

### OBJECTIVES

The main objective of this project are:

1. Predicting how the cases will be in future and worstly effected countrys by covid
2. Estimating the Recovery rate and Death rate

### MATERIALS & METHODS

- Dataset for the corona virus
- Linear regression Model libraries like sklearn, numpy, matplotlib, pandas

The following equations were used for statistical analysis:

$$costfunc = \sum \frac{1}{2n} (y_i - y)^2$$

/ (1)

$$DeathRate = \frac{total\ no.of\ death\ during\ a\ peroid}{no.of\ people\ f\ fected\ during\ a\ peroid} \quad (2)$$

$$RecoveryRate = 100 - DeathRate(inpercentage) \quad (3)$$

1. The above equation(1) helps us to find how the well the model is predicting by calculating the cost funcation.Lesser the cost funcation value better is accuracy(but observe that model shouldnot overfitt)
2. The equation(2) helps us to find the death rate of each country
3. The equation(3) helps us to find the Recovery rate of each country

$$1 = RecoveryRate + DeathRate$$

### REFERENCES

- [1] J. M. Smith and A. B. Jones. *Book Title*. Publisher, 7th edition, 2012.
- [2] A. B. Jones and J. M. Smith. *Article Title*. *Journal title*, 13(52):123–456, March 2013.

### INTRODUCTION

In this project we are going to use the following model

1. Linear Regression
2. Polynomial Regression

### RESULTS 2

Below is the Table of Top five countrys having highest death.In which we can observe that the Sudan has higest death rate of 40 percent-age,whcih means 40 people will die for every 100 cases rate

Country	Deathrate in percentage
Sudan	39.62
Gambia	30
Zimbabwe	17
Cabo Verde	16.3
Nicaragua	15.15

Table 1: Death Rate

Below table shows the Top five Countrys having highest **Recovery rate** in which some of the countrys have 100 percentage recovery rate.which means the no.of people died in this countrys are zero.

Country	Recoveryrate(in percentage)
Macau	100
Vietnam	100
Nepal	100
Cambodia	100
Kuwait	100

Table 2: Recovery Rate

### FUTURE RESEARCH

In future we will work on , what are the mea-sures should be taken how to control this pan-demic.How fast this pandameic is spreading and how long does this virus exist on the surfaces .

### RESULTS 1

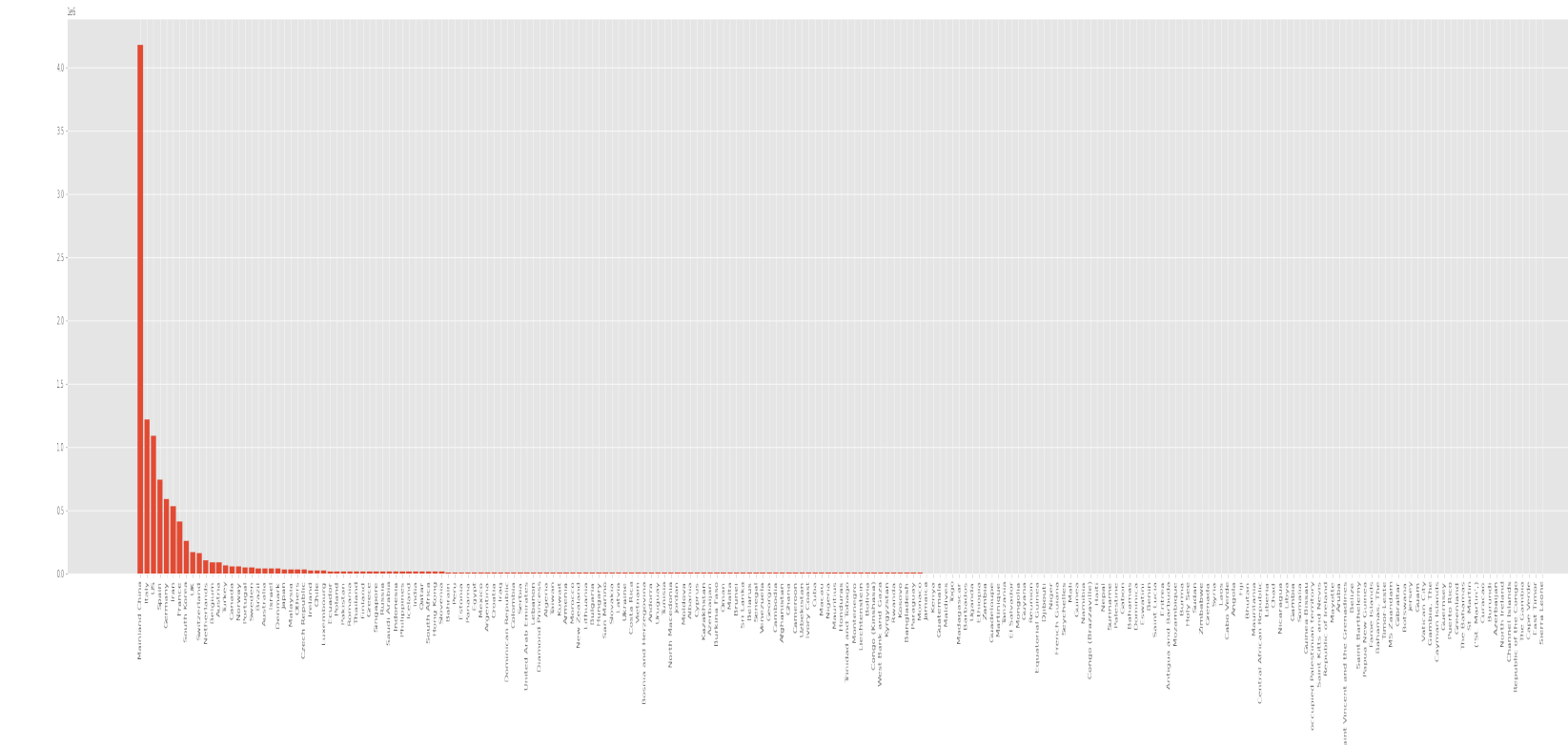


Figure 1: Total no.of cases in each country

- The right side image tells us about which state in china have high Confirmed cases
- We can see that **Hubei state of china** has more conformed cases
- so we need to keep more **attention on Hubei state in china country**

If you zoom the side by image by 300 you can observe that the **China** have high Confirmed Corona cases in the world Below is the Top three countrys having most Confiremd cases

1. China
2. Italy
3. Spain

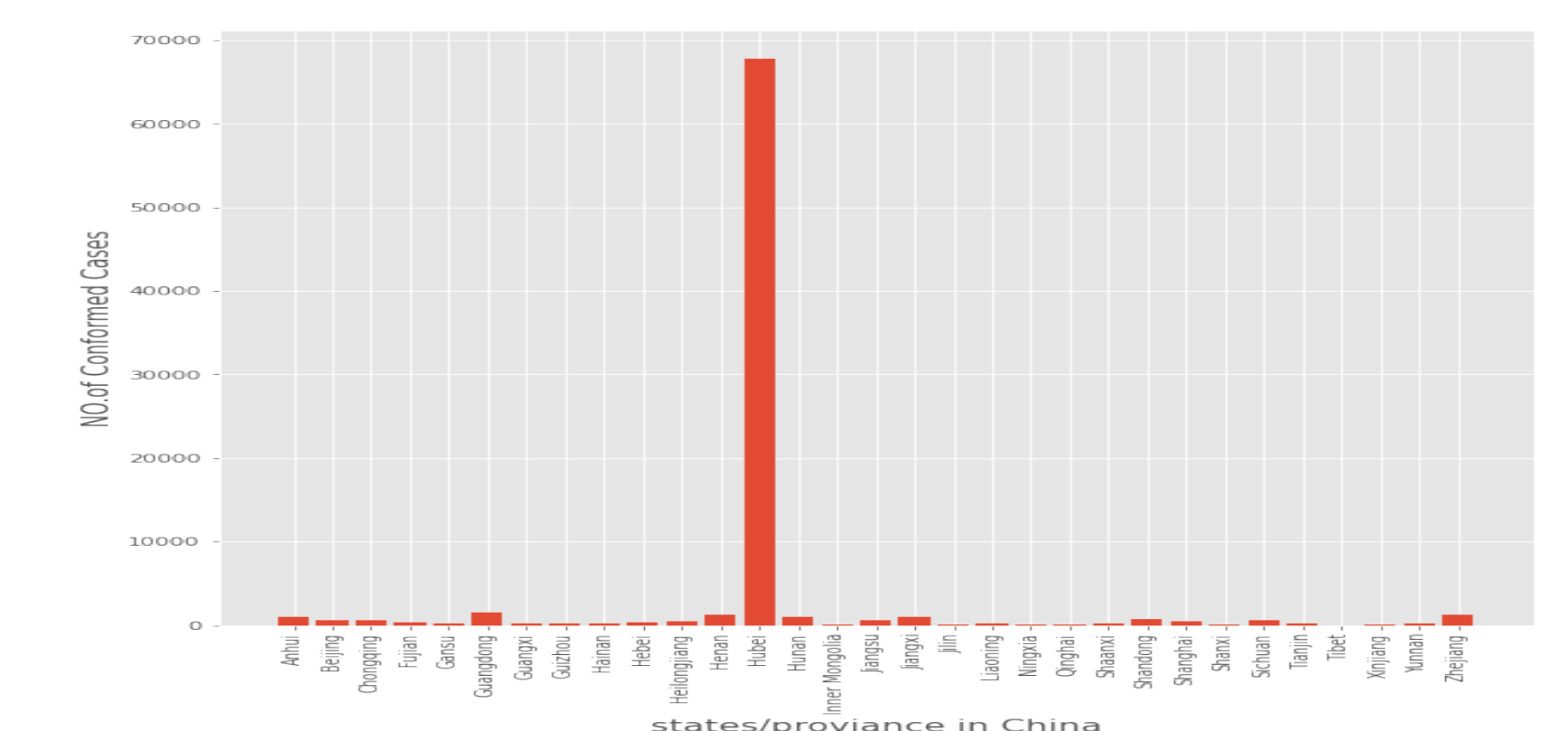


Figure 2: Total no.of cases in China States

### CONCLUSION

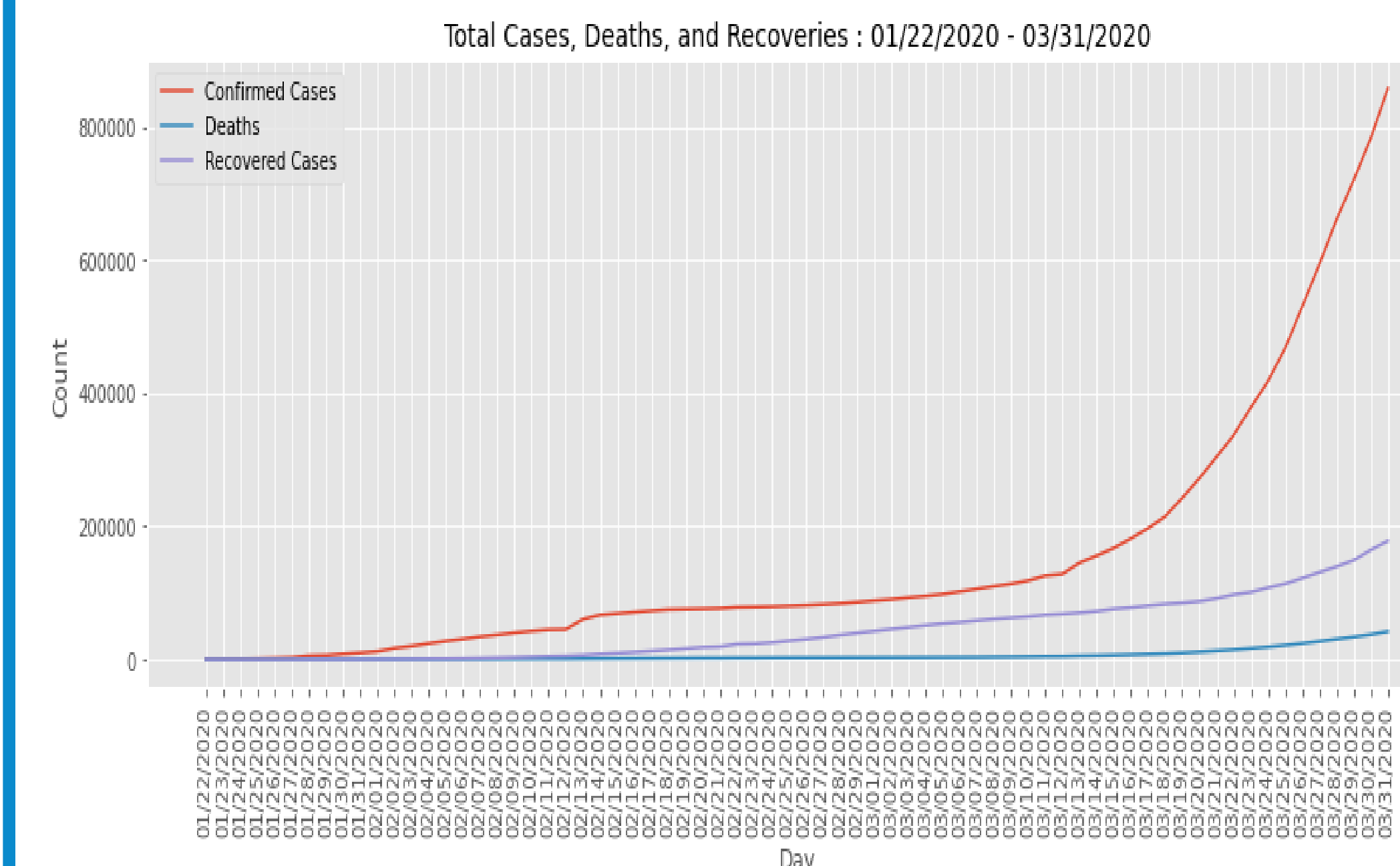


Figure 3: Toatl No.of cases,deaths and recovers all over the world on each date

- From the left side image we can see clearly that the total no.of cases all over the world increasasing exponentially day by day.The recovery rate is a linear shape and the death Rate across the world is also linear which slope less than Recovery Rate
- From results-1 we have observed that the china is the country having the highest no.of cases in the world and in which Hubei state of china have high confirmed case
- We also observe that the the countrys like Sudan , Gambia ,Zimbabwe .etc of South Africa continent have high Death rate
- We also observe that The countrys like Macau , Vietnam,Nepal.etc having the Highest rate of Recovery rate

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we also see how the pandemic effect the Economy of each Country and also we observe which country has worstly effcted by this Pandemic so that contry can get help from the WHO organization