Covid-19 MySQL data analysis project  
  
If you would like to install the MySql tables, views and stored procedures used in this app,   
you can run the scripts in following script file: Covid19*\_Database\_*install.sql, in any MySql Database.  
  
Then update these three tables as follows:  
  
• covid*\_process\_*date – Contains 1 record, the parameters for processing the current cycle  
  
    Run the following script to load the one record it needs:  
  
    Insert into covid*\_process\_date(Process\_ID, date\_begin, date\_end, period, period\_*days)  
    VALUES(1, "2020-01-01", "2020-01-02", "1 DAY", 1);  
  
• coviddata\_state – Holds data imported from NY Times covid-19 data repository.    
    Run MySql’s Table Data Import Wizard and import this file, from the NY Times:  us-states.csv  
  
• covid\_statedata – Holds state data, like the name, abbreviation, population, etc.  
    Run MySql’s Table Data Import Wizard and import this file: statedata.csv  
  
And run this stored procedure:  CALL Covid\_LoadNewCycles();  
  
After running the stored procedure the table, coviddata*\_state\_*chg, will contain all the details for the current day.    
There will be 3 cycles representing changes over 1 day, 7 days and 14 days.    
The table, coviddata*\_state\_*history, will contain historical data.

You’ll find more information in the “Covid19*\_Database\_*install.sql” script file.

Automated daily updates can be run as follows (make sure python and MySql CLI are installed):

From the c:/programming folder run: python Covid19NyTimesDownload.py

This is the contents of Covid19NyTimesDownload.py:

import requests

import shutil

import datetime

#a\_date = datetime.date(2015, 10, 10)

today=datetime.datetime.now()

days = datetime.timedelta(1)

yesterday=today-days

yesterdaystr=yesterday.strftime("%Y%m%d")

downloadfile="c:\\data\\us-states\_" + yesterdaystr + ".csv"

print(downloadfile)

uploadfile="C:\\data\\us-states.csv"

url = "https://raw.githubusercontent.com/nytimes/covid-19-data/master/us-states.csv"

r = requests.get(url, allow\_redirects=True)

# downloadfile='C:\data\states\_20220308.csv'

#open('C:\data\states\_20220309.csv', 'wb').write(r.content)

open(downloadfile, 'wb').write(r.content)

shutil.copyfile(downloadfile, uploadfile)

This will download the NY Times covid-19 state data and save it to two files (one has a date included in the filename ).

/data/us-states.csv  
 /data/us-states\_yyyymmdd.csv

Then run MySql from the system prompt:

/programming/mysql --user=root --password=root  
          
  
From the MySql prompt run this script file “DailyProcessing.sql”, as follows:  
mysql> source DailyProcessing.sql

And quit:

mysql> quit

This is the contents of the “DailyProcessing.sql” script file:

/\* Mysql should be in your command line path. e.g. C:\Program Files\MySQL\MySQL Workbench 8.0 CE\mysql.exe \*/

/\* first download the NY Times Covid data file (state totals): Run "python Covid19NyTimesDownload.py".  The script will update this file: C:/data/us-states.csv \*/

/\* mysql --user=root --password=root \*/

use covid19\_2;

Truncate Table coviddata\_state;

LOAD DATA INFILE     'C:/data/us-states.csv'     INTO TABLE coviddata\_state    FIELDS TERMINATED BY ','     LINES TERMINATED BY '\n'    IGNORE 1 LINES;

CALL Covid\_LoadNewCycles();

call Covid\_CreateExportFile();

quit