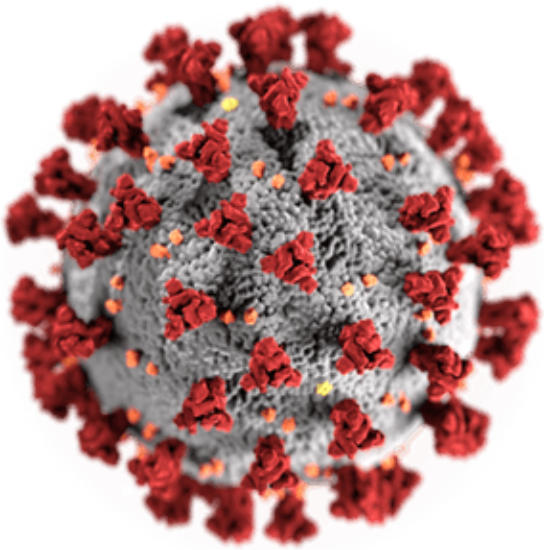
Covid-19 Live Update Data Visualization



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Contents

1. Intro

In this project I will Show the live covid19 results and data visualization cases in the world. I have found a package in R script. It's a documentation for package covid19.analytics version 2.0. This also loads and Analyzes Live Data from the CoViD-19 Pandemic. I will be using matrix and ggplot2, for data manipulation. Package obtain from, <https://github.com/CSSEGISandData/COVID-19>

2.Pakages Required

In this project I will need to Install;

##Library

library(covid19.analytics)

library(dplyr)

library(ggplot)

library(lubridate)

library(ggplot2)

library(rio)

library(readr)

3.Objective

In this case scenario, we are going to see how many positive cases the United State has. Then we will see negative results. We will see deaths and recoveries. It will be displayed in plot points and visual graphs.

First we need to download csv. file from https://covidtracking.com/api/states/daily.csv it gives live up date on covid19 patient.

This will adjust the Plot Viewer Margin

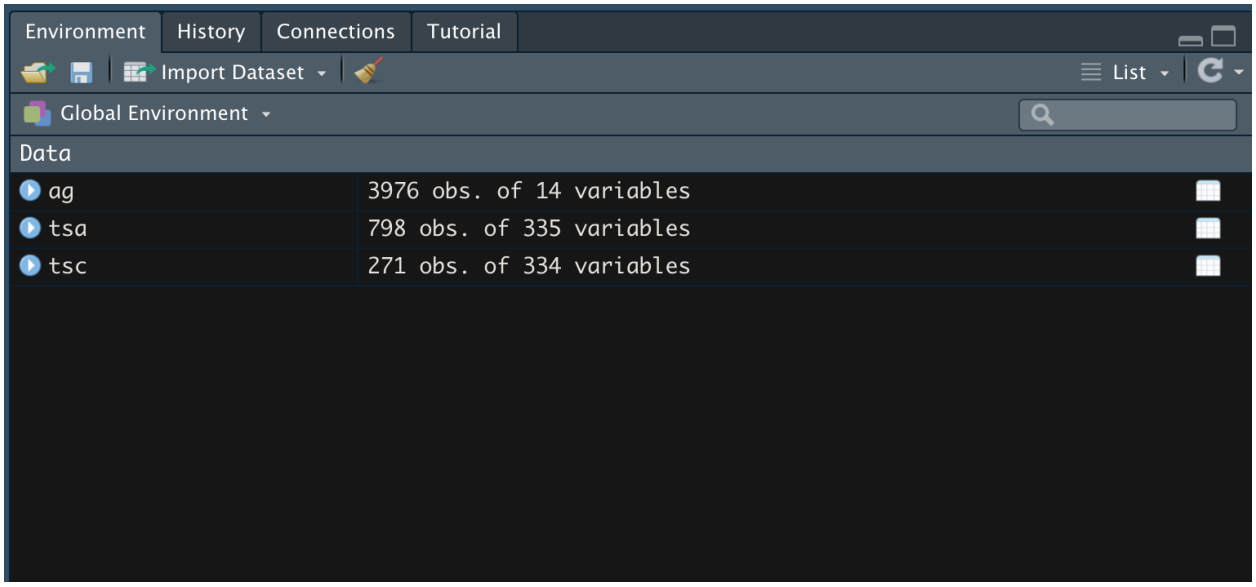
```
4  #Plot margins
5  graphics.off()
6  par("mar")
7  par(mar=c(1,1,1,1))
```

Then create data set :

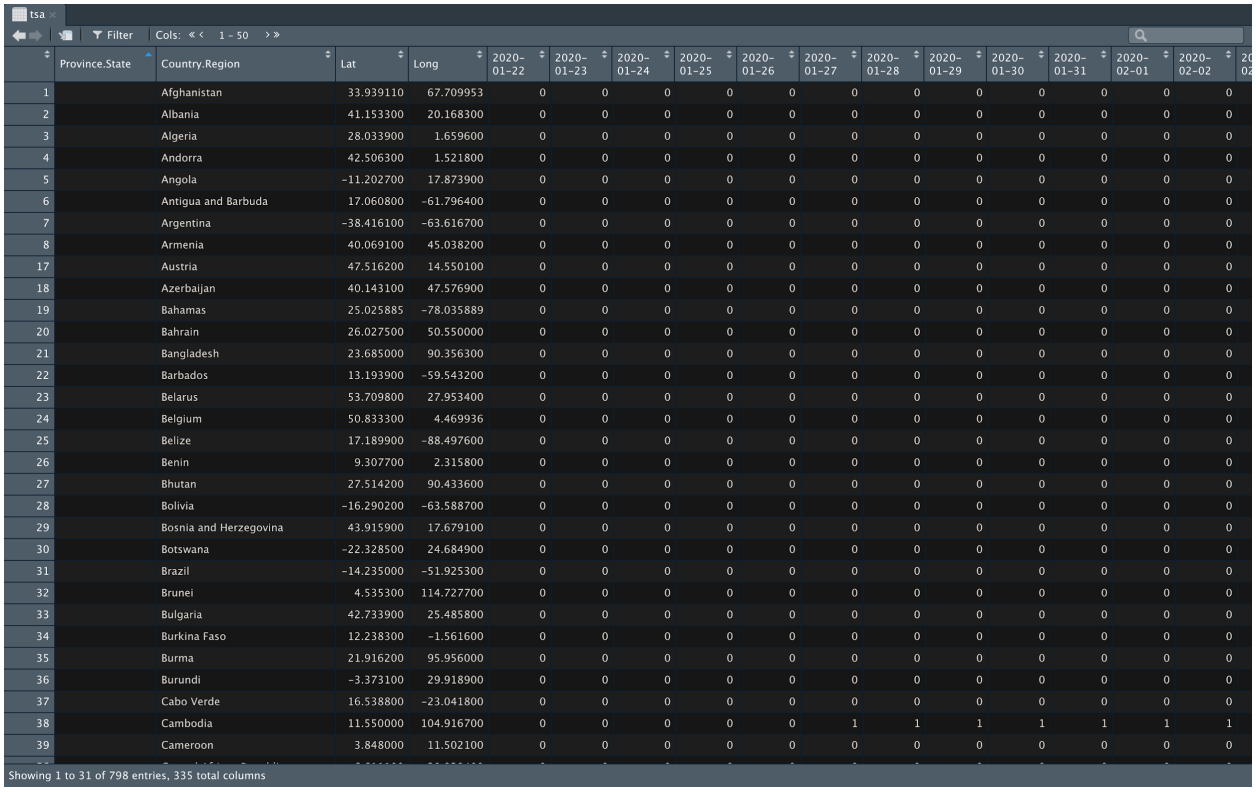
```
#create dataset
ag <- covid19.data(case = 'aggregated')
tsc <- covid19.data(case = 'ts-confirmed')
tsa <- covid19.data(case = 'ts-ALL')
```

This will create table for your dataset and import files from covid19.data

The result:



This will create table for example this is ag data is:



tsa

Filter | Cols: « < 1 – 50 > »

	Province.State	Country.Region	Lat	Long	2020-01-22	2020-01-23	2020-01-24	2020-01-25	2020-01-26	2020-01-27	2020-01-28	2020-01-29	2020-01-30	2020-01-31	2020-02-01	2020-02-02
1		Afghanistan	33.939110	67.709953	0	0	0	0	0	0	0	0	0	0	0	0
2		Albania	41.153300	20.168300	0	0	0	0	0	0	0	0	0	0	0	0
3		Algeria	28.033900	1.659600	0	0	0	0	0	0	0	0	0	0	0	0
4		Andorra	42.506300	1.521800	0	0	0	0	0	0	0	0	0	0	0	0
5		Angola	-11.202700	17.873900	0	0	0	0	0	0	0	0	0	0	0	0
6		Antigua and Barbuda	17.060800	-61.796400	0	0	0	0	0	0	0	0	0	0	0	0
7		Argentina	-38.416100	-63.616700	0	0	0	0	0	0	0	0	0	0	0	0
8		Armenia	40.069100	45.038200	0	0	0	0	0	0	0	0	0	0	0	0
17		Austria	47.516200	14.550100	0	0	0	0	0	0	0	0	0	0	0	0
18		Azerbaijan	40.143100	47.576900	0	0	0	0	0	0	0	0	0	0	0	0
19		Bahamas	25.025885	-78.035889	0	0	0	0	0	0	0	0	0	0	0	0
20		Bahrain	26.027500	50.550000	0	0	0	0	0	0	0	0	0	0	0	0
21		Bangladesh	23.685000	90.356300	0	0	0	0	0	0	0	0	0	0	0	0
22		Barbados	13.193900	-59.543200	0	0	0	0	0	0	0	0	0	0	0	0
23		Belarus	53.709800	27.953400	0	0	0	0	0	0	0	0	0	0	0	0
24		Belgium	50.833300	4.469936	0	0	0	0	0	0	0	0	0	0	0	0
25		Belize	17.189900	-88.497600	0	0	0	0	0	0	0	0	0	0	0	0
26		Benin	9.307700	2.315800	0	0	0	0	0	0	0	0	0	0	0	0
27		Bhutan	27.514200	90.433600	0	0	0	0	0	0	0	0	0	0	0	0
28		Bolivia	-16.290200	-63.588700	0	0	0	0	0	0	0	0	0	0	0	0
29		Bosnia and Herzegovina	43.915900	17.679100	0	0	0	0	0	0	0	0	0	0	0	0
30		Botswana	-22.328500	24.684900	0	0	0	0	0	0	0	0	0	0	0	0
31		Brazil	-14.235000	-51.925300	0	0	0	0	0	0	0	0	0	0	0	0
32		Brunei	4.535300	114.727700	0	0	0	0	0	0	0	0	0	0	0	0
33		Bulgaria	42.733900	25.485800	0	0	0	0	0	0	0	0	0	0	0	0
34		Burkina Faso	12.238300	-1.561600	0	0	0	0	0	0	0	0	0	0	0	0
35		Burma	21.916200	95.956000	0	0	0	0	0	0	0	0	0	0	0	0
36		Burundi	-3.373100	29.918900	0	0	0	0	0	0	0	0	0	0	0	0
37		Cabo Verde	16.538800	-23.041800	0	0	0	0	0	0	0	0	0	0	0	0
38		Cambodia	11.550000	104.916700	0	0	0	0	0	1	1	1	1	1	1	1
39		Cameroon	3.848000	11.502100	0	0	0	0	0	0	0	0	0	0	0	0

Showing 1 to 31 of 798 entries, 335 total columns

Now looking at the top 10 countries

```
14  #top 10 countries that have most covid19 cases
15  report.summary(Nentries = 10,
16                 graphical.output = T)
```

if you type:

report.summary(Nentries = 10,

graphical.output = F)

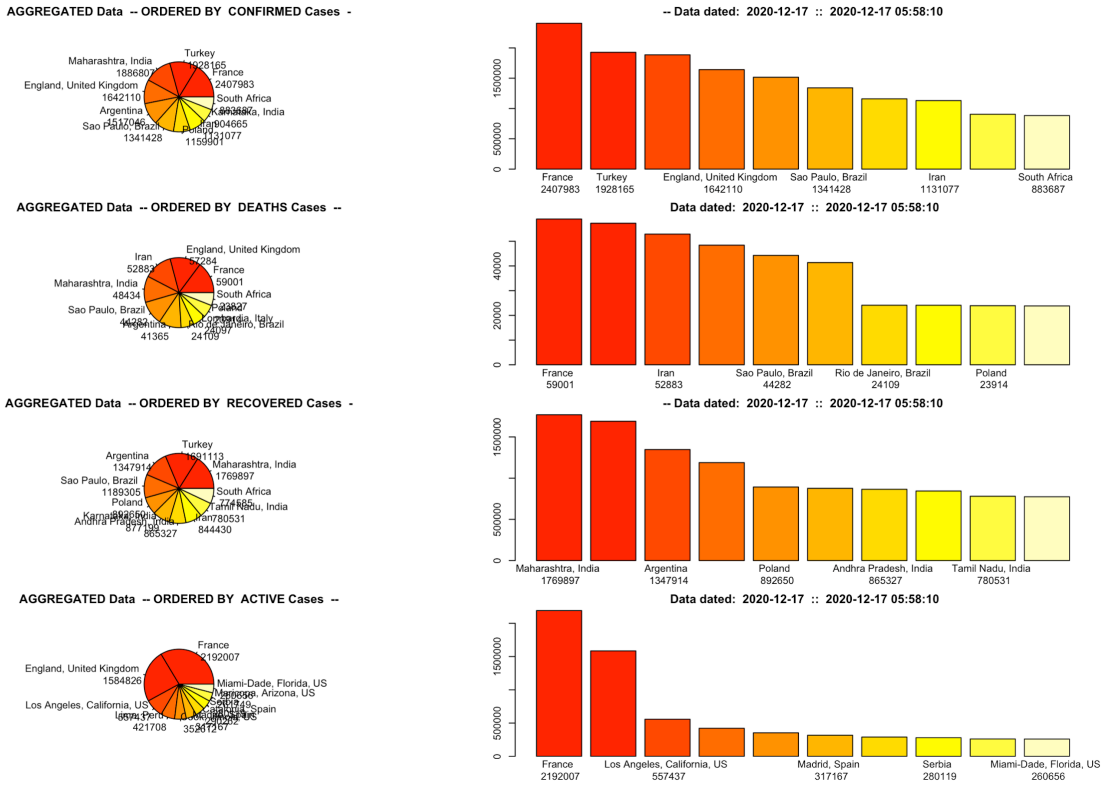
result : will be shown in terminal

But,

report.summary(Nentries = 10,

graphical.output = T)

result : in graph.



In this graph it show:

Confirmed cases

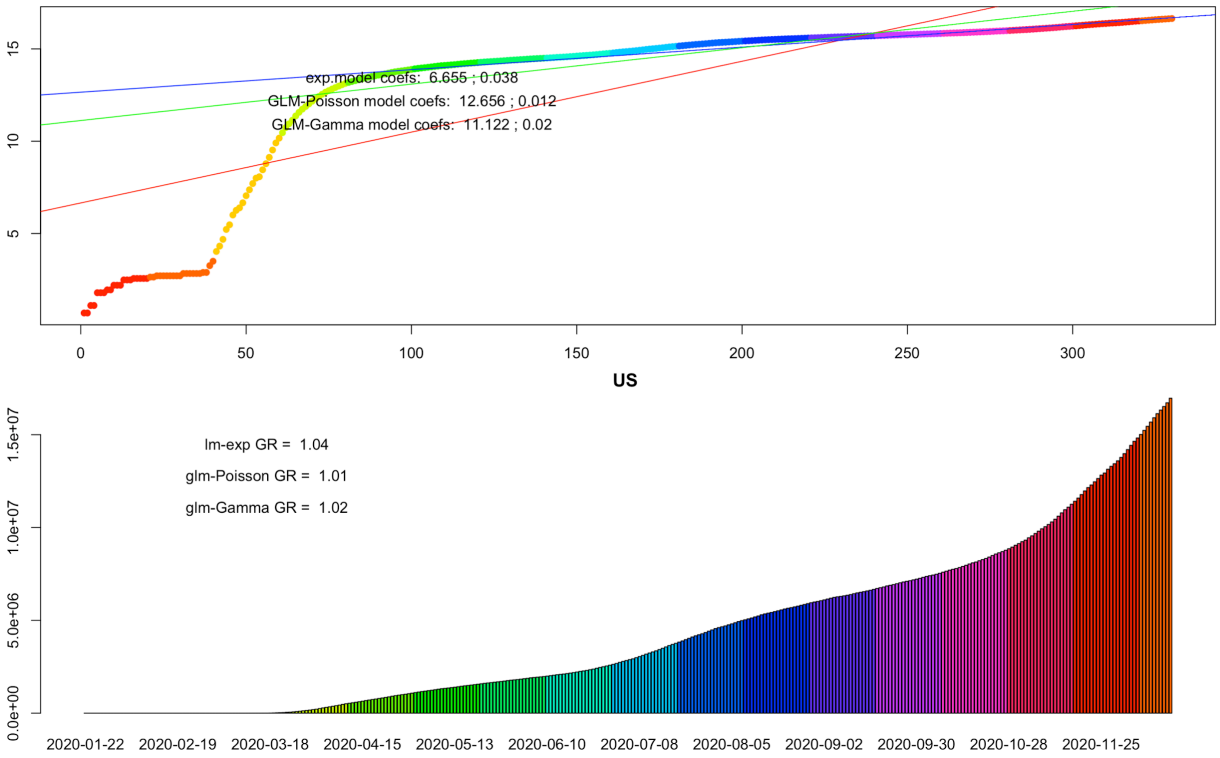
Death cases

Recovered cases

Active cases.

```
17  #total Cases in United States
18  tots.per.location(tsc, geo.loc = 'US')
```

This code will give you

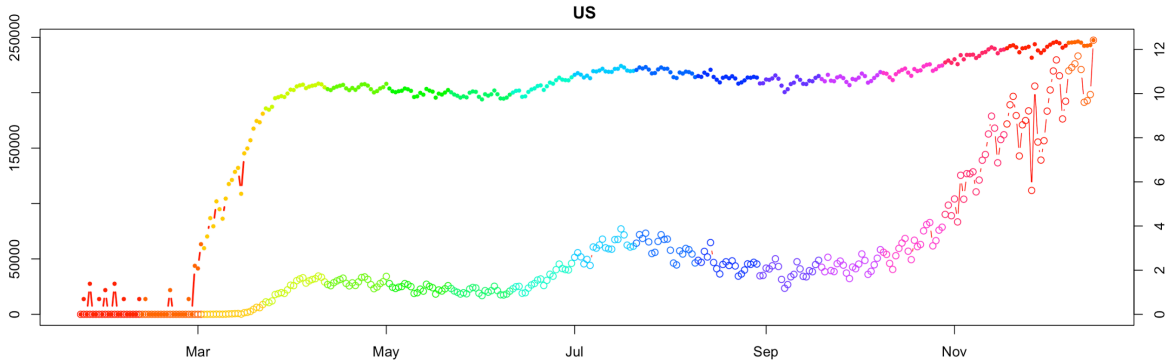


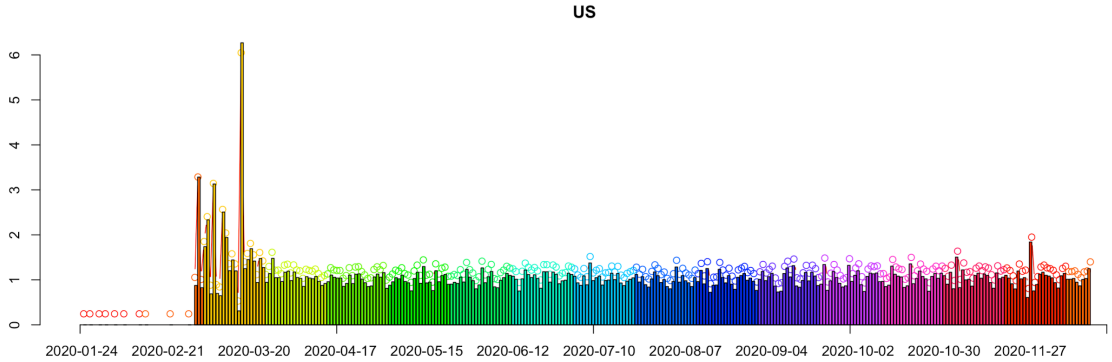
In this graph you can see in USA covid cases rising

```
18  tots.per.location(tsc, geo.loc = 'US')
19  #Growing cases in United States
```

In this code it will display live groth in USA

result :

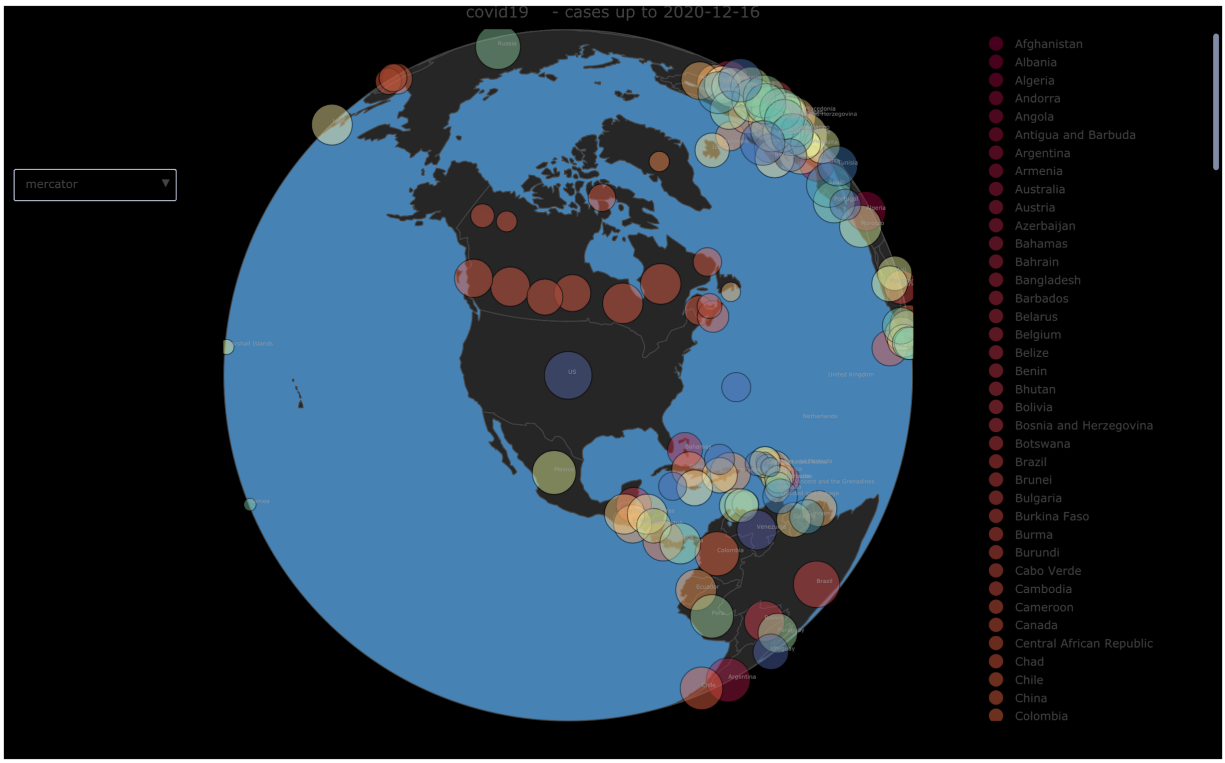




To do an interactive live map for covid19 result type:

```
21  #live map where
22  live.map(tsc)
```

result :


covid19 - cases up to 2020-12-16
mercator
Afghanistan
Albania
Algeria
Andorra
Angola
Antigua and Barbuda
Argentina
Armenia
Australia
Austria
Azerbaijan
Bahamas
Bahrain
Bangladesh
Barbados
Belarus
Belgium
Belize
Benin
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana
Brazil
Brunei
Bulgaria
Burkina Faso
Burma
Burundi
Cabo Verde
Cambodia
Cameroon
Canada
Central African Republic
Chad
Chile
China
Colombia

4. Code

```
#Library

library(covid19.analytics)


#Plot margins

graphics.off()

par("mar")

par(mar=c(1,1,1,1))


#create dataset

ag <- covid19.data(case = 'aggregated')

tsc <- covid19.data(case = 'ts-confirmed')

tsa <- covid19.data(case = 'ts-ALL')


#top 10 countries that have most covid19 cases

report.summary(Nentries = 10,

               graphical.output = T)

#total Cases in United States

tots.per.location(tsc, geo.loc = 'US')

#Growing cases in United States

growth.rate(tsc, geo.loc = "US")

#live map where

live.map(tsc)
```

5. Summery

In conclusion R is a very easy software to use to see covid19 results live. Country by country, state by state, the results show deaths, active cases, and much more.