Name-Jayanta Ghosh

Roll no-190112

Write a program in R for mining Twitter to identify tweets for a specific period and identify trends and named entities.

Practical Overview

Text and Tweets Processing using R

With the increasing importance of computational text analysis in research, many researchers face the challenge of learning how to use advanced software that enables this text analysis. Currently, one of the most popular environments for computational methods and the emerging field of "data science" is the R statistical software. However, for researchers that are not well-versed in programming, learning how to use R can be a challenge, and performing text analysis in particular can seem daunting. In this step by step guide one can learn that performing text analysis in R is not as hard as some might fear.

R usage for extracting Tweets and Packages

R was specifically designed for statistical analysis, which makes it highly suitable for data science applications. Although the learning curve for programming with R can be steep, especially for people without prior programming experience, the tools now available for carrying out text analysis in R make it easy to perform powerful, cutting-edge text analytics using only a few simple commands. One of the keys to R's explosive growth has been its densely populated collection of extension software libraries, known in R terminology as packages, supplied and maintained by R's extensive user community.

Each package extends the functionality of the base R language and core packages, and in addition to functions and data must include documentation and examples, often in the form of vignettes demonstrating the use of the package. The best-known package repository, the Comprehensive R Archive Network (CRAN), currently has over 10,000 packages that are published.

Twitter Data

Twitter is an online microblogging tool that disseminates more than 400 million messages per day, including vast amounts of information about almost all industries from entertainment to sports, health to business etc. One of the best things about Twitter — indeed, perhaps its greatest appeal — is in its accessibility. It's easy to use both for sharing information and for collecting it. Twitter provides unprecedented access to our lawmakers and to our celebrities, as well as to news as it's happening. Twitter represents an important data source for the business models of huge companies as well.

All the above characteristics make twitter a best place to collect real time and latest data to analyse and do any sought of research for real life situations.

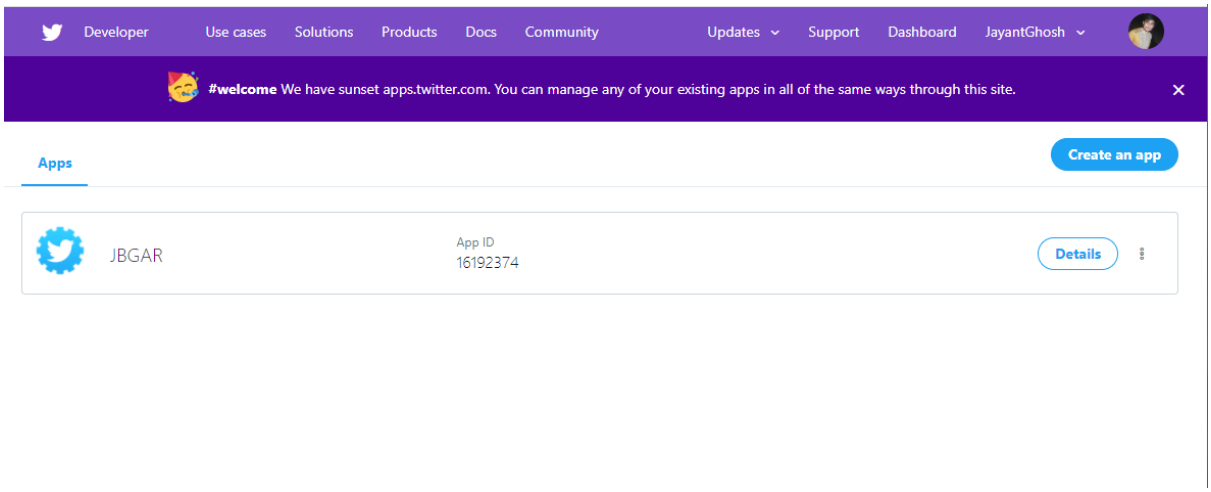
Practical Implementation

First, I will steer through my Applications of Twitter

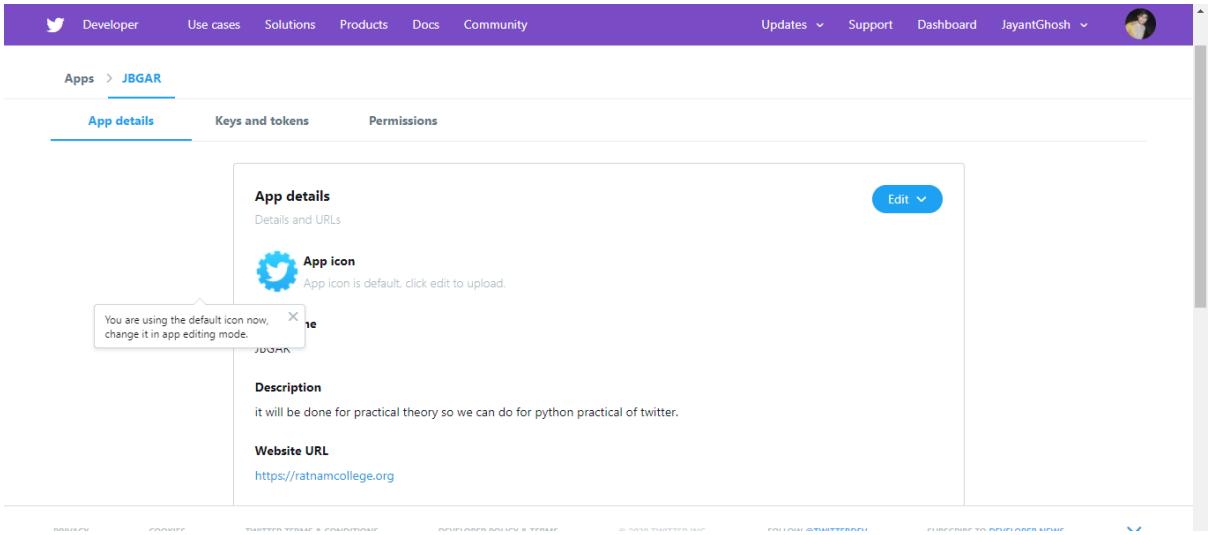
Link:- https://apps.twitter.com/

As I have performed in TYCS Practical that's why my App was already there so it will automatically open the developer

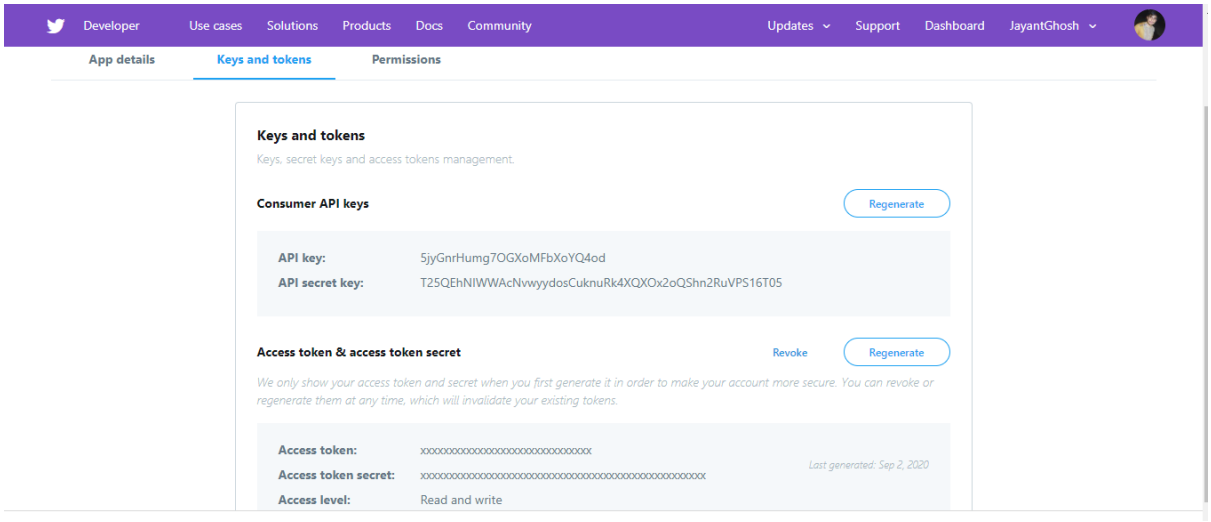
link:- https://developer.twitter.com/en/apps



As we can see my App name was which I am created was JBGAR and ID 16192374 and you can create an App it's your choice as I have already an app I don't go for it.



My App Details



My keys and tokens of Twitter Apps i can revoke your access tokens and secret keys.

Doing this steps you can access your tokens and keys after doing this all we will switch to RStudio or RGUI. I have done in RGUI.

INSTALL AND LOAD R PACKAGES:

R comes with a standard set of packages. A number of other packages are available for download and installation. For the purpose of this post, we will need the following packages:

ROAuth: Provides an interface to the OAuth 1.0 specification, allowing users to authenticate via OAuth to the server of their choice.

TwitteR: Provides an interface to the Twitter web API.

ggplot: It can be used to declare the input data frame for a graphic and to specify the set of plot aesthetics intended to be common throughout all subsequent layers unless specifically overridden.

TopicModels: package takes a Document-Term Matrix as input and produces a model that can be tided by tidytext, such that it can be manipulated and visualized with dplyr and ggplot2.

Syuzhet: A R package for the extraction of sentiment and sentiment-based plot arcs from text.

Stringi: The R package for fast, correct, consistent, portable, as well as convenient string/text processing in every locale and any native character encoding.

SnowballC: An R interface to the C 'libstemmer' library that implements Porter's word stemming algorithm for collapsing words to a common root to aid comparison of vocabulary.

Tidyr: Tidy data is data that's easy to work with: it's easy to munge (with dplyr), visualise (with ggplot2 or ggvis) and model (with R's hundreds of modelling packages).

Wordcloud: Text mining methods allow us to highlight the most frequently used keywords in a paragraph of texts. One can create a word cloud, also referred as text cloud or tag cloud, which is a visual representation of text data.

The procedure of creating word clouds is very simple in R if you know the different steps to execute. The text mining package (tm) and the word cloud generator package (wordcloud) are available in R for helping us to analyse texts and to quickly visualize the keywords as a word cloud.

tm: The tm package utilizes the Corpus as its main structure. A corpus is simply a collection of documents, but like most things in R, the corpus has specific attributes that enable certain types of analysis.

Let's start by installing and loading all the required packages.

install.packages("twitteR")

install.packages("ROAuth")

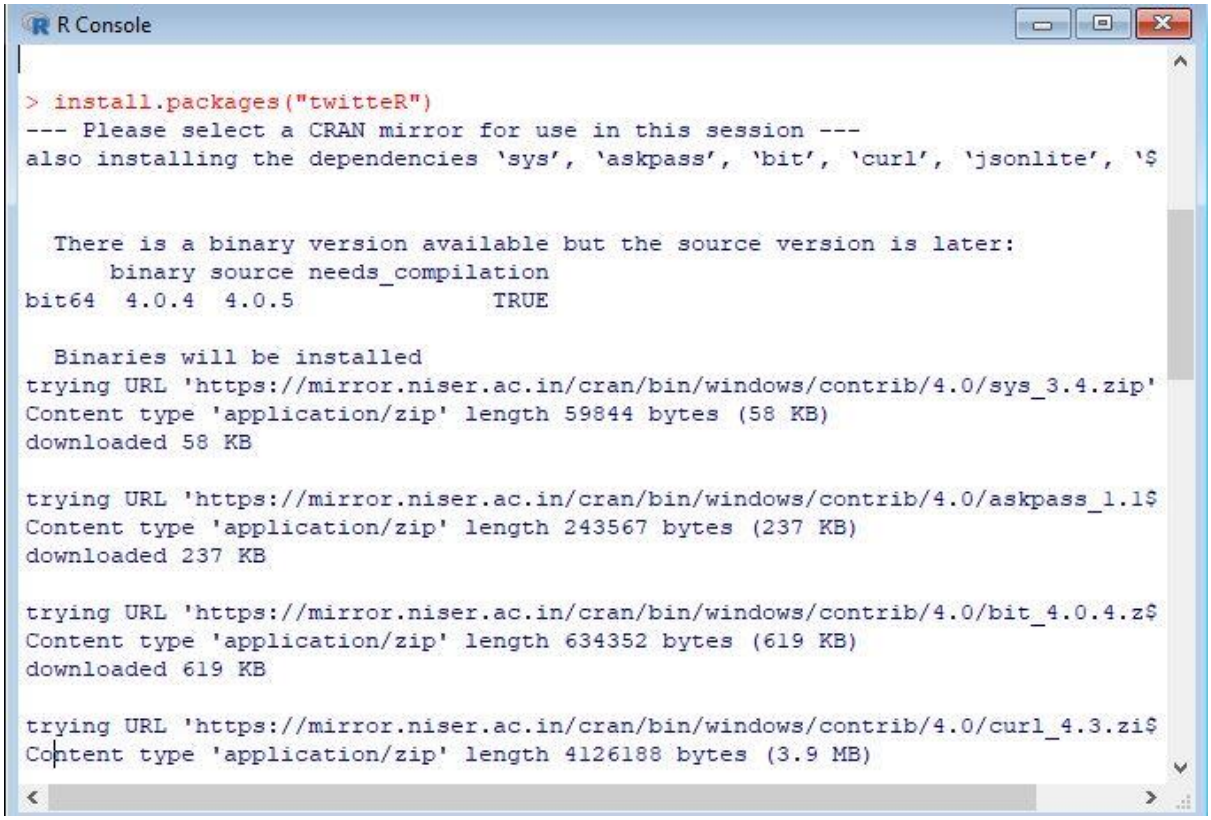
install.packages("tm")

install.packages("SnowballC")

install.packages("stringi")

install.packages("topicmodels")

install.packages("syuzhet")



```
package 'sys' successfully unpacked and MD5 sums checked
package 'askpass' successfully unpacked and MD5 sums checked
package 'bit' successfully unpacked and MD5 sums checked
package 'curl' successfully unpacked and MD5 sums checked
package 'jsonlite' successfully unpacked and MD5 sums checked
package 'mime' successfully unpacked and MD5 sums checked
package 'openssl' successfully unpacked and MD5 sums checked
package 'R6' successfully unpacked and MD5 sums checked
package 'bit64' successfully unpacked and MD5 sums checked
package 'rjson' successfully unpacked and MD5 sums checked
package 'DBI' successfully unpacked and MD5 sums checked
package 'httr' successfully unpacked and MD5 sums checked
package 'twitteR' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
        C:\Users\hp\AppData\Local\Temp\RtmpoNY5Cm\downloaded_packages
> |
```

```
> install.packages("ROAuth")
also installing the dependencies 'bitops', 'RCurl', 'digest'

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/bitops_1.0-$
Content type 'application/zip' length 38414 bytes (37 KB)
downloaded 37 KB

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/RCurl_1.98-$
Content type 'application/zip' length 3044987 bytes (2.9 MB)
downloaded 2.9 MB

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/digest_0.6.$
Content type 'application/zip' length 245013 bytes (239 KB)
downloaded 239 KB

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/ROAuth_0.9.$
Content type 'application/zip' length 133500 bytes (130 KB)
downloaded 130 KB

package 'bitops' successfully unpacked and MD5 sums checked
package 'RCurl' successfully unpacked and MD5 sums checked
package 'digest' successfully unpacked and MD5 sums checked
package 'ROAuth' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
```

```
> install.packages("tm")
also installing the dependencies 'Rcpp', 'xml2', 'BH'

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/Rcpp_1.0.$
Content type 'application/zip' length 3265833 bytes (3.1 MB)
downloaded 3.1 MB

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/xml2_1.3.$
Content type 'application/zip' length 3005723 bytes (2.9 MB)
downloaded 2.9 MB

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/BH_1.72.0$
Content type 'application/zip' length 18270708 bytes (17.4 MB)
downloaded 17.4 MB

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/tm_0.7-7.$
Content type 'application/zip' length 1553910 bytes (1.5 MB)
downloaded 1.5 MB

package 'Rcpp' successfully unpacked and MD5 sums checked
package 'xml2' successfully unpacked and MD5 sums checked
package 'BH' successfully unpacked and MD5 sums checked
package 'tm' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
```

```
> install.packages("syuzhet")
also installing the dependencies 'assertthat', 'utf8', 'cli', 'crayon', 'fans$


  There is a binary version available but the source version is later:
      binary source needs_compilation
vctrs  0.3.3  0.3.4              TRUE

  Binaries will be installed
trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/asserttha$
Content type 'application/zip' length 54929 bytes (53 KB)
downloaded 53 KB

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/utf8_1.1.$
Content type 'application/zip' length 208779 bytes (203 KB)
downloaded 203 KB
```

```
> install.packages("SnowballC")
trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/SnowballC$
Content type 'application/zip' length 450058 bytes (439 KB)
downloaded 439 KB

package 'SnowballC' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
        C:\Users\hp\AppData\Local\Temp\RtmpoNY5Cm\downloaded_packages
```

```
> install.packages("stringi")
trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/stri
Content type 'application/zip' length 15217051 bytes (14.5 MB)
downloaded 14.5 MB

package 'stringi' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
        C:\Users\hp\AppData\Local\Temp\RtmpoNY5Cm\downloaded_packages
>
```

```
> install.packages("topicmodels")
also installing the dependency 'modeltools'

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/modeltool$
Content type 'application/zip' length 207116 bytes (202 KB)
downloaded 202 KB

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/topicmode$
Content type 'application/zip' length 1372952 bytes (1.3 MB)
downloaded 1.3 MB

package 'modeltools' successfully unpacked and MD5 sums checked
package 'topicmodels' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
        C:\Users\hp\AppData\Local\Temp\RtmpoNY5Cm\downloaded_packages
>
```

Then execute the libraries

library("twitteR")

library("tm")

library("SnowballC")

library("stringi")

library("topicmodels")

library("syuzhet")

library("ROAuth")

Connect your twitter account to R, in order to extract the required tweets.

consumer_key <- '5jyGnrHumg7OGXoMFbXoYQ4od'

consumer_secret <- 'T25QEhNIWWAcNvwyydosCuknuRk4XQXOx2oQShn2RuVPS16T05'

access_token <- '1112948760575963137-CqKgU1gxoe9QSBR6CDtLwHaMB4Krxs'

access_secret <- 'FgQB7ECr1ll7x4PmaBVy29oZUiwnNmSHo5zp7rLCL0agj'

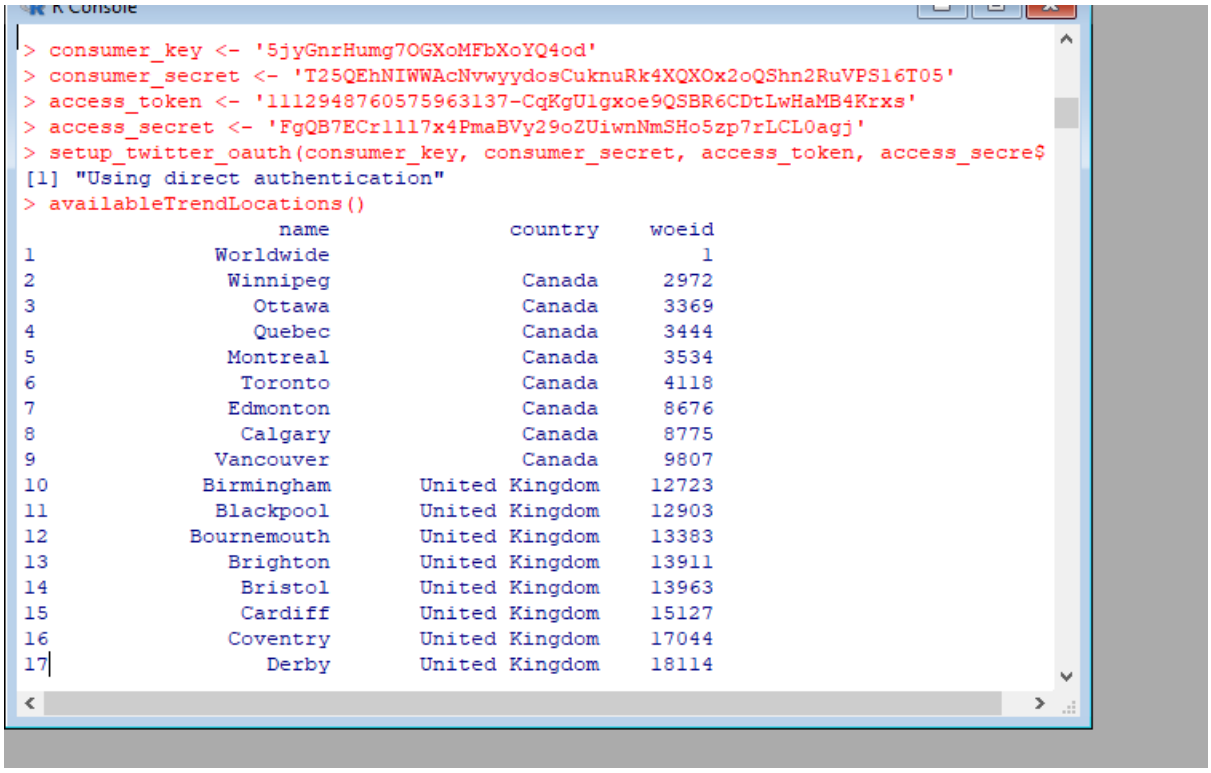
setup_twitter_oauth(consumer_key, consumer_secret, access_token, access_secret)

```
> library("topicmodels")
>
> library("tm")
Loading required package: NLP
> library("NLP")
> library("syuzhet")
> library("SnowballC")
> library("stringi")
> consumer_key <- '5jyGnrHumg7OGXoMFbXoYQ4od'
> consumer_secret <- 'T25QEhNIWWAcNvwyydosCuknuRk4XQXOx2oQShn2RuVPS16T05'
> access_token <- '1112948760575963137-CqKgU1gxoe9QSBR6CDtLwHaMB4Krxs'
> access_secret <- 'FgQB7ECr1117x4PmaBVy29oZUiwnNmSHo5zp7rLCL0agj'
> setup_twitter_oauth(consumer_key, consumer_secret, access_token, access_secre$
```

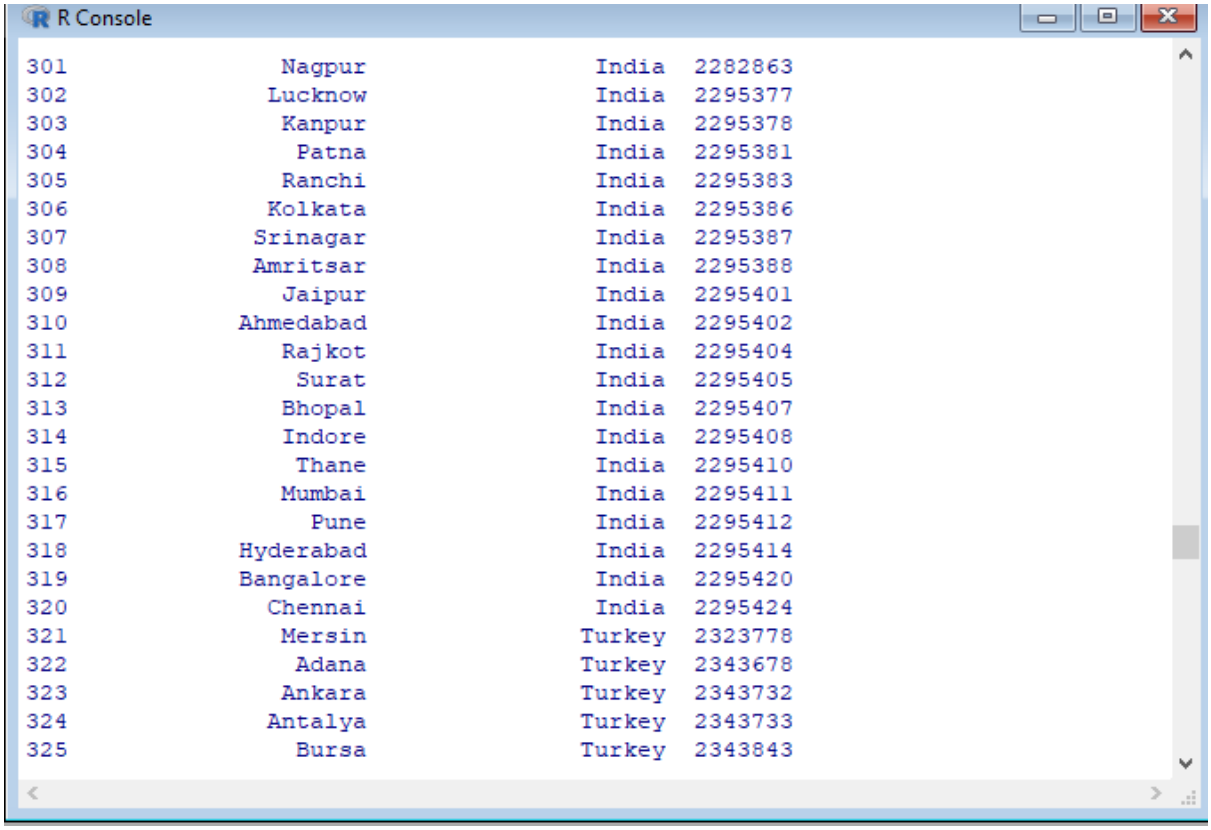
```
> setup_twitter_oauth(consumer_key, consumer_secret, access_token, access_secre$
[1] "Using direct authentication"
Use a local file ('.httr-oauth'), to cache OAuth access credentials between R s$

1: Yes
2: No

Selection: Yes
Adding .httr-oauth to .gitignore
>
```

Trend Locations

availableTrendLocations()



```
> consumer_key <- '5jyGnrHumg7OGXoMFbXoYQ4od'
> consumer_secret <- 'T25QEhNIWWAcNvwyydosCuknuRk4XQXOx2oQShn2RuVPS16T05'
> access_token <- '1112948760575963137-CqKgU1gxoe9QSBR6CDtLwHaMB4Krxs'
> access_secret <- 'FgQB7ECr1117x4PmaBVy29oZUiwnNmSHo5zp7rLCL0agj'
> setup_twitter_oauth(consumer_key, consumer_secret, access_token, access_secre$
[1] "Using direct authentication"
> availableTrendLocations()
                   name              country    woeid
1             Worldwide                            1
2              Winnipeg               Canada     2972
3                Ottawa               Canada     3369
4                Quebec               Canada     3444
5              Montreal               Canada     3534
6               Toronto               Canada     4118
7              Edmonton               Canada     8676
8               Calgary               Canada     8775
9             Vancouver               Canada     9807
10           Birmingham       United Kingdom    12723
11            Blackpool       United Kingdom    12903
12          Bournemouth       United Kingdom    13383
13             Brighton       United Kingdom    13911
14              Bristol       United Kingdom    13963
15              Cardiff       United Kingdom    15127
16             Coventry       United Kingdom    17044
17                Derby       United Kingdom    18114
```



India WOEID:- 23424848

Now we will see today's trends of Twitter

ny <- getTrends(23424848)

head(ny,n = 10)

```
> ny <- getTrends(23424848)
> head(ny,n = 10)
                       name
1       #ThursdayMotivation
2      #CBIUnfoldSSRMystery
3                      Gigi
4         #NewIndiaFitIndia
5         #BollywoodCleanup
6             #HansrajMeena
7           Farooq Abdullah
8  KIM TAEHYUNG WE LOVE YOU
9                    Rafale
10               pillowtalk
                                                    url
1           http://twitter.com/search?q=%23ThursdayMotivation
2          http://twitter.com/search?q=%23CBIUnfoldSSRMystery
3                             http://twitter.com/search?q=Gigi
4             http://twitter.com/search?q=%23NewIndiaFitIndia
5             http://twitter.com/search?q=%23BollywoodCleanup
6                 http://twitter.com/search?q=%23HansrajMeena
7           http://twitter.com/search?q=%22Farooq+Abdullah%22
8  http://twitter.com/search?q=%22KIM+TAEHYUNG+WE+LOVE+YOU%22
9                           http://twitter.com/search?q=Rafale
10                    http://twitter.com/search?q=pillowtalk
```

Extract Tweets of a specific user

test_user <- getUser('@Pritighosh27')

test_user$id

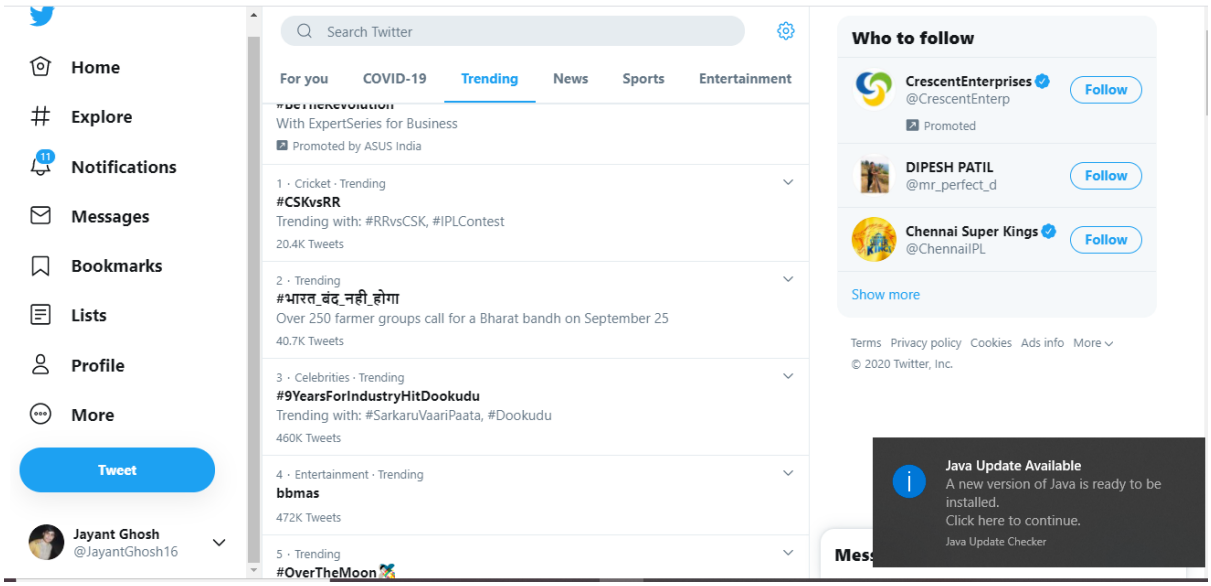
test_user$getDescription()

test_user$getFollowersCount()

userTimeline(user = " Pritighosh27", n = 5)

```
> test_user <- getUser('@PritiGhosh27')
> test_user$id
[1] "1110949225381199872"
> test_user$getDescription()
[1] "own rules #foodie #selfielover #army\U0001f49c #btslover\U0001f49c"
> test_user$getFollowersCount()
[1] 5
> userTimeline(user = "PritiGhosh27", n = 5)
[[1]]
[1] "PritiGhosh27: I purple\U0001f49c you namjoona \U0001f60a\U0001f60a cutie b$

[[2]]
[1] "PritiGhosh27: Wish you a very very happy birthday hope your all wishes com$

[[3]]
[1] "PritiGhosh27: #NewProfilePic"

>
```

Now we will go to find latest twitter trends as I have performed in 22 September 2020 at 8PM.



So I have performed first four latest trends to find Data of their Tweets, Retweets and Everything.

Extracting tweets using a particular hashtag:

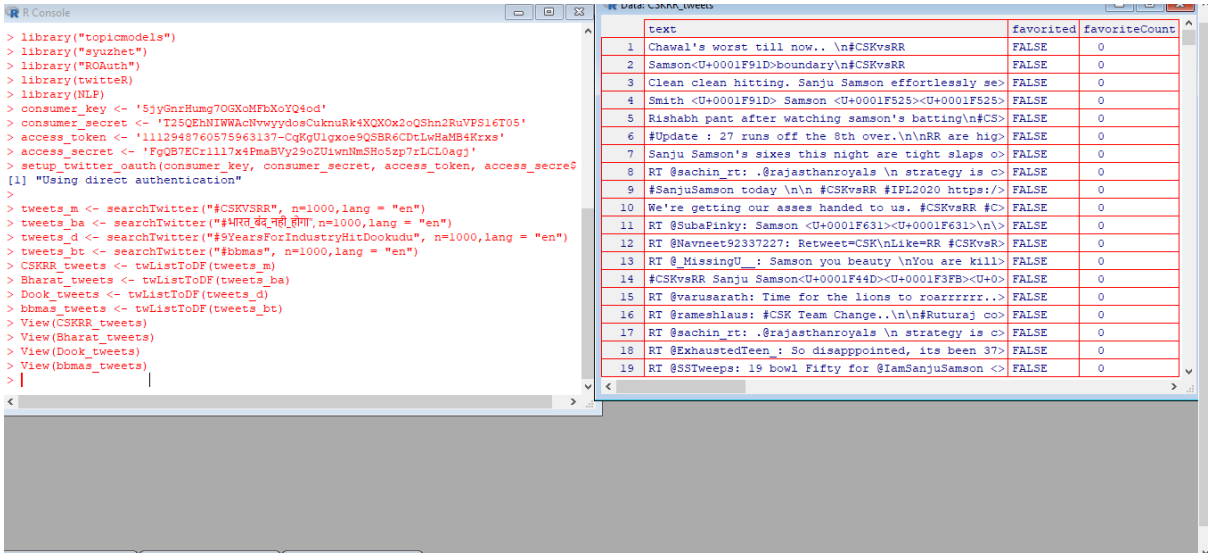
```
tweets_m <- searchTwitter("#CSKVSRR", n=1000,lang = "en")

tweets_ba <- searchTwitter("#भारत_बंद_नही_होगा", n=1000,lang = "en")

tweets_d <- searchTwitter("#9YearsForIndustryHitDookudu", n=1000,lang = "en")

tweets_bt <- searchTwitter("#bbmas", n=1000,lang = "en")
```

Then we will Convert this extracted data to a dataframe which makes it more readable and easier to work with.

```
CSKRR_tweets <- twListToDF(tweets_m)

Bharat_tweets <- twListToDF(tweets_ba)

Dook_tweets <- twListToDF(tweets_d)

bbmas_tweets <- twListToDF(tweets_bt)
```

And now we will view the data of each Hashtags trends

```
View(CSKRR_tweets)

View(Bharat_tweets)

View(Dook_tweets)

View(bbmas_tweets)
```



```
> library("topicmodels")
> library("syuzhet")
> library("ROAuth")
> library(twitteR)
> library(NLP)
> consumer_key <- '5jyGnrHumg7OGXoMFbXoYQ4od'
> consumer_secret <- 'T25QEhNIWWAcNvwyydosCuknuRk4XQXOx2oQShn2RuVPS16T05'
> access_token <- '1112948760575963137-CqKgU1qxoe9QSBR6CDtLwHaMB4Krxs'
> access_secret <- 'FgQB7ECr1117x4PmaBVy29oZUiwnNmSHo5zp7rLCL0agj'
> setup_twitter_oauth(consumer_key, consumer_secret, access_token, access_secre$
[1] "Using direct authentication"
>
> tweets_m <- searchTwitter("#CSKVSRR", n=1000,lang = "en")
> tweets_ba <- searchTwitter("#भारत_बंद_नही_होगा",n=1000,lang = "en")
> tweets_d <- searchTwitter("#9YearsForIndustryHitDookudu", n=1000,lang = "en")
> tweets_bt <- searchTwitter("#bbmas", n=1000,lang = "en")
> CSKRR_tweets <- twListToDF(tweets_m)
> Bharat_tweets <- twListToDF(tweets_ba)
> Dook_tweets <- twListToDF(tweets_d)
> bbmas_tweets <- twListToDF(tweets_bt)
> View(CSKRR_tweets)
> View(Bharat_tweets)
> View(Dook_tweets)
> View(bbmas_tweets)
>
```

	text	favorited	favoriteCount
1	Chawal's worst till now.. \n#CSKvsRR	FALSE	0
2	Samson<U+0001F91D>boundary\n#CSKvsRR	FALSE	0
3	Clean clean hitting. Sanju Samson effortlessly se>	FALSE	0
4	Smith <U+0001F91D> Samson <U+0001F525><U+0001F525>	FALSE	0
5	Rishabh pant after watching samson's batting\n#CS>	FALSE	0
6	#Update : 27 runs off the 8th over.\n\nRR are hig>	FALSE	0
7	Sanju Samson's sixes this night are tight slaps o>	FALSE	0
8	RT @sachin_rt: .@rajasthanroyals \n strategy is c>	FALSE	0
9	#SanjuSamson today \n\n #CSKvsRR #IPL2020 https:/>	FALSE	0
10	We're getting our asses handed to us. #CSKvsRR #C>	FALSE	0
11	RT @SubaPinky: Samson <U+0001F631><U+0001F631>\n\>	FALSE	0
12	RT @Navneet92337227: Retweet=CSK\nLike=RR #CSKvsR>	FALSE	0
13	RT @_MissingU__: Samson you beauty \nYou are kill>	FALSE	0
14	#CSKvsRR Sanju Samson<U+0001F44D><U+0001F3FB><U+0>	FALSE	0
15	RT @varusarath: Time for the lions to roarrrrrr..>	FALSE	0
16	RT @rameshlaus: #CSK Team Change..\n\n#Ruturaj co>	FALSE	0
17	RT @sachin_rt: .@rajasthanroyals \n strategy is c>	FALSE	0
18	RT @ExhaustedTeen_: So disapppointed, its been 37>	FALSE	0
19	RT @SSTweeps: 19 bowl Fifty for @IamSanjuSamson <>	FALSE	0

Data of CSKVSRR Trends

	text	favorited	favoriteCount	replyToSN	created	truncated	replyToSID	id
1	Chawal's worst till now.. \n#CSKvsRR	FALSE	0	NA	2020-09-22 14:42:26	FALSE	NA	1308416369931755522
2	Samson<U+0001F91D>boundary\n#CSKvsRR	FALSE	0	NA	2020-09-22 14:42:26	FALSE	NA	1308416369722109953
3	Clean clean hitting. Sanju Samson effortlessly se>	FALSE	0	NA	2020-09-22 14:42:25	TRUE	NA	1308416367524278274
4	Smith <U+0001F91D> Samson <U+0001F525><U+0001F525>	FALSE	0	NA	2020-09-22 14:42:25	FALSE	NA	1308416366970630152
5	Rishabh pant after watching samson's batting\n#CS>	FALSE	0	NA	2020-09-22 14:42:25	FALSE	NA	1308416366886739969
6	#Update : 27 runs off the 8th over.\n\nRR are hig>	FALSE	0	NA	2020-09-22 14:42:25	FALSE	NA	1308416366035316736
7	Sanju Samson's sixes this night are tight slaps o>	FALSE	0	NA	2020-09-22 14:42:25	FALSE	NA	1308416365833998343
8	RT @sachin_rt: .@rajasthanroyals \n strategy is c>	FALSE	0	NA	2020-09-22 14:42:25	FALSE	NA	1308416365406101507
9	#SanjuSamson today \n\n #CSKvsRR #IPL2020 https:/>	FALSE	0	NA	2020-09-22 14:42:25	FALSE	NA	1308416364915437575
10	We're getting our asses handed to us. #CSKvsRR #C>	FALSE	0	NA	2020-09-22 14:42:25	FALSE	NA	1308416363925569538
11	RT @SubaPinky: Samson <U+0001F631><U+0001F631>\n\>	FALSE	0	NA	2020-09-22 14:42:24	FALSE	NA	1308416363376107522
12	RT @Navneet92337227: Retweet=CSK\nLike=RR #CSKvsR>	FALSE	0	NA	2020-09-22 14:42:24	FALSE	NA	1308416363334184960
13	RT @_MissingU__: Samson you beauty \nYou are kill>	FALSE	0	NA	2020-09-22 14:42:24	FALSE	NA	1308416361853485056
14	#CSKvsRR Sanju Samson<U+0001F44D><U+0001F3FB><U+0>	FALSE	0	NA	2020-09-22 14:42:24	FALSE	NA	1308416360624599043
15	RT @varusarath: Time for the lions to roarrrrrr..>	FALSE	0	NA	2020-09-22 14:42:23	FALSE	NA	1308416359341142018
16	RT @rameshlaus: #CSK Team Change..\n\n#Ruturaj co>	FALSE	0	NA	2020-09-22 14:42:23	FALSE	NA	1308416357499887619
17	RT @sachin_rt: .@rajasthanroyals \n strategy is c>	FALSE	0	NA	2020-09-22 14:42:21	FALSE	NA	1308416350533095426
18	RT @ExhaustedTeen_: So disapppointed, its been 37>	FALSE	0	NA	2020-09-22 14:42:21	FALSE	NA	1308416348960194562
19	RT @SSTweeps: 19 bowl Fifty for @IamSanjuSamson <>	FALSE	0	NA	2020-09-22 14:42:21	FALSE	NA	1308416348754767873
20	RT @sachin_rt: .@rajasthanroyals \n strategy is c>	FALSE	0	NA	2020-09-22 14:42:21	FALSE	NA	1308416347878166528
21	RT @Anu_rag_Singh_: #CSKvsRR\nWhen You Hear Fake >	FALSE	0	NA	2020-09-22 14:42:20	FALSE	NA	1308416345290276867
22	Sanju Samson is not hitting sixes against CSK, ra>	FALSE	0	NA	2020-09-22 14:42:20	TRUE	NA	1308416345005068293
23	RT @sachin_rt: .@rajasthanroyals \n strategy is c>	FALSE	0	NA	2020-09-22 14:42:19	FALSE	NA	1308416342782103552
24	IPL Match 4\n\nRR 96/1 in 8 Overs\n\nSamson &>	FALSE	0	NA	2020-09-22 14:42:19	TRUE	NA	1308416341293043716
25	#RR Dealing with sixes...<U+0001F525><U+0001F525>>	FALSE	0	NA	2020-09-22 14:42:19	FALSE	NA	1308416339137179651
26	@rajasthanroyals Sanju Anna Class with Pure Mass<>	FALSE	0	rajasthanroyals	2020-09-22 14:42:18	FALSE	NA	1308416336016613378
27	RT @irshad5005: #SanjuSamson is becoming a #IPL l>	FALSE	0	NA	2020-09-22 14:42:18	FALSE	NA	1308416335643373575
28	Free Hitttt\n\nSixxxxxx<U+0001F525><U+0001F525><U>	FALSE	0	NA	2020-09-22 14:42:18	FALSE	NA	1308416335450451971
29	Unbelievable| Wow!\n#CSKvsRR #sanju	FALSE	0	NA	2020-09-22 14:42:17	FALSE	NA	1308416333726572544
30	Smith <U+0001F633><U+0001F494><U+0001F494>\n#CSKv>	FALSE	0	NA	2020-09-22 14:42:17	FALSE	NA	1308416333655273480

Data of भारत_बंद_नही_होगा trends

RGui (64-bit) - [Data: Bharat_tweets]

File

	text	favorited	favoriteCount	replyToSN	created	truncated	replyToSID	id
1	RT @slpbhl: I Support #AgricultureBill\n\n@Brand_>	FALSE	0	NA	2020-09-22 14:42:36	FALSE	NA	1308416412772372487
2	RT @AshaNakumBJP: In 2019 it was incorporated in >	FALSE	0	NA	2020-09-22 14:42:36	FALSE	NA	1308416410943655938
3	RT @Ramkishor_jaat_: #<U+092D><U+093E><U+0930><U+>	FALSE	0	NA	2020-09-22 14:42:34	FALSE	NA	1308416405331734529
4	RT @TEJSHAH9: I support kissan Bill and You<U+275>	FALSE	0	NA	2020-09-22 14:42:34	FALSE	NA	1308416403481989121
5	RT @Bittu_Tufani: I support kissan Bill and You<U>	FALSE	0	NA	2020-09-22 14:42:33	FALSE	NA	1308416399216463873
6	RT @AshaNakumBJP: In 2019 it was incorporated in >	FALSE	0	NA	2020-09-22 14:42:32	FALSE	NA	1308416395965853697
7	RT @ajaymandal6196: I Support Farmer bill.<U+0001>	FALSE	0	NA	2020-09-22 14:42:30	FALSE	NA	1308416387275259908
8	RT @simplespeaks: During #CAA they despensed fear>	FALSE	0	NA	2020-09-22 14:42:30	FALSE	NA	1308416384964190208
9	RT @ModifiedAayush: #<U+092D><U+093E><U+0930><U+0>	FALSE	0	NA	2020-09-22 14:42:29	FALSE	NA	1308416382195896324
10	RT @iArmySupporter: Who are with me?\n\nYou Repea>	FALSE	0	NA	2020-09-22 14:42:27	FALSE	NA	1308416376319680518
11	RT @ModifiedAayush: #<U+092D><U+093E><U+0930><U+0>	FALSE	0	NA	2020-09-22 14:42:26	FALSE	NA	1308416371563388930
12	RT @Bittu_Tufani: I support kissan Bill and You<U>	FALSE	0	NA	2020-09-22 14:42:25	FALSE	NA	1308416367830405126
13	RT @iArmySupporter: Who are with me?\n\nYou Repea>	FALSE	0	NA	2020-09-22 14:42:25	FALSE	NA	1308416365280231427
14	RT @BhadohiWale: #<U+092D><U+093E><U+0930><U+0924>	FALSE	0	NA	2020-09-22 14:42:23	FALSE	NA	1308416357709611017
15	RT @iArmySupporter: Who are with me?\n\nYou Repea>	FALSE	0	NA	2020-09-22 14:42:21	FALSE	NA	1308416350730309635
16	RT @ajaymandal6196: I Support Farmer bill.<U+0001>	FALSE	0	NA	2020-09-22 14:42:20	FALSE	NA	1308416344254230530
17	RT @slpbhl: I Support #AgricultureBill\n\n@Brand_>	FALSE	0	NA	2020-09-22 14:42:18	FALSE	NA	1308416337937666053
18	RT @ChauhanSaabPC: #<U+092D><U+093E><U+0930><U+09>	FALSE	0	NA	2020-09-22 14:42:18	FALSE	NA	1308416335437869057
19	RT @simplespeaks: Side effects of RaGa #<U+092D><>	FALSE	0	NA	2020-09-22 14:42:17	FALSE	NA	1308416331973304327
20	RT @ChauhanSaabPC: #<U+092D><U+093E><U+0930><U+09>	FALSE	0	NA	2020-09-22 14:42:15	FALSE	NA	1308416325367279616
21	RT @Anil1Kap57560169: #<U+092D><U+093E><U+0930><U+>	FALSE	0	NA	2020-09-22 14:42:12	FALSE	NA	1308416312142696459
22	RT @ChauhanSaabPC: #<U+092D><U+093E><U+0930><U+09>	FALSE	0	NA	2020-09-22 14:42:10	FALSE	NA	1308416302911025153
23	RT @iArmySupporter: Who are with me?\n\nYou Repea>	FALSE	0	NA	2020-09-22 14:42:06	FALSE	NA	1308416285076848642
24	RT @SAFFRON51441048: @siddaramaiah @BJP4Karnataka>	FALSE	0	NA	2020-09-22 14:42:00	FALSE	NA	1308416261513150467
25	RT @ajaymandal6196: #<U+092D><U+093E><U+0930><U+0>	FALSE	0	NA	2020-09-22 14:41:55	FALSE	NA	1308416241401552897
26	RT @BharathReddyBJP: I Support #AgricultureBill\n>	FALSE	0	NA	2020-09-22 14:41:55	FALSE	NA	1308416240394874883
27	RT @RithikRaina6: I Support Farmer bill.<U+0001F6>	FALSE	0	NA	2020-09-22 14:41:48	FALSE	NA	1308416210955120645
28	RT @HimanshuTehlan5: India supports #Farmersbill2>	FALSE	0	NA	2020-09-22 14:41:45	FALSE	NA	1308416199152340994
29	RT @iSengarAjayy: RT if you support #<U+092D><U+0>	FALSE	0	NA	2020-09-22 14:41:44	FALSE	NA	1308416192051372039
30	RT @Ramkishor_jaat_: #<U+092D><U+093E><U+0930><U+>	FALSE	0	NA	2020-09-22 14:41:41	FALSE	NA	1308416181716557826

Data on 9YearsForIndustryHitDookudu trends

RGui (64-bit) - [Data: Dook_tweets]

File

	text	favorited	favoriteCount	replyToSN	created	truncated	replyToSID	id
1	RT @MaheshBabuFacts: Andhra Raraju <U+0001F91F>\n>	FALSE	0	NA	2020-09-22 14:42:51	FALSE	NA	1308416475108175881
2	RT @baraju_SuperHit: #9YearsForIndustryHitDookudu>	FALSE	0	NA	2020-09-22 14:42:51	FALSE	NA	1308416474512535552
3	RT @_Ratna_Teja: Never before box-office rampage >	FALSE	0	NA	2020-09-22 14:42:51	FALSE	NA	1308416474411921408
4	RT @NBK_MB_cult: Lets make 400K in 1st lhr <U+000>	FALSE	0	NA	2020-09-22 14:42:51	FALSE	NA	1308416474302865410
5	RT @newMovieBuff007: Dookudu has stormed the Box >	FALSE	0	NA	2020-09-22 14:42:51	FALSE	NA	1308416473791160328
6	RT @NBK_MB_cult: 500k kottedam first hr speed up >	FALSE	0	NA	2020-09-22 14:42:51	FALSE	NA	1308416472918773760
7	RT @NBK_MB_cult: 1M at usa\n\n#9YearsForIndustryH>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416472197234689
8	RT @MB_Cult_FC: Cults Speed penchali <U+0001F44D>>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416472113348611
9	RT @RishiFanIkkada: #SarkaruVaariPaata tag count >	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416472000196610
10	RT @vyshnaviReddy03: SVP tag count last hour :302>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416471983362050
11	#9YearsForIndustryHitDookudu\nSamson <U+0001F525>>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416471815643137
12	RT @Chota_DHFM: Father Nd Son Bonding\nWe All Nee>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416471769518080
13	RT @poojachowdaryMB: Acting in On-screen.\n\nHelp>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416470620221440
14	RT @Rajashekar_MBFN: 84M #SarkaruVaariPaata tag >	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416469789749248
15	RT @RUVsuneel: 6,8th places manave\n\n@urstrulyMa>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416469584273414
16	RT @RUVsuneel: 6,8th places manave\n\n@urstrulyMa>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416469122904072
17	RT @BhanuMBcult: 200 on cards <U+0001F525><U+0001>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416469005406208
18	RT @VintageMahesh: #Dookudu's feats could very we>	FALSE	0	NA	2020-09-22 14:42:50	FALSE	NA	1308416468900548610
19	RT @Chota_DHFM: Father Nd Son Bonding\nWe All Nee>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416468464349192
20	RT @ursMFC: Per screen avg of DOOKUDU at us bo 23>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416468292337665
21	RT @BhanuMBcult: One over 28 runs <U+0001F525><U+>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416467944255491
22	RT @PrinceBashaDHFM: How Many Times Did You Watch>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416467516493831
23	RT @Addicted_Mahesh: Never before box-office ramp>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416467512295425
24	RT @Kkdtalkies: @ KKD CITY\nAnand direct 112 days>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416467323572225
25	RT @basically_clasy: Trending world wide at 9th p>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416467302576128
26	RT @VenkatSai_Dhfm: Retweet \n\n#9YearsForIndustr>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416466895728641
27	RT @NBK_MB_cult: 250K done & dusted <U+0001F4>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416466757332996
28	RT @VintageMBfan: Dookudu Pre-release Business de>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416466467860480
29	RT @SSMBEMPIRE: Here The Tag <U+0001F525> Use Bel>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416466329493507
30	RT @Karimnagar_GFC: This is not a AP / TS this is>	FALSE	0	NA	2020-09-22 14:42:49	FALSE	NA	1308416466283384836

Data on bbmas trends

RGui (64-bit) - [Data: bbmas_tweets]

File

	text	favorited	favoriteCount	replyToSN	created	truncated	replyToSID	id
1	RT @Jeff__Benjamin: Congratulations to @GOT7Offic>	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416530376462337
2	RT @_jimintoday_: #BBMAs BTS @BTS_twt \nTop Duo/>	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416529793527808
3	RT @billboard: .@BTS_twt is vying for its second >	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416529592201217
4	RT @taylornation13: BIG congrats to @taylorswift1>	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416529533415424
5	RT @With1DNews: Harry is nominated for 'Billboard>	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416529306918913
6	RT @billboard: .@BTS_twt is vying for its second >	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416529101475841
7	RT @billboard: .@BTS_twt is vying for its second >	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416528925290497
8	RT @laloumixer: @lm_stats @LittleMix Worldwide qu>	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416528325513219
9	RT @BBMAs: Billboard Chart Achievement Award, Top>	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416527989903360
10	RT @billboard: Here are the nominees for the Top >	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416527885053955
11	RT @billboard: .@BTS_twt is vying for its second >	FALSE	0	NA	2020-09-22 14:43:04	FALSE	NA	1308416527620804612
12	RT @WWEXOL: [VOTE] \n\nEXO got nominated on #BB>	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416527121690624
13	RT @btsvotingorg: <U+0001F4E3>	BTS are not nomi>	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416527096520704
14	RT @SMTownEngSub: .@weareoneEXO is nominated for >	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416526664560640
15	RT @GirlWithLuv24: #BBMAs BTS @BTS_twt \nTop Duo>	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416526618365957
16	can we all agree that we won't watch the #BBMAs	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416526463238149
17	RT @ilvhsk: @ahgamixer @toda_barbezinha @GOT7Offi>	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416526307950592
18	RT @taylornation13: BIG congrats to @taylorswift1>	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416526182215680
19	RT @Jeff__Benjamin: Congratulations to @GOT7Offic>	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416524403781640
20	RT @BBMAs: #BBMAs Billboard Chart Achievement Awa>	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416524395466754
21	RT @SMTownEngSub: .@weareoneEXO is nominated for >	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416524177281024
22	RT @taylornation13: BIG congrats to @taylorswift1>	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416523699093504
23	RT @TSwiftNZ: <U+0001F3C6>	Taylor Swift's 2020 >	FALSE	0	NA	2020-09-22 14:43:03	FALSE	NA	1308416523539820544
24	RT @MANUELCAV: @ChrisBrown's 2020 #BBMAs nominati>	FALSE	0	NA	2020-09-22 14:43:02	FALSE	NA	1308416522583506951
25	RT @soompi: #BTS In The Running For 2 Trophies At>	FALSE	0	NA	2020-09-22 14:43:02	FALSE	NA	1308416521878802435
26	RT @taylornation13: BIG congrats to @taylorswift1>	FALSE	0	NA	2020-09-22 14:43:02	FALSE	NA	1308416521849499656
27	RT @billboard: Here are the nominees for the Top >	FALSE	0	NA	2020-09-22 14:43:02	FALSE	NA	1308416521547452420
28	RT @ZaynForHero: The 'Aladdin' soundtrack, in whi>	FALSE	0	NA	2020-09-22 14:43:02	FALSE	NA	1308416519819403272
29	@taylornation13 @taylorswift13 @BBMAs @billboard >	FALSE	0	taylornation13	2020-09-22 14:43:02	FALSE	1308415482509365248	1308416519202799619
30	RT @btsvotingorg: The nominations for #BBMAs will>	FALSE	0	NA	2020-09-22 14:43:02	FALSE	NA	1308416519186067456

After extracting and carried out data of each trends we will go for Wordcloud to analyse the words used in trends of how much amount.

WordCloud

Word clouds (also known as text clouds or tag clouds) work in a simple way: the more a specific word appears in a source of textual data (such as a speech, blog post, or database), the bigger and bolder it appears in the word cloud.

So let's generate some word clouds and find out some of the frequent and important terms being used in the tweets we have extracted.

For that we have to first install wordcloud package and import he library

Install.packages("wordcloud")

Library(wordcloud)

```
> install.packages("Wordcloud")
--- Please select a CRAN mirror for use in this session ---
Warning messages:
1: package 'Wordcloud' is not available (for R version 4.0.2)
2: Perhaps you meant 'wordcloud' ?
> install.packages("wordcloud")
also installing the dependency 'RColorBrewer'

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/RColorBrewe$
Content type 'application/zip' length 55583 bytes (54 KB)
downloaded 54 KB

trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/wordcloud_2$
Content type 'application/zip' length 785050 bytes (766 KB)
downloaded 766 KB

package 'RColorBrewer' successfully unpacked and MD5 sums checked
package 'wordcloud' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
        C:\Users\hp\AppData\Local\Temp\RtmpgrBGJa\downloaded_packages
```

```
> install.packages("wordcloud"
+ )
--- Please select a CRAN mirror for use in this session ---
trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/wordcloud_2$
Content type 'application/zip' length 785045 bytes (766 KB)
downloaded 766 KB

package 'wordcloud' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
        C:\Users\hp\AppData\Local\Temp\RtmpeyQN8S\downloaded_packages
> library(wordcloud)
Loading required package: RColorBrewer
> library(RColorBrewer
+ )
>
```

Then we will go for code

CSKRR_text<- CSKRR_tweets$text

Bharat_text<- Bharat_tweets$text

Dook_text<-Dook_tweets$text

bbmas_text<-bbmas_tweets$text

CSKRR_tweets.text.corpus<-CSKRR_text

Bharat_tweets.text.corpus<-Bharat_text

Dook_tweets.text.corpus<-Dook_text

bbmas_tweets.text.corpus<-bbmas_text

```
> CSKRR_text<- CSKRR_tweets$text
> Bharat_text<- Bharat_tweets$text
> Dook_text<-Dook_tweets$text
> bbmas_text<-bbmas_tweets$text
>
> CSKRR_tweets.text.corpus<-CSKRR_text
> Bharat_tweets.text.corpus<-Bharat_text
> Dook_tweets.text.corpus<-Dook_text
> bbmas_tweets.text.corpus<-bbmas_text
>
```

wordcloud(CSKRR_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),random.color = TRUE,max.words = 500)

wordcloud(Bharat_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),random.color = TRUE,max.words = 500)

wordcloud(Dook_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),random.color = TRUE,max.words = 500)

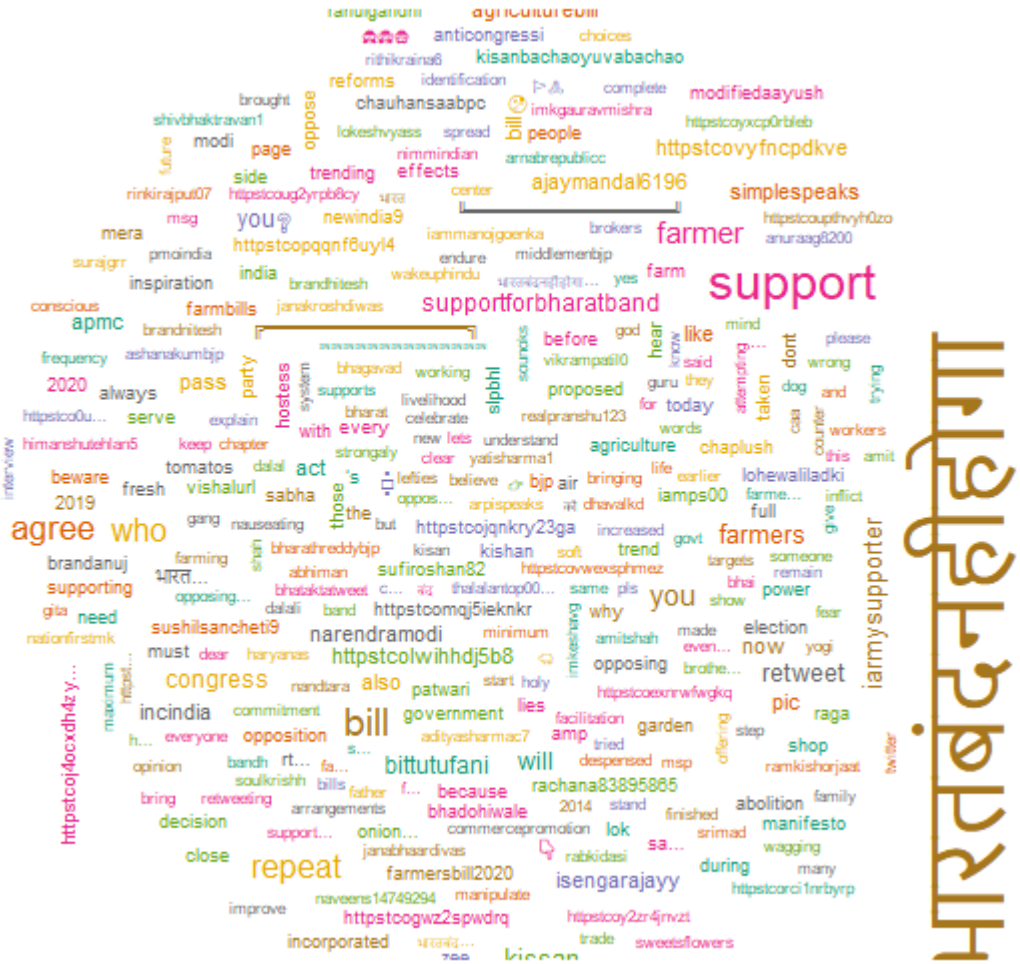
wordcloud(bbmas_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),random.color = TRUE,max.words = 500)

```
> wordcloud(CSKRR_tweets.text.corpus,min.freq = 5,colors=brewer.pal(8, "Dark2")$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
> wordcloud(Bharat_tweets.text.corpus,min.freq = 5,colors=brewer.pal(8, "Dark2"$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
```

```
> wordcloud(Dook_tweets.text.corpus,min.freq = 5,colors=brewer.pal(8, "Dark2"),$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
3: In wordcloud(Dook_tweets.text.corpus, min.freq = 5, colors = brewer.pal(8,  :
  9yearsforindustryhitdookudu could not be fit on page. It will not be plotted.
> wordcloud(bbmas_tweets.text.corpus,min.freq = 5,colors=brewer.pal(8, "Dark2")$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
```

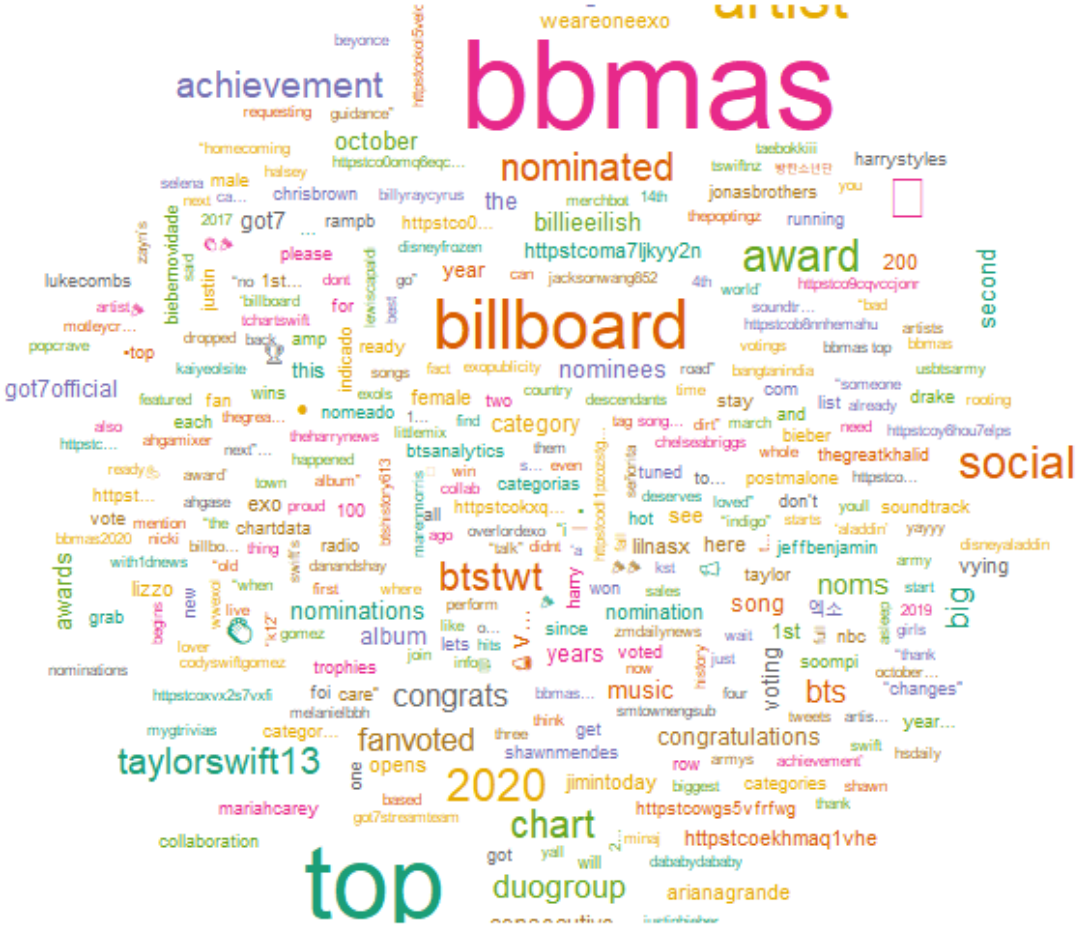
Worcloud of CSVSRR Trend

Worcloud of भारत_बंद_नही_होगा trend



Worcloud of 9YearsForIndustryHitDookudu trend

Wordcloud of bbmas trend



Sentiment Analysis

Now we will go for Sentiment Analysis for finding emotions psychology of human being through twitter data how people react to trends of their nature.

In recent years there has been a steady increase in interest from brands, companies and researchers in Sentiment Analysis and its application to business analytics. The business world today, as is the case in many data analytics streams, are looking for “business insight.”

In relation to sentiment analysis, I am talking about insights into consumer behavior, what customers want, what are customers like and dislike about the products, what their buying signals are, what their decision process looks like etc because in the end of the its the customers for whose satisfaction these businesses work for I have used the inbuilt sentiment analyser in R, which uses the NRC sentiment dictionary to calculate the presence of eight different emotions and their corresponding valence in a text.

For to analyse sentiments we have to install tidyr package and import the libraries

```
> install.packages("tidyr")
trying URL 'https://mirror.niser.ac.in/cran/bin/windows/contrib/4.0/tidyr_1.1.2$
Content type 'application/zip' length 1024929 bytes (1000 KB)
downloaded 1000 KB

package 'tidyr' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
        C:\Users\hp\AppData\Local\Temp\RtmpgrBGJa\downloaded_packages
> library("tidyr")
```

Getting emotions using in-built function

mysentiment_CSKRR<-get_nrc_sentiment((CSKRR_text))

mysentiment_Bharat<-get_nrc_sentiment((Bharat_text))

mysentiment_Dook<-get_nrc_sentiment((Dook_text))

mysentiment_bbmas<-get_nrc_sentiment((bbmas_text))

Calculating total score for each sentiment

Sentimentscores_CSKRR<-data.frame(colSums(mysentiment_CSKRR[,]))

Sentimentscores_Bharat<-data.frame(colSums(mysentiment_Bharat[,]))

Sentimentscores_Dook<-data.frame(colSums(mysentiment_Dook[,]))

Sentimentscores_bbmas<-data.frame(colSums(mysentiment_bbmas[,]))

names(Sentimentscores_CSKRR)<-"Score"

Sentimentscores_CSKRR<-
cbind("sentiment"=rownames(Sentimentscores_CSKRR),Sentimentscores_CSKRR)

rownames(Sentimentscores_CSKRR)<-NULL

names(Sentimentscores_Bharat)<-"Score"

Sentimentscores_Bharat<-
cbind("sentiment"=rownames(Sentimentscores_Bharat),Sentimentscores_Bharat)

rownames(Sentimentscores_Bharat)<-NULL

names(Sentimentscores_Dook)<-"Score"

Sentimentscores_Dook<-
cbind("sentiment"=rownames(Sentimentscores_Dook),Sentimentscores_Dook)

rownames(Sentimentscores_Dook)<-NULL

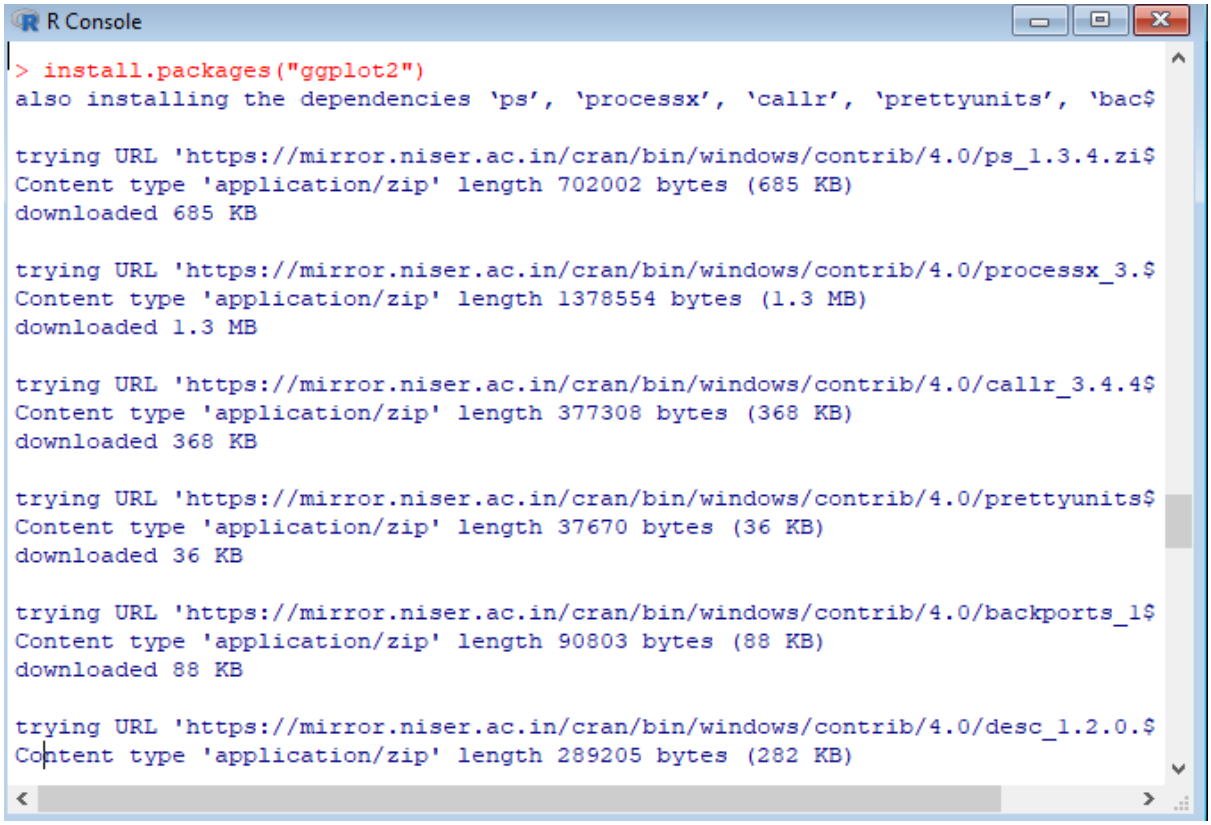
names(Sentimentscores_bbmas)<-"Score"

Sentimentscores_bbmas<-
cbind("sentiment"=rownames(Sentimentscores_bbmas),Sentimentscores_bbmas)

rownames(Sentimentscores_bbmas)<-NULL

```
> library(tidyr)
> mysentiment_CSKRR<-get_nrc_sentiment((CSKRR_text))
> mysentiment_Bharat<-get_nrc_sentiment((Bharat_text))
> mysentiment_Dook<-get_nrc_sentiment((Dook_text))
> mysentiment_bbmas<-get_nrc_sentiment((bbmas_text))
> Sentimentscores_CSKRR<-data.frame(colSums(mysentiment_CSKRR[,]))
> Sentimentscores_Bharat<-data.frame(colSums(mysentiment_Bharat[,]))
> Sentimentscores_Dook<-data.frame(colSums(mysentiment_Dook[,]))
> Sentimentscores_bbmas<-data.frame(colSums(mysentiment_bbmas[,]))
> names(Sentimentscores_CSKRR)<-"Score"
> Sentimentscores_CSKRR<-cbind("sentiment"=rownames(Sentimentscores_CSKRR),Sent$
> rownames(Sentimentscores_CSKRR)<-NULL
> names(Sentimentscores_Bharat)<-"Score"
> Sentimentscores_Bharat<-cbind("sentiment"=rownames(Sentimentscores_Bharat),Se$
> rownames(Sentimentscores_Bharat)<-NULL
> names(Sentimentscores_Dook)<-"Score"
> Sentimentscores_Dook<-cbind("sentiment"=rownames(Sentimentscores_Dook),Sentim$
> rownames(Sentimentscores_Dook)<-NULL
> names(Sentimentscores_bbmas)<-"Score"
> Sentimentscores_bbmas<-cbind("sentiment"=rownames(Sentimentscores_bbmas),Sent$
> rownames(Sentimentscores_bbmas)<-NULL
>
```

Then we will install the package ggplot2 as newer version has ggplot2 we will download that and import the library



Plotting the sentiments with scores

```
ggplot(data=Sentimentscores_CSKRR,aes(x=sentiment,y=Score))+geom_bar(aes(fill=sentiment),stat = "identity")+
  theme(legend.position="none")+
  xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the tweets on CSKVSRR Match")
```

```
ggplot(data=Sentimentscores_Bharat,aes(x=sentiment,y=Score))+geom_bar(aes(fill=sentiment),stat = "identity")+
  theme(legend.position="none")+
  xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the tweets on भारत_बंद_नही_होगा ")
```

```
ggplot(data=Sentimentscores_Dook,aes(x=sentiment,y=Score))+geom_bar(aes(fill=sentiment),stat = "identity")+
  theme(legend.position="none")+
  xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the tweets on 9YearsForIndustryHitDookudu")
```

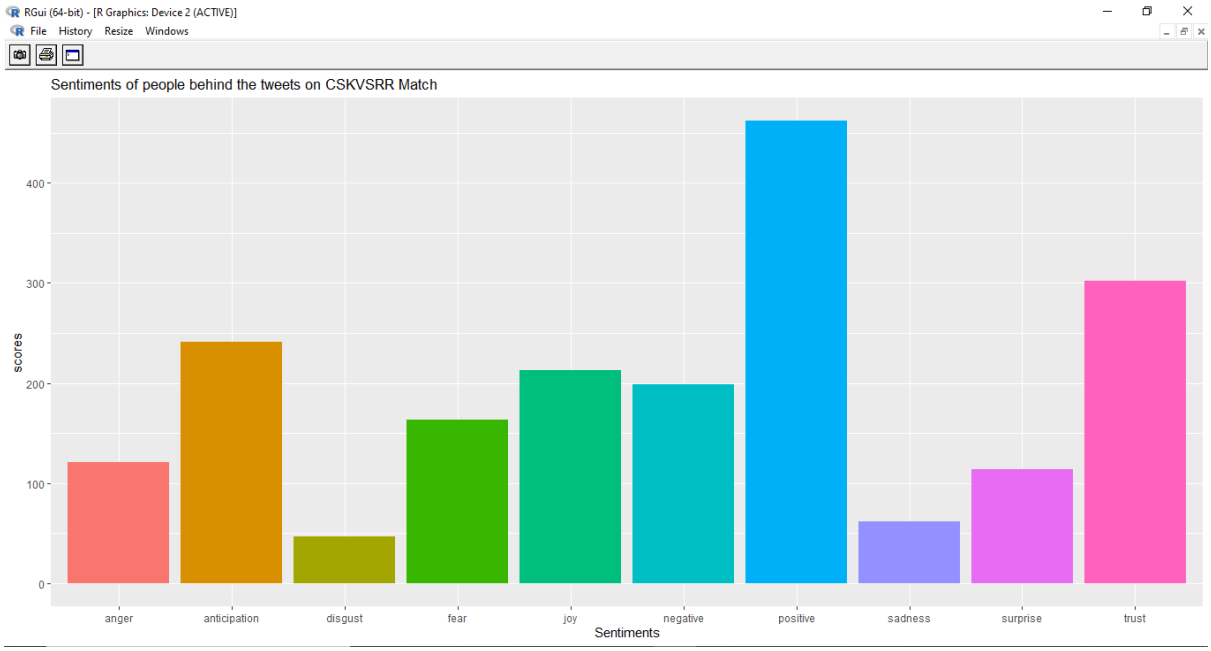
ggplot(data=Sentimentscores_bbmas,aes(x=sentiment,y=Score))+geom_bar(aes(fill=sentiment),stat = "identity")+

theme(legend.position="none")+

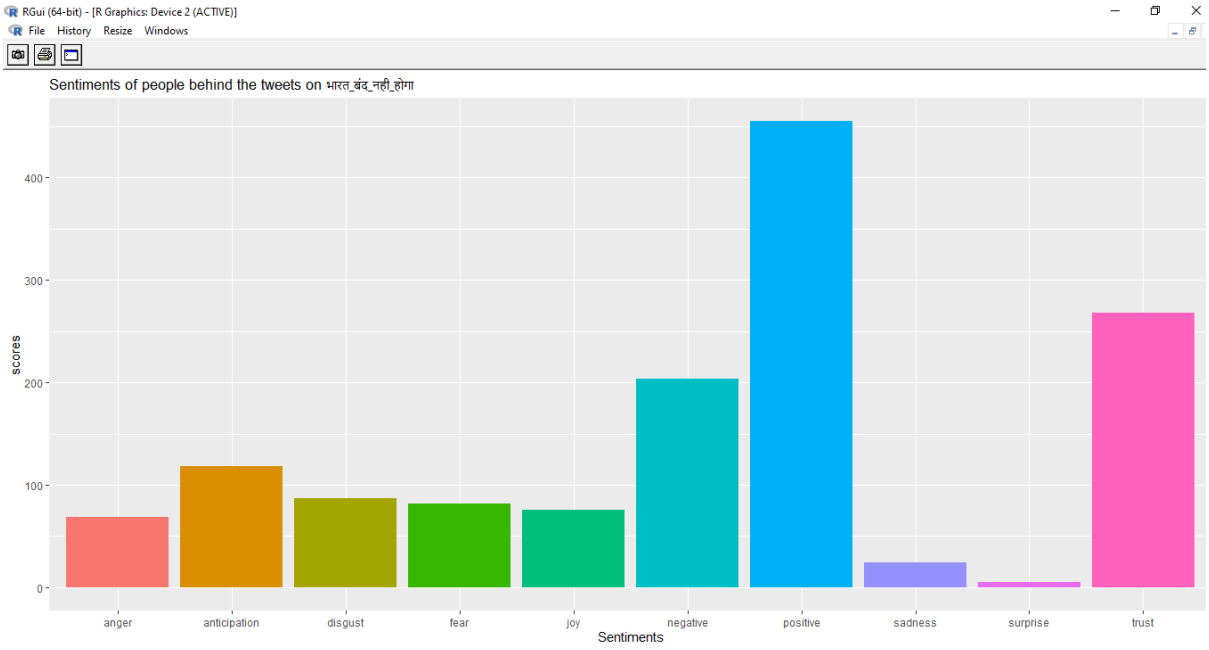
xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the tweets on BillBoard Music Awards 2020")

```
> library(ggplot2)

Attaching package: 'ggplot2'

The following object is masked from 'package:NLP':

    annotate

> ggplot(data=Sentimentscores_CSKRR,aes(x=sentiment,y=Score))+geom_bar(aes(fill$
+   theme(legend.position="none")+
+   xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the $
> ggplot(data=Sentimentscores_Bharat,aes(x=sentiment,y=Score))+geom_bar(aes(fil$
+   theme(legend.position="none")+
+   xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the $
> ggplot(data=Sentimentscores_Bharat,aes(x=sentiment,y=Score))+geom_bar(aes(fil$
+   theme(legend.position="none")+
+   xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the $
> ggplot(data=Sentimentscores_Dook,aes(x=sentiment,y=Score))+geom_bar(aes(fill=$
+   theme(legend.position="none")+
+   xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the $
> ggplot(data=Sentimentscores_bbmas,aes(x=sentiment,y=Score))+geom_bar(aes(fill$
+   theme(legend.position="none")+
+   xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the $
>
```

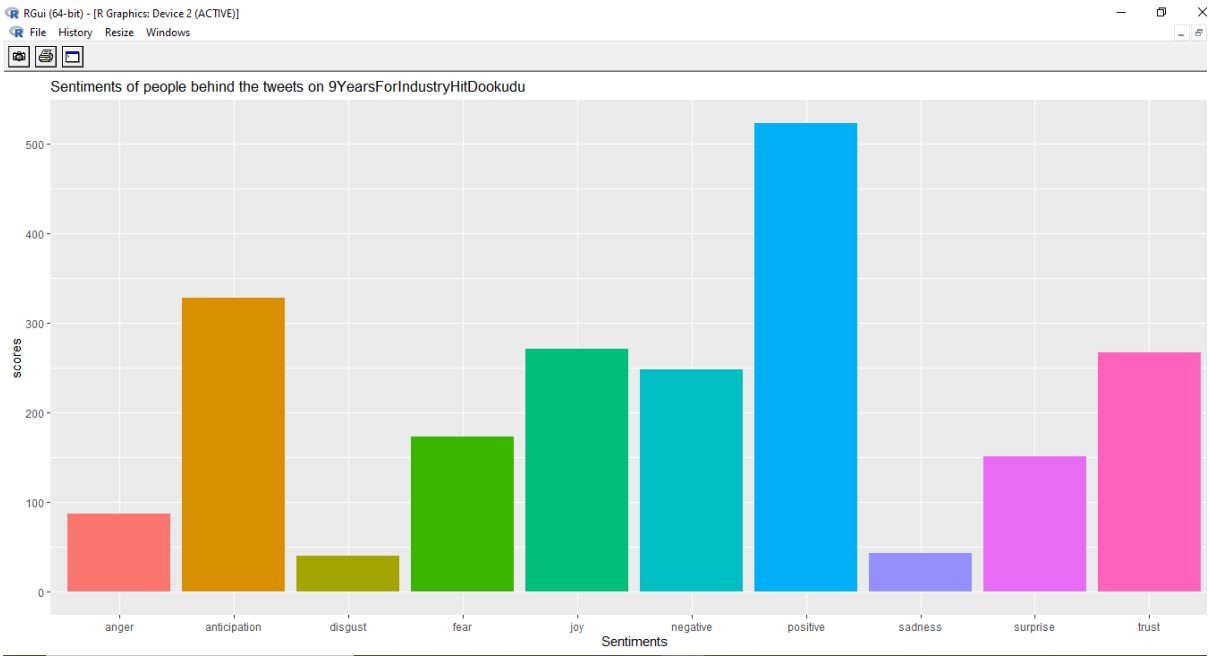
Sentiment of CSKVSRR Trend



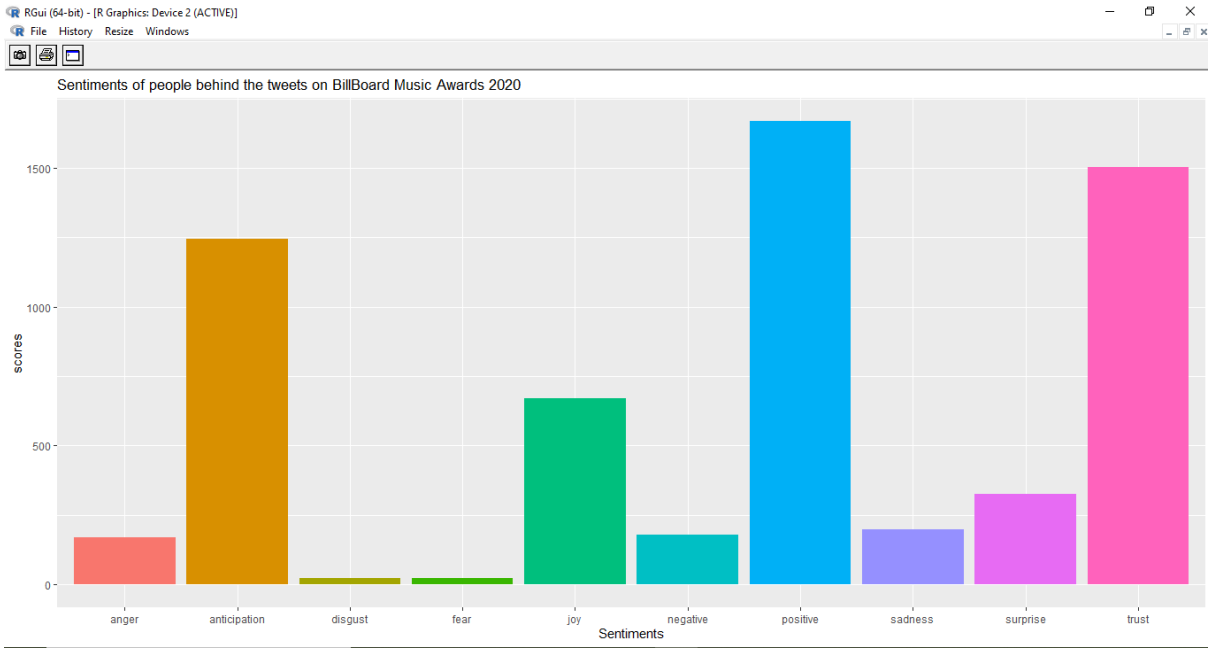
Sentiment of भारत_बंद_नही_होगा Trend



Sentiment of 9YearsForIndustryHitDookudu Trend



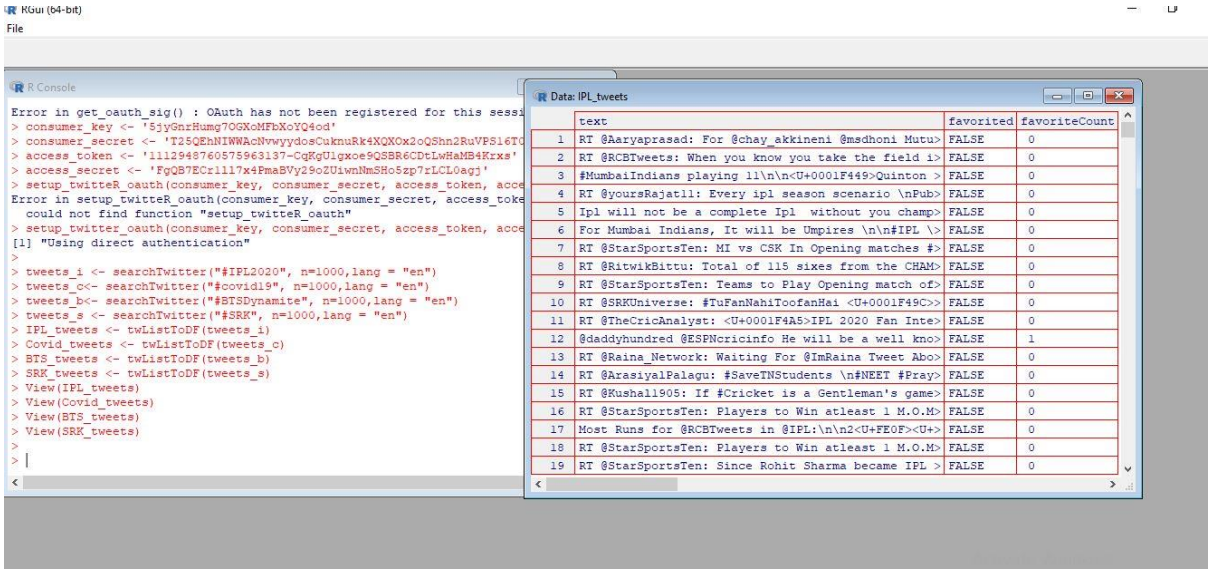
Sentiment of bbmas Trend



As i have completed with latest trends now we will execute specific trends which of my interest I have done with four dimensions means first trend I have done its related to Sport i.e IPL2020 Biggest trending topic, second I have done with Covid-19 Pandemic trend in which is we are facing for 6-7 months and its always buzzing topic, third I have gone with K-Pop Music which is now trending very drastically i.e BTS Dynamite Song and last have done trend of Biggest Superstar in world Shahrukh Khan.

So for Specific trends :-

```
tweets_i <- searchTwitter("#IPL2020", n=1000,lang = "en")

tweets_c <- searchTwitter("#Covid19", n=1000,lang = "en")

tweets_b <- searchTwitter("#BTSDynamite", n=1000,lang = "en")

tweets_s <- searchTwitter("#SRK", n=1000,lang = "en")


IPL_tweets <- twListToDF(tweets_i)

Covid_tweets <- twListToDF(tweets_c)

BTS_tweets <- twListToDF(tweets_b)

SRK_tweets <- twListToDF(tweets_s)


View(IPL_tweets)

View(Covid_tweets)

View(BTS_tweets)

View(SRK_tweets)
```

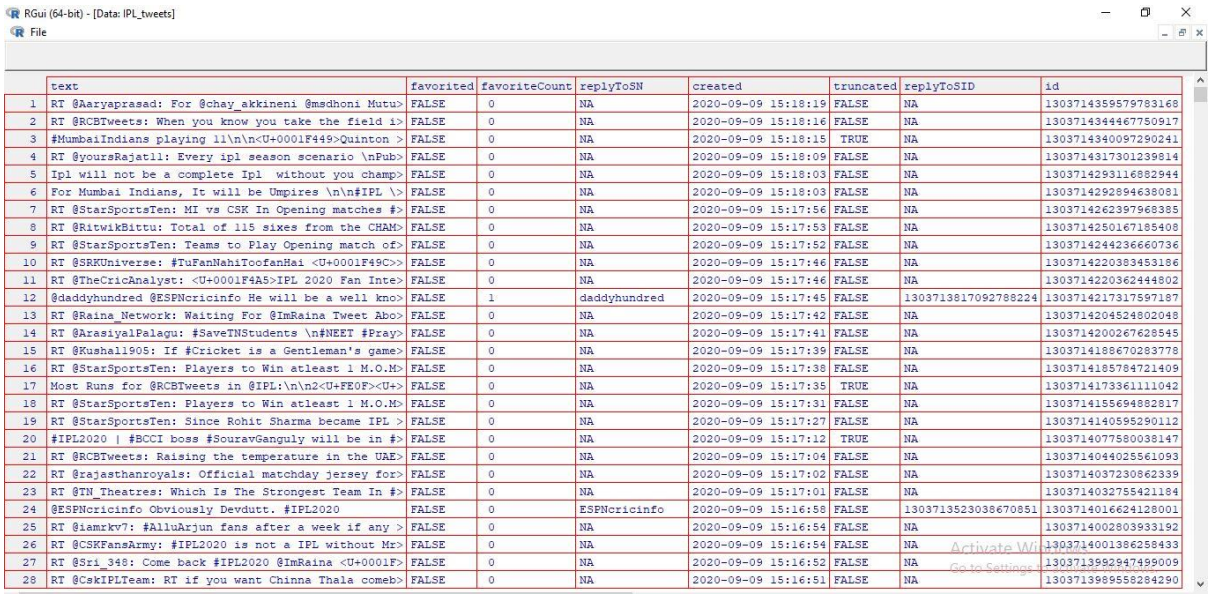


```
Error in get_oauth_sig() : OAuth has not been registered for this sessi
> consumer_key <- '5jyGnrHumg7OGXoMFbXoYQ4od'
> consumer_secret <- 'T25QEhNIWWAcNvwyydosCuknuRk4XQXOx2oQShn2RuVP516TC
> access_token <- '1112948760575963137-CqKgU1gxoe9QSBR6CDtLwHaMB4Krxs'
> access_secret <- 'FgQB7ECr1117x4PmaBVy29oZUiwnNmSHo5zp7rLCL0agj'
> setup_twitteR_oauth(consumer_key, consumer_secret, access_token, acce
Error in setup_twitteR_oauth(consumer_key, consumer_secret, access_toke
  could not find function "setup_twitteR_oauth"
> setup_twitter_oauth(consumer_key, consumer_secret, access_token, acce
[1] "Using direct authentication"
>
> tweets_i <- searchTwitter("#IPL2020", n=1000,lang = "en")
> tweets_c<- searchTwitter("#covid19", n=1000,lang = "en")
> tweets_b<- searchTwitter("#BTSDynamite", n=1000,lang = "en")
> tweets_s <- searchTwitter("#SRK", n=1000,lang = "en")
> IPL_tweets <- twListToDF(tweets_i)
> Covid_tweets <- twListToDF(tweets_c)
> BTS_tweets <- twListToDF(tweets_b)
> SRK_tweets <- twListToDF(tweets_s)
> View(IPL_tweets)
> View(Covid_tweets)
> View(BTS_tweets)
> View(SRK_tweets)
>
>
```

Data: IPL_tweets

	text	favorited	favoriteCount
1	RT @Aaryaprasad: For @chay_akkineni @msdhoni Mutu>	FALSE	0
2	RT @RCBTweets: When you know you take the field i>	FALSE	0
3	#MumbaiIndians playing 11\n\n<U+0001F449>Quinton >	FALSE	0
4	RT @yoursRajat11: Every ipl season scenario \nPub>	FALSE	0
5	Ipl will not be a complete Ipl without you champ>	FALSE	0
6	For Mumbai Indians, It will be Umpires \n\n#IPL \>	FALSE	0
7	RT @StarSportsTen: MI vs CSK In Opening matches #>	FALSE	0
8	RT @RitwikBittu: Total of 115 sixes from the CHAM>	FALSE	0
9	RT @StarSportsTen: Teams to Play Opening match of>	FALSE	0
10	RT @SRKUniverse: #TuFanNahiToofanHai <U+0001F49C>>	FALSE	0
11	RT @TheCricAnalyst: <U+0001F4A5>IPL 2020 Fan Inte>	FALSE	0
12	@daddyhundred @ESPNcricinfo He will be a well kno>	FALSE	1
13	RT @Raina_Network: Waiting For @ImRaina Tweet Abo>	FALSE	0
14	RT @ArasiyalPalagu: #SaveTNStudents \n#NEET #Pray>	FALSE	0
15	RT @Kushal1905: If #Cricket is a Gentleman's game>	FALSE	0
16	RT @StarSportsTen: Players to Win atleast 1 M.O.M>	FALSE	0
17	Most Runs for @RCBTweets in @IPL:\n\n2<U+FE0F><U+>	FALSE	0
18	RT @StarSportsTen: Players to Win atleast 1 M.O.M>	FALSE	0
19	RT @StarSportsTen: Since Rohit Sharma became IPL >	FALSE	0

Data of IPL2020 Trend

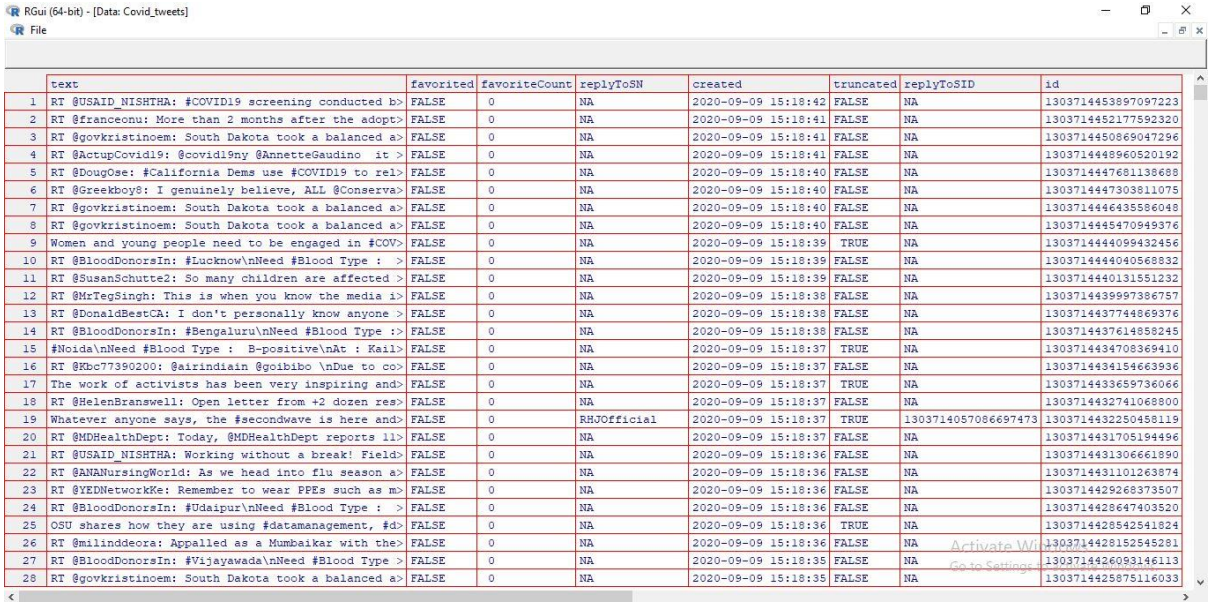


RGui (64-bit) - [Data: IPL_tweets]

File

	text	favorited	favoriteCount	replyToSN	created	truncated	replyToSID	id
1	RT @Aaryaprasad: For @chay_akkineni @msdhoni Mutu>	FALSE	0	NA	2020-09-09 15:18:19	FALSE	NA	1303714359579783168
2	RT @RCBTweets: When you know you take the field i>	FALSE	0	NA	2020-09-09 15:18:16	FALSE	NA	1303714344467750917
3	#MumbaiIndians playing 11\n\n<U+0001F449>Quinton >	FALSE	0	NA	2020-09-09 15:18:15	TRUE	NA	1303714340097290241
4	RT @yoursRajat11: Every ipl season scenario \nPub>	FALSE	0	NA	2020-09-09 15:18:09	FALSE	NA	1303714317301239814
5	Ipl will not be a complete Ipl without you champ>	FALSE	0	NA	2020-09-09 15:18:03	FALSE	NA	1303714293116882944
6	For Mumbai Indians, It will be Umpires \n\n#IPL \>	FALSE	0	NA	2020-09-09 15:18:03	FALSE	NA	1303714292894638081
7	RT @StarSportsTen: MI vs CSK In Opening matches #>	FALSE	0	NA	2020-09-09 15:17:56	FALSE	NA	1303714262397968385
8	RT @RitwikBittu: Total of 115 sixes from the CHAM>	FALSE	0	NA	2020-09-09 15:17:53	FALSE	NA	1303714250167185408
9	RT @StarSportsTen: Teams to Play Opening match of>	FALSE	0	NA	2020-09-09 15:17:52	FALSE	NA	1303714244236660736
10	RT @SRKUniverse: #TuFanNahiToofanHai <U+0001F49C>>	FALSE	0	NA	2020-09-09 15:17:46	FALSE	NA	1303714220383453186
11	RT @TheCricAnalyst: <U+0001F4A5>IPL 2020 Fan Inte>	FALSE	0	NA	2020-09-09 15:17:46	FALSE	NA	1303714220362444802
12	@daddyhundred @ESPNcricinfo He will be a well kno>	FALSE	1	daddyhundred	2020-09-09 15:17:45	FALSE	1303713817092788224	1303714217317597187
13	RT @Raina_Network: Waiting For @ImRaina Tweet Abo>	FALSE	0	NA	2020-09-09 15:17:42	FALSE	NA	1303714204524802048
14	RT @ArasiyalPalagu: #SaveTNStudents \n#NEET #Pray>	FALSE	0	NA	2020-09-09 15:17:41	FALSE	NA	1303714200267628545
15	RT @Kushal1905: If #Cricket is a Gentleman's game>	FALSE	0	NA	2020-09-09 15:17:39	FALSE	NA	1303714188670283778
16	RT @StarSportsTen: Players to Win atleast 1 M.O.M>	FALSE	0	NA	2020-09-09 15:17:38	FALSE	NA	1303714185784721409
17	Most Runs for @RCBTweets in @IPL:\n\n2<U+FE0F><U+>	FALSE	0	NA	2020-09-09 15:17:35	TRUE	NA	1303714173361111042
18	RT @StarSportsTen: Players to Win atleast 1 M.O.M>	FALSE	0	NA	2020-09-09 15:17:31	FALSE	NA	1303714155694882817
19	RT @StarSportsTen: Since Rohit Sharma became IPL >	FALSE	0	NA	2020-09-09 15:17:27	FALSE	NA	1303714140595290112
20	#IPL2020	#BCCI boss #SouravGanguly will be in #>	FALSE	0	NA	2020-09-09 15:17:12	TRUE	NA	1303714077580038147
21	RT @RCBTweets: Raising the temperature in the UAE>	FALSE	0	NA	2020-09-09 15:17:04	FALSE	NA	1303714044025561093
22	RT @rajasthanroyals: Official matchday jersey for>	FALSE	0	NA	2020-09-09 15:17:02	FALSE	NA	1303714037230862339
23	RT @TN_Theatres: Which Is The Strongest Team In #>	FALSE	0	NA	2020-09-09 15:17:01	FALSE	NA	1303714032755421184
24	@ESPNcricinfo Obviously Devdutt. #IPL2020	FALSE	0	ESPNcricinfo	2020-09-09 15:16:58	FALSE	1303713523038670851	1303714016624128001
25	RT @iamrkv7: #AlluArjun fans after a week if any >	FALSE	0	NA	2020-09-09 15:16:54	FALSE	NA	1303714002803933192
26	RT @CSKFansArmy: #IPL2020 is not a IPL without Mr>	FALSE	0	NA	2020-09-09 15:16:54	FALSE	NA	1303714001386258433
27	RT @Sri_348: Come back #IPL2020 @ImRaina <U+0001F>	FALSE	0	NA	2020-09-09 15:16:52	FALSE	NA	1303713992947499009
28	RT @CskIPLTeam: RT if you want Chinna Thala comeb>	FALSE	0	NA	2020-09-09 15:16:51	FALSE	NA	1303713989558284290

Data of Covid-19 Trend

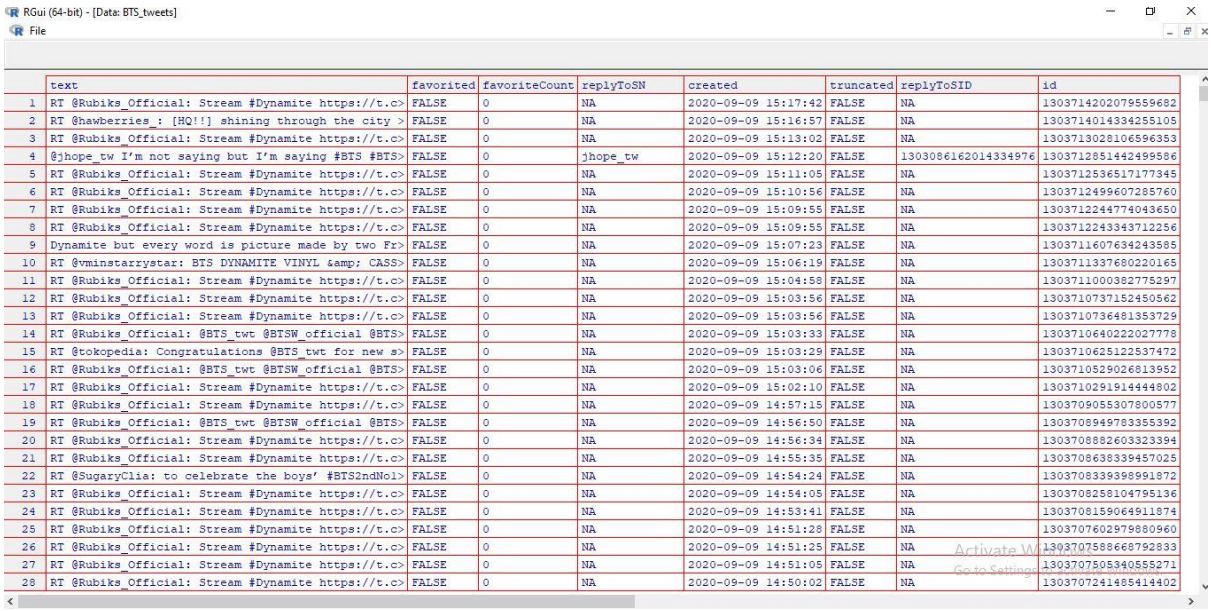


RGui (64-bit) - [Data: Covid_tweets]

File

	text	favorited	favoriteCount	replyToSN	created	truncated	replyToSID	id
1	RT @USAID_NISHTHA: #COVID19 screening conducted b>	FALSE	0	NA	2020-09-09 15:18:42	FALSE	NA	1303714453897097223
2	RT @franceonu: More than 2 months after the adopt>	FALSE	0	NA	2020-09-09 15:18:41	FALSE	NA	1303714452177592320
3	RT @govkristinoem: South Dakota took a balanced a>	FALSE	0	NA	2020-09-09 15:18:41	FALSE	NA	1303714450869047296
4	RT @ActupCovid19: @covid19ny @AnnetteGaudino it >	FALSE	0	NA	2020-09-09 15:18:41	FALSE	NA	1303714448960520192
5	RT @DougOse: #California Dems use #COVID19 to rel>	FALSE	0	NA	2020-09-09 15:18:40	FALSE	NA	1303714447681138688
6	RT @Greekboy8: I genuinely believe, ALL @Conserva>	FALSE	0	NA	2020-09-09 15:18:40	FALSE	NA	1303714447303811075
7	RT @govkristinoem: South Dakota took a balanced a>	FALSE	0	NA	2020-09-09 15:18:40	FALSE	NA	1303714446435586048
8	RT @govkristinoem: South Dakota took a balanced a>	FALSE	0	NA	2020-09-09 15:18:40	FALSE	NA	1303714445470949376
9	Women and young people need to be engaged in #COV>	FALSE	0	NA	2020-09-09 15:18:39	TRUE	NA	1303714444099432456
10	RT @BloodDonorsIn: #Lucknow\nNeed #Blood Type : >	FALSE	0	NA	2020-09-09 15:18:39	FALSE	NA	1303714444040568832
11	RT @SusanSchutte2: So many children are affected >	FALSE	0	NA	2020-09-09 15:18:39	FALSE	NA	1303714440131551232
12	RT @MrTegSingh: This is when you know the media i>	FALSE	0	NA	2020-09-09 15:18:38	FALSE	NA	1303714439997386757
13	RT @DonaldBestCA: I don't personally know anyone >	FALSE	0	NA	2020-09-09 15:18:38	FALSE	NA	1303714437744869376
14	RT @BloodDonorsIn: #Bengaluru\nNeed #Blood Type :>	FALSE	0	NA	2020-09-09 15:18:38	FALSE	NA	1303714437614858245
15	#Noida\nNeed #Blood Type : B-positive\nAt : Kail>	FALSE	0	NA	2020-09-09 15:18:37	TRUE	NA	1303714434708369410
16	RT @Kbc77390200: @airindiain @goibibo \nDue to co>	FALSE	0	NA	2020-09-09 15:18:37	FALSE	NA	1303714434154663936
17	The work of activists has been very inspiring and>	FALSE	0	NA	2020-09-09 15:18:37	TRUE	NA	1303714433659736066
18	RT @HelenBranswell: Open letter from +2 dozen res>	FALSE	0	NA	2020-09-09 15:18:37	FALSE	NA	1303714432741068800
19	Whatever anyone says, the #secondwave is here and>	FALSE	0	RHJOfficial	2020-09-09 15:18:37	TRUE	1303714057086697473	1303714432250458119
20	RT @MDHealthDept: Today, @MDHealthDept reports 11>	FALSE	0	NA	2020-09-09 15:18:37	FALSE	NA	1303714431705194496
21	RT @USAID_NISHTHA: Working without a break! Field>	FALSE	0	NA	2020-09-09 15:18:36	FALSE	NA	1303714431306661890
22	RT @ANANursingWorld: As we head into flu season a>	FALSE	0	NA	2020-09-09 15:18:36	FALSE	NA	1303714431101263874
23	RT @YEDNetworkKe: Remember to wear PPEs such as m>	FALSE	0	NA	2020-09-09 15:18:36	FALSE	NA	1303714429268373507
24	RT @BloodDonorsIn: #Udaipur\nNeed #Blood Type : >	FALSE	0	NA	2020-09-09 15:18:36	FALSE	NA	1303714428647403520
25	OSU shares how they are using #datamanagement, #d>	FALSE	0	NA	2020-09-09 15:18:36	TRUE	NA	1303714428542541824
26	RT @milinddeora: Appalled as a Mumbaikar with the>	FALSE	0	NA	2020-09-09 15:18:36	FALSE	NA	1303714428152545281
27	RT @BloodDonorsIn: #Vijayawada\nNeed #Blood Type >	FALSE	0	NA	2020-09-09 15:18:35	FALSE	NA	1303714426093146113
28	RT @govkristinoem: South Dakota took a balanced a>	FALSE	0	NA	2020-09-09 15:18:35	FALSE	NA	1303714425875116033

Data of BTS Dynamite Trend



RGui (64-bit) - [Data: BTS_tweets]

File

	text	favorited	favoriteCount	replyToSN	created	truncated	replyToSID	id
1	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:17:42	FALSE	NA	1303714202079559682
2	RT @hawberries_: [HQ!!] shining through the city >	FALSE	0	NA	2020-09-09 15:16:57	FALSE	NA	1303714014334255105
3	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:13:02	FALSE	NA	1303713028106596353
4	@jhope_tw I'm not saying but I'm saying #BTS #BTS>	FALSE	0	jhope_tw	2020-09-09 15:12:20	FALSE	1303086162014334976	1303712851442499586
5	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:11:05	FALSE	NA	1303712536517177345
6	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:10:56	FALSE	NA	1303712499607285760
7	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:09:55	FALSE	NA	1303712244774043650
8	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:09:55	FALSE	NA	1303712243343712256
9	Dynamite but every word is picture made by two Fr>	FALSE	0	NA	2020-09-09 15:07:23	FALSE	NA	1303711607634243585
10	RT @vminstarrystar: BTS DYNAMITE VINYL & CASS>	FALSE	0	NA	2020-09-09 15:06:19	FALSE	NA	1303711337680220165
11	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:04:58	FALSE	NA	1303711000382775297
12	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:03:56	FALSE	NA	1303710737152450562
13	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:03:56	FALSE	NA	1303710736481353729
14	RT @Rubiks_Official: @BTS_twt @BTSW_official @BTS>	FALSE	0	NA	2020-09-09 15:03:33	FALSE	NA	1303710640222027778
15	RT @tokopedia: Congratulations @BTS_twt for new s>	FALSE	0	NA	2020-09-09 15:03:29	FALSE	NA	1303710625122537472
16	RT @Rubiks_Official: @BTS_twt @BTSW_official @BTS>	FALSE	0	NA	2020-09-09 15:03:06	FALSE	NA	1303710529026813952
17	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 15:02:10	FALSE	NA	1303710291914444802
18	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 14:57:15	FALSE	NA	1303709055307800577
19	RT @Rubiks_Official: @BTS_twt @BTSW_official @BTS>	FALSE	0	NA	2020-09-09 14:56:50	FALSE	NA	1303708949783355392
20	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 14:56:34	FALSE	NA	1303708882603323394
21	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 14:55:35	FALSE	NA	1303708638339457025
22	RT @SugaryClia: to celebrate the boys' #BTS2ndNo1>	FALSE	0	NA	2020-09-09 14:54:24	FALSE	NA	1303708339398991872
23	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 14:54:05	FALSE	NA	1303708258104795136
24	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 14:53:41	FALSE	NA	1303708159064911874
25	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 14:51:28	FALSE	NA	1303707602979880960
26	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 14:51:25	FALSE	NA	1303707588668792833
27	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 14:51:05	FALSE	NA	1303707505340555271
28	RT @Rubiks_Official: Stream #Dynamite https://t.c>	FALSE	0	NA	2020-09-09 14:50:02	FALSE	NA	1303707241485414402

Data of SRK Trend

RGui (64-bit) - [Data: SRK_tweets]

File

	text	favorited	favoriteCount	replyToSN	created	truncated	replyToSID	id
1	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 15:18:31	FALSE	NA	1303714410574176257
2	RT @SrkianDas04: Record/Bumper Opening - 22\n\nRe>	FALSE	0	NA	2020-09-09 15:17:32	FALSE	NA	1303714159813636096
3	RT @ErBachchanl: #Salman fans ho ya #Srk fans you>	FALSE	0	NA	2020-09-09 15:16:57	FALSE	NA	1303714013709324288
4	RT @SrkianDas04: Record/Bumper Opening - 22\n\nRe>	FALSE	0	NA	2020-09-09 15:16:22	FALSE	NA	1303713867353128960
5	#SRK this look <U+0001F525><U+0001F525><U+0001F52>	FALSE	0	NA	2020-09-09 15:15:08	FALSE	NA	1303713558744592388
6	RT @SRKGlobalFans_: <U+0001F52E>SRK GLOBAL FANS<U>	FALSE	0	NA	2020-09-09 15:14:36	FALSE	NA	1303713423310508033
7	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 15:14:19	FALSE	NA	1303713352993050624
8	#Sparkpoint #SRK - Biggest Month Yet!! Staking/De>	FALSE	2	NA	2020-09-09 15:12:43	TRUE	NA	1303712947529801729
9	RT @kanchansthaa: Bauaa Singh X Shashi Kapoor\n<U>	FALSE	0	NA	2020-09-09 15:08:47	FALSE	NA	1303711958835707910
10	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 15:06:00	FALSE	NA	1303711257619394560
11	RT @SrkianDas04: Record/Bumper Opening - 22\n\nRe>	FALSE	0	NA	2020-09-09 15:05:28	FALSE	NA	1303711123573747713
12	RT @PowerStarPunith: #Shivanna Hair Style <U+0001>	FALSE	0	NA	2020-09-09 15:05:15	FALSE	NA	1303711069383176193
13	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 15:03:19	FALSE	NA	1303710581476610049
14	RT @Prashanth13G: #BMC demolished property of #SR>	FALSE	0	NA	2020-09-09 15:02:53	FALSE	NA	1303710475046313985
15	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 15:00:58	FALSE	NA	1303709993678454785
16	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 15:00:33	FALSE	NA	1303709887554183169
17	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 14:59:40	FALSE	NA	1303709663054032897
18	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 14:59:21	FALSE	NA	1303709585279078400
19	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 14:58:33	FALSE	NA	1303709384036421633
20	RT @HatersShahrukh: Must read <U+0001F447><U+0001>	FALSE	0	NA	2020-09-09 14:58:33	FALSE	NA	1303709382044053504
21	Must read <U+0001F447><U+0001F447>\n\n#WellDoneBM>	FALSE	25	NA	2020-09-09 14:57:55	TRUE	NA	1303709226116591616
22	RT @ErBachchanl: #Salman fans ho ya #Srk fans you>	FALSE	0	NA	2020-09-09 14:57:31	FALSE	NA	1303709124543172614
23	RT @SrkianDas04: Record/Bumper Opening - 22\n\nRe>	FALSE	0	NA	2020-09-09 14:54:54	FALSE	NA	1303708466758983682
24	RT @SrkianDas04: Record/Bumper Opening - 22\n\nRe>	FALSE	0	NA	2020-09-09 14:54:38	FALSE	NA	1303708398416875520
25	RT @tskhnofficial: Respect to them <U+0001F64F><U>	FALSE	0	NA	2020-09-09 14:53:03	FALSE	NA	1303707999937142785
26	@anubha1812 @Swamy39 But when #AamirKhan & #S>	FALSE	2	anubha1812	2020-09-09 14:52:10	TRUE	1303703811832201216	1303707778452582402
27	RT @ErBachchanl: #Salman fans ho ya #Srk fans you>	FALSE	0	NA	2020-09-09 14:51:36	FALSE	NA	1303707635774939138
28	RT @tskhnofficial: Respect to them <U+0001F64F><U>	FALSE	0	NA	2020-09-09 14:51:28	FALSE	NA	1303707601524400129

Wordcloud

IPL_text<- IPL_tweets$text

Covid_text<- Covid_tweets$text

BTS_text<-BTS_tweets$text

SRK_text<- SRK_tweets$text

IPL_text<-IPL_tweets.text.corpus

IPL_tweets.text.corpus<-IPL_text

Covid_tweets.text.corpus<-Covid_text

BTS_tweets.text.corpus<-BTS_text

SRK_tweets.text.corpus<-SRK_text

```
> CSKRR_text<- CSKRR_tweets$text
> Bharat_text<- Bharat_tweets$text
> Dook_text<-Dook_tweets$text
> bbmas_text<-bbmas_tweets$text
>
> CSKRR_tweets.text.corpus<-CSKRR_text
> Bharat_tweets.text.corpus<-Bharat_text
> Dook_tweets.text.corpus<-Dook_text
> bbmas_tweets.text.corpus<-bbmas_text
>
```

wordcloud(IPL_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),random.color = TRUE,max.words = 500)

wordcloud(Covid_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),random.color = TRUE,max.words = 500)

wordcloud(BTS_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),random.color = TRUE,max.words = 500)

wordcloud(SRK_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),random.color = TRUE,max.words = 500)

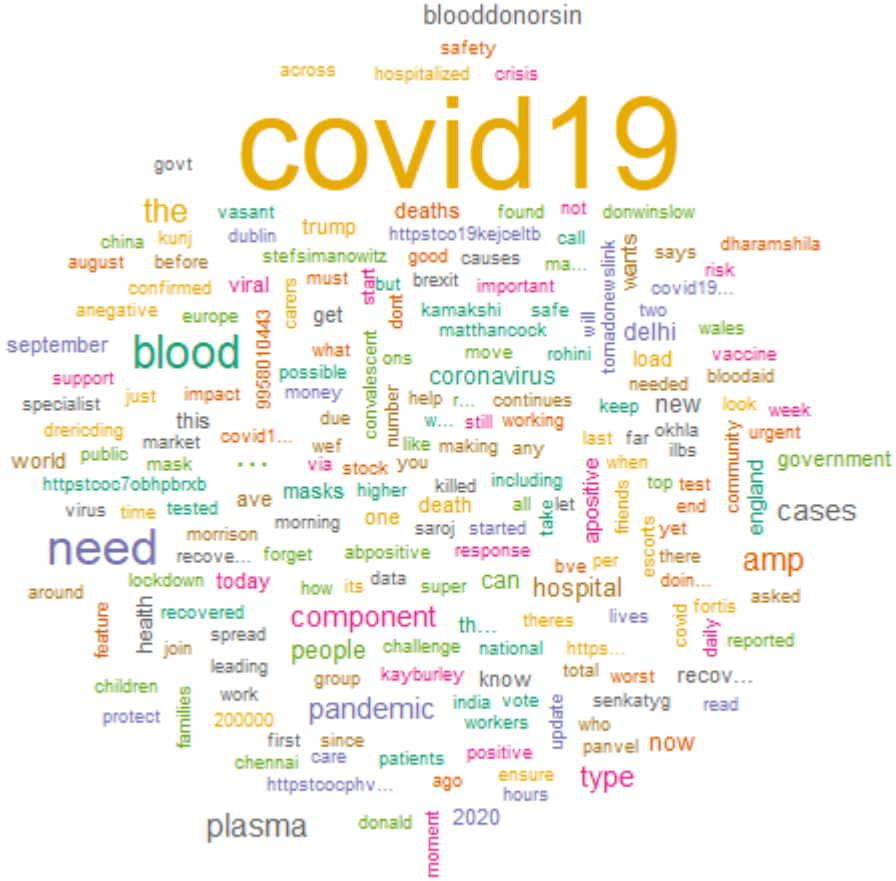
```
> IPL_tweets.text.corpus<-IPL_text
> Covid_tweets.text.corpus<-Covid_text
> BTS_tweets.text.corpus<-BTS_text
> SRK_tweets.text.corpus<-SRK_text
> wordcloud(IPL_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
> wordcloud(Covid_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
> wordcloud(BTS_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
> wordcloud(BTS_tweets.text.corpus,min.freq = 5,colors=brewer.pal(8, "Dark2"),r$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
```

R Console

```
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
> wordcloud(BTS_tweets.text.corpus,min.freq = 2,colors=brewer.pal(8, "Dark2"),r$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
3: In wordcloud(BTS_tweets.text.corpus, min.freq = 2, colors = brewer.pal(8,  :
  btsbighit could not be fit on page. It will not be plotted.
> wordcloud(BTS_tweets.text.corpus,min.freq = 0,colors=brewer.pal(8, "Dark2"),r$
There were 34 warnings (use warnings() to see them)
> wordcloud(SRK_tweets.text.corpus,min.freq = 10,colors=brewer.pal(8, "Dark2"),$
Warning messages:
1: In tm_map.SimpleCorpus(corpus, tm::removePunctuation) :
  transformation drops documents
2: In tm_map.SimpleCorpus(corpus, function(x) tm::removeWords(x, tm::stopwords($
  transformation drops documents
3: In wordcloud(SRK_tweets.text.corpus, min.freq = 10, colors = brewer.pal(8,  :
  iamsrk could not be fit on page. It will not be plotted.
> wordcloud(SRK_tweets.text.corpus,min.freq = 4,colors=brewer.pal(8, "Dark2"),r$
There were 43 warnings (use warnings() to see them)
>
```

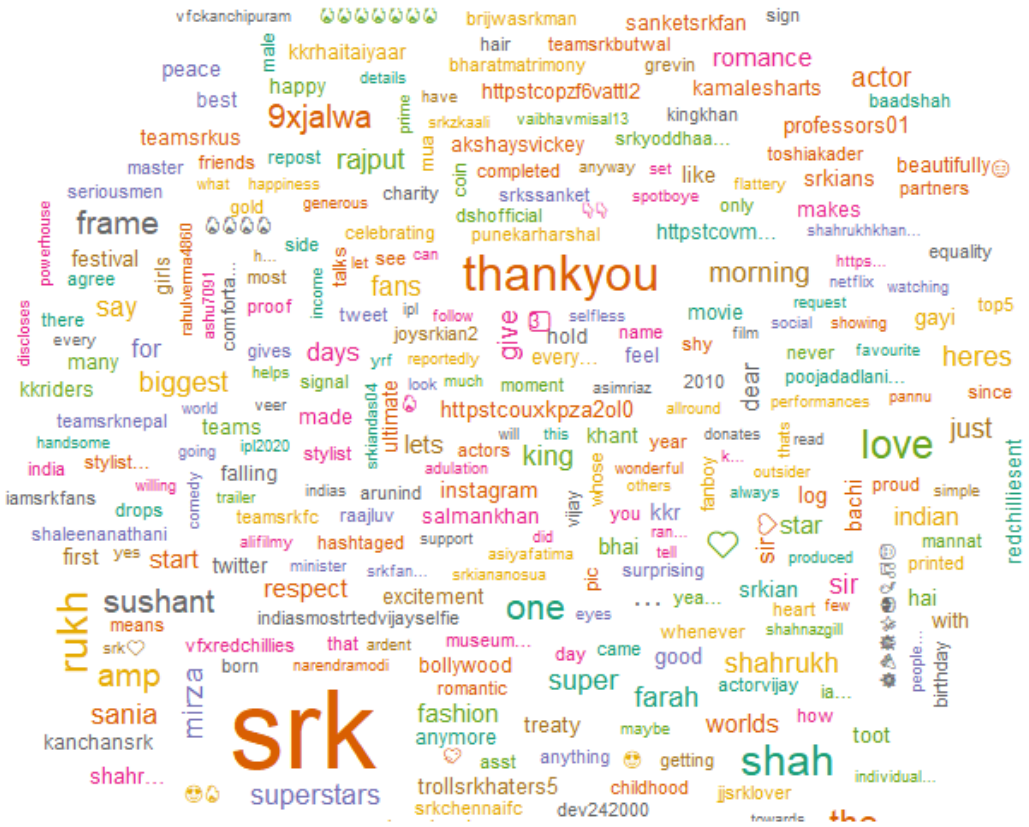
Wordcloud of IPL2020 Trend

Wordcloud of Covid-19 Trend



Wordcloud of BTS Dynamite Trend

Wordcloud of SRK Trend



Sentiment Analysis

mysentiment_IPL<-get_nrc_sentiment((IPL_text))

mysentiment_Covid<-get_nrc_sentiment((Covid_text))

mysentiment_BTS<-get_nrc_sentiment((BTS_text))

mysentiment_SRK<-get_nrc_sentiment((SRK_text))

Sentimentscores_IPL<-data.frame(colSums(mysentiment_IPL[,]))

Sentimentscores_Covid<-data.frame(colSums(mysentiment_Covid[,]))

Sentimentscores_BTS<-data.frame(colSums(mysentiment_BTS[,]))

Sentimentscores_SRK<-data.frame(colSums(mysentiment_SRK[,]))

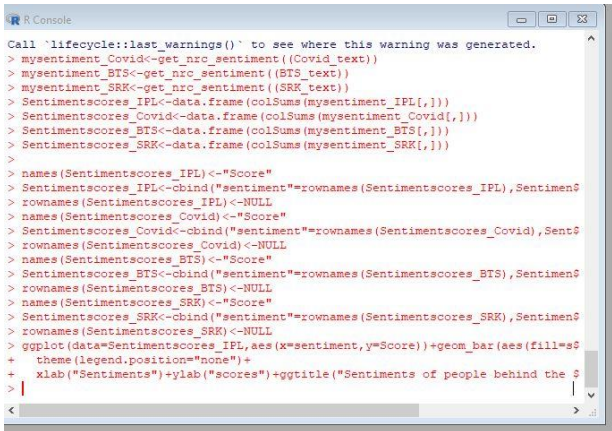
```
names(Sentimentscores_IPL)<-"Score"
Sentimentscores_IPL<-cbind("sentiment"=rownames(Sentimentscores_IPL),Sentimentscores_IPL)
rownames(Sentimentscores_IPL)<-NULL

names(Sentimentscores_Covid)<-"Score"
Sentimentscores_Covid<-
cbind("sentiment"=rownames(Sentimentscores_Covid),Sentimentscores_Covid)
rownames(Sentimentscores_Covid)<-NULL

names(Sentimentscores_BTS)<-"Score"
Sentimentscores_BTS<-cbind("sentiment"=rownames(Sentimentscores_BTS),Sentimentscores_BTS)
rownames(Sentimentscores_BTS)<-NULL

names(Sentimentscores_SRK)<-"Score"
Sentimentscores_SRK<-cbind("sentiment"=rownames(Sentimentscores_SRK),Sentimentscores_SRK)
rownames(Sentimentscores_SRK)<-NULL

ggplot(data=Sentimentscores_IPL,aes(x=sentiment,y=Score))+geom_bar(aes(fill=sentiment),stat =
"identity")+
 theme(legend.position="none")+
 xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the tweets on IPL2020")

ggplot(data=Sentimentscores_Covid,aes(x=sentiment,y=Score))+geom_bar(aes(fill=sentiment),stat =
"identity")+
 theme(legend.position="none")+
 xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the tweets on Covid-19")

ggplot(data=Sentimentscores_BTS,aes(x=sentiment,y=Score))+geom_bar(aes(fill=sentiment),stat =
"identity")+
 theme(legend.position="none")+
 xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the tweets on  BTS
Dynamite")
```

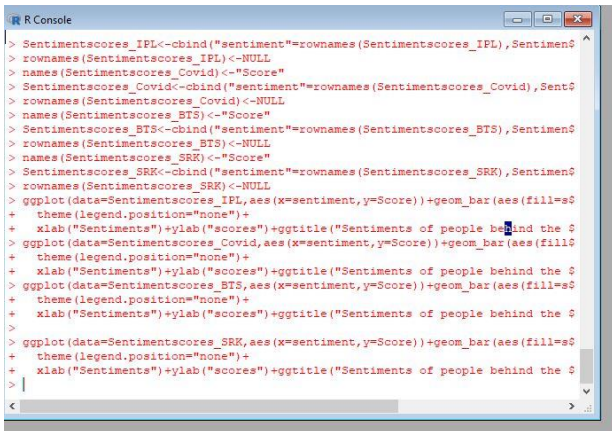
ggplot(data=Sentimentscores_SRK,aes(x=sentiment,y=Score))+geom_bar(aes(fill=sentiment),stat = "identity")+

theme(legend.position="none")+

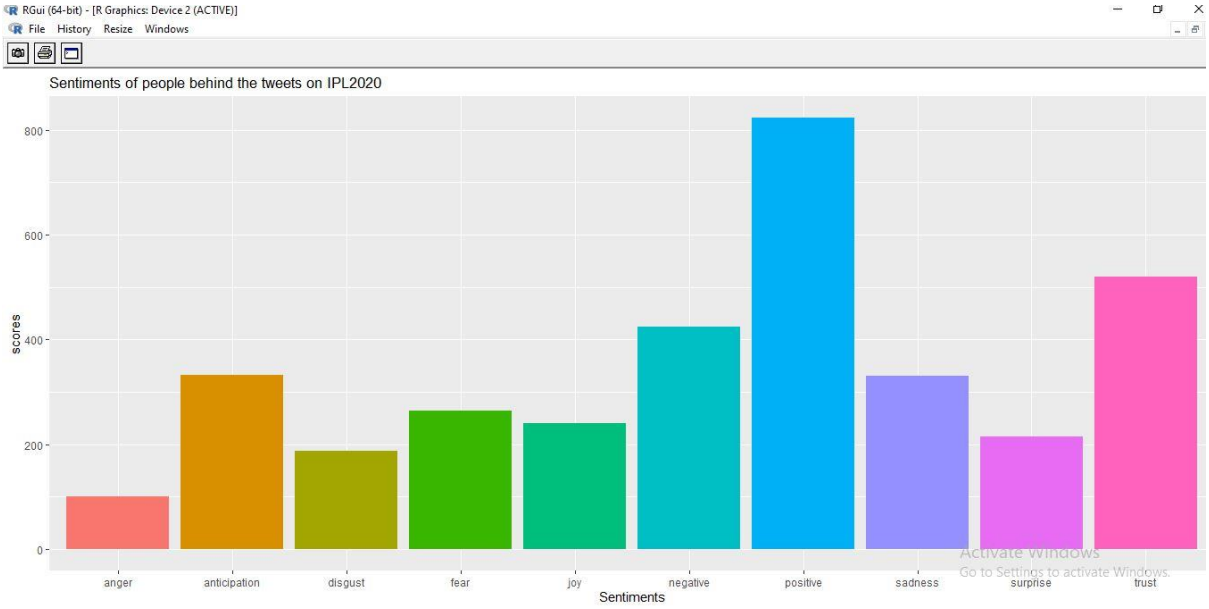
xlab("Sentiments")+ylab("scores")+ggtitle("Sentiments of people behind the tweets on SRK")

```
> mysentiment_IPL<-get_nrc_sentiment((IPL_text))
Warning messages:
1: `filter_()` is deprecated as of dplyr 0.7.0.
Please use `filter()` instead.
See vignette('programming') for more help
This warning is displayed once every 8 hours.
Call `lifecycle::last_warnings()` to see where this warning was generated.
2: `group_by_()` is deprecated as of dplyr 0.7.0.
Please use `group_by()` instead.
See vignette('programming') for more help
This warning is displayed once every 8 hours.
Call `lifecycle::last_warnings()` to see where this warning was generated.
3: `data_frame()` is deprecated as of tibble 1.1.0.
Please use `tibble()` instead.
This warning is displayed once every 8 hours.
Call `lifecycle::last_warnings()` to see where this warning was generated.
```

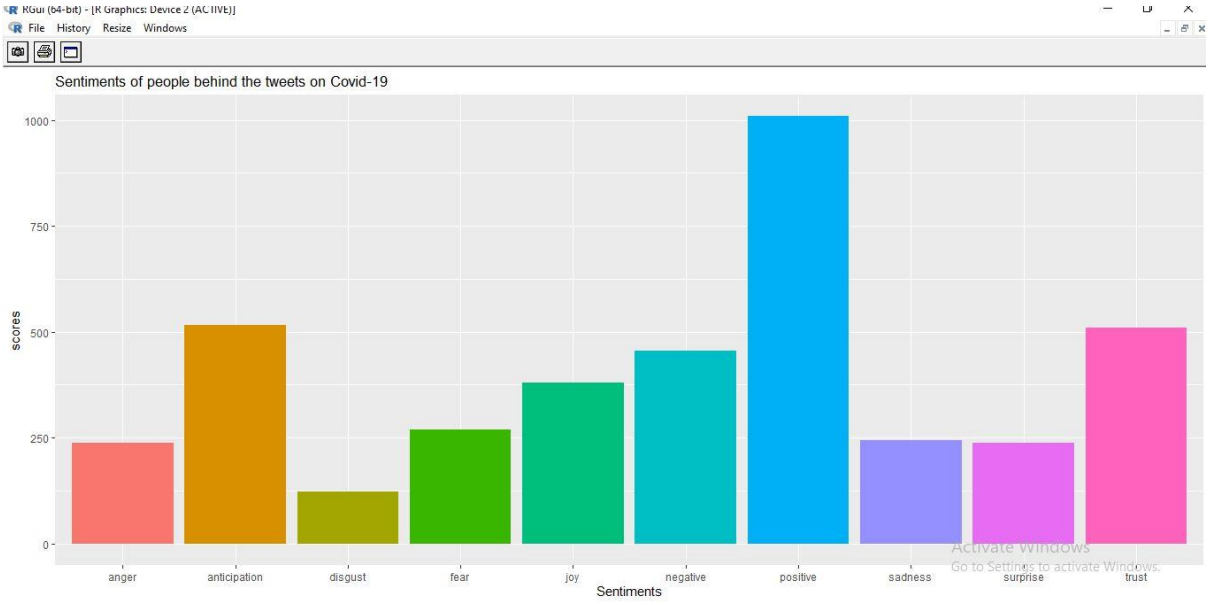




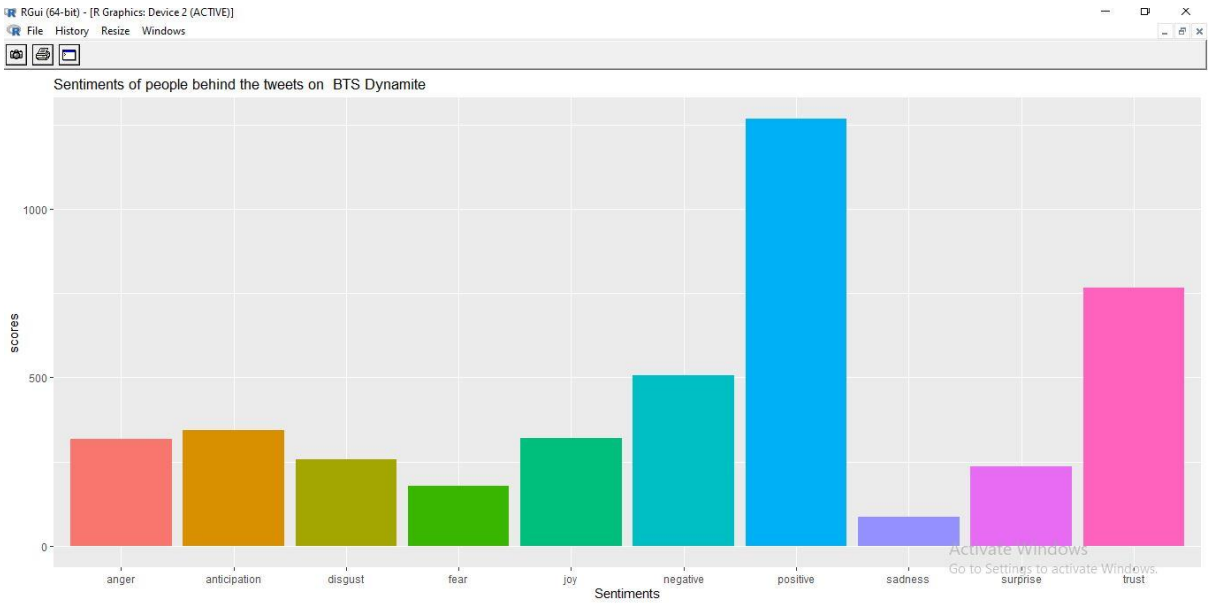
Sentiment on IPL2020 Trend



Sentiment on Covid-19 Trend



Sentiment on BTS Dynamite Trend



Sentiment on SRK Trend