Converting Twitter JSON Data to CSV

Use JQ to convert Twitter JSON data to a CSV file

Depending on your research objectives, you may want to view your Twitter data in CSV format. Removing unnecessary attributes and focusing on the content that matters to your work can help you cut through the noise of Tweet JSON and focus on the material you are interested in. In this tutorial, you will learn how to use JQ. JQ is a powerful JSON processor for the command line that can be used to convert Twitter JSON data to a CSV file.

Difficulty level: Intermediate

Prerequisite(s)

- Tweet |SON
- Command Line
- Collection Design
- Collection with Twarc
- Collection Documentation
- Collection Ethics
- Cleaning Your Data
- Collection Analysis
- Creating a geoFence

Tutorial Key

- Command Line arguments will be displayed in this format
- Karaman The party popper emoji signals the end of each set of instructions

Lesson objectives

Convert a collection of Twitter JSON data to a CSV file

Key Terms

- Terminal OS X Command Line
 - A text interface for your computer. Terminal receives commands, and then passes those commands on to the computer's operating system to run.

- Twarc
 - A command line tool and python library
- JSON JavaScript Object Notation
 - A minimal, human-readable format for structuring data. Twitter data is in JSON format
- JQ
- o A JSON processor for the command line
- CSV Comma-separated values
 - A delimited text file that uses commas to separate values

Table of Contents

2
2
1
1

Getting Started

Before converting Twitter JSON data to a CSV file, you will need to download and install Homebrew and then use Homebrew to install JQ. Homebrew installs packages like JQ to MacOS and Linux systems. JQ is a powerful JSON processor for the command line that we will use to convert Twitter data into a CSV file.

Step 1: Install Homebrew

1. Open the Terminal application



2. Paste the following into Terminal and follow the instructions for setup. If you need additional information, visit Homebrew's site.

/usr/bin/ruby -e "\$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"

Step 2: Install JQ

1. After successfully installing Homebrew, you can use it to install JQ. Open Terminal and enter the following command

brew install jq

🎉 Congratulations! You have successfully installed Homebrew and JQ. 🎉

Convert Tweet JSON to CSV

In the first tutorial in this series, we learned that JSON is based on name-value pairs. Each name is an attribute that is paired with an associated value. Tweets can have over 150 associated attributes, which can make analysis quite difficult. Luckily, JQ allows you to easily identify and keep the attributes that are relevant to your research, and then convert your Tweet JSON file to a CSV file.

We will be using the collection of tweets sent within Clark County, Nevada that we created in the <u>ninth tutorial</u> in this series. You can use the collection of tweets sent in Clark County you created in the ninth tutorial, or you can follow along using your own Twitter data collection.

1. To get started, go ahead and open Terminal.



2. Decide which attributes you want to highlight. We are going to start with 'id_str' to get the unique id for each Tweet as well as the text of the status update. Enter the following command to convert your Tweet JSON file into a CSV, featuring the unique id string and the message of the tweet.

jq -r '[.id_str, .full_text] | @csv' 1_oct_clark_county.json > 1_oct_clark_county.csv

In this example, we controlled for the unique id strings of the tweets in the collection as well as the full text of the message. You can substitute these attributes for other attributes. For a list of current attributes, check out Twitter's <u>Tweet Data Dictionary</u>.

Nice work! Now you know how to convert your Twitter JSON data into CSV format.