Team A

EXTRACTION AND ANALYSING PRESENT COVID-19 DATA

Tasks:

1. Creating(or getting from NET) the tables which has following DATA:
    1. Table COVID_Worldwide(Has Minimum 10 records)
        1. C1 – Cname (Primary Key)
        2. C2 – Cpopulation
        3. C3 – CInfected
        4. C4 – Crecovered
        5. C5 – Cdeaths
    2. Table COVID_India(Has all states)
        1. C1 – Sname (Primary Key)
        2. C2- Spopulation
        3. C3 – Sinfected
        4. C4 – Srecovered
   5. C5 – Sdeaths
    3. Creation of Two more tables COVID_WP and COVID_IP with same aforementioned Columns but with no data.
2. Connecting Database and Python

3. Writing UDF for updation of Data every day, from reliable source (Preferably using Response Module(Pls research about the same)

4. Making UDF to extract Data from SQL, and project the following
    1. A Map of the world and Map of India which shows the infection rate across countries and states respectively(Using preferably the Pandas and plotly module, research the same) on Demand
        1. Example –
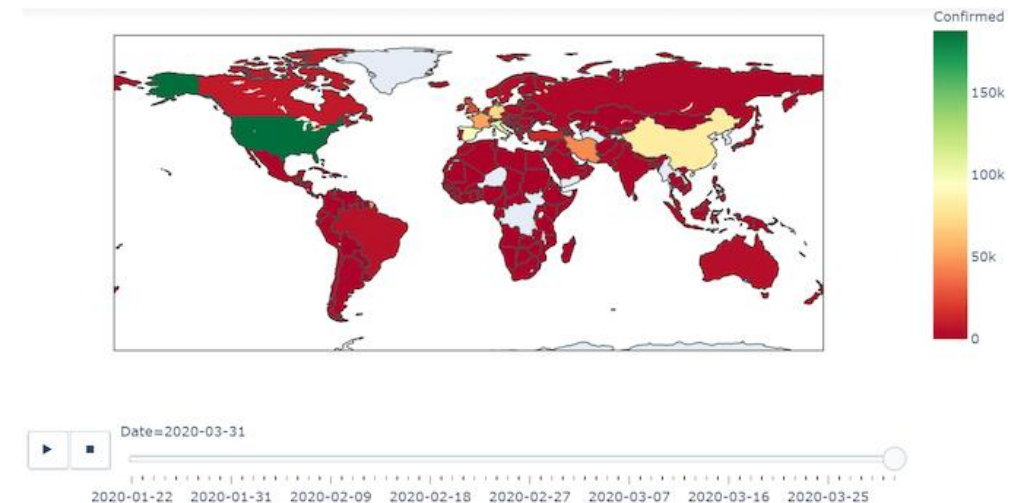
    2. Also, creation of UDF which takes data from COVID_WP and COVID_IP and maps like the above UDF.

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4. Graphing of the following Data on Demand for WorldWide
   and India(Using matplotlib)
   1. Deaths
   2. Infection Cases
   3. Rate of Increase of Cases Everyday
   4. Example is shown

5. Present Data on Demand
   1. User Defined Function which can extract any DATA
      from the Tables created

6. Any More creativity and Addtion of features is appreciated.

Team B
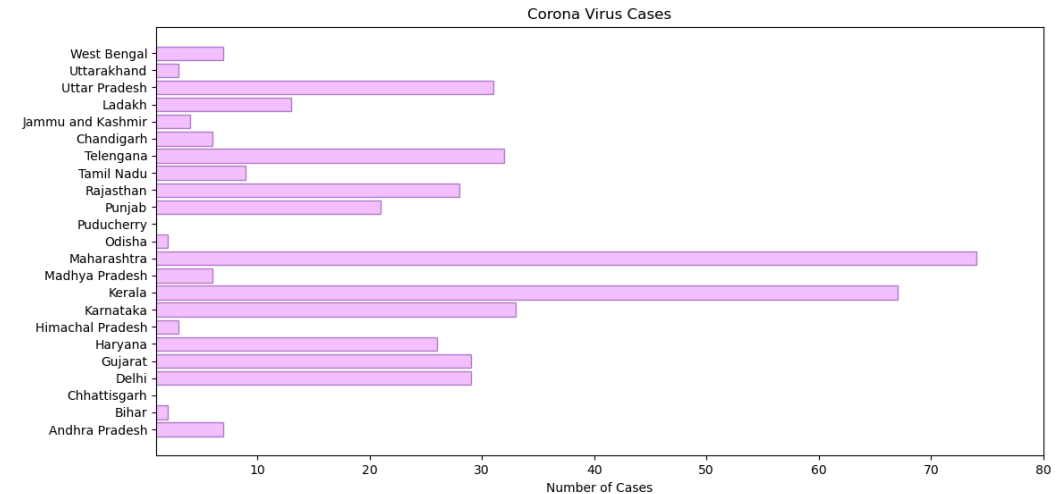
GRAPHICS AND SIR MODELLING

Tasks:

1. Creating GUI using preferably Tkinter Module, to access all the UDFs so generated.
    1. Creating Basic Textboxes and Commands to generate Input for all the UDFs defined by Team A.
    2. Providing Exit Button when program runs.

2. Creating SIR Model with following compartments (for INDIA and WORLDWIDE):-
    1. Suspectible
    2. Infected
    3. Exposed
    4. Recovered
    5. Critical
    6. Deaths
    7. And time dependent Rate Variables

(Use numpy, scipy.integrate, matplotlib modules)

3. Update Data Predicted every time SIR Model runs, into COVID_WP and COVID_IP.

4. Provide a window which shows basic guidelines given by Government of India and provide the following links for access of users:
    1. WHO
    2. Government of India's window for Coronavirus Updates

5. Integrating Team A's UDF's into Team B

General Timeline for Both Teams

Start   Research   MAY 26   Code   MAY 31   Integrate   !!
MAY 20   JUNE 4