Q1. Data Manipulation

1. Count the total number of “Confirmed”, “Recovered” and “Deceased” from 14-Mar-2020 to 05-Sept-2020 and report the numbers.

2. Count the total number of “Confirmed”, “Recovered” and “Deceased” from 14-Mar-2020 to 05-Sept-2020 for state Delhi (dl)

3. Report total count of “Confirmed”, “Recovered” and “Deceased” count from states Delhi + Maharasthra (Sum of both states count) from 14-Mar-2020 to 05-Sept-2020.

4. Report the highest affected state in terms of “Confirmed”, “Recovered” and “Deceased” with the count till 05-Sept-2020 from 14-Mar-2020.

5. Report the lowest affected state in terms of “Confirmed”, “Recovered” and “Deceased” with the count till 05-Sept-2020 from 14-Mar-2020.

6. Find the day and count with the highest spike in a day in the number of cases for the state Delhi for “Confirmed”, “Recovered” and “Deceased” between dates 14-Mar-2020 and 05-Sept-2020.

7. Report active cases (Assume active = Confirmed - (Recovered + Deceased)) state wise for all states separately on date 05-Sept-2020 (This date only) starting from 14-March-2020.

Q2. Plotting

1. Plot the area trend line for total “Confirmed”, “Recovered” and “Deceased” cases from 14-Mar-2020 to 05-Sept-2010.

2. Plot the area trend line for total “Confirmed”, “Recovered” and “Deceased” cases for the state Delhi (dl) from 14-Mar-2020 to 05-Sept-2020.

3. Plot the area trend line for active cases. Assume active = Confirmed - (Recovered + Deceased) from 14-Mar-2020 to 05-Sept-2020.

Q3. Linear Regression

1. Implement a linear regression on the state Delhi data over dates, separately for “Confirmed”, “Recovered” or “Deceased” and report intercept and slope coefficients for all 3 cases from 14-Mar-2020 to 05-Sept-2020.