

Classification of You-Tube Videos using Deep Learning and NLP

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Name of Member	Roll Number	Role
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- Project Acceptance Status and Suggestions given in Previous Presentation
- Refined Problem Statement with literature Survey
- Modules Summary
- Brief Module details
- Module Progress(in Tabular/Graphical form in terms of % completion)
- Hardware /Software Requirement
- Conclusion
- References

Acceptance Status and Suggestions

- The project has been accepted with some modifications. Suggestions were :
- Reference are not proper.
- PPT not in format.
- Improve project name.

Problems in Existing System

Present State:

- Software present currently are limited in scope and they don't deal directly with improving the content of the You-Tube.
- Currently the systems mainly focusses on building recommendation systems for You-Tube and like-wise video sites.
- Till now You-Tube itself is not considering about categorizing the videos and checking the quality so an effort is required in this area.

Problems in Existing System

After implementation of project:

- Quality score for all videos can be seen in the You-Tube itself.
- No need for an additional app and the user-experience with the You-Tube videos will be maintained.
- User can see the quality scores of the videos and like-wise decide as to which videos to watch and won't waste time.
- Building Recommendation videos will be easier after categorization of videos.

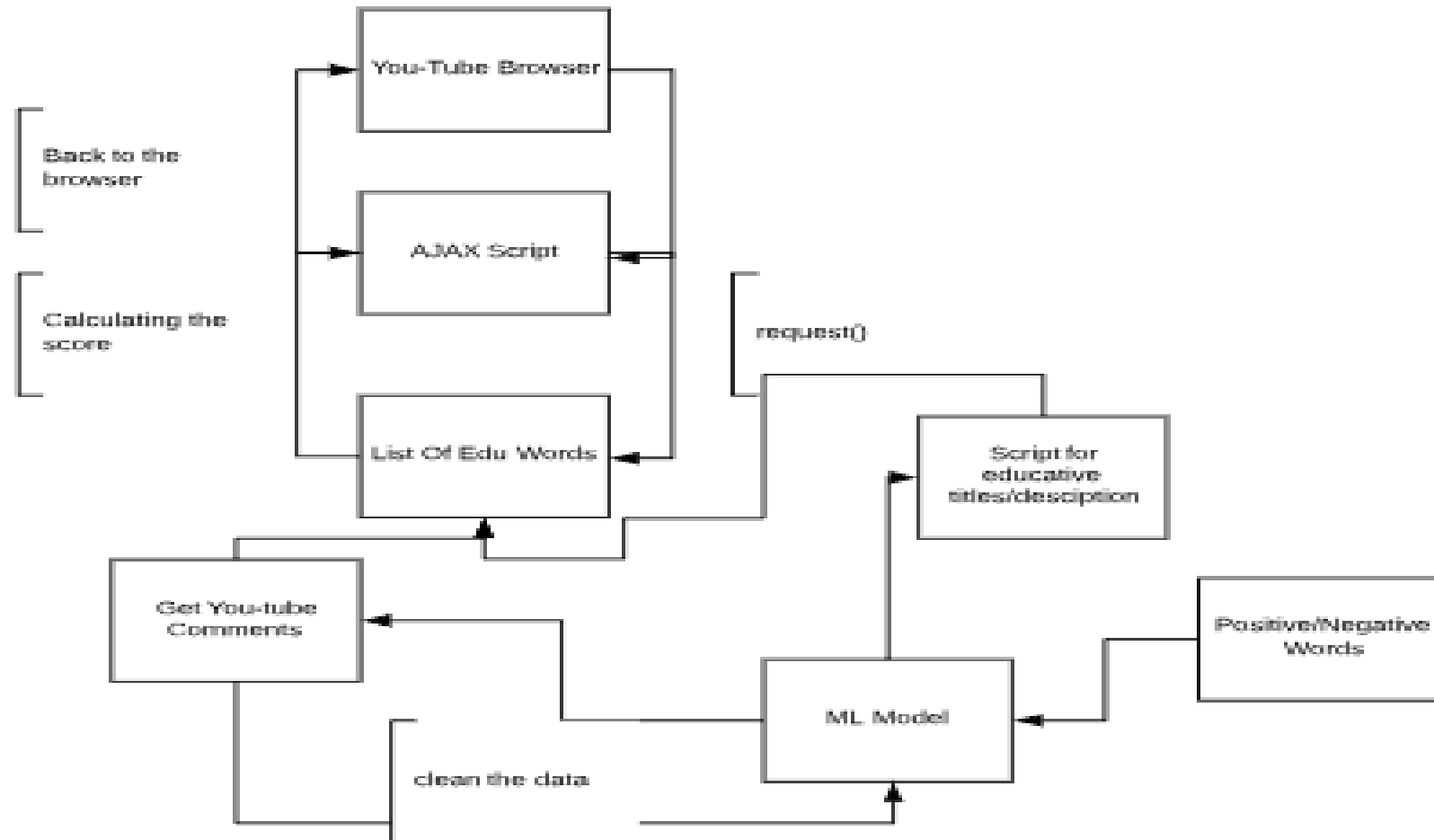
Module Summary

Module name	Progress (in %)
Scraper for comments from You-Tube videos.	100
Generating educative scores based on the comments.	100
ML Model for classifying comments as positive and negative	100
Script for calculating score for Educative Content	100
Cleaning and Analyzing the comments for educative based contents	100
Model with better precision than recall values	100
AJAX script for rendering server calls	100
Deep NLP approaches for improving the classification of videos model.	100

Module Details

- Cleaning and analysis of comments is done on hundreds of You-Tube channels. We are collecting the most found words from the video and using them for generating the score about the educative content present in the video.
- JS scripts and AJAX are written for showing the generated score back on the screen.
- Sentiment analysis modules has been used for analysing the comments and telling whether it should be educative video or not.
- Scraping the comments using Selenium chromedriver.
- Generating authenticity scores using correlation between total number of views and difference of likes and dislikes on the video.
- FB's fasttext library has been used for word-corpora and positive-negative words list has been created using manually.

Module Details



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[Installation Video](#)

[Demo](#)

Software Requirements

- Gensim, FASTTEXT and NLTK
- Data Huge Api : For generating new url's for hitting calls.
- Chrome Extension
- Tensorflow : As a base for Keras and more optimization.
- Keras : For making Deep Learning Models
- Pandas : For cleaning the data
- Numpy : For mathematical purposes.
- Plotly : For visualising graphs.
- Scikit : For ML Algorithms.
- SHLDA : For Topic Modelling purposes.
- AJAX : For dynamic rendering of calls and updating webpages.
- No separate hardware is required.

Conclusion

Our effort has been to make it easier for improving the quality content available on You-Tube and thus enhancing the user-experience of the You-Tube users. They can easily get relevant information from the videos. This has never been approached before as previously people have tried to make recommendation system for these platforms rather than doing something about the quality of content available there.

Also, the approach involves further advancements like usage of Deep NLP and Computer Vision for understanding the sentiments of the comments and also by analyzing the video itself frame-by-frame. So, this is a small effort from our side to improve the quality of videos and rank videos on You-Tube by providing them scores, lot of advancements will be seen in this area in the near future.

References

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Thank You

Feedback from the Panel

- The panel wants the team to :