**SYNOPSIS**

# Title of the project:

## Sentimental Analysis

1. **Objective of the project:**

The Aim of My Project is to Analyse the Emotions of the User by the medium of textual sentences and their facebook Posts entered.

What we will Do?

Firstly we will get the user to enter the some text related to emotions or anything. Then we will use built in libraries of Python to analyse text and then check the mood of the User. In this project we will also analyse the user emotions by the way of getting user posts posted recently on the facebook.

1. **Language and software tool used:**
   * Language : Python
   * Operating System : Window 10
   * Tool : Tkinter, Numpy, Nltk, Matplotlib, Facepy, Textblob, Analyse Service
2. **Sustenance**

Sentiment analysis is not all that smooth after all. There are several issues related to Sentiment analysis that could lead to the loss of popularity of the technique.

* Opinion spam: Sentiment analysis can be used by competitors to portray negative image of a company. Once sentiment analysis gains popularity as a metric to gauge performance and brand image of a company, such mal-practices may become very common which will lead to decreased popularity of Sentiment Analysis.
* Result measure: The outputs of Sentiment analysis are useful as a reactive measure. It cannot be used to predict the performance of a company or other metrics. In some cases, Sentiment analysis can be redundant and can be only a reporting measure after the damage has been done.
* Lack of complete information. Biased results based on the sources: The sources of extracting information can be a major roadblock in sentiment analysis. Analysis of a scenario on incomplete information can lead to skewed results. Sources like Twitter, Facebook can be mined to get complete information.

But, other sources like blogs, posts, forums etc can be difficult to retrieve information from that can lead to a biased result-set.

# Future scope of the project:

Sentiment Analysis has been more than just a social analytic tool. It’s been an interesting field of study. But it is a field that is still being studied, although not at great lengths due to the intricacy of this analysis. That is this field has functions that are too complicated for machines to understand. The ability to understand sarcasm, hyperbole, positive feelings, or negative feelings has been difficult, for machines that lack feelings. Algorithms have not been able to predict with more than 60% accuracy the feelings portrayed by people. Yet with so many limitations this is one field which is growing at great pace within many industries. Companies want to accommodate the sentiment analysis tools into areas of customer feedback, marketing, CRM, and ecommerce.

Sentiment analysis methods till now have been used to detect the polarity in the thoughts and opinions of all the users that access social media. Researchers and Businesses are very interested to understand the thoughts of people and how they respond to everything happening around them. Companies use this to evaluate their advertisement campaigns and to improve their products.

There is too much potential in machine learning, overtaking some of the manual labor of some lexicon based tasks that are labor intensive. For example, lexicon sentiment creation is labor intensive and there are already unsupervised methods to create them. This is where machine learning will play a crucial role. Such algorithms will also have to understand and analyze natural text concept-wise and context-wise. Time will also be a crucial element looking at the amount of data that is being generated on the Web today. Collecting opinions on the web will still requires processing that can filter out un-opinionated user-generated content and also to test the trustworthiness of the opinion and its source.

There is a lot of scope in analyzing the video and images on the web. Now a days, with the advent of Facebook, Instagram and Video vines people are expressing their thoughts with pictures and videos along with text. Sentiment analysis will have to pace up with this change. Tools which are helping companies to change strategies based on Facebook and Twitter will also have to accommodate the number of likes and re-tweets that the thought is generating on the Social media. People follow and unfollow people and comments on Social Media but never comment so there is scope in analyzing these aspects of the Web as well.

The use of punctuation is an obstacle in Sentiment Analysis which is under research as well. Sentiment Analysis has started helping us to predict events just like in the case of Obama vs Romney but is still naïve in most cases. A sentiment analysis tool Teamview had predicted the winner of the show X factor but eventually that person came second. So improvements on the analysis is one scope which is under way by many tools available on the web.

As new text types appear on the Social Web, the techniques to pre-process, as well as to tackle their informal style must be adapted, so as to obtain acceptable levels of performance of the sentiment analysis systems. The field will have to combine with effective computing, psychology and neuroscience to converge on a unified approach to understanding the sentiments better.

Many tools and algorithms rely on the polarity of the words and the scoring is dependent on this polarity. This means that accuracy drops since the semantics of the complete sentence is lost. The semantics of the sentence makes it difficult to measure the polarity of the sentences on individual words. For eg. “This car is anything but useful”. The word useful can make this sentence positive but eventually this is a negative sentence overall. There are a few limitation to sentiment analysis which are hampering the progress of the accuracy of the models.

1. **Hardware requirement:**

**Minimum:**

* Computer with a 1.6 GHz or faster processor
* 384 MB of RAM or more (768 MB of RAM or more for Windows Vista)
* 2.2 GB of available hard-disk space
* 5400 RPM hard drive
* **1366 × 768** or higher-resolution display
* DVD-ROM Drive

**Recommended:**

2.4 GHz or higher CPU, 1024 MB or more RAM, 1280x1024 display, 7200 RPM or higher hard disk.

1. **Software requirement:**

* Python 3
* Working Internet connection
* Pip software for installation of packages

1. **Python 3:**

Python 3.0 was released in 2008. Although this version is supposed to be backward incompatibles, later on many of its important features have been backported to be compatible with version 2.7.This tutorial gives enough understanding on Python 3 version programming language.

1. **Pip:**

Pip is a [package management system](https://en.wikipedia.org/wiki/Package_manager) used to install and manage [software packages](https://en.wikipedia.org/wiki/Package_(package_management_system)) written in [Python](https://en.wikipedia.org/wiki/Python_(programming_language)). Many packages can be found in the [Python Package Index](https://en.wikipedia.org/wiki/Python_Package_Index) (PyPI). Python 2.7.9 and later (on the python2 series), and Python 3.4 and later include pip (pip3 for Python 3) by default. Pip is a [recursive acronym](https://en.wikipedia.org/wiki/Recursive_acronym) that can stand for either "Pip Installs Packages" or "Pip Installs Python".

One major advantage of pip is the ease of its [command-line interface](https://en.wikipedia.org/wiki/Command-line_interface), which makes installing Python software packages as easy as issuing one command:

pip install some-package-name

Users can also easily remove the package:

pip uninstall some-package-name

**8. Old Modules:**

1. User can copy and paste text in analyze bar to get overall analysis
2. Bar graph to give better view of analysed data.

**9. New Module:**

1. Login Page created, you can make personal account to use our application.
2. Twitter and facebook option addition (Automatically pick posts from twiiter or facebook, analyze it and give meaningful information out of it.

**10. Team Members:**

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