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Assignment - 5

* Aim:
Sentiment Analysis using NLTK / watson - Tone analyzer

* Objectives:-
1. To study and explore IBM watson Tone analyzer API.
2. To learn concepts of sentiment analysis using NLTK.

* Theory:-
. IBM watson Tone Analyzer API:
The IBM watson Tone Analyzer service uses linguistic analysis to detect emotional and language tones in written text.

. watson Tone Analyzer Features:-
→ conduct Social listening:
Analyze emotions and tones in what people write online like tweets or reviews. Predict whether they are happy, sad, confident and more.

→ Enhance Customer Service:
Monitor customer service and support conversations so you can respond to your customers appropriately and at scale. See if customers are satisfied or frustrated and if agents are polite and sympathetic

→ Integrate with chatbots:
Enable your chatbot to detect customer tones so you can build dialog strategies to adjust the conversation accordingly.

- Watson Tone Service Methods:-

→ Analyze General Tone:- tone_analyzer.tone().get_result()
→ Analyze Customer-engagement tone:- tone_analyzer.tone_chat().

* Algorithm:-

i) Record voice statement
ii) Convert voice statement to text.
iii) Feed text to tone_analyzer() function
iv) Parse Json and output relevant result.

* Platform: 64-bit open source Linux, IBM watson cloud, Json.

* Input: Text documents, news article, tweets, custome reviews.

* output: Analysis of input text to various sentiments / tones.

* conclusion: Hence, learned the concepts of sentiment analysis using IBM watson analyzer API and NLTK.

★ FAQs :-

1) List the various sentiments/tones analyze by IBM Watson Tone analyzer API?

=> Tones such as frustration, satisfaction, excitement, politeness, impoliteness, sadness and sympathy are some of important to detect sentiment of Tone analyzer API.

2) List different NLTK modules used in sentiment analysis?

=> Modules such as Sklearn classifier, tokenize, classify and corpus (to use the corpus files that are distributed in the NLTK corpus package?