GROUP 14

Project Outline

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Available At: GitHub - https://github.com/thepickpocket/COS720-Securities
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The project is build in Python (Version 2.7.11) using MongoDB (Version 3.2.5) as the database. Our database consists of the following:

DESCRIPTION	AMOUNT
Total Records	4764733
Total Unique Profiles	6848

Dependancies

- plotly - For creating graphs.
- pytagcloud - For creating word clouds.
- HTMLParser - Helps with cleaning the data.
- pytz - Dependancy of used library.
- pygame - Dependancy of used library.
- pymongo - To create a mongodb client in python.
- simplejson - Dependancy of used library.

Preparations

Before any data could be read into the database, the encoding of the file needed to be changed from Latin1 to UTF-8 using the following linux command:

```
iconv -f latin1 -t utf-8 data.txt > utf_data.txt
```

After encoding the data in the right format, we needed to escape the quotation characters correctly as MongoDB needs it, so instead of escaping with a backslash (\") we escaped with a quotation mark (“”)

Project Implementation

Data Cleaning Techniques Used

- HTML Character Escaping
- Removal of non-printable characters
- Lowercase everything
- Removal of links
- Removal of @ Mentions
- Removal of Stopping words
- Removal of punctuation

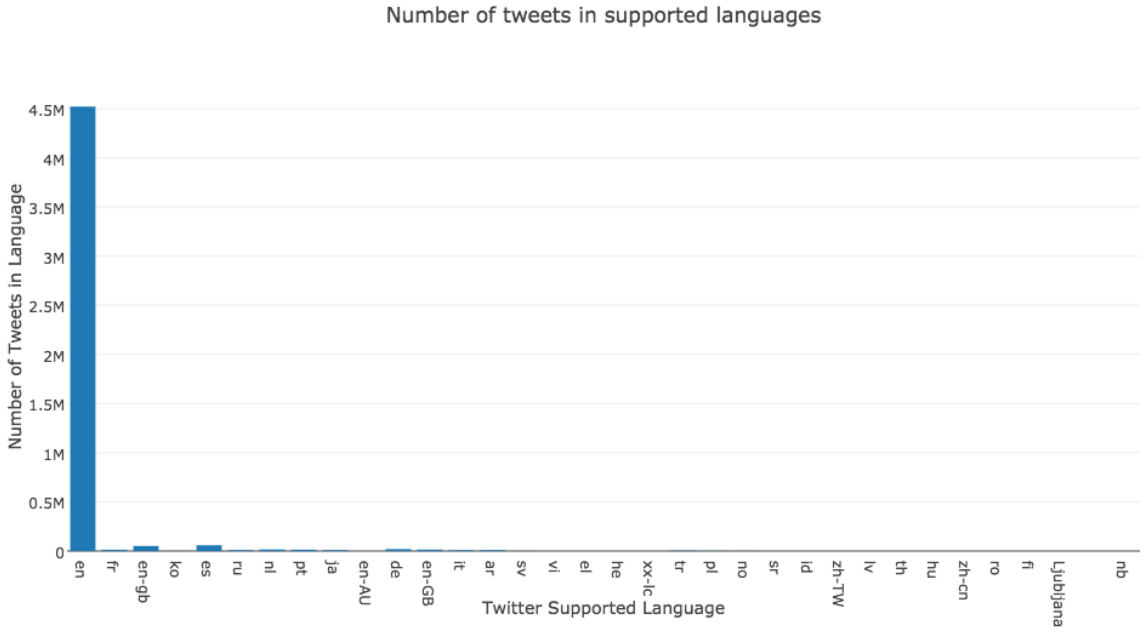
Word Clouds Generated

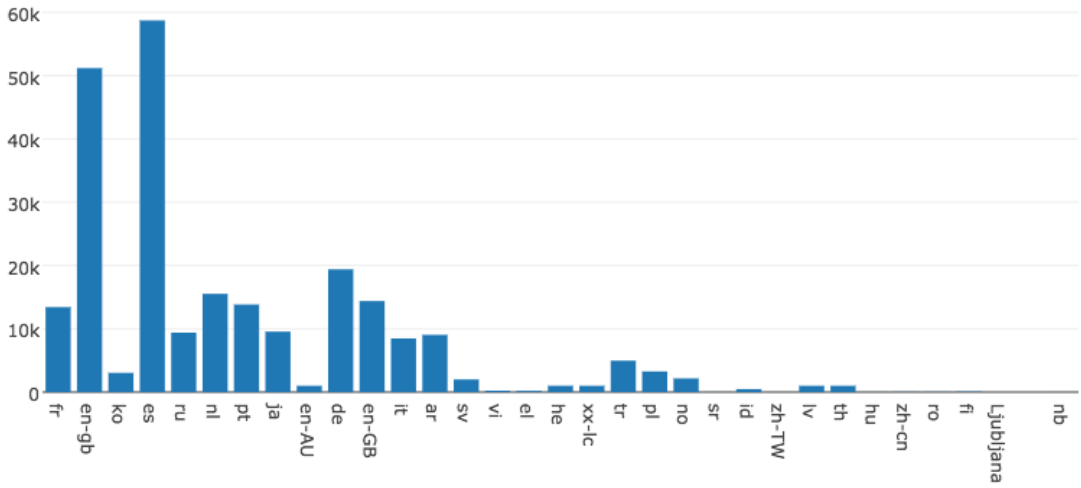
- User submitted content (Tweet Content)

- Locations

Statistics Generated

- Languages used to tweet





- Whether people enabled location sharing or not