: 0 like_count: 1 quote_count: 0	https://t.co/NqC7LnHK
8	2022-09-18T13:33:10+00:00	Twitter for iPhone	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
9	2022-09-18T13:32:59+00:00	Twitter for Android	pt	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
10	2022-09-18T13:32:55+00:00	Twitter	ja	retweet_count: 1 reply_count: 0 like_count: 2 quote_count: 0	https://t.co/cze9HVMsEr
11	2022-09-18T13:32:55+00:00	Cheap Bots, Done Quick!	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
12	2022-09-18T13:32:48+00:00	Twitter Web App	ja	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
13	2022-09-18T13:32:44+00:00	twitterbot.net	in	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
14	2022-09-18T13:32:42+00:00	Twitter for iPhone	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
15	2022-09-18T13:32:34+00:00	Twitter for iPhone	ja	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
16	2022-09-18T13:32:24+00:00	Twitter Web App	ar	retweet_count: 0 reply_count: 1 like_count: 1 quote_count: 0	
17	2022-09-18T13:32:23+00:00	Twitter Web App	ar	retweet_count: 0 reply_count: 1 like_count: 1 quote_count: 0	
18	2022-09-18T13:32:21+00:00	Twitter for Android	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	https://t.co/Yx7xP9w7kd
19	2022-09-18T13:32:19+00:00	Twitter for Android	en	retweet_count: 2 reply_count: 0 like_count: 1 quote_count: 0	https://t.co/WBwy1d9HBE
20	2022-09-18T13:32:16+00:00	Twitter Web App	es	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
21	2022-09-18T13:32:11+00:00	Twitter for Android	en	retweet_count: 9 reply_count: 0 like_count: 3 quote_count: 0	https://t.co/EzK29rhD
22	2022-09-18T13:32:00+00:00	Twitter for Android	en	retweet_count: 3 reply_count: 0 like_count: 5 quote_count: 0	https://t.co/KZhelCgN2m
23	2022-09-18T13:32:00+00:00	Buffer	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	https://t.co/TKmvvX9Ar
24	2022-09-18T13:32:00+00:00	Frame Bot - Vikram	qht	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
25	2022-09-18T13:31:55+00:00	Twitter for Android	en	retweet_count: 2 reply_count: 0 like_count: 1 quote_count: 0	https://t.co/dpGNjtL6sf
26	2022-09-18T13:31:54+00:00	Twitter for iPhone	es	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	https://t.co/yoDtNPKId
27	2022-09-18T13:31:53+00:00	Twitter for iPhone	ja	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
28	2022-09-18T13:31:51+00:00	CORPUS_NEWS	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	https://t.co/vj0pkIH6o
29	2022-09-18T13:31:31+00:00	Twitter for iPhone	en	retweet_count: 0 reply_count: 1 like_count: 2 quote_count: 0	
30	2022-09-18T13:31:28+00:00	oss-first-issues	en	retweet_count: 1 reply_count: 0 like_count: 0 quote_count: 0	https://t.co/BeV7F3ubcj
31	2022-09-18T13:31:23+00:00	Twitter	en	retweet_count: 2 reply_count: 0 like_count: 2 quote_count: 0	
32	2022-09-18T13:21:22+00:00	TweetDeck	en	retweet_count: 2 reply_count: 0 like_count: 0 quote_count: 0	

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1	Place
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8	ID: 6117340173950990 Full name: Upper Arlington, OH Country: United States (US) Type: city Coords: [-83.104102, 39.989304, -83.042267, 40.063891]
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Google Sheets

last_tweets					
B1	A	B	C	D	E
	ID	Text	Created At	Source	Language Public Metrics
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last_tweets

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B1

Text

	I	J	K	L
1	Mentions	Media	Place Author	
2			1519442055386353665:MichaelLoveWay:Lilo Created at: 2022-04-27 22:23:34+00:00 Bio: ❤️Devoted ❤️ Crypto ❤️ Medical Programmer ❤️ Graphic designer ❤️ Location: None Pinned tweet id: None Profile image url: https://pbs.twimg.com/profile_images/1519445170130989056/YybW6sKE_normal.jpg Is account private: NO Public metrics followers_count: 3 following_count: 33 tweet_count: 41 listed_count: 0 Url: Verified: False	
3	fonoster		1466772502177529861:kaizen_oni:元教員のかっちやん@R/Pythonで統計/ML学習中 Created at: 2021-12-03 14:13:27+00:00 Bio: プログラミングは趣味 元高校数学教師 2022年4月からIT研修会社に転職 教員時代はGAS使い フロントはNuxt.jsとSassが好み 今はPythonにお熱 W URLs https://t.co/Ya5KHpk6W1 Location: None Pinned tweet id: None Profile image url: https://pbs.twimg.com/profile_images/1466775195151388680/QhDa1-l8_normal.jpg Is account private: NO Public metrics followers_count: 148 following_count: 113 tweet_count: 732 listed_count: 1 Url: https://t.co/Ya5KHpk6W1 Verified: False	
4	fonoster		1288971714702053376:AdewumiAbeeb6:Adewumi Abeeb Created at: 2020-07-30 22:56:33+00:00 Bio: Chemical Engineer and a programmer (basically python)Obafemi Awolowo university Location: None Pinned tweet id: None Profile image url: https://pbs.twimg.com/profile_images/1526350019657449473/bOxl-qLT_normal.jpg Is account private: NO Public metrics followers_count: 92 following_count: 223 tweet_count: 559 listed_count: 1 Url: Verified: False	

	A	B	C	D	E	F	G
1	ID	Text	Created At	Source	Language	Public Metrics	URLS
2	1.5503E+18	Imported #Python modules are in a dict called sys.modules. In extreme cases, you	2022-07-23T13:17:00+00:00	Twitter Web App	en	retweet_count: 50 reply_count: 16 like_count: 400 quote_count: 1 (https://t.co/kfkOmZhGw)	
3	1.55078E+18	@shanebellone It's hard to see which values will go into which variables.	2022-07-23T10:08:30+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 1 like_count: 0 quote_count: 0	
4	1.55057E+18	@David3141593 After looking at it today, I think I prefer the [0] form. Or	2022-07-22T19:57:00+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 1 like_count: 2 quote_count: 0	
5	1.55051E+18	@reyhunner @AlexWaygood Or, your subconscious was tweeting what you *really* wanted to say. 2022-07-22T15:47:09+00:00 Twitterbot for Mac	2022-07-22T15:47:09+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 0 like_count: 6 quote_count: 0	
6	1.55050E+18	@michelB0300410 All languages are different. Java/C/C++ seem strange if you co	2022-07-22T14:58:14+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 1 like_count: 1 quote_count: 0	
7		Multi-variable assignment in #python can unpack any iterable. You can even unpack					
8	1.55046E+18	宣扬福音 https://t.co/qXrz8j8Q	2022-07-22T12:42:00+00:00	Twitter Web App	en	retweet_count: 48 reply_count: 11 like_count: 298 quote_count: 1 (https://t.co/gpXfrzb8jQ)	
9	1.55023E+18	@03gbrown https://t.co/wpF11EDIW	2022-07-21T21:17:41+00:00	Twitterbot for Mac	qme	retweet_count: 2 reply_count: 0 like_count: 7 quote_count: 0 (https://t.co/wpF11EDIW) (https://t.co/khLdwJWeov)	
10	1.55021E+18	@bushiname I can't tell if you're talking about module __getattr__... or the silly use I	2022-07-21T19:51:40+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 1 like_count: 21 quote_count: 0	
11	1.55021E+18	@samswall I can't tell if you're talking about __getattr__... or the silly use I made of it	2022-07-21T19:51:28+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
12	1.55014E+18	@sixline It's looking up a key in a dict. The dict happens to be a dict literal.	2022-07-21T15:16:46+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 1 like_count: 3 quote_count: 0	
13	1.55012E+18	@sam_does_code I totally agree.	2022-07-21T14:09:55+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 1 like_count: 5 quote_count: 0	
14	1.55009E+18	Since #Python 3.7, modules can define __getattr__ to provide dynamic attributes or	2022-07-21T12:26:00+00:00	Twitter Web App	en	retweet_count: 119 reply_count: 18 like_count: 739 quote_count: 1 (https://t.co/b1WYzlafa)	
15	1.54993E+18	@simonw It means they haven't thought about how to communicate effectively.	2022-07-20T19:00:02+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 1 like_count: 33 quote_count: 0	
16	1.54978E+18	@andershovmoller @mtwalker13 also make this mistake :)	2022-07-20T15:17:30+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 0 like_count: 1 quote_count: 0	
17	1.54975E+18	@mtwalker13 list(d.values()) and list(d.items()) if you want just values, or keyval	2022-07-20T13:33:34+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 1 like_count: 41 quote_count: 0	
18	1.54975E+18	@supakeen It will iterate any iterable.	2022-07-20T13:33:04+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
19	1.54973E+18	Lots of #python things are iterable. list() will iterate them and make a list of the valu	2022-07-20T12:22:00+00:00	Twitter Web App	en	retweet_count: 55 reply_count: 3 like_count: 277 quote_count: 0 (https://t.co/WD3AiwyvK)	
20	1.54972E+18	@theadevlopers Text strings are immutable!	2022-07-20T10:31:13+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 1 like_count: 0 quote_count: 0	
21	1.54947E+18	@rishabhjindal16 No it won't. It produces the result shown! (I test these snippets.)	2022-07-19T19:00:31+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 0 like_count: 1 quote_count: 0	
22	1.54947E+18	@gmos @driscolls Short answer: don't remove things from a list. Make a new list!	2022-07-19T19:00:31+00:00	Twitterbot for Mac	en	retweet_count: 1 reply_count: 0 like_count: 31 quote_count: 0	
23	1.54943E+18	@driscolls It must be National Don't Mutate Your Iterable Day :)	2022-07-19T16:35:04+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 5 like_count: 19 quote_count: 0	
24	1.54937E+18	Don't move elements in a list while looping over it! You will get surprising (wrong) r	2022-07-19T12:31:00+00:00	Twitter Web App	en	retweet_count: 48 reply_count: 17 like_count: 283 quote_count: 1 (https://t.co/Scrp8fn9tb)	
25	1.54916E+18	@mundaneken @bostonpython Using plain strings as regexes simplifies the langua	2022-07-18T22:43:10+00:00	Twitterbot for Mac	en	retweet_count: 0 reply_count: 0 like_count: 0 quote_count: 0	
26	1.54886E+18	I couldn't disagree more. Use each language to its best advantage. No one will be c	2022-07-18T02:48:50+00:00	Twitterbot for Mac	en	retweet_count: 5 reply_count: 11 like_count: 126 quote_count: 1 (https://t.co/zLBisJ8UE)	
27	1.54884E+18	@codeyarns If you use multiple languages, you should use each of them to their be	2022-07-18T01:06:15+00:00	Twitter for Android	en	retweet_count: 2 reply_count: 1 like_count: 61 quote_count: 2	

```
(env) [coskun@deniz: ~/github/projects freelance/twitter-data-extractor]$ python twitter_data_extractor.py --forme -u gvanrossum -fr -ot gsheets -of gvanrossum_friends -sm codenineeight@gmail.com
18-09-2022 16:47:41 [ INFO] 147: Opening sheet gvanrossum_friends...
18-09-2022 16:47:42 [ERROR] 155: Spreadsheet could not be found with name: gvanrossum_friends
18-09-2022 16:47:42 [ INFO] 156: Creating a sheet with name: gvanrossum_friends
18-09-2022 16:47:48 [ INFO] 32: Getting friends for username=gvanrossum
18-09-2022 16:58:54 [ INFO] 74: Data saved to gvanrossum_friends
```

A1	ID	Username	Name	Created At	Bio
2	14076724	john_lam	John Lam	2008-03-04T06:46:09+00:00	Podcast at https://t.co/N5RyMqABD
3	187196955	Mariacamilag30	Camila Gutiérrez (she/her)	2010-09-05T15:03:13+00:00	Intl. Relations & MPP Grad 🌎 noob intersectional feminist 🌈 loving UX, social data science & GIS 🌐 Sometimes I do i18n & Python ☕
4	12497	simonw	Simon Willison	2006-11-15T13:18:50+00:00	Creator of @datasetepproj, co-creator Django. PSF board member. Collector of @nicemuseums. Usually hanging out with @nathal and @cleopaws. He/Him
5	19481808	davidfowl	David Fowler 🇺🇸	2009-01-25T08:20:53+00:00	Partner Software Architect at Microsoft on .NET, Creator of NuGet, SignalR and https://t.co/PiydKAJFag Core, Barbadian 🇭🇹, Tennis Player, Father, other half @simeonefowler
6	3098427092	TalkPython	Talk Python Podcast	2015-03-19T23:06:15+00:00	The #1 Python-focused podcast covering the people and ideas in Python. Created and hosted by @mkennedy
7	18185983	anthonypjshaw	Anthony Shaw 🇬🇧	2008-12-17T09:20:45+00:00	Python, Cloud and OSS at Microsoft. Author of "CPython Internals". x3 Father, Christian, @TheASF member, @ThePSF Fellow, @Pluralsight Author, @realpython author
8	1.45612E+18	margo_seltzer	Margo Seltzer	2021-11-04T04:41:19+00:00	
9					
10	297081267	gauravsingh961	Gaurav Singh	2011-05-11T22:13:45+00:00	I decode great leadership by sharing inspiring stories with actionable insights. Grew 321 Foundation from 0 → 75 people. Now turned solopreneur.
11	1.16929E+18	dongheena92	Dong-hee Na	2019-09-04T16:35:45+00:00	SDE @ Line corp & CPython Core-dev: Opinions are my own not my employer
12	30270986	cherylsabella	Cheryl Sabella	2009-04-10T17:55:02+00:00	
13	25663453	dysmetweets	Don Syme	2009-03-21T11:17:51+00:00	GitHub Next, F#, Linebreaker, also tweet about politics and other things. A Tradition of Service Since 1926
14	78942899	belmontcapo	Belmont Police Dept.	2009-10-01T16:23:40+00:00	Official Belmont Police Twitter account-Not monitored real-time for crime reporting. Call 650.595.7400 or 911 for assistance.
15	1686323288	TimSweeney/Epic	Tim Sweeney	2013-08-20T17:37:03+00:00	CEO of Epic Games. We make games and to make our games we made an engine and we share that engine with everyone else so we can all make games.
16	25103	jessitron	Jessica Joy Kerr	2006-11-27T15:57:55+00:00	Sympatheticist. Engineering Manager of Developer Relations, @honeycombd. Chat with me: https://t.co/9khOzDyUs Tweets are mine, license CCO. she/her
17	7.08785E+17	richturn_ms	Rich Turner	2016-03-12T22:41:26+00:00	Principal PM Lead at Microsoft. Making Windows a great platform for developers on x64 & Arm! Formerly PM of Windows Terminal & Windows Subsystem for Linux (WSL)
18	1.32665E+18	ClaudiaRegio	Claudia Regio	2020-11-11T21:58:53+00:00	for NE互动, currently focused on enabling multi-language notebook experiences! @Microsoft @code (she/her) Opinions are my own
19	2231617016	Captain_Joannah	Joannah Nanjekye	2013-12-05T15:13:30+00:00	I know something about software and aeronautical engineering. Python core developer, Director (vice chair) @ThePSF, passionate aviator, show me the code
20	1462580222	ArmatradingJoan	Joan Armatrading	2013-05-27T16:30:30+00:00	Celebrating 50 years in this wonderful music business. The Weakness In Me a new book of my lyrics out 3 Nov.
21	110344340	pybogsal	Pablo Galindo Salgado	2010-02-01T06:15:52+00:00	Python Steering Council and core developer. Python 3.10/3.11 release manager. @ThePSF Fellow. Deals with black holes and parsers. Attracts linker problems.

L	M	N	O	P	
Profile Image URL	Account	Protector	Public Metrics	Url	Verified
2 https://pbs.twimg.com/profile_images/1473101949222350848/9qROq2Ah_normal.jpg	FALSE	followers_count: 4408 following_count: 586 tweet_count: 6182 listed_count: 292		https://t.co/ShQFARAAn	FALSE
3 https://pbs.twimg.com/profile_images/1403065551710832689KJslUtW_normal.jpg	FALSE	followers_count: 684 following_count: 444 tweet_count: 259 listed_count: 9		https://t.co/pfrH9rMpD	FALSE
4 https://pbs.twimg.com/profile_images/178800000261649705sebc55e64014e6d7663c50d7cb9fe75_normal.jpeg	FALSE	followers_count: 39165 following_count: 5145 tweet_count: 40758 listed_count: 1558		https://t.co/p4R0xW1Gc	TRUE
5 https://pbs.twimg.com/profile_images/1320061631339126786ghK7zYf_normal.jpg	FALSE	followers_count: 103134 following_count: 1315 tweet_count: 61120 listed_count: 1600			FALSE
6 https://pbs.twimg.com/profile_images/700233189193883649/Xqobn3rf_normal.png	FALSE	followers_count: 60819 following_count: 4044 tweet_count: 6066 listed_count: 0		https://t.co/Nyf1UxKs	FALSE
7 https://pbs.twimg.com/profile_images/1516998870668316672/Lv1sQO1_normal.jpg	FALSE	followers_count: 21051 following_count: 2825 tweet_count: 19439 listed_count: 497		https://t.co/kxmESmd16T	FALSE
8 https://pbs.twimg.com/profile_images/1456119451925893124/BzmyB3V_normal.jpg	FALSE	followers_count: 893 following_count: 58 tweet_count: 182 listed_count: 3			FALSE
9 https://pbs.twimg.com/profile_images/1529805925313552384/wqQXAo1L_normal.jpg	FALSE	followers_count: 2372 following_count: 348 tweet_count: 5235 listed_count: 57		https://t.co/UkwiSLcs	FALSE
10 https://pbs.twimg.com/profile_images/1457960409318043649/NBBeXpR_normal.jpg	FALSE	followers_count: 744 following_count: 183 tweet_count: 842 listed_count: 11		https://t.co/ujuigduO5fy	FALSE
11 https://pbs.twimg.com/profile_images/1098251679240253447/bLhEcsn_normal.jpg	FALSE	followers_count: 381 following_count: 194 tweet_count: 155 listed_count: 20			FALSE
12 https://pbs.twimg.com/profile_images/1555686013338632199/ww6Xirzb2_normal.jpg	FALSE	followers_count: 11474 following_count: 611 tweet_count: 31184 listed_count: 500		https://t.co/IKHQ9Zce	FALSE
13 https://pbs.twimg.com/profile_images/87721193572019408/rzv2hvCE_normal.jpg	FALSE	followers_count: 13079 following_count: 210 tweet_count: 3030 listed_count: 221		https://t.co/cuahOApRj8	FALSE
14 https://pbs.twimg.com/profile_images/795319168620198849/SBY3ARvZ_normal.jpg	FALSE	followers_count: 194170 following_count: 284 tweet_count: 12817 listed_count: 1472		https://t.co/3FAv41Rdy	FALSE
15 https://pbs.twimg.com/profile_images/151457409834631169/fPw59zW_normal.jpg	FALSE	followers_count: 37941 following_count: 2423 tweet_count: 21000 listed_count: 1263		https://t.co/OXoDNTh0N	FALSE
16 https://pbs.twimg.com/profile_images/108790884037332992/mGNvNyx_normal.jpg	FALSE	followers_count: 14623 following_count: 110 tweet_count: 22452 listed_count: 352		https://t.co/LvVoXEK1LQ	FALSE
17 https://pbs.twimg.com/profile_images/13427275314225971226c_gsxOV_normal.jpg	FALSE	followers_count: 1163 following_count: 334 tweet_count: 808 listed_count: 28			FALSE
18 https://pbs.twimg.com/profile_images/998537041183821824/GmF58TOK_normal.jpg	FALSE	followers_count: 1494 following_count: 182 tweet_count: 2269 listed_count: 43			FALSE
19 https://pbs.twimg.com/profile_images/1388896595068571650/vwXBV9PI_normal.jpg	FALSE	followers_count: 19589 following_count: 43 tweet_count: 2004 listed_count: 128		https://t.co/qighYctIEmb	TRUE
20					

Support

If you need support, you can contact me by emailing to codenineeight@gmail.com with the “twitter_data_extractor” prefix in the subject. You can also see my Upwork profile [here](#).