# **Project -Covid-19-Analysis**

* Project Introduction:

It's a Machine learning project where I have analyzed the situation of Covid-19 of India with respect to the world and predicted the cases and outcomes of the analysis.

* Important libraries:

1. **Pandas** - Helps us to create Datastructure and manipulateDatastructure.

- Also used to read the Dataset.

1. **Numpy** - Numerical Python

-used for working with arrays.

- also has functions for working in domain of linear algebra, fourier transform, and matrices.

1. **Seaborn** - data visualization library built on top of Matplotlib.
2. **Matplotlib**-Visualization

* Data collecting on the Date of 12-01-2021
* Load and View the Dataset
* Data Understanding:

1. Shape()-37 rows and 11 columns in dataset
2. Isnull()-No null values
3. Info()-Type data present in it, presence of null value
4. describe()-Descriptive Statistics and shape of our datset
5. keys function-Display Columns names
6. Tail function for displaying last rows
7. iloc for exception of last columns

* We find the total of:
* Active cases in India 2,22,526
* Positive cases in India 10,466,595
* Cured cases in India 10,092,909
* Death in India 1,51,160
* New\_Active cases in India 2,16,558
* New\_Positive cases in India 10,479,179
* New\_Cured cases in India 10,111,294
* New\_Death in India 1,51.327
* Data visualization:

1.*Print scatter\_plot(X axis is only changes) we use***sns.pairplot**

* Create the subset of dataset bycalculating the sum of dataframe
* Drop the unnecessary columns
* Create a pie chart of first 4 columns (autopct for percentage value) positive:50%,cured:48.2%,active:11%,death:0.74
* Create a next pie chart of new values 4 columns (autopct for percentage value) new\_positive:50%,new\_cured:48.2%,new\_active:11%,new\_death:0.74
* Then again create a overall piechart

2.*Next visualization is Barplot using* **plt.rcParams:**

* State name on X axis and active cases on Y axis ten it seems that highest casea are in Kerala,and low in to the Tripura
* Its plot the graph for all the remaining 5 features.
* Again in Death plot we seem that there is greatest count of death in Maharastra
* In new\_cuerd cases Maharastrs is on top
* We drop the column ‘sno’ and ‘state\_code’ then we set the state name as index
* Then we plot the stacked bar plot where the blue colour active ,yellow for positive etc.
* It is sems that again there more number of Positive,Cured,Active and death cases are present in Maharashtra.So, Maharashtra is on top
* Then compared two cases with each other like Active and death,positive and death cases etc