## Wrangling Data includes three parts:

- 1. Gathering Data
- 2. Assessing Data
- 3. Clean Data

# **Gathering Data**

### I gathered data from 4 resources:

- 1. image-predictions.tsv were already given and I downloaded manually
- 2. tweet\_json.txt form tweepy library and I disappear my keys and I downloaded manually
- 3. twitter-archive-enhanced.csv were already given also and I downloaded manually
- 4 . some pictures from twitter page in the insights by HTML to help me in the insights and I downloaded programmatically

### Assessing data

I assessed all the data both visual and programmatically

- 1. I used head(), tail() and sample() to the visual way
- 2. I used info(), isnull() and describe() to the programmatically

#### Quality issues

- 1.rename columns in image-predictions.tsv file
- 2. Some tweet have 2 different tweets id, that are retweets
- 3. Missing values from images datasets
- 4. Delete the add numbers in timestamp in twitter-archive-enhanced.csv
- 5. Timestamp is string in twitter-archive-enhanced.csv
- 6. There some problem in the names of the columns so, I will make the names lower and replace '\_' to one space
- 7. after marge there duplicate columns
- 8. In several columns null object are non-null (none to NAN) but its empty so I will drop it

#### **Tidiness**

- 1. Merge the three flies (image-predictions.tsv,twitter-archive-enhanced.csv,tweet\_json.txt)
- 2. Merge rating numerator and rating denominator
- 3. doggo, floofer, pupper, puppo columns in twitter\_archive\_enhanced.csv should be combined into a single column as this is one variable that identify stage of dog.

## Clean Data

- 1. Frist I make cope of data
- 2. Use pandas function to solve quality and tidiness issues
- 3. I used some functions like drop(), rename and other pandas functions to clean the data
- 4. Then I test my work to make sure everything is good