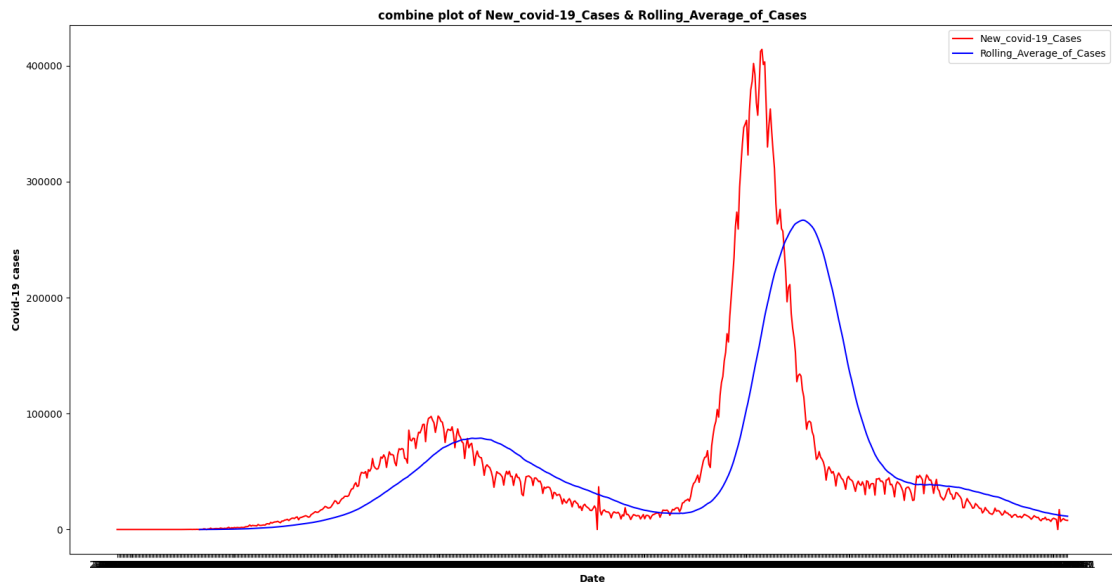


Covid-19 data analysis for India conclusion –

In this project I have used covid-19 data of India from 30-01-2020 to 11-12-2021 to find some important insights as listed below -

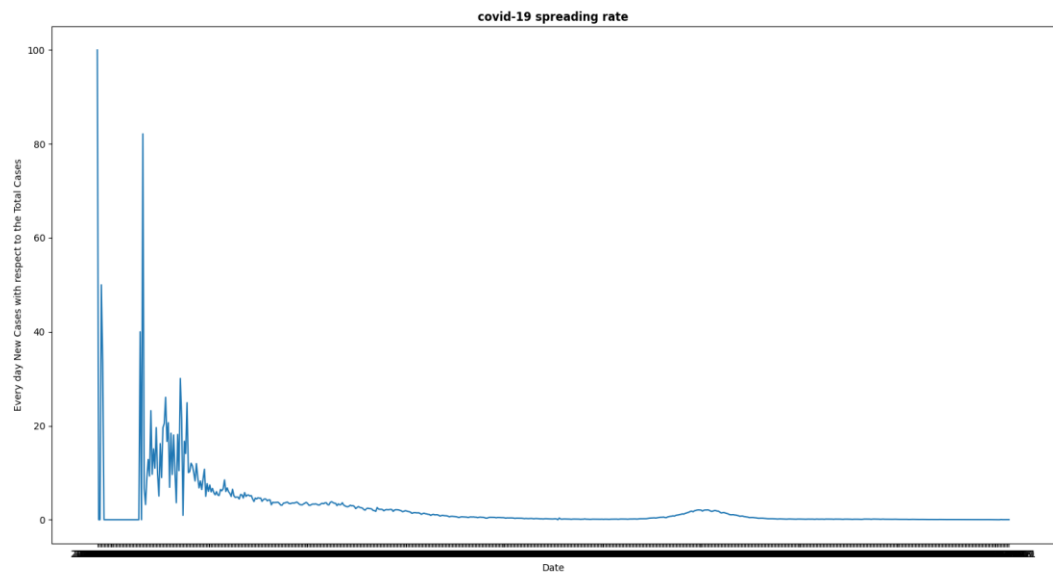
1. India's performance in handling covid-19 during this period?



In this plot we have plotted new covid-19 cases vs. rolling average of covid-19 cases. Insights from this combine plot are listed below –

- a. This plot easily shows the severity of previous waves and predicts the possibilities of upcoming waves.
- b. The region where graph of New_covid-19_Cases exceeds graph of Rolling_Average_of_Cases is exactly the time period in which India has faced the previous waves
- c. In the end of the plot we can see that graph of New_covid-19_Cases and graph of Rolling_Average_of_Cases are very close to each other which indicated that in the mid of December 2021 or in the early of January 2022 India will again face another wave.
- d. The 3rd wave should have started from 24-08-2021, but somehow with the collaboration of Indian peoples and Indian Government we have successfully managed to stop it from getting worse.

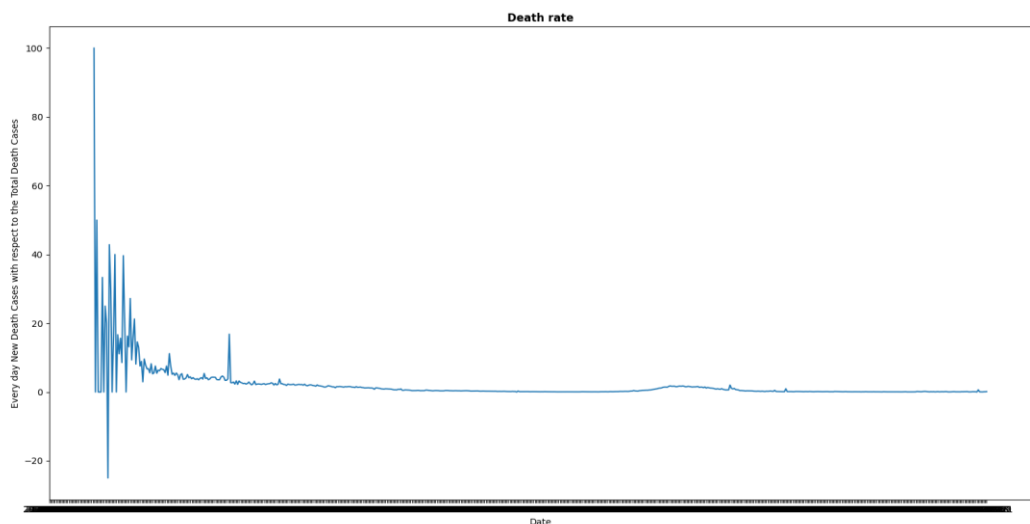
2. Spread rate of covid-19 in India?



In this plot we have plotted everyday new covid-19 cases with respect to total number of covid-19 cases vs. date. Insights from the plot are listed below—

- Before 18-11-2020 the spreading rate was quite fluctuating which lead to the 1st wave of covid-19.
- After 18-11-2020 India managed to maintain a constant spreading rate of 0.1.
- But from 29-03-2021 to 31-05-2021 there was an increase in the spreading which again lead to the 2nd wave of covid-19.

3. Death rate?

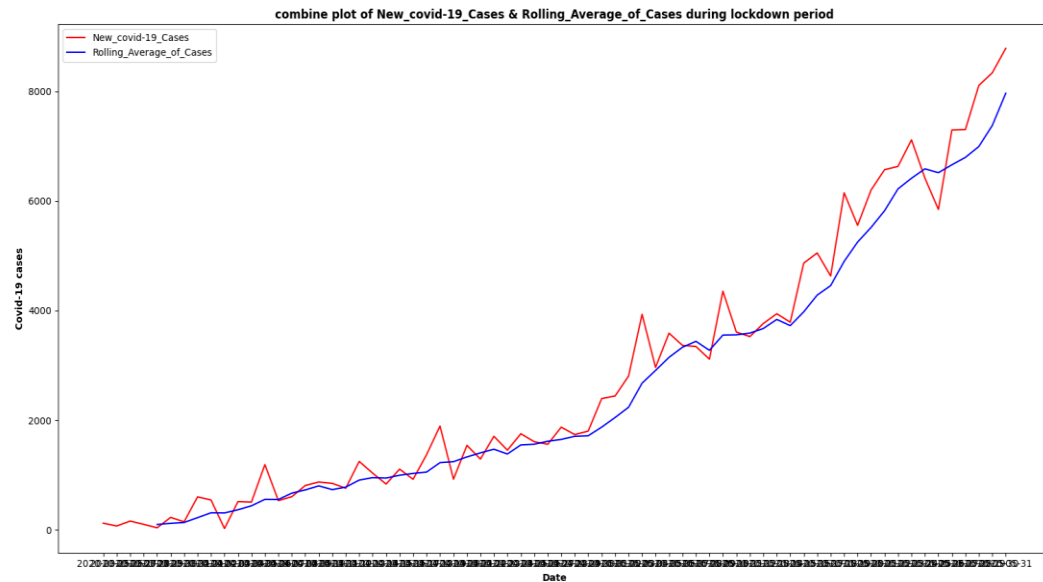


In this plot we have plotted everyday New Death Reports with respect to the Total Death Reports vs. Date. Insights from the plot are listed below –

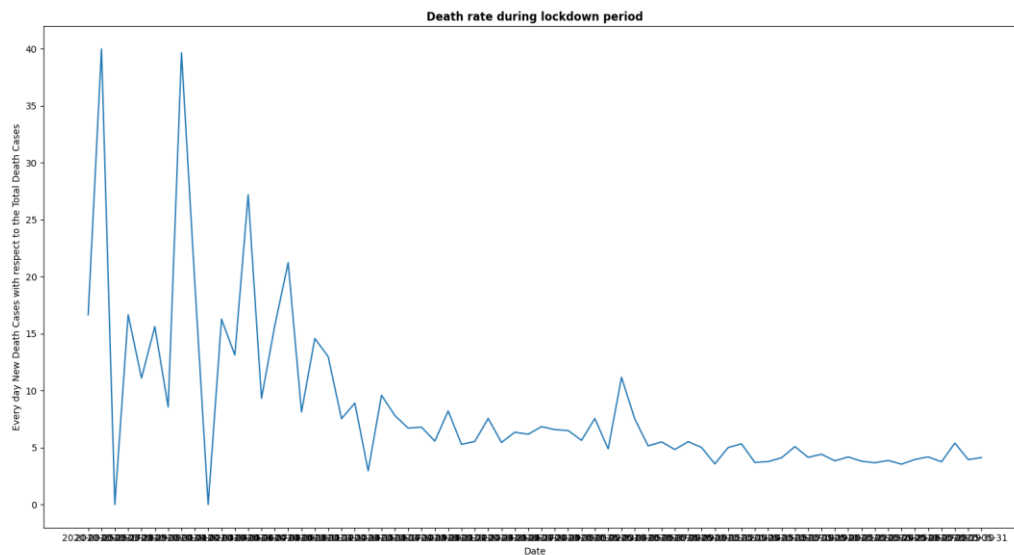
- Before 25-06-2020 the death rate was quite fluctuating.

- b. After 25-06-2020 India managed to maintain a constant spreading rate of 0.206.
- c. But from 02-04-2021 to 17-06-2021 there was an increase in the death rate.

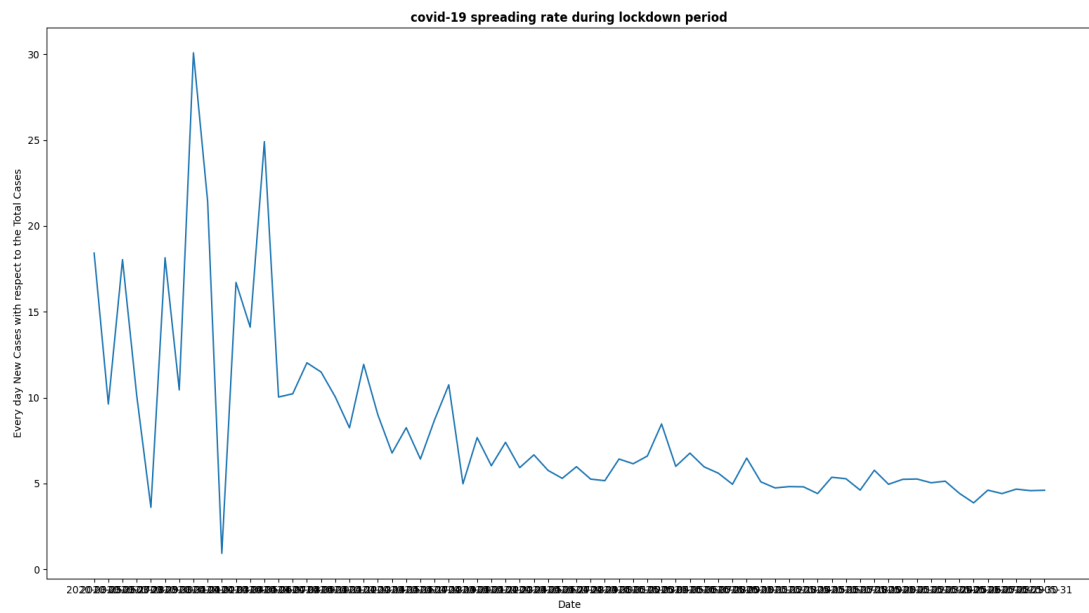
4. Effect of lockdown in India? [In terms of Death-rate, Recovery-rate, New-cases]



As we can see in this plot, India was barely able to main the pandemic situation under control.



As we can see in this plot the death rate decreases drastically because of lockdown.



As we can see in this plot the spreading rate of covid-19 decreases drastically because of lockdown.

5. Heatmap of India's covid-19 data –

