

Project Title	:	Web based Dashboard for COVID-19 Twitter Sentiment Analysis
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Introduction:

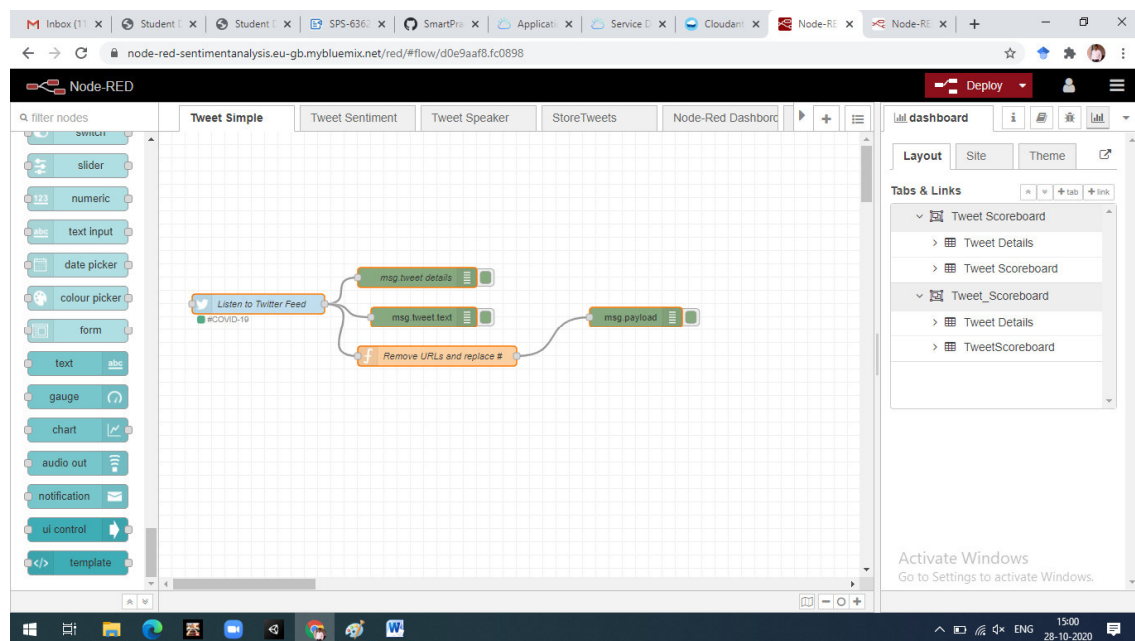
As governments and organizations continue to work towards COVID-19 and stem the growing humanitarian toll it is exacting, the economic effects are also beginning to be felt. We can track sentiment to gauge how people's expectations, incomes, spending, and behaviors change throughout the crisis across the country over time and also predict their state if the lockdown is extended.

System Functionality:

Following are the major flows for carrying out the entire project.

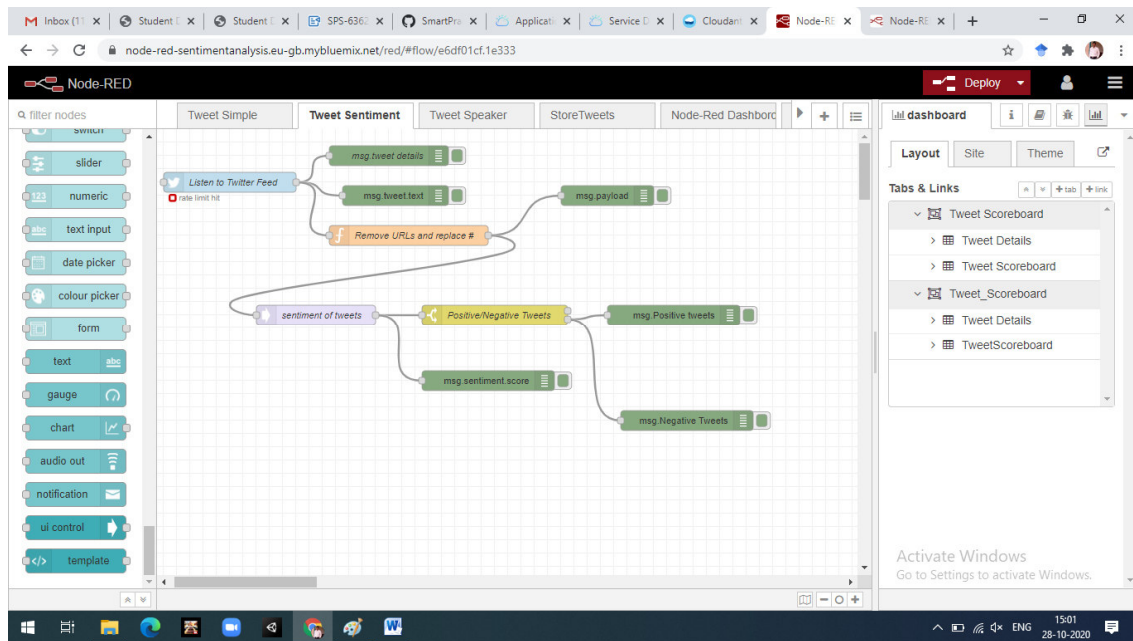
1. Get the tweet and Parse the Tweet

To begin with firstly twitter developer account has been created and API keys were used for adding social node (Twitter in) node from pallette. #Covid-19 string is used for reading the tweets . The function is used for remove "#" and getting URL. The tweets were retrieved and displayed in debug window.



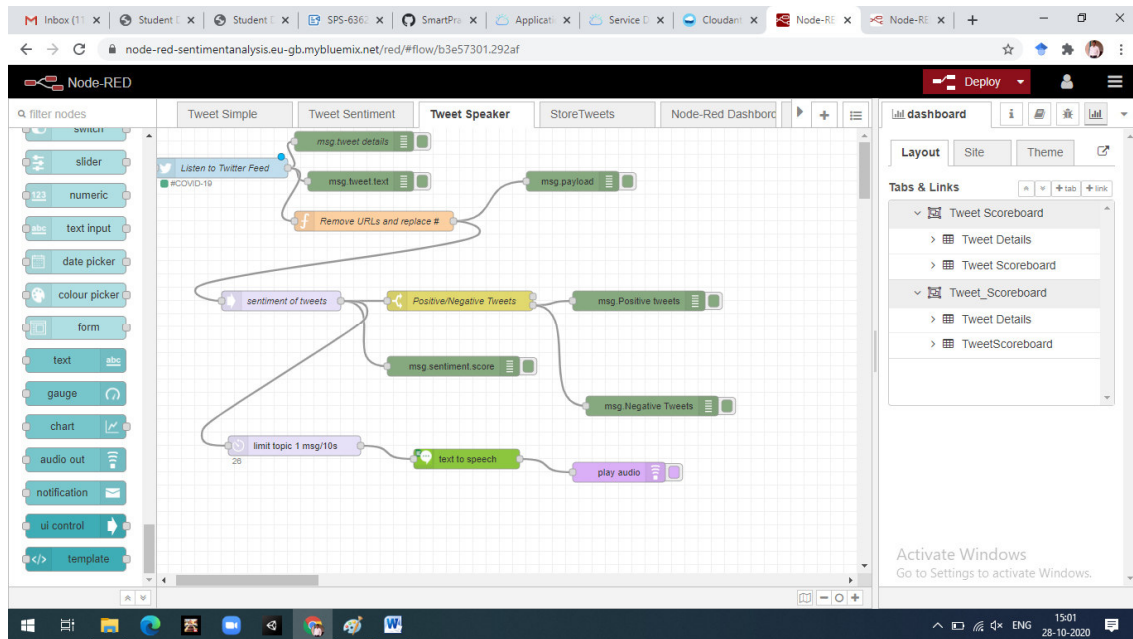
2. Analyze tweet Sentiments

To get the tone of the tweets sentiment nodes were added from pallette. Based on the sentiment score the tweets were classified as positive tweets (if score>2) or negative tweets. The score of the tweets was also displayed in debug window.



3. Tweet Speaker

In order to listen to tweets the tweets are converted to speech by making use of IBM Watson text to speech service. Audio was played in MP4 format and could be listened.



4. Store Tweets

In order to store the tweets cloudant service is used . Database is created by inserting cloudant in node from palate. Database was storing all tweet data in table format.

_id	lang	payload	sentiment	topic
009dbbc4ea081197...	fr	{"timestamp": "160...	{"score": 0, "compar...	tweets/ElitedAfrique
009dbbc4ea081197...	en	{"timestamp": "160...	{"score": 0, "compar...	tweets/ManitobaPost
009dbbc4ea081197...	fr	{"timestamp": "160...	{"score": 2, "compar...	tweets/007_blaço
009dbbc4ea081197...	tr	{"timestamp": "160...	{"score": 0, "compar...	tweets/MKRC24
009dbbc4ea081197...	en	{"timestamp": "160...	{"score": 0, "compar...	tweets/gewylie
009dbbc4ea081197...	in	{"timestamp": "160...	{"score": 0, "compar...	tweets/cygaraga
009dbbc4ea081197...	in	{"timestamp": "160...	{"score": 0, "compar...	tweets/aag5517
009dbbc4ea081197...	es	{"timestamp": "160...	{"score": -1, "compa...	tweets/Marialuzfv
009dbbc4ea081197...	in	{"timestamp": "160...	{"score": 0, "compar...	tweets/EagleJava_99
05e0b9c6f475289a...	en	{"timestamp": "160...	{"score": 1, "compar...	tweets/EramosaPS
05e0b9c6f475289a...	es	{"timestamp": "160...	{"score": 0, "compar...	tweets/ColeEnhermZa

5. Node-Red dashboard

Creating HTTP request for getting sentiment score and sentiment history:

Place the Node red dashboard through manage pallette option available at right side. It provides set of nodes in node- red for creating live data dashboard quickly and easily. Here non editable text, gauge and chart control is used to show sentiment history and sentiment score respectively.

