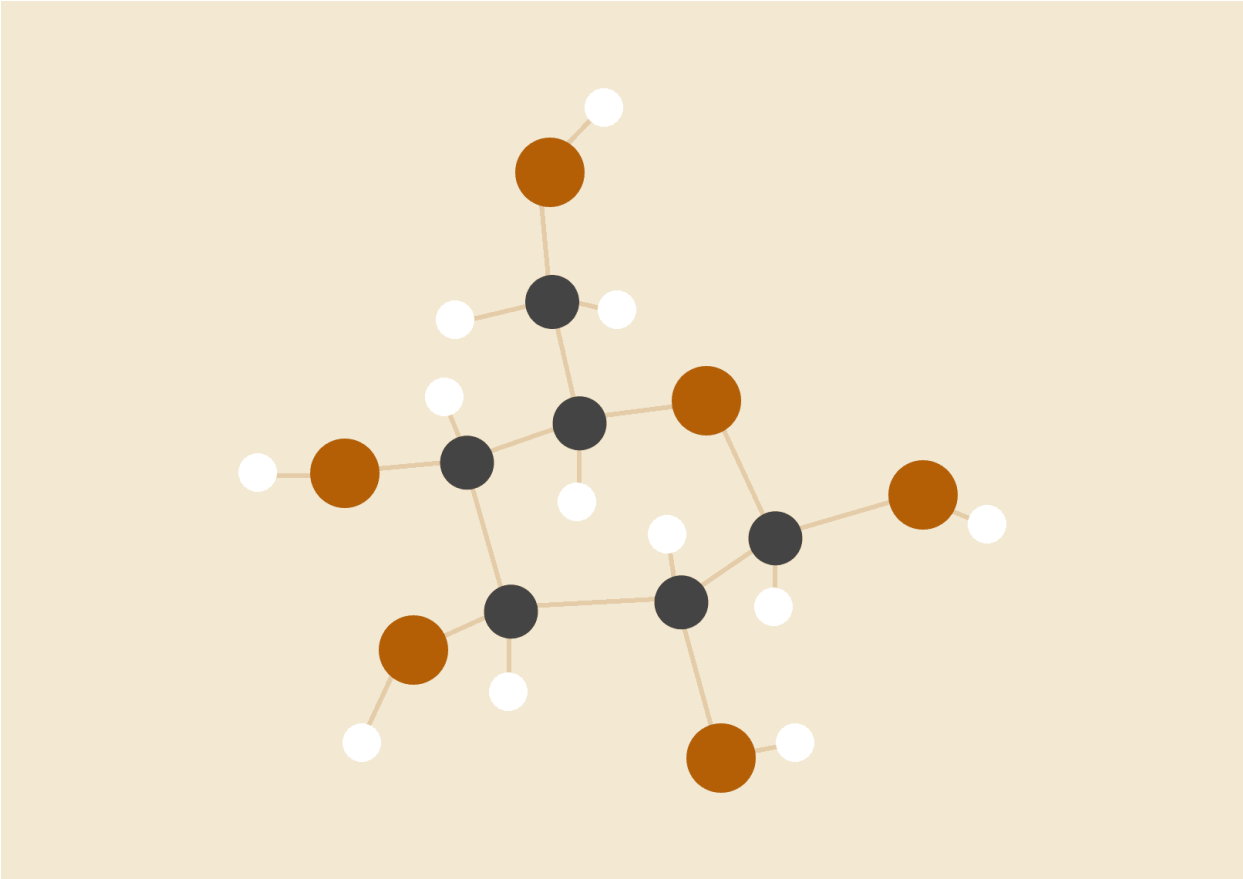
Wrangling report

In God we trust, Others must clean their Data



Joshua Regan Lenge

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Data Wrangling: WeRateDogs twitter archive

INTRODUCTION

In a world of data driven decisions, Data Wrangling is a must for the applicability of learning algorithms. This process is multidimensional with the focal points being structure and content.

HYPOTHESIS

Our datasets are;

df_1 -> twitter_enhanced_archive.csv

df_2 -> image_predictions.tsv

Df_3 -> tweet-jason.txt

Visual and programmatics assessment on all datasets/tables listed above yields some the issues which include but are not limited to;

Quality Issues

1. Invalid names in `**name**` column for the **df_1.**
2. **tweet_id** had **dtype** = **int64** instead of **string.**
3. Columns such as; **in_reply_to_status_id, in_reply_to_user_id, retweeted_status_id, retweeted_status_id, retweeted_status_timestamp.** Have non-null entries less than 25% of the whole dataset.
4. Timestamp had **dtype** = **object** instead of **datetime.**
5. Dog ratings were not standardized, instead they were left at numerator and denominator ratings.
6. **expanded_urls** also had Nan entries.
7. Jpg_url also had duplicate entries (this is not possible since every tweet is unique).
8. By visual assessment, we observe that dog names with p1_dog == False are not actually dog names so **pn_dog** == **False,** tells us the name in question is not a dog.

Tidiness Issues

9. The four dog_stages each having a column makes the table messy.
10. Merge the right tables (df_1 and df_2)

MATERIALS

1. As provided for in Python, the pandas library has built-in functions that come in handy when issues like the ones stated above and others in our dataset
2. Df.info -> this gives a summary description of our dataFrame's data type, non-null entries, etc..
3. Other methods like value_counts() are applied to the columns as pd.Series.

The next logical step is the cleaning step.

CLEANING PROCEDURE

The cleaning procedure is as follows;

1. Define
2. Code
3. Test.

   These steps have a logical dependence. And follow the format though not tabular.

Issue #	Define	Code	Test
Issue 1			
Issue 2			
…			
Issue n			

RESULTS

At the end of a well conducted wrangling process, we expect that;

1. The cleaned dataset (df_clean) Be neater (of better quality)
2. The right data types qualitative and quantitative have been applied to support the right analysis.
3. Anyone should be able to recreate the analysis using your Approach.

CONCLUSION

I cleaned the datasets and saved them in the files **df_1_clean**, **df_2_clean** and **df_3_clean** and the final master dataset was created by concatenating all three datasets into one DataFrame.

REFERENCES

1. https://stackoverflow.com/questions/32444138/concatenate-a-list-of-pandas-dataframes-together
2. https://pandas.pydata.org/docs/
3. https://github.com/ahmed-gharib89/wrangle-and-analyze_data