

Mohamed Gharibi (7)

Lab 7

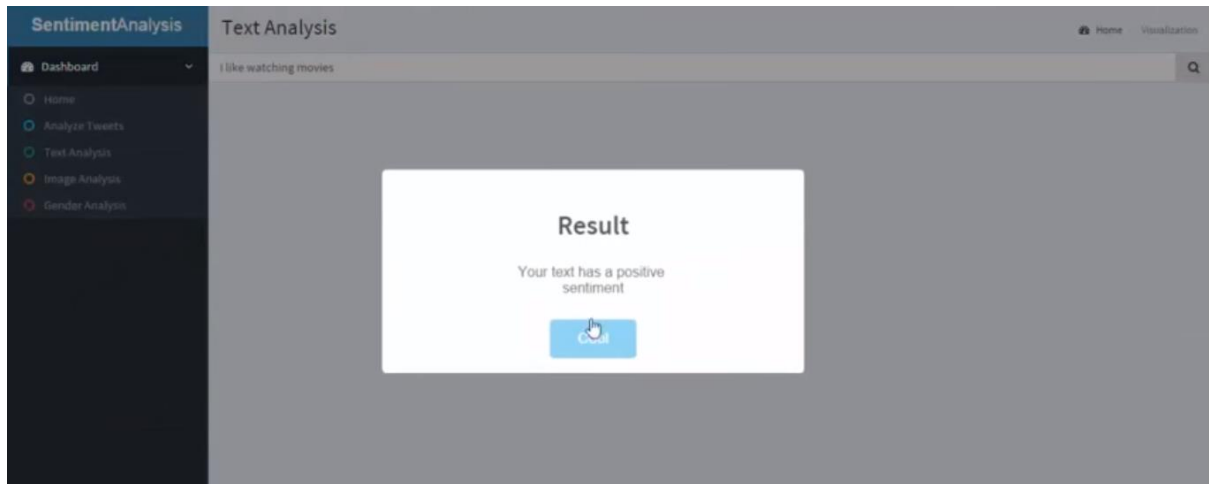
Search button:



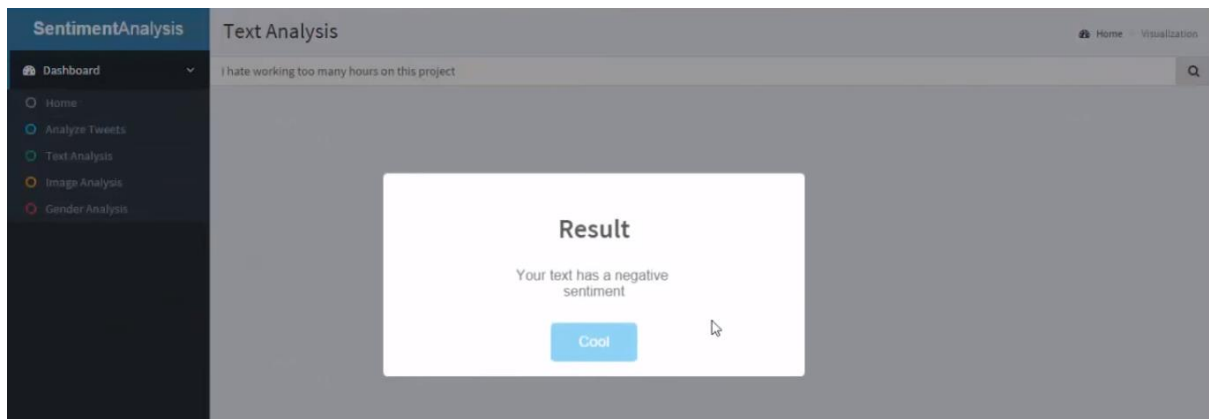
Sentiment Analysis



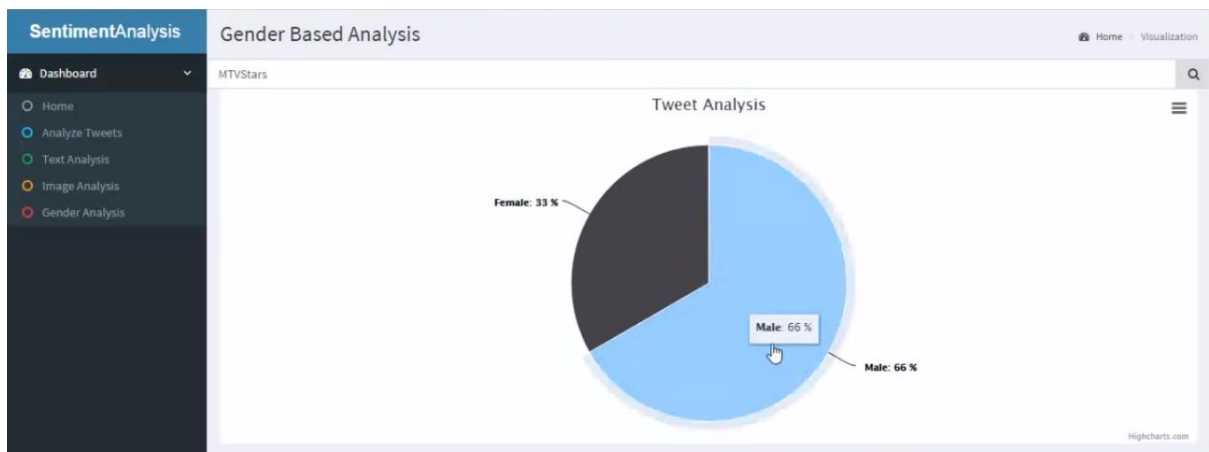
Sentiment analysis (positive result):

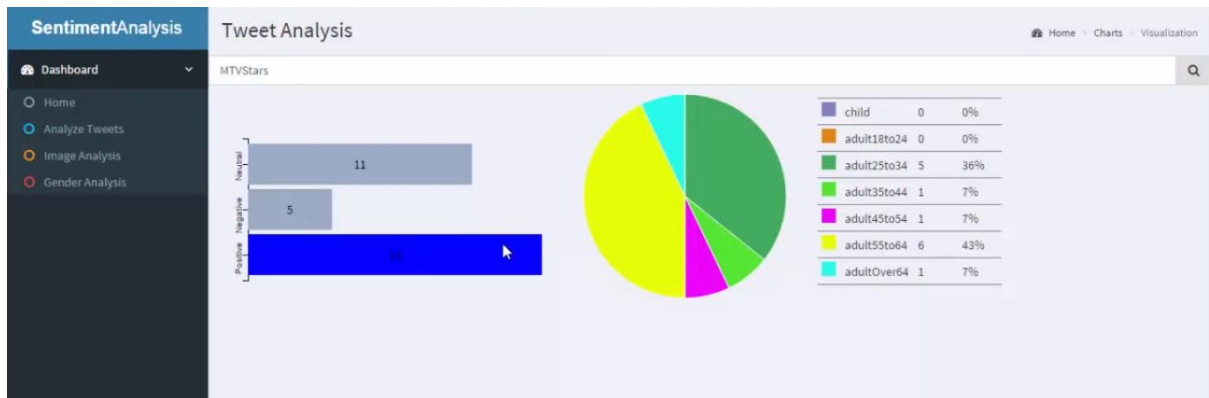


Sentiment analysis (Negative result):



Analysing the tweets:

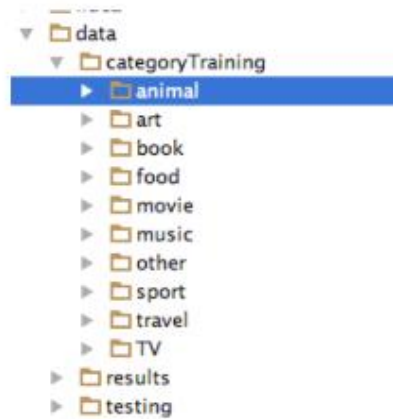




2. Make recommendations related to your project:

- First of all, we define 10 categories.
- Then we collect the tweets as training data to categorize the data.
- Then we have to collect the tweets again for recommendation training.
- Then, we get the category mapping file which called "category.txt"
- Finally, we send the results to the smartphone/smartwatch.

File structure:



Category mapping:

```
2::animal
3::art
4::book
5::food
6::movie
7::music
8::TV
9::sport
10::travel
11::other|
```

Result log

```
RMSE (validation) = 0.16005871649500103 for the model trained with rank = 8, lambda = 0.1, and numIter = 10.
RMSE (validation) = 0.18066115598146681 for the model trained with rank = 8, lambda = 0.1, and numIter = 20.
RMSE (validation) = 3.692744729379982 for the model trained with rank = 8, lambda = 10.0, and numIter = 10.
RMSE (validation) = 3.692744729379982 for the model trained with rank = 8, lambda = 10.0, and numIter = 20.
RMSE (validation) = 0.15739262495617246 for the model trained with rank = 12, lambda = 0.1, and numIter = 10.
RMSE (validation) = 0.180025657757478 for the model trained with rank = 12, lambda = 0.1, and numIter = 20.
RMSE (validation) = 3.692744729379982 for the model trained with rank = 12, lambda = 10.0, and numIter = 10.
RMSE (validation) = 3.692744729379982 for the model trained with rank = 12, lambda = 10.0, and numIter = 20.
The best model was trained with rank = 12 and lambda = 0.1, and numIter = 10, and its RMSE on the test set is 1.8075950816211317.
The best model improves the baseline by -61.31%.
Categories recommended for you:
1: art
2: travel
3: TV

Process finished with exit code 0
```

The result on the smart phone

