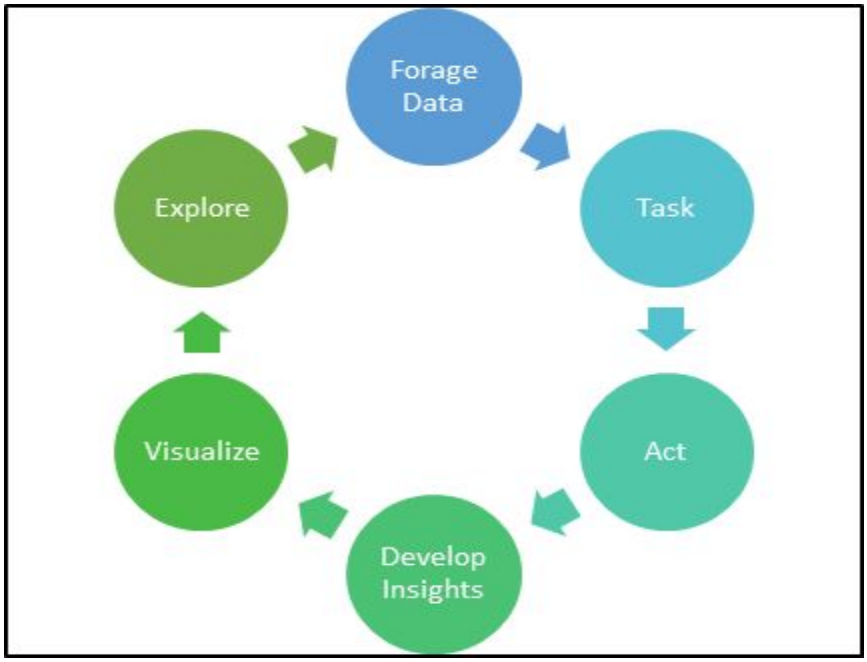
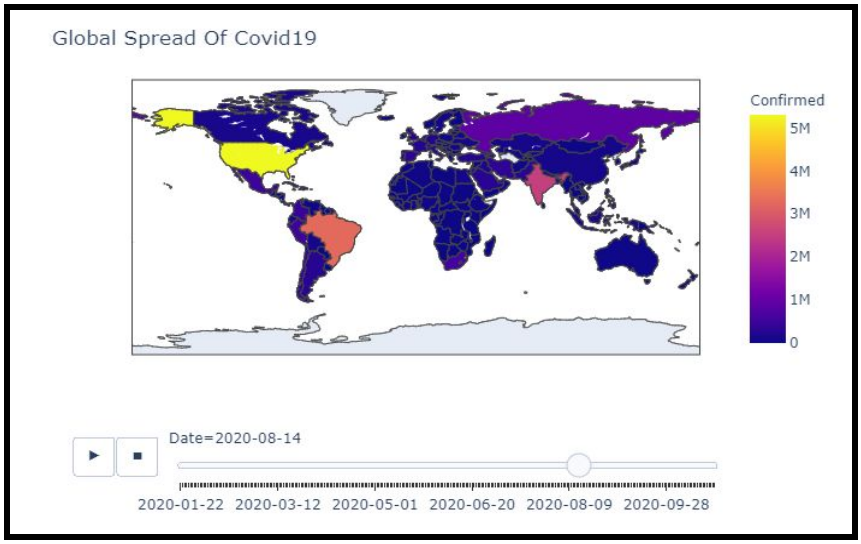
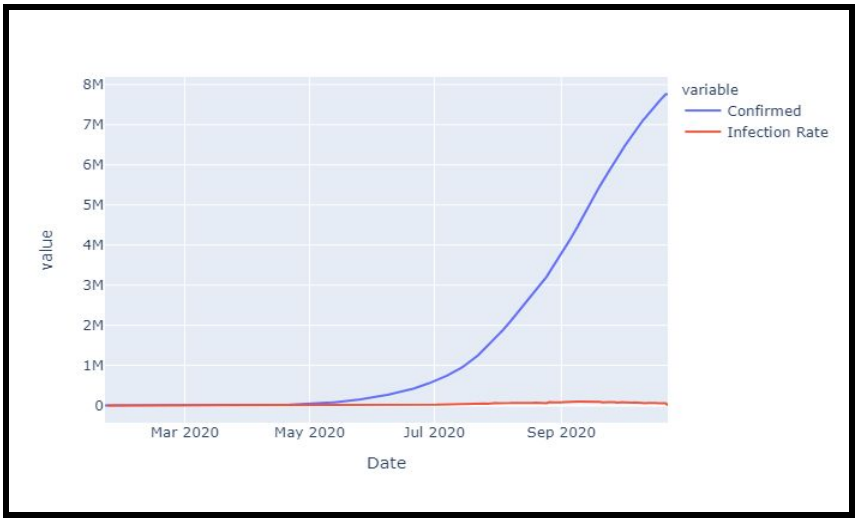
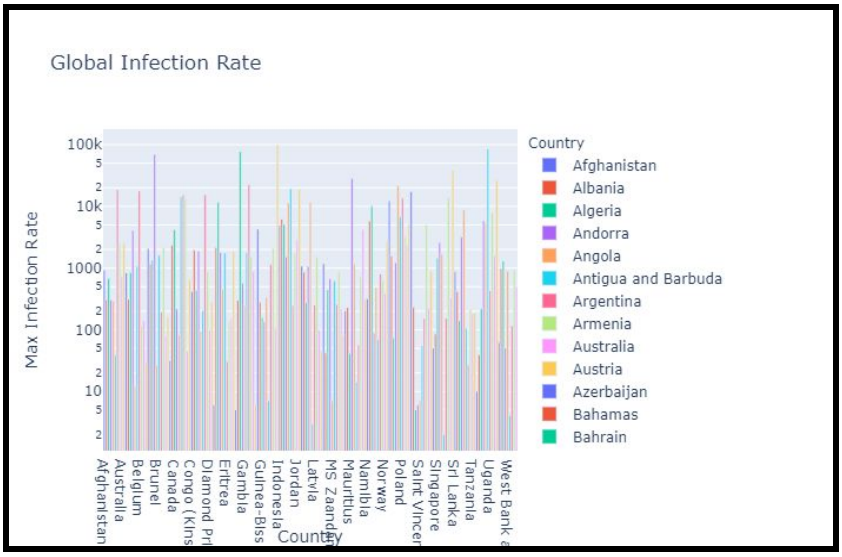
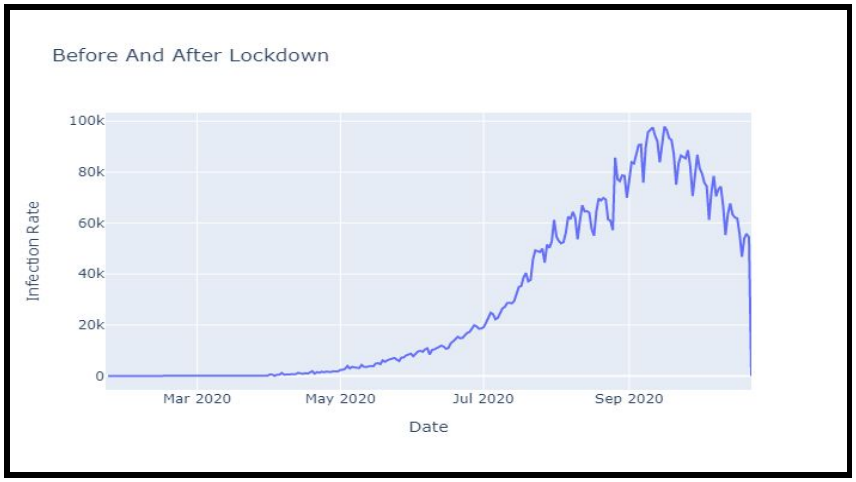
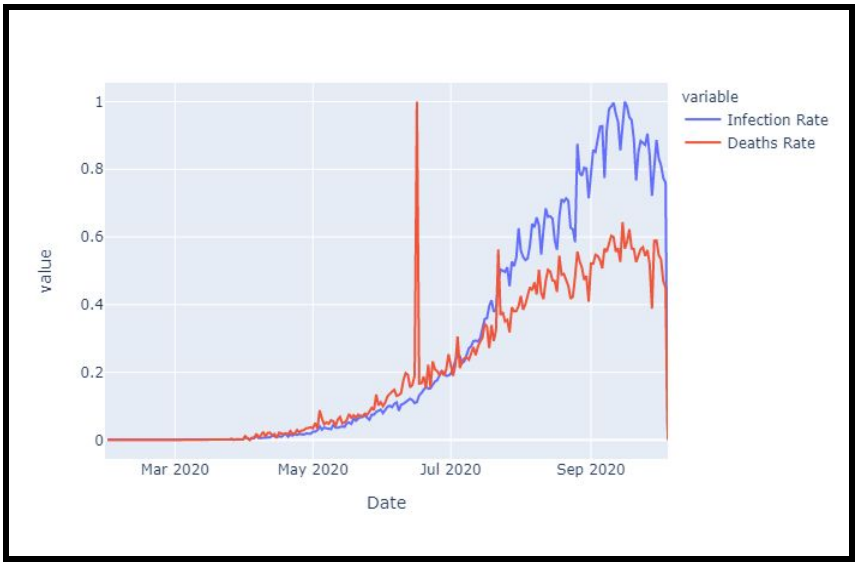
Ideathon Project Report

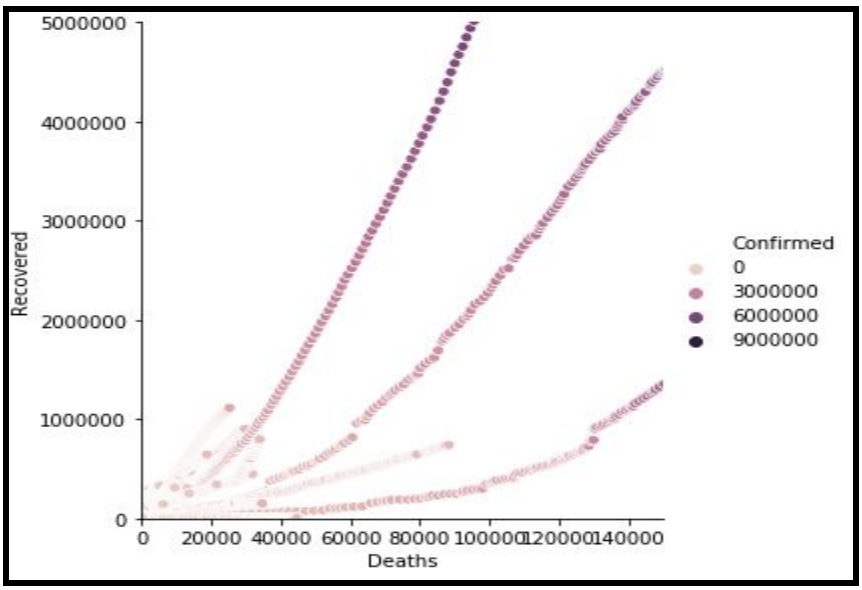
Team Name	Alpha Beta
Team Members	Komal Rane Nitesh Pednekar
Project Topic	Growth Analysis Of Covid19
Project Description	❖ The project involves analyzing the data of covid-19 using various dataset provided by government authorities and available on open source repositories like GitHub and Kaggle. ❖ Live data is monitored and we have developed a model in python to analyze the impact of COVID-19 outbreak across various regions in the country and around the world. ❖ Our project involves demonstration and visualization of various factors using charts, tables, graphs, cycles and live maps. ❖ Further we have performed extensive data manipulation to understand effects of COVID-19, rising cases across the globe, impact of lockdown across India and other countries, aftermath of lockdown, effect of lockdown and vaccine on Covid-19 cases, etc. ❖ We will be using extensive ML techniques along with the support of different libraries to get enhanced and precise outputs.
Project Lifecycle	

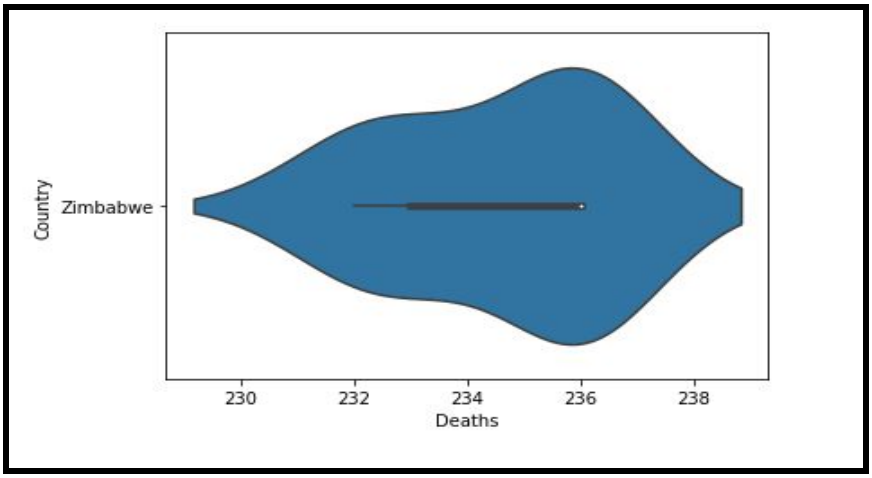
Hardware Used	❖ Modern Operating System: Windows 7 or 10 , Mac OS X 10.11 or higher, 64-bit , Linux: RHEL 6/7, 64-bit (almost all libraries also work in Ubuntu) ❖ x86 64-bit CPU (Intel / AMD architecture) ❖ 4 GB RAM ,5 GB free disk space
Software and Libraries Used	❖ Python 3.7 ❖ Numpy ❖ Pandas ❖ Plotly ❖ Seaborn ❖ Matplotlib
Graphics	 

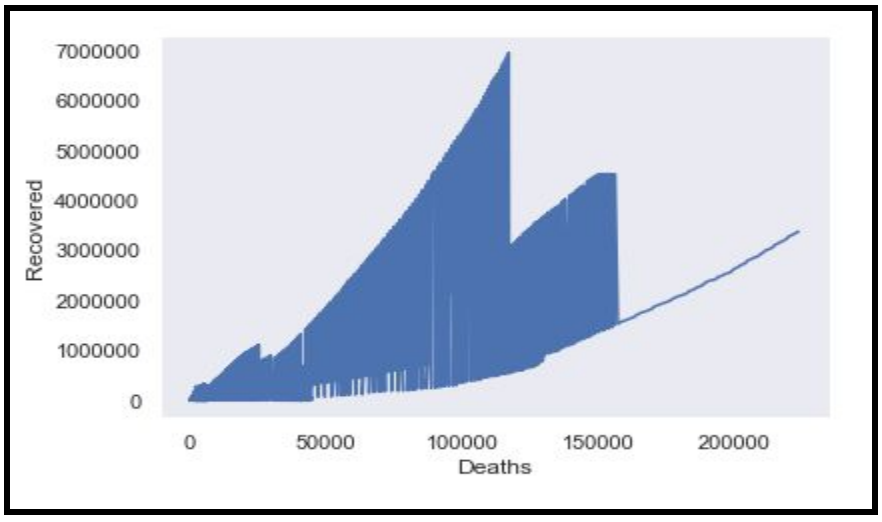

Global Infection Rate
Max Infection Rate
100k
5
2
10k
5
2
1000
5
2
100
5
2
10
5
2
Country
Afghanistan
Albania
Algeria
Andorra
Angola
Antigua and Barbuda
Argentina
Armenia
Australia
Austria
Azerbaijan
Bahamas
Bahrain
Afghanistan
Australia
Belgium
Brunei
Canada
Congo (Kins
Diamond Pri
Eritrea
Gambia
Guinea-Biss
Indonesia
Jordan
Latvia
MS Zaandam
Mauritius
Namibia
Norway
Poland
Saint Vincen
Singapore
Sri Lanka
Tanzania
Uganda
West Bank a
Country

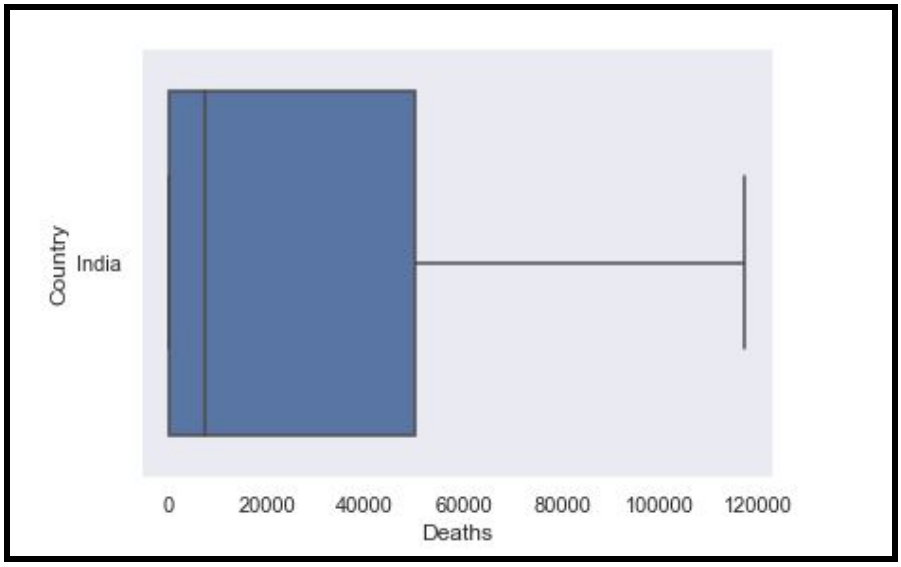

Before And After Lockdown
Infection Rate
100k
80k
60k
40k
20k
0
Mar 2020
May 2020
Jul 2020
Sep 2020
Date


value
1
0.8
0.6
0.4
0.2
0
Mar 2020
May 2020
Jul 2020
Sep 2020
Date
variable
Infection Rate
Deaths Rate


5000000
4000000
3000000
2000000
1000000
0
Recovered
0
20000
40000
60000
80000
100000
120000
140000
Deaths
Confirmed
0
3000000
6000000
9000000


Country
Zimbabwe
230
232
234
236
238
Deaths


7000000
6000000
5000000
4000000
3000000
2000000
1000000
0
Recovered
0
50000
100000
150000
200000
Deaths

	
Future Scope	❖ The model can be used to predict the future scope of Covid19 ❖ The analysis can help to study varied patterns of local and global covid spread and transmission. ❖ The estimated time to recover from the pandemic can be predicted using machine learning models ❖ The project can be integrated with other models and used as a analyser to demonstrate the Covid-19 effect and estimated time to develop and deploy the vaccine into the market ❖ It can be beneficial to understand the effects of covid vaccine
Github Repository Link	https://github.com/komal-30/Machine-Learning-Project
References	https://depictdatastudio.com/data-visualization-design-process-step-by-step-guide-for-beginners/ https://www.dashingd3js.com/the-data-visualization-process https://www.forbes.com/sites/bernardmarr/2017/07/20/the-7-best-data-visualization-tools-in-2017/