

## **Data Wrangling**

### **Introduction:**

Using Python and its libraries, we will gather data from a variety of sources and in a variety of formats, assess its quality and tidiness, then clean it. This is called data wrangling. Then we will document your wrangling efforts in a Jupyter Notebook, plus showcase them through analyses and visualizations using Python (and its libraries)

### **Data wrangling, which consists of:**

- Gathering data
- Assessing data
- Cleaning data

### **Gathering data:**

Gather each of the three pieces of data:

1. The WeRateDogs Twitter archive. Download this file manually by clicking the following link: [twitter\\_archive\\_enhanced.csv](#)
2. The tweet image predictions. It is present in each tweet according to a neural network. This file ([image\\_predictions.tsv](#)) is hosted on Udacity's servers and should be downloaded programmatically using the [Requests](#) library and the following URL: [https://d17h27t6h515a5.cloudfront.net/topher/2017/August/599fd2ad\\_image-predictions/image-predictions.tsv](https://d17h27t6h515a5.cloudfront.net/topher/2017/August/599fd2ad_image-predictions/image-predictions.tsv)
3. The [tweet\\_json.txt](#) file that contains each tweet's retweet count and favorite count at a minimum, and any additional data you find interesting. Using the tweet IDs in the WeRateDogs Twitter archive.

In this step of data wrangling process. We downloading WeRateDogs Twitter archive file from ([twitter\\_archive\\_enhanced.csv](#)) by using Pandas to read csv file. Then, downloaded ([image\\_predictions.tsv](#))programmatically using the Requests library. Finally, querying an API ([tweet\\_json.txt](#)) to get JSON object using Tweepy library.

### **Assessing data:**

After gathering each of the above pieces of data, assess them visually and programmatically for quality and tidiness issues. We will detect and document at least eight (8) quality issues and two (2) tidiness issues in your `wrangle_act.ipynb` Jupyter Notebook.

**Cleaning Data:**

Clean each of the issues that we have find and documented while assessing. The result should be a high quality and tidy master pandas DataFrame.

**Storing, Analyzing, and Visualizing Data:**

Store the clean DataFrame(s) in a CSV file with the main one named `twitter_archive_master.csv`.