Instructions:

A folder called Virality_Predictor is expected to be under Home directory.
~/Virality_Predictor/

Folder contents:

```
~/Virality_Predictor/
    Collaborative_Filtering_EN.ipynb
    Collaborative_Filtering_EN_PT.ipynb
    Collaborative_Filtering_PT.ipynb
    Collaborative_Filtering_Utils.py

    TFIDF-Regression-EN.ipynb
    TFIDF-Regression-PT.ipynb
    TFIDF_Regression_Utils.py

    TFIDF_Classification_EN.ipynb
    TFIDF_Classification_PT.ipynb
    TFIDF_Classification_Utils.py

    Utils.py

    data_analysis_articles.ipynb
    data_analysis_users.ipynb

    nltk_data/
        corpora

    datasets/
        cleaned_articles_test_EN_text.csv
        cleaned_articles_test_EN_upsampled_text.csv
        cleaned_articles_test_PT_text.csv
        cleaned_articles_test_PT_upsampled_text.csv
        cleaned_articles_train_EN_text.csv
        cleaned_articles_train_EN_upsampled_text.csv
        cleaned_articles_train_PT_text.csv
        cleaned_articles_train_PT_upsampled_text.csv
        shared_articles.csv
        users_interactions.csv

    models/
        CF_EN_PT_norm.pkl
        Classification_EN_pipeline.pkl
        Classification_PT_pipeline.pkl
        CF_EN_PT_raw.pkl
        CF_PT_norm.pkl
        CF_PT_raw.pkl
        Regression_EN_pipeline.pkl
        Regression_PT_pipeline.pkl
```

To run the models one should simply start run the 'jupyter notebook' command from command line. Notebooks show latest state of the models. Models are under the /models directory

Each .ipynb file corresponds to a problem, such as Collaborative Filtering using Articles in English (Collaborative_Filtering_EN.ipynb)

In each jupyter notebook there is a commented cell where you can find the command for loading the corresponding model.

Below packages are installed in the project's virtualenv.

Package	Version
ipykernel	5.3.4
ipython	7.17.0
ipython-genutils	0.2.0
ipywidgets	7.5.1
jupyter	1.0.0
jupyter-client	6.1.6
jupyter-console	6.1.0
jupyter-core	4.6.3
matplotlib	3.3.1
nltk	3.5
notebook	6.1.3
numpy	1.16.3
pandas	1.1.0
pickle-mixin	1.0.2
pickleshare	0.7.5
pip	20.2.2
python-dateutil	2.8.0
regex	2020.7.14
scikit-image	0.14.2
scikit-learn	0.20.0
scikit-surprise	1.1.1
scipy	1.3.0