SNA Mini project : Sentiment Analysis

Sentiment Analysis:

- Sentiment analysis, also referred to as opinion mining, is an approach to natural language processing (NLP) that identifies the emotional tone behind a body of text. This is a popular way for organizations to determine and categorize opinions about a product, service, or idea.

Python:

- Python is a high-level, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small- and large-scale projects.

NLTK:

- The Natural Language Toolkit, or more commonly NLTK, is a suite of libraries and programs for symbolic and statistical natural language processing for English written in the Python programming language.

Text corpus:

- In linguistics, a corpus or text corpus is a language resource consisting of a large and structured set of texts. In corpus linguistics, they are used to do statistical analysis and hypothesis testing, checking occurrences or validating linguistic rules within a specific language territory.

Coloroma:

- Provides a simple cross-platform API to print colored terminal text from Python applications.

VADER:

- VADER Sentiment Analysis. VADER (Valence Aware Dictionary and Sentiment Reasoner) is a lexicon and rule-based sentiment analysis tool that is specifically attuned to sentiments expressed in social media, and works well on texts from other domains.

Steps:

- Load the libraries.

```
In [10]: import nltk
         from nltk.corpus import stopwords, twitter_samples
         from nltk.sentiment import SentimentIntensityAnalyzer
         from statistics import mean
         from random import shuffle
         from colorama import Fore
```

```
In [11]: nltk.download('vader_lexicon')
         nltk.download('twitter_samples')
```

- Load and test VADER sentimetanalyzer

```
In [15]: m = SentimentIntensityAnalyzer()
         m.polarity_scores("Yo can win.")
```

- Peform sentiment analysis

```
blue = Fore.BLUE
yellow= Fore.YELLOW

def ispositive(tweet : str) -> bool:
    return m.polarity_scores(tweet)["compound"] > 0

tweets = [tweet for tweet in twitter_samples.strings()]
shuffle(tweets)

for tweet in tweets[ : 10]:
    color = blue
    if not ispositive(tweet):
        color = yellow
    print(f"{color}{tweet}")
```

Output:

```
RT @hinesjumpedup: @mrjamesmack 'We've stepped into traffic within diving distance of the SNP. The ball is in their court.'
RT @HouseOfTraitors: #AskNigelFarage  Just heard @Jo_Coburn sneer at FARAGE as he answers question on Defence
RT @Jason_Spacey: Nigel Farage is right when he says that Ukip supporters aren't closet racists. Most of the ones I've met are
openly racis…
@bbcquestiontime so Milliband prefers the Tories to working with the SNP (again).  RIP Labour in Scotland
RT @Tommy_Colc: Financial Times come out in support of Tories claiming Miliband is "preoccupied w/ inequality". The man who wro
te it http:/…
@RachelLiskeard Thanks for the shout-out :) It's great to have you aboard @inkfunnel
RT @weight_loss_fb: lose weight fast http://t.co/qpov5CuqRo
#bbc #ukip #39 #fcbgetafe #28a #bugil #it #peace #gintama
RT @AamerAnwar: #SNP #VoteSNP A voice 4 Scotland, sick of the contempt by WM for the people North &amp; South http://t.co/2km73
SD2wc
RT @ThePoke: Stingrays that look like David Cameron http://t.co/1FCW99PhNc #GE2015 #leadersdebate http://t.co/N4jsGLtnNB
@pollyjeanharvey @Nigel_Farage
And what if a hotel owner doesn't want to cater for people of the "wrong" political opinion? Like UKIP?
```