APPROACH

To extract the tweets with the keyword #brexit from Twitter, to analyze the tweets, and to perform sentimental analysis on them i.e. to classify them as positive, negative or neutral.

Software Requirements:

1. R GUI
2. Rstudio
3. Web browser (IE/Chrome, etc.)

Implementation:

- To scrape data off Twitter, a user needs permissions in the form of tokens and secrets which are provided by twitter to the user on apps.twitter.com (Twitter API). These tokens are included as part of the code.

- Implementation of any app in Shiny requires 2 files- server.r and ui.r The server.r file contains all the logic behind the UI to be implemented on the dashboard. It is basically the input to the UI. The ui.r file consists of the layout of the UI, placement of GUI components, titles, etc. Both the files must be stored in the same directory, and the working directory must be set as the folder in which the two files are stored.

- Following **packages** are needed:
  1. twitteR
  2. tm (Text mining)
  3. Shiny
  4. RCurl
  5. wordcloud
  6. Rsconnect
  7. httr
  8. Httk

- The approach for developing the solution to this case study was as follows:
  1. Choose the words that can act as lexicons for positive and negative sentiments
  2. From the extracted tweets, match the words with words from the lexicon to determine the sentiment of the tweet
  3. Tweets that can be classified as neither positive or negative are termed as neutral
  4. Keep a track on the count of tweets in each category of sentiments
  5. Display a table that lists the Twitter users and their respective sentiments in the tweets with #brexit
  6. Plot a colored graph to display the number of positive, negative and neutral tweets
  7. Each bar in the graph has a unique color and a word cloud below displays the words used in the tweets.

Deployment:

Running the app can be done either locally or via a URL provided by Shiny.
rsconnect::setAccountInfo(name='chaitanyajoshi9', token='token', secret='secret')
Then, simply enter the following command: rsconnect::deployApp()
Link to our app is: https://chaitanyajoshi9.shinyapps.io/chai_sa1/