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YouTube Comments Analysis using Sentiment Analysis

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ABSTRACT: YouTube is a popular video sharing website and used by many users for different purposes. Peoples watch, share, comments and likes on videos uploaded by the creator. For Viewer to decide whether to watch the videos or not is depends on others feedback, that gets within a second with comments analysis. Sentiment analysis is the technique to analyze the comments whether positive, negative or neutral, also to help creator to have overview of peoples opinion without reading lots of comments. In this paper we examine sentiment analysis of comments of Coding videos. In total 404 commented were found in this study. The comments were analyzed based on predetermine emotion , Positive or Negative , questions or suggestions based.

KEYWORDS: Sentiment Analysis, top Comments, YouTube Comments, YouTube Videos

I. INTRODUCTION

Social media playing an important role for dissemination of thought and ideas in worldwide. Peoples are frequently using these social media platform for different purposes i .e. stay connected with peoples. Now a day's commercial firms and online shopping sites are connected with social media platform. They used for promoting products and services. Peoples are giving their comments or opinion or feedback on online shopping websites.

YouTube is an online popular video site that, have uploaded a huge amount of videos on different areas that may be description about a product, their services or Tutorial about a software, like wise YouTube received a huge amount of comments from the viewers.

The sentiment analysis is conducted by the commercial firms, industries, online shopping sites to know where the services provided by the company is good or bad. Sentiment analysis is ongoing and rapidly popularity on different areas of study. The main motto of the sentiment analysis is to find out where the text or sentence is positive or negative emotion.

YouTube Comments are positive, negative or neutral so to have a quick analysis of it for different ideas of video quality, the channels popularity, the contents faithfulness all is ensured.

II. RELATED WORK

study on sentiment analysis have been conducted by various author in worldwide. However, some of the notable paper has been published on sentiment analysis on Twitter comments and YouTube comments or social web. Sentiment analysis is related with the automatic extraction of sentiment-related information from text. The sentiment analysis deal with commercial task however the role of sentiment analysis has been increasingly in social web especially in Twitter. Sentiment analysis play an important role in current research. Sentiments are found in feedback or critique; comment and it can be useful for many purposes. These sentiments are categorized into positive and negative.

As the most popular video sharing platform, YouTube has gathered many users. Users can express their views on video content, express their emotions, and communicate with each other, which constitutes a large amount of text data that can be used for sentiment analysis. At present, the research on YouTube comments is mainly divided into three categories:

Event Classification, which analyzes video titles and descriptions, and classifies videos into music, movies, sports, etc; The second is to detect the Sentiment Polarity, that is, to divide user comments into positive comments or negative comments; The third type is Comment Prediction, which predicts the polarity of the video through all the

comments and to get a high polarity video.

comments and to get a high polarity video (M. Z. Asher et al. 2015).

It has been confirmed by many studies that comments influence the opinion and judgments of others. For example, investors' perceptions of negative news are influenced by the comments of others, and if the majority of comments are positive, investors will not be extremely pessimistic about bad news (Trinkle, Crossler, and B'elanger 2015). However, the comment area has both advantages and disadvantages. One study shows that negative comments can make video creators feel excluded and even quit social interaction (Lutz and Schneider 2021). This also explains why some YouTubers close video comments.

III. PROPOSED METHODOLOGY

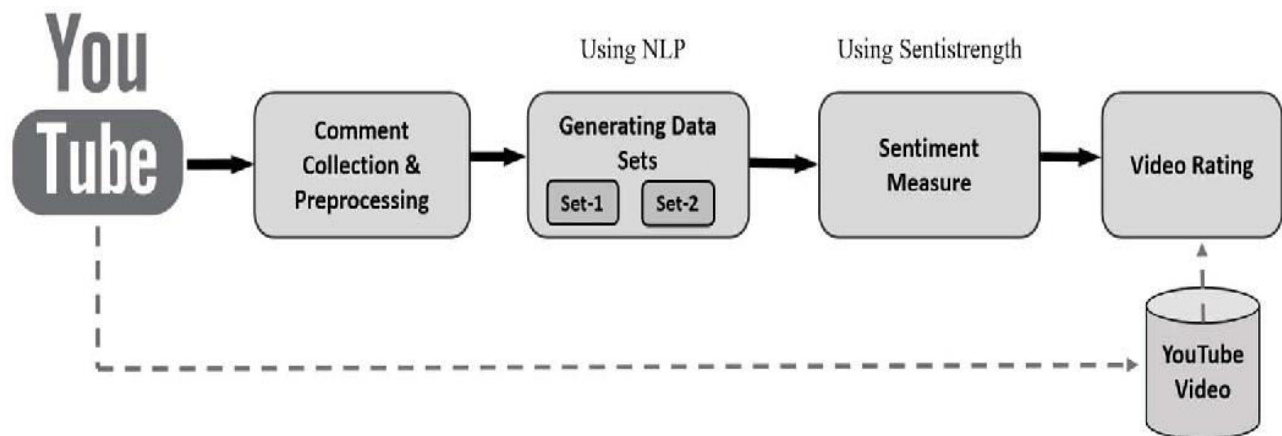
CONNECTING : First we have to connect to the Google YouTube API to have the access to the Comments on YouTube Video . This can be done from Google Developers Console . For generating API KEY create Credentials for YouTube API.

FETCHING : Then Programmatically fetching the Comments of YouTube Video using the Video Id of That Video, In Python Program.

FILTERING : Now with the Data set For Questions asking and Suggestions telling we will separate or Classify the Comments as Question Comments and Suggestions Comments .

ANALYSING : Next is the implement Sentiment analysis based on Polarity for Finding Comments that Expressed as Positive or Negative This is Done in Python Programming language.

CLASSIFYING : You Can fetch the Comments with no of Likes it has , based on that we collect top five Comments that gains most likes from users . So the user will get most liked Comments .



Data Set

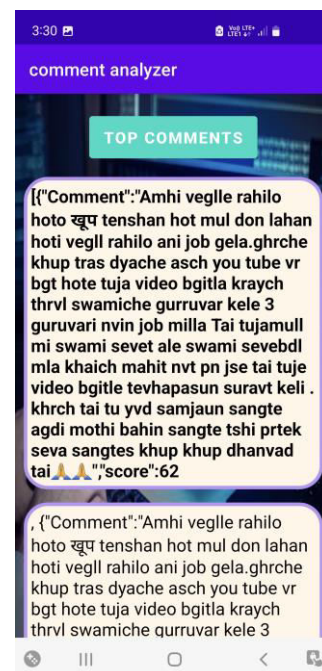
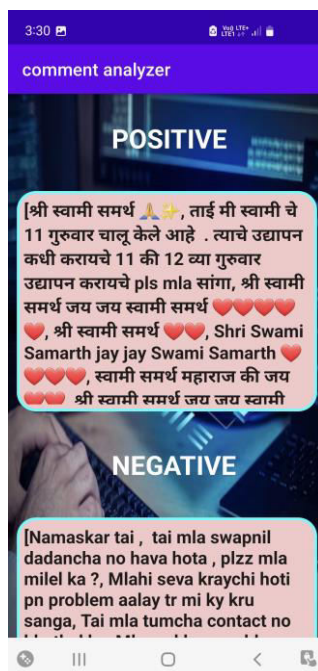
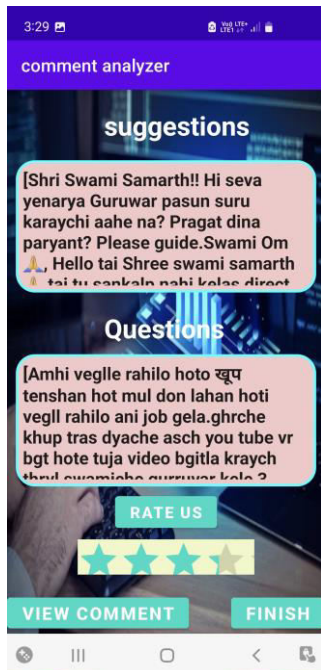
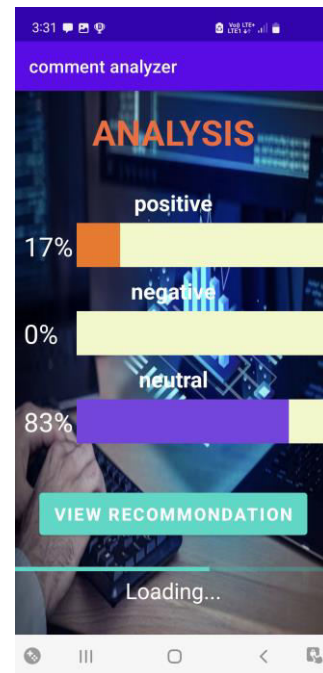
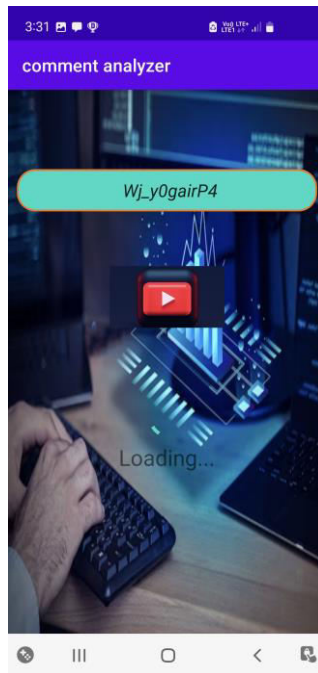
For this study, the data set was Created Only for the Question and Suggestion related Comments there are Two Data set For this , and as Polarity Score is consider for Positive and Negative Analysis, this data set is used having lots of data , bot in this study we are only focusing on English Comments approx 600 Comments for each video.

IV. SIMULATION RESULTS

Simulation Result of YouTube Comment Analysis is to giving the Count of Positive Comments, Negative Comments and Neutral Comments for display the Graphical representation of Analysis. The Application gives the Comments also for reading classified as Positive negative and neutral.

The whole Comments are filtering into Question asking and Suggestions giving Comments for more clearance to the Creator.

Raw Labels	Count of Comments
Positive	200
Negative	50
Neutral	350
Total Grand	600



V. CONCLUSION AND FUTURE WORK

The above study on sentiment analysis of Coding videos found on YouTube. About 600 total comments were found, which were discussed in this study. YouTube is online platform that have billions of videos been uploaded and many new users are connected with YouTube and watch videos related to his/ her interest. The current studies on Coding source which is very popular in the world and views by many Coders? This study gives information about how and what kinds of comments posted by the user on Coding Videos.

In Future we can include for different analysis ideas, with Different Language support so that it will be used worldwide. Also give recommendation for User and make creators and uses both work easy.

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