



## 1.125 Arch & Engineering Software Systems Term Project Assignment

### **Deliverable #1**

#### **Due Date:**

**Thursday, Nov 10th, 2016**

#### ***Team:***

*Aswini Narayana Prasad and Shweta Jindal*

#### **Code Artifacts:**

##### **Code for Twitter data Extraction:**

Below code is written in node.js. A npm package 'Twit' is used for extracting the twitters from a specific keyword.

Below security key related authentication are obtained by creating a dedicated twitter app and hidden here.

##### **Node.js**

```
var T = new Twit({

  consumer_key: 'xxx',
  consumer_secret: 'xxx',
  access_token: 'xxx',
  access_token_secret: 'xxx',
  timeout_ms: 60*1000, // optional HTTP request timeout to apply to all requests.
})

var fs = require('fs');
var util=require('util');
var logFile=fs.createWriteStream('log.json',{flags:'a'});
var logStdout=process.stdout;
var cleanfile=fs.createWriteStream('log.json');
```



```
// search twitter for all tweets containing the keyword since a given data
```

```
T.get('search/tweets', { q: '#Samsung since:2014-01-10',count:100}, function(err, data, response) {  
  console.log(data);  
});
```

```
// writting the output as log.json
```

```
console.log=function(){  
  
  logFile.write(util.format.apply(null, arguments)+'\n');  
  logStdout.write(util.format.apply(null, arguments)+'\n');  
}  
console.error=console.log;
```

### **Code for Filtering the tweets from JSON: (Javascript)**

```
<html>  
<script src="log.json">  
</script>  
<script>  
  
var myArray=[];  
var i=0;  
window.onload=function() {  
    document.getElementById("demo").innerHTML = "The required data  
is"+myArray;  
};  
for (var i=0;i<data.statuses.length;i++)  
{  
myArray[i]=data.statuses[i].text;  
window.onload=function() {  
    document.getElementById("demo").innerHTML = "<p>" +myArray;  
};
```



Project

1.125 Final Term  
Shweta Jindal, Aswini Prasad

```
}
```

```
</script>
</head>
<body>
<h2 id='demo'>hello</h2>
<div id="page-wrapper">

</div>
</body>
</html>
```

### Code for Reading data in R

```
library(RTextTools) //load library packages
library(e1071)
```

```
pos_tweets = rbind( //defning the positive tweets
  c('I love this car', 'positive'),
  c('This view is amazing', 'positive'),
  c('I feel great this morning', 'positive'),
  c('I am so excited about the concert', 'positive'),
  c('He is my best friend', 'positive')
)
neg_tweets = rbind( //defining the negative tweets
  c('I do not like this car', 'negative'),
  c('This view is horrible', 'negative'),
  c('I feel tired this morning', 'negative'),
  c('I am not looking forward to the concert', 'negative'),
  c('He is my enemy', 'negative')
)
```



Project

1.125 Final Term  
Shweta Jindal, Aswini Prasad

```
test_tweets = rbind( //testing the tweets
  c('feel happy this morning', 'positive'),
  c('larry friend', 'positive'),
  c('not like that man', 'negative'),
)
tweets = rbind(pos_tweets, neg_tweets, test_tweets) // passing different types of
tweets in tweets variable.
```

These codes were working and the results were in the form as intended.

Next, we will work on R code to create basic ML models to predict the sentiment given a tweet. This involves selecting the training data properly to help train the model well.