**Azure Cognitive Services Text Analysis**

This is to show how we can use Azure Cognitive Services Text Analysis to extract Key Phrases and Sentiment Score from a text file and write out to a file for further usage.

Since I don’t which kind OS you are suing, I coded for both. The followings are the R codes that can be used in Linux and Window environments.

**For Linux:**

First I create a text file

sshuser@ed0:~$ cat test.txt

Loved the food, service and atmosphere! We'll definitely be back.

Very good food, reasonable prices, excellent service.

It was a great restaurant.

If steak is what you want, this is the place.

The atmosphere is pretty bad but the food is quite good.

The food is quite good but the atmosphere is pretty bad.

The food wasn't very good.

I'm not sure I would come back to this restaurant.

While the food was good the service was a disappointment.

I was very disappointed with both the service and my entree.

Then comes the code:

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if ("mscstexta4r" %in% installed.packages()[, "Package"] == FALSE)

{

  install.packages("mscstexta4r")

}

library("mscstexta4r")

textaInit()

mscstafunc <- function(docsText) {

  docsLanguage <- rep("en", length(docsText))

  # Perform sentiment analysis

  tryCatch({

    docsSentiment <- textaSentiment(documents = docsText,

                                    languages = docsLanguage)

  }, error = function(err) {

    # Print error

    geterrmessage()

  })

  class(docsSentiment)

  docsSentiment

  resp <- docsSentiment$results

  resp$text

  resp$score

  # Get key talking points in documents

  tryCatch({

    docsKeyPhrases <- textaKeyPhrases(documents = docsText,

                                      languages = docsLanguage)

  }, error = function(err) {

    # Print error

    geterrmessage()

  })

  class(docsKeyPhrases)

  docsKeyPhrases

  resp1 <- docsKeyPhrases$results

  resp1$text

  resp1$keyPhrases

  result <- c(docsText, resp$score, resp1$keyPhrases)

  return(result)

}

fileName <- "/home/sshuser/test.txt"

conn <- file(fileName, open = "r")

linn <-readLines(conn)

close(conn)

r <- mscstafunc(c(linn[1:length(linn)]))

print(r)

for (i in 1:length(linn)){

  myApp <- TRUE

  cat(r[[i]],"\t", file="/home/sshuser/output.txt", append=myApp, sep=' ')

  cat(r[[i+length(linn)]],"\t", file="/home/sshuser/output.txt", append=myApp, sep=' ')

  cat(r[[i+2\*length(linn)]],"\n", file="/home/sshuser/output.txt", append=myApp, sep=' ')

}

++++++++++++++

Finally, the results were written in a tab-delimited file:

sshuser@ed0:~$ cat output.txt

Loved the food, service and atmosphere! We'll definitely be back.       0.9907789       atmosphere food service

Very good food, reasonable prices, excellent service.   0.9964749       reasonable prices good food

It was a great restaurant.      0.9746188       great restaurant

If steak is what you want, this is the place.   0.2863278       steak place

The atmosphere is pretty bad but the food is quite good.        0.8351449       atmosphere food

The food is quite good but the atmosphere is pretty bad.        0.9392208       food atmosphere

The food wasn't very good.      0.06865769      food

I'm not sure I would come back to this restaurant.      0.2039804       restaurant

While the food was good the service was a disappointment.       0.2064542       service food

I was very disappointed with both the service and my entree.    0.0253433       service entrée

**For Windows:**

In directory C:\Users\xinxue\Documents I add the config file (.mscskeys.json attached)

In C:\Users\xinxue\tmp I put an input text file (test.txt, attached)

After run the R code (textanalysishttps.r, attached), I get the results file in C:\Users\xinxue\tmp\output.txt

Hope this helps.