**Using twitter to see the trends on usage of programming languages.**

**Team Members: Group 1**

**Kishore Kumar Sunkoju**

**Deepthi Chenagoni**

**Rahul Monthe.**

**Southern Arkansas University.**

**Documentation:**

**Introduction:**

This is a file which compares the trends in two programming languages Java & Scala.

And mentions how many positive tweets and negative tweets are mentioned.

**Research Question:**

In programming community there is always a decision to make on which language to use.

Each have their own pros and cons.

Some programming languages see an increase in usage and some reduce in usage.

By using twitter we would like to take two programming languages which are a bit similar

java and scala (Java8 with its streams and lambda is closer to scala) and see what people think about them.

We would like to compare the based on tweet sentiments how many are positive/negative for each programming language.

How popular is the programming language?

**Data Extraction and Modelling:**

We used tweepy library to pull tweets. We used search API in tweepy to search for tweets with Java | Scala in them.

We selected tweets which are retweeted more than 10 times and we the tweet is not a retweet.

**Cleaning Data**

The twitter tweet would contain a lot of information that is not needed for this project.

Like links user name b RT tags and hashtags.

Used python re module to remove tags and clean data

The regular expression for each of them is mentioned in the code.

**Extracting Sentiment**

We used **http://text-processing.com/api/sentiment/** rest based call to get the sentiment for each tweet.

When a tweet is given as input the RestApi returns positive/negative/neutral tag.

**Representation**

Used matplotlib to create graphs to show the output for the positive/negative for each programming language.

**Conclusion:**

Even the number of tweets for Scala just edged past scala, number of positive tweets for java is more than that of scala.

Similarly Scala had more negative tweets when compared to java.

This shows that Java still has a lot of positive impression in the minds of programmers and even though scala is covering the gap, it hasn't done it so far.