PRODUCT REVIEW USING MACHINE LEARNING TECHNIQUES

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Abstract : This paper displays another technique for conclusion investigation in Facebook that, beginning from messages composed by clients, underpins: (I) to extricate data about the clients' slant extremity (positive, nonpartisan or negative), as transmitted in the messages they compose; and (ii) to show the clients' typical supposition extremity and to distinguish critical passionate changes. We have actualized this strategy in SentBuk, a Facebook application additionally exhibited in this paper. SentBuk recovers messages composed by clients in Facebook and orders them as per their extremity, demonstrating the outcomes to the clients through an intuitive interface. It likewise underpins enthusiastic change location, companion's feeling discovering, client characterization as per their messages, and insights, among others. The arrangement strategy executed in SentBuk pursues a half and half approach: it joins lexical-based and AI procedures. The outcomes got through this methodology demonstrate that it is plausible to perform notion examination in Facebook with high exactness (83.27%). With regards to e-learning, it is extremely helpful to have data about the clients' slants accessible. On one hand, this data can be utilized by versatile e-learning frameworks to help customized learning, by considering the client's passionate state when suggesting him/her the most appropriate exercises to be handled at each time. Then again, the understudies' suppositions towards a course can fill in as input for educators, particularly on account of web based realizing, where up close and personal contact is less continuous. The value of this work with regards to e-learning, both for instructors and for versatile frameworks, is depicted as well.

IndexTerms - **Sentiment, Facebook, N-gram, Lexicon-approach.**

I. INTRODUCTION

Interpersonal organization Sites (SNS, for example, Facebook, Twitter, and online gathering assume significant jobs in our day by day lives where individuals are permitted to impart and impart data and trade insights about famous people, legislators, items and organizations. Online life has caught the consideration of the whole world as it is roaring quick in sending musings over the globe, easy to use and free of expense requiring just a working web association. Individuals are widely utilizing this stage to share their contemplations uproarious and clear. Facebook is one of the most prominent online SNS. It contains remarks posted by individuals where they can express their feelings and sentiments by means of writings and emojis. This paper proposes to evaluate estimations in facebook by dissecting the clients feelings towards an item dependent on remarks in a post. Conclusion examination can be performed utilizing AI, dictionary, NLP or mixture procedures. There are numerous improvement strategies to upgrade opinion investigation results, for example, highlight choice, information coordination and publicly supporting. Applying assumption investigation over huge information prompts a great deal of bits of knowledge and business benefits. Assessment examination, supposition mining or feeling recognition is the way toward extricating assumption from content which is ordinarily utilized over online unstructured content like internet based life information streams. Information digging strategies are utilized for the extraction of legitimate examples from the organized database. Content mining methods are mind boggling than information mining because of unstructured and fluffy nature of characteristic language content.

II. RELATED WORKS

The paper[1] titled "notion examination in facebook and its application to e-learning" displays another technique for supposition investigation in facebook that, beginning from messages composed by clients, underpins: (I) to extricate data about the clients' slant polarity(positive, unbiased or negative), as transmitted in the messages they compose; and (ii) to demonstrate the clients' standard assessment extremity and to identify critical enthusiastic changes.

The paper[2] titled "opinion examination over informal communities: a diagram" introduces that feeling investigation can be applied in four levels: sentence, viewpoint and archive and client level. this can be performed utilizing AI (grouping or arrangement), vocabulary, nlp, philosophy or half and half systems. there are numerous improvement strategies to upgrade assumption examination results, for example, highlight choice, information combination, information cleaning, and publicly supporting.

The paper[3] titled "Conclusion examination of long range interpersonal communication locales (sns) information utilizing AI approach for the estimation of sorrow" introduces how to discover the downturn level of an individual by watching and separating feelings from the content, utilizing feeling hypotheses, AI systems, and normal language preparing procedures .In this paper a correlation is made among svm, nb and me classifiers with respect to sentence level notion investigation for discouragement estimation. Our analysis demonstrates that svm indicates better outcome as look at than nave bayes and most extreme entropy classifiers. we saw that the exactness of svm is 91 %, the precision of nave base is 83 % and the exactness of greatest entropy is 80 %.

The paper[4] titled "Feeling examination and assessment mining utilizing AI methods" displays that every human action depends on sentiments and conclusions are key estimations of human tasks. Investigation of slants is a multidiscipline zone that spreads NLP, content mining, and AI. Distinctive AI calculations, for example, irregular backwoods, credulous bayes, SVM are utilized which gives most fitting exactness.

III. DATA AND METHODOLOGY

Existing system

At first in the current framework cycle procedure is accomplished (for instance first emphasis they are going to take 100 remarks, inside that 100 remarks which words are accompanying progressively positive or increasingly negative check that words will be included as positive or negative before second iteration).Here precision is less in light of the fact that after cycle quickly we are thinking about positive or negative slant without thinking about left out words in remarks. Disadvantages of Existing System

- Time consuming
- Accuracy is less

Proposed system

We will propose the framework for distinguishing notion for dynamic remarks dependent on the edge idea. In view of the limit esteem we will accomplish precision in the undertaking. In the proposed framework beginning extension is done dependent on the theme chose. In light of the point each word in the specific remark, feeling kind of word is checked. At last positive, negative or unbiased tally is augmented. The forgot about word which isn't in any estimation type ,that word notion is chosen dependent on the positive ,negative and unbiased include in that specific remark. On the off chance that positive check is more than negative and impartial them it will be viewed as positive assumption as it were. At long last whenever left out word slant crosses limit esteem, at that point that word feeling is forever considered. Advantages of the Proposed System

- Accuracy
- Efficiency

IV. IMPLEMENTATION DETAILS

The usage organize in framework venture includes cautious arranging examination of the present framework and its requirements on execution plan of the techniques to accomplish change over and so on. The blunders in the code will be amended during the periods of testing.

Major modules:

Data Import Module:

In this module, remarks are recovered from the facebook API powerfully dependent on the item name input. To recover remarks from the facebook API account, first need to make facebook account in engineer's comfort. In the wake of making account we will get customers token key and access token key, with the assistance of produced keys, we will speak with facebook API to recover remarks. The recovered remarks are brought into database.

Preprocessing Module:

In this module, the remarks which are imported to database from the facebook API, these remarks comprise of pointless words, whitespaces, hyperlinks and uncommon characters. First we have to do sifting process by evacuating every single pointless word, whitespaces, hyperlinks and uncommon characters.

Self Learning and word standardization System:

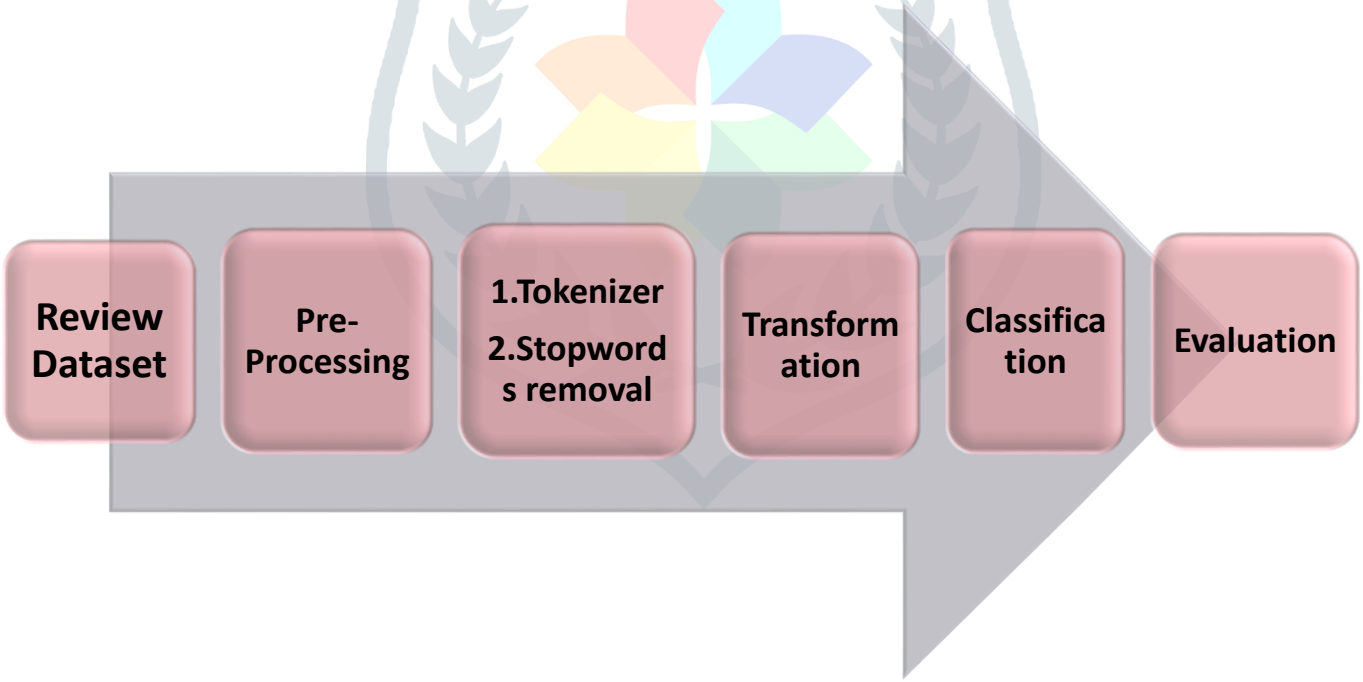
In this module, First we have to introduce the lexicon (first emphasis dictionary).In the word reference for the most part we have to instate the positive, negative impartial and things. Every single enormous datum and information mining undertakings dependent on the prepared information, without prepared information (introduction of words).So instatement of the prepared information is significant. In oneself learning framework, we are doing word institutionalization ,here we are not considering past, present and future status of the words, just we are thinking about the word.

Sentiment Analysis Module:

In this module, preprocessed remarks are brought from the database individually. First we need check individually watchword whether that catchphrase is thing are not, if thing we will expel it from the specific remarks. After that the rest of the catchphrases checked with supposition type, regardless of whether that watchwords are sure opinion or negative assessment or nonpartisan conclusion. The rest of the catchphrases in the remark which doesn't has a place with any of the slant will be doled out impermanent slant dependent on the more check of positive, negative and nonpartisan. In the subsequent cycle if the rest of the word crosses the edge of positive, negative or unbiased, that catchphrase for all time included as development in the lexicon. At long last assessment of the remark is distinguished dependent on the positive, negative and unbiased words in the specific remark.

Flow diagram

Fig: 4.1 Steps in Sentiment analysis process.



The above figure shows the steps in sentiment analysis process.

Initial step is to gather the dataset (remarks) from the Facebook. Gathered information should be pre-handled i.e., evacuation of pointless words, whitespaces, hyperlinks and extraordinary characters. Subsequent stage is we have to introduce a preparation information where positive, negative and nonpartisan watchwords are put away. Pre-prepared information is checked word by word and in the event that it coordinates any of the catchphrases in the prepared information, at that point it is named positive, negative or unbiased. This procedure is done all through the dataset lastly we will get the all out tally of positive, negative and unbiased words present in the dataset. Later execution investigation of the procedure is finished.

V. RESULTS AND CONCLUSION

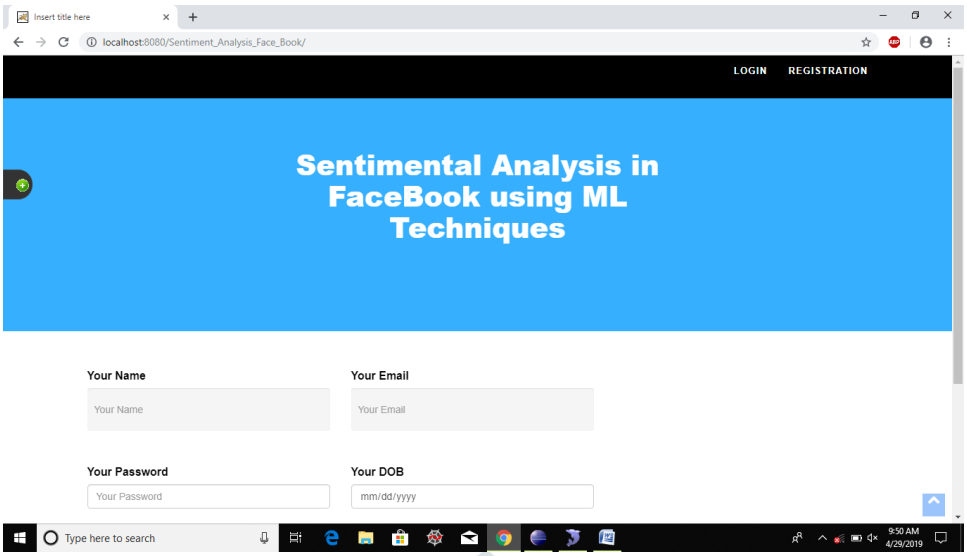


Fig 5.1: Registration Form

The above figure shows the Registration from where a user needs to register themselves by filling their details such as name, e-mail, and password.

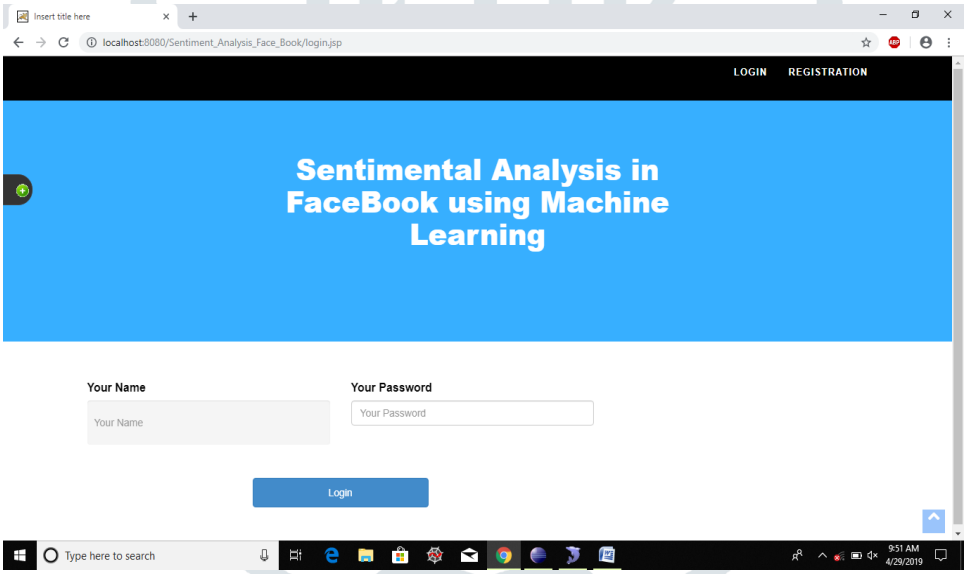


Fig: 5.2 Login Page

The above figure shows the login page where users need to enter his username and password. Authentication of the user is done by connecting to database to check whether he is a authorized user or not.

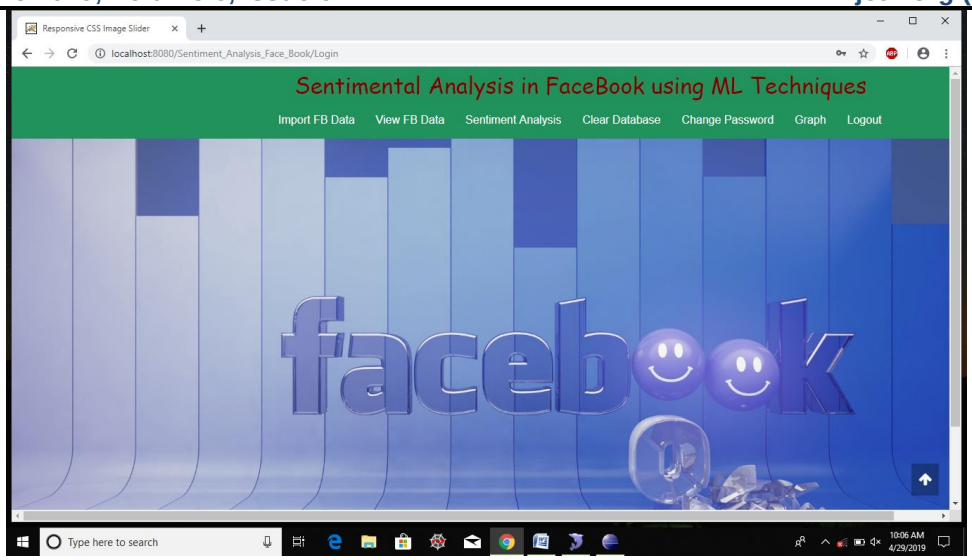


Fig: 5.3 Menu of overall process of sentiment analysis.

The above shows the menu where all the options required for the sentiment analysis process is shown.

1. Loading data
2. Viewing data
3. Sentiment analysis
4. Graph

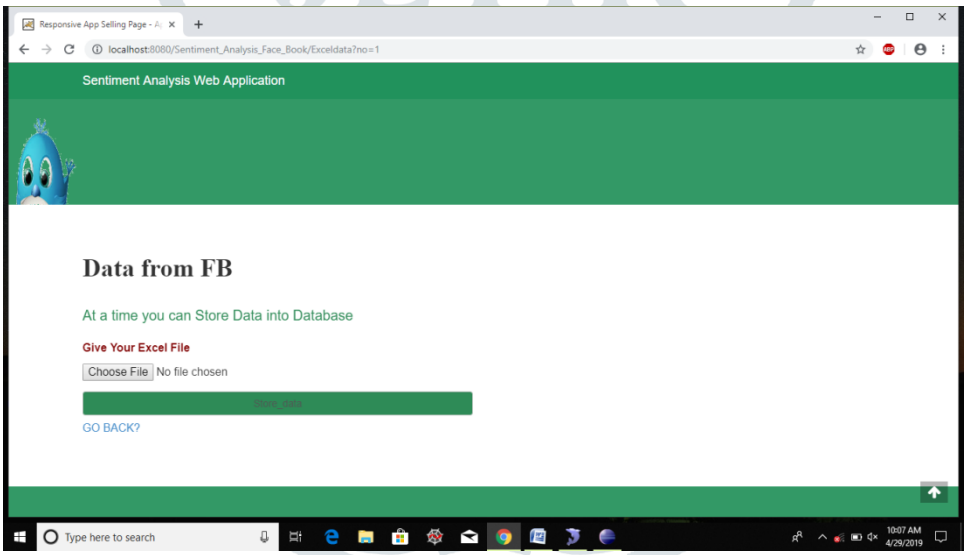


Fig: 5.4 Fetching dataset.

The above figure shows that we need to choose the dataset for the sentiment process.

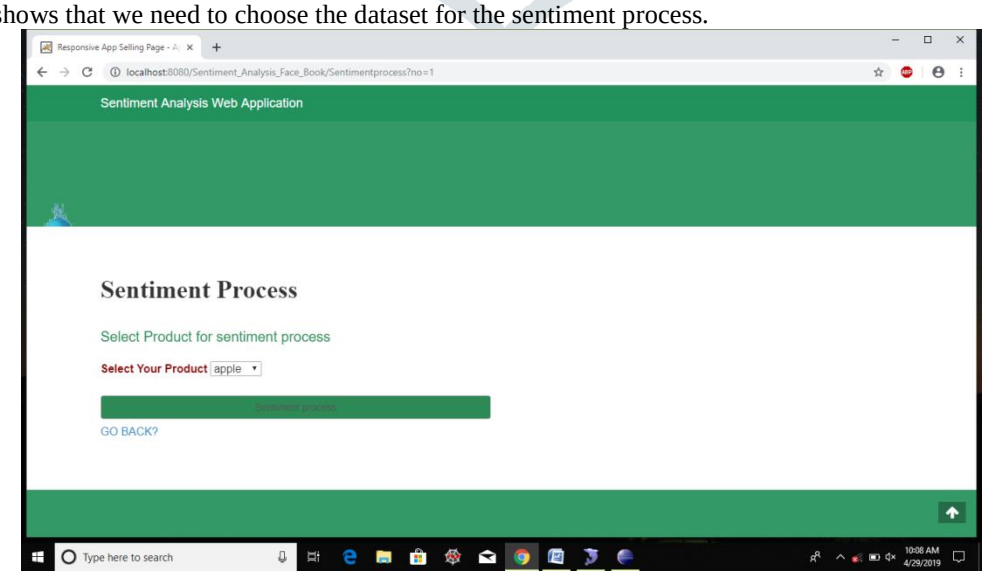


Fig: 5.5 Sentiment Process.

In above figure we need of select a product either Google or apple to know its polarity.

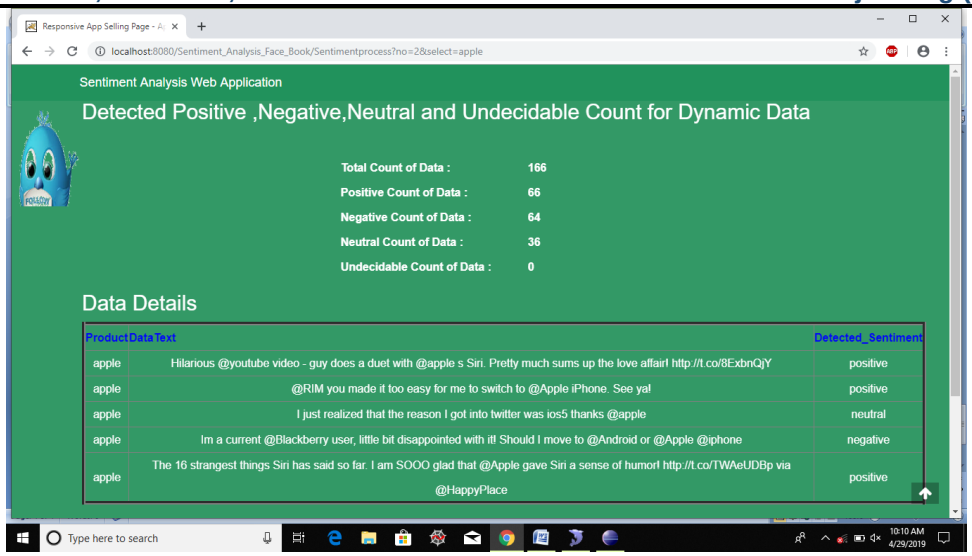


Fig: 5.6 Polarity Detection.

In the above sentiment process has been done and it shows total count of data, number of positive words, number of negative words, and number of neutral words. And it also classifies which are positive, negative and neutral comments.

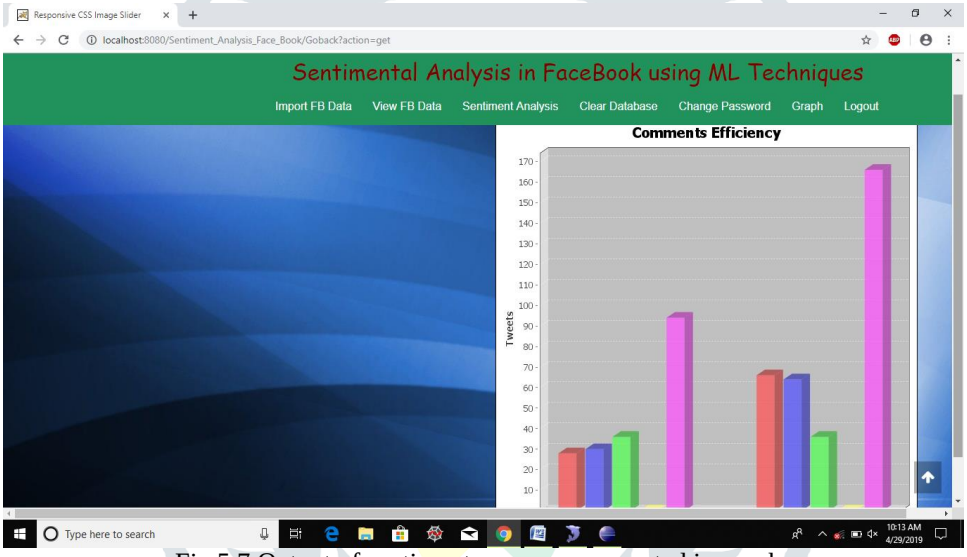


Fig 5.7 Output of sentiment process represented in graph.

The output of previous figure is represented in form of graph where comparison between two products can be made easily.

VI. CONCLUSION

Supposition examination is a powerful method for characterizing the conclusions figured by individuals with respect to any subject, administration or item. Robotization of this assignment makes it simpler to manage the enormous measure of information being delivered by social sites like Facebook consistently. Contrasted with the current framework, in light of the limit idea, cycle idea, watchwords are extended. In light of the extended words proficiency of the framework is expanded.

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