Data modelling and analyzing coronavirus spread using data science and python

COURSE: TARP   COURSE CODE: ECE3999

REVIEW – 3

SLOT: TD2   FACULTY: (PROF.)ILAVARASAN.T

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OBJECTIVE

- In this present situation we are not able to understand how this Covid-19 is spreading around the world. One doesn't know how many cases are rising day by day in different places and the factors that are taken by governments in different countries.

- So our main idea is to make a SIR model to divide the people who are infected and recovered and who are susceptible to Covid-19 in countries like India and Italy.

FIRST STEP

▶ Our first step was collecting the datasets on Covid-19 like the number of people infected, number of people recovered, number of people died, and also the country wide cases. We are successful in collecting those datasets and also we made the effort in understanding the data and started analysing it.
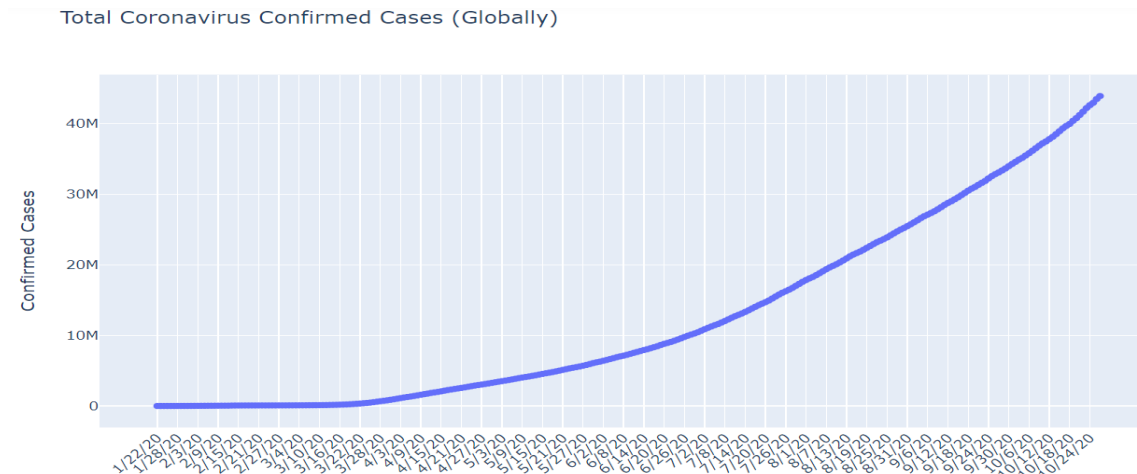
SECOND STEP

▶ In our second step we started analysing the data and did the necessary data cleaning.

▶ We also implemented the feature extraction technique called **filtering method** which is based on correlation and finally arrived at the dataset that is ready to analyse.
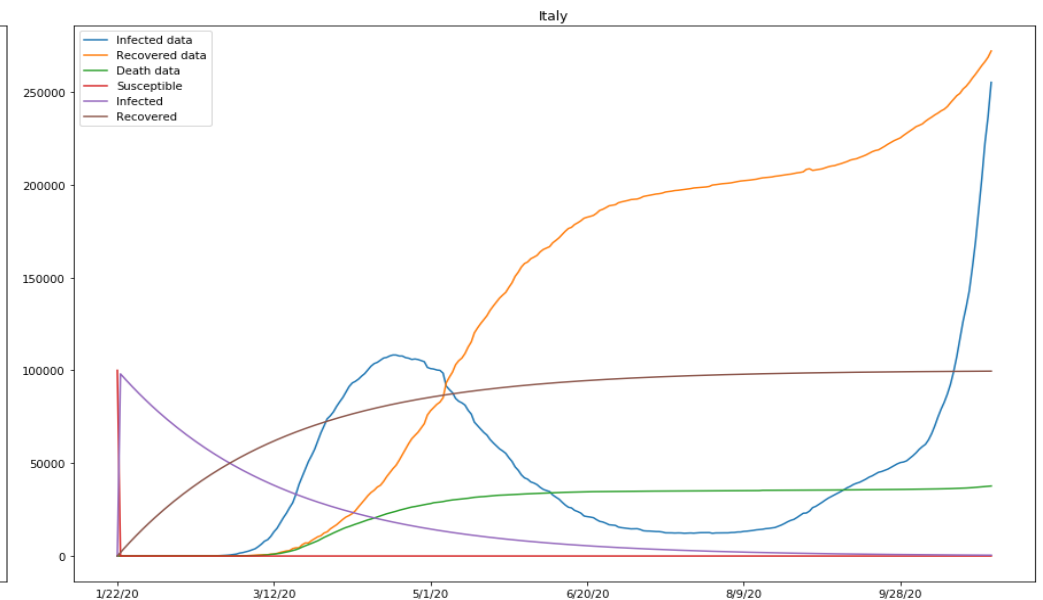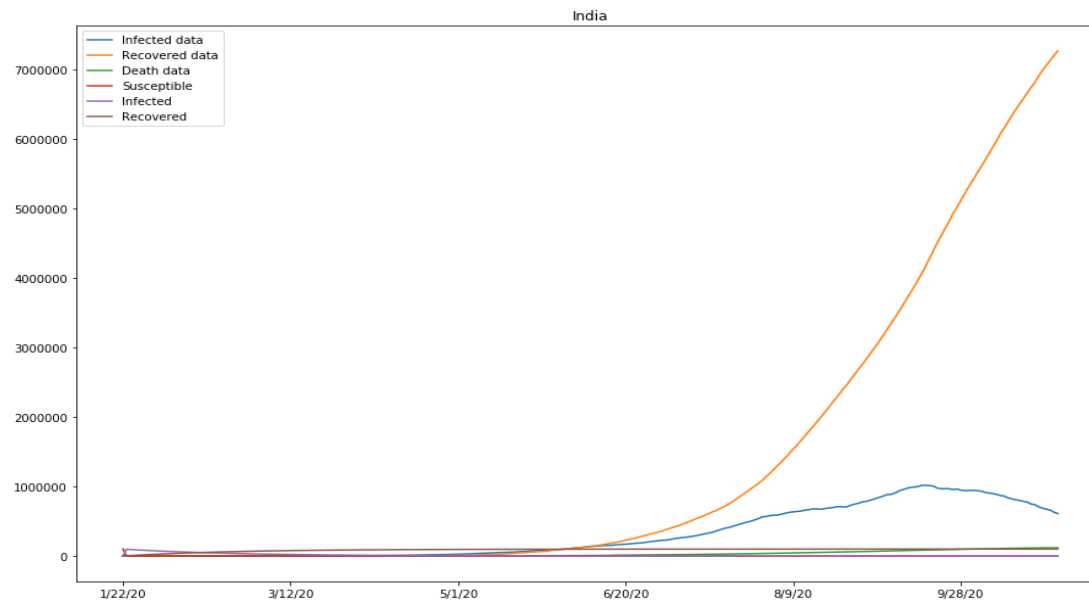
THIRD STEP

▶ So in this third step we started to plotting the data using the python library called plotly which helps in plotting the graphs required.

▶ Here we used a custom plot function to make visualize the data clearly in a graphical format.

▶ We used plot functions like Scatter, plot to make the data look in graphical format.

Total Coronavirus Confirmed Cases (Globally)

FOURTH STEP

▶ In this step we created a **prediction model** using the logistic regression method and made the prediction on the cases in India and Italy.

▶ Here we can observe the output of the predicted cases after 28th Oct2020

FINAL STEP

- Here we made a literature survey on what are the measures taken by different countries in controlling the spread and the precautions followed by people and made a report along with our model.

- Our main focus was on Italy and India because the datasets were created in the month of March during which the cases in Italy started to grow very much.

CONCLUSION

▶ SO finally we like to conclude our project in this way. Using our model we don't say that we are changing the world but we tried our level best in collecting the information through as many sources as we can and got it all together. But the rise of the Covid-19 spread won't stop by just taking precautions but it should be in the hearts of people that I have to do what it takes in order to fight this pandemic.

▶ *WEAR MASK LIKE YOU WEAR YOUR CLOTHES*

THANK YOU