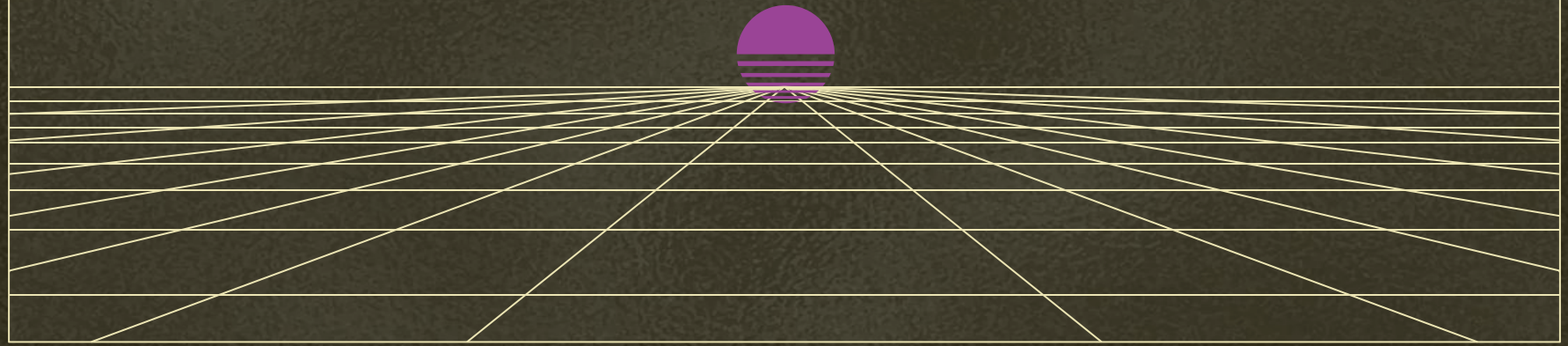
Data Analysis

Covid-19 project



01

Introduction

02

Data Cleaning

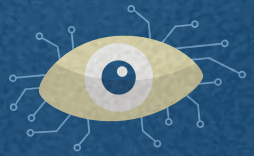
03

Data Visualization using Python

04

Data visualization using Power BI

INTRODUCTION

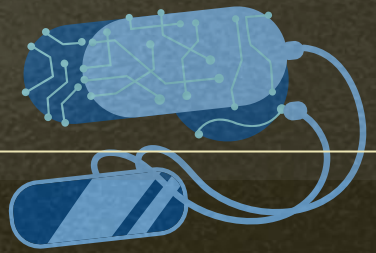


Introduction

The Covid-19 pandemic has shaken the world completely.
No one knew what was coming and everyone was running helter-skelter.

The governments were paralyzed and the infrastructure required to deal with this problem was absent completely.

The genome sequence was out. But what the disease entailed and what it will lead out was just anyone's imagination.

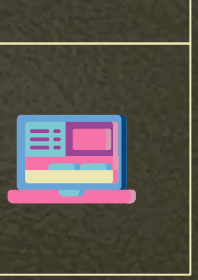


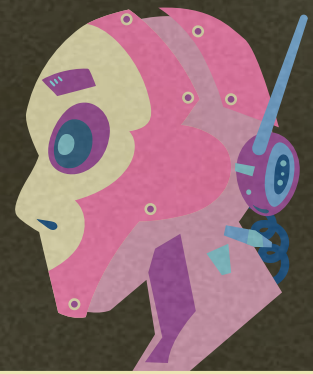
Covid-19 cases are increasing day by day in and all over the world, millions of people are dying and the economy is experiencing free-fall. It has been spreading like water in the open ocean and it seems like there is no stopping it.

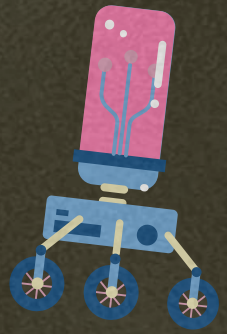
Explore The Data

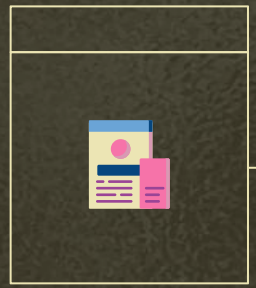
Fact

Till today as we write there are multiple dimensions that lay unexplored and need a deep exploration to be found out.





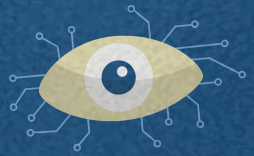




Application

Our Project seeks to uncover the mystery using the application of data science to solve it.

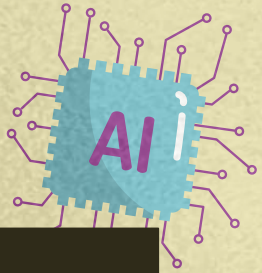
Data Cleaning



Prerequisites for Data Cleaning

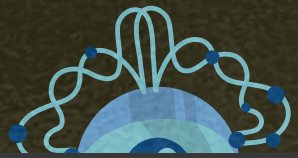
- Step 1: Remove duplicate or irrelevant observations. Remove unwanted observations from your dataset
- Fix structural errors
- Filter unwanted outliers
- Handle missing data.

And the most important thing: When you clean your data, all outdated or incorrect information is gone – leaving you with the highest quality information.



116 Million

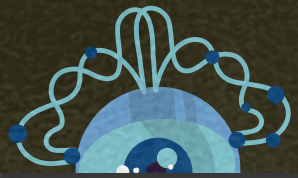
Total Cases with Covid 19



Data before Cleaning

	Unnamed: 0	Country,Other	TotalCases	NewCases	TotalDeaths
0	0	USA	29,383,324	+12,619	529,515
1	1	India	11,156,250	+16,927	157,471
2	2	Brazil	10,647,845	NaN	257,562
3	3	Russia	4,278,750	+10,535	87,348
4	4	UK	4,188,400	NaN	123,296
...	...	...	...	...	...
224	224	34,442,286	+119,818	822,446	+2,724
225	225	3,949,024	+5,653	104,626	+64
226	226	51,331	+16	1,091	NaN
227	227	721	NaN	15	NaN
228	228	115,522,246	+227,686	2,564,708	+5,036

229 rows × 5 columns

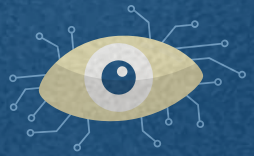


Data after Cleaning

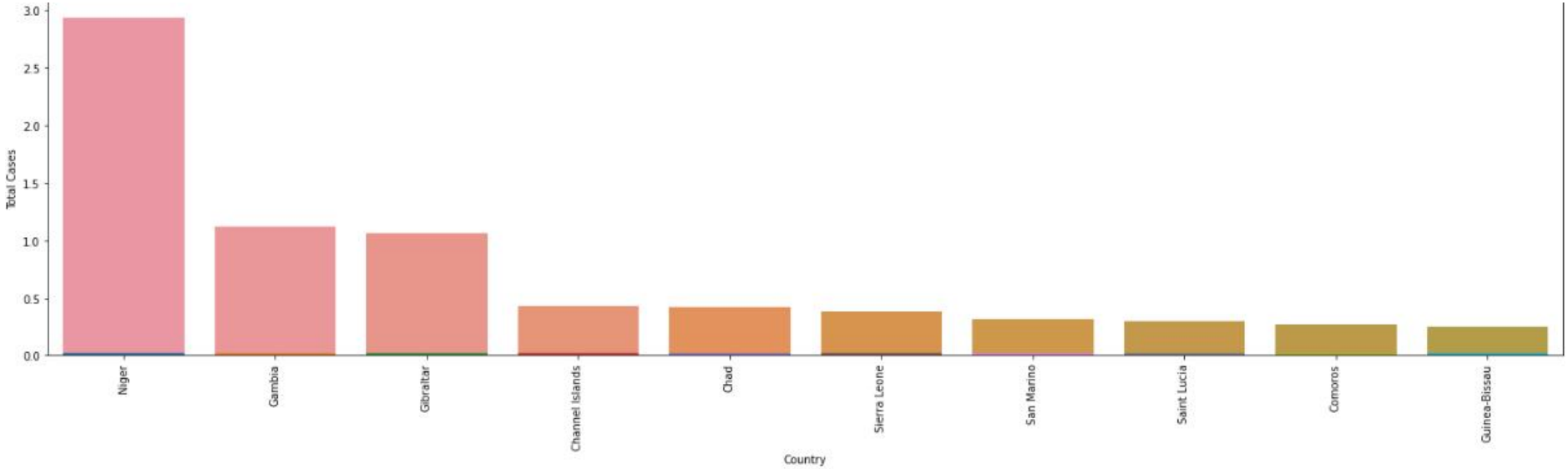
	Country	Total Cases	New Cases	Total Deaths
0	USA	29383324.0	12619.0	529515.0
1	India	11156250.0	16927.0	157471.0
2	Brazil	10647845.0	0.0	257562.0
3	Russia	4278750.0	10535.0	87348.0
4	UK	4188400.0	0.0	123296.0
...	...	...	...	...
216	Marshall Islands	4.0	0.0	0.0
217	Samoa	3.0	0.0	0.0
218	Micronesia	1.0	0.0	0.0
219	Vanuatu	1.0	0.0	0.0
220	China	89933.0	10.0	4636.0

221 rows × 4 columns

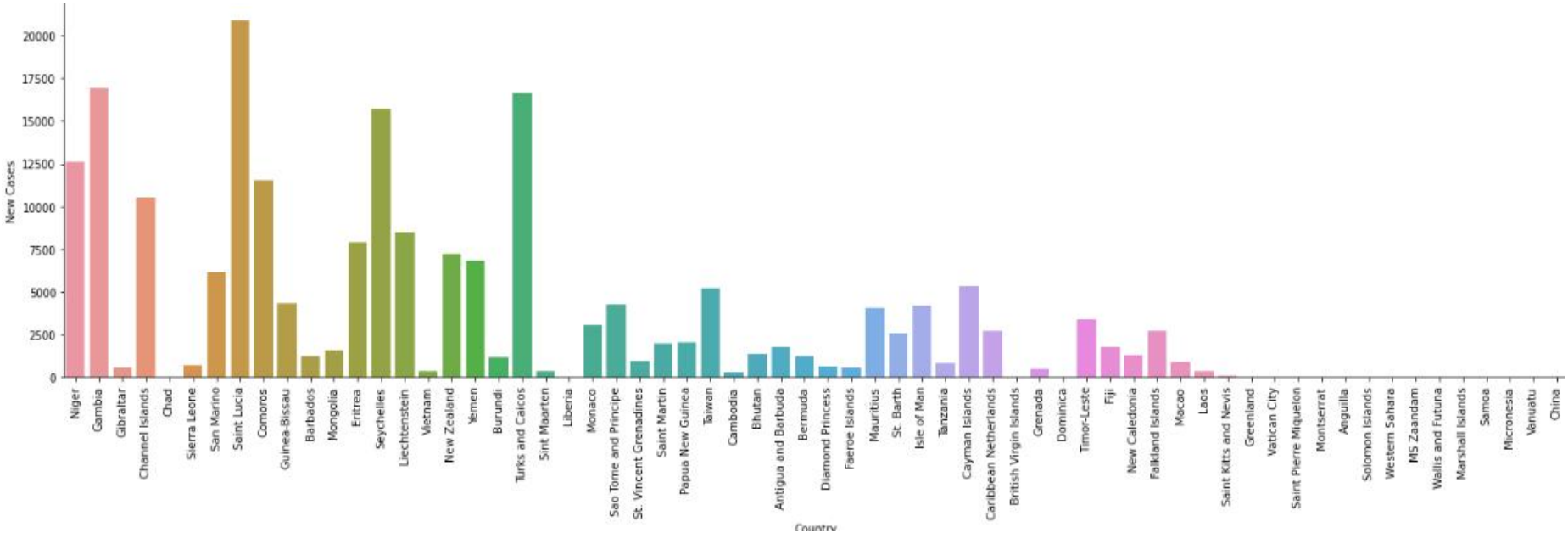
Visualization using Python



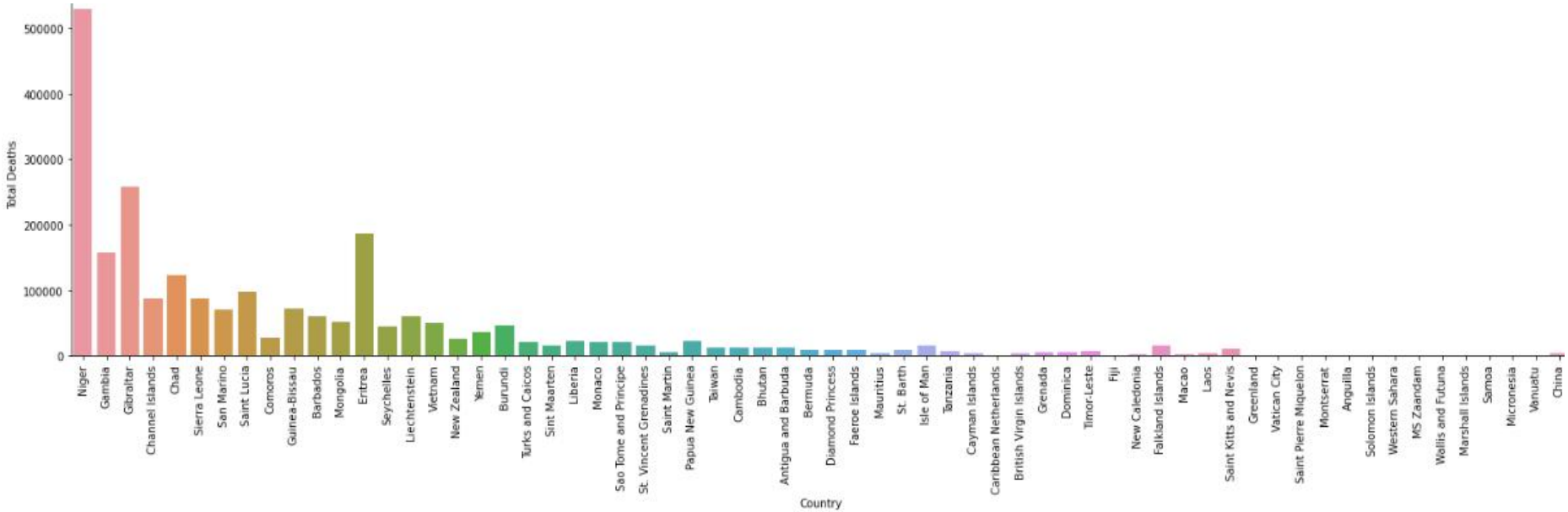
```
ax1 = sns.barplot(data = a[0:50], x = "Country", y = "Total Cases")

ax1.tick_params(axis = "x" , rotation = 90)
```



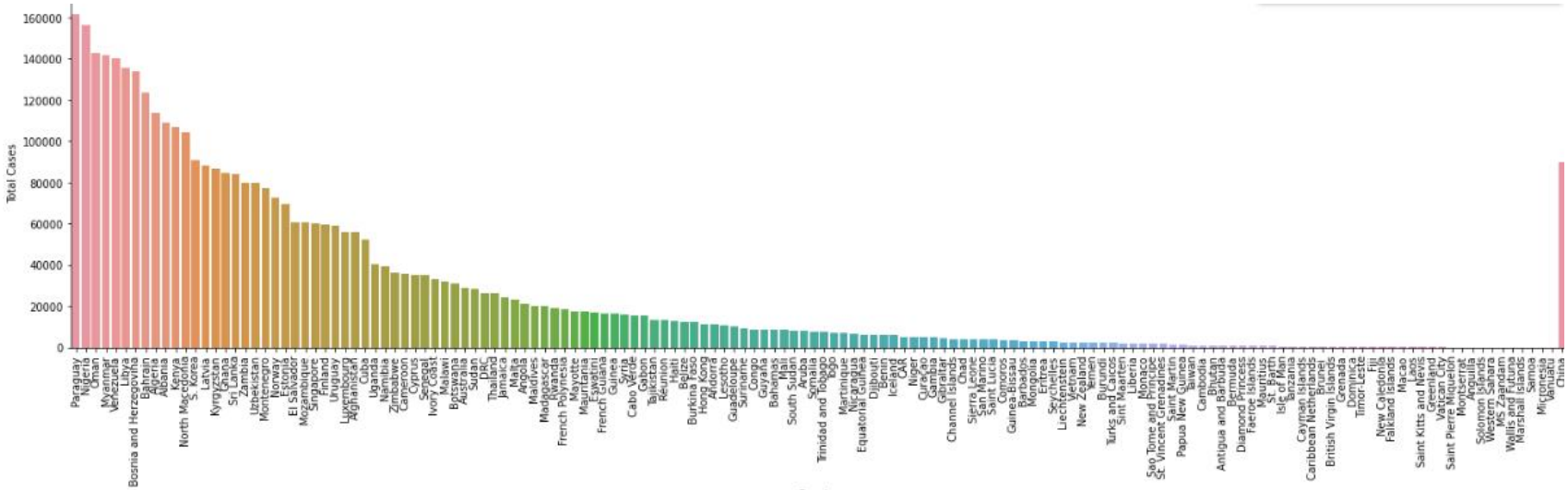
```
ax1 = sns.barplot(data = a[0:50], x ="Country", y="New Cases")

ax1.tick_params(axis="x" , rotation=90)
```



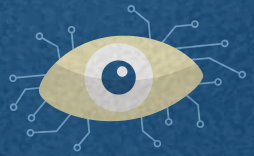
```
ax1 = sns.barplot(data = a[0:50], x ="Country", y="Total Deaths")

ax1.tick_params(axis="x" , rotation=90)
```



```
plt.figure(figsize=(25,6))

ax = sns.barplot(data=df.tail(150), x="Country", y="Total Cases")

ax.tick_params(axis="x",rotation=90)
```



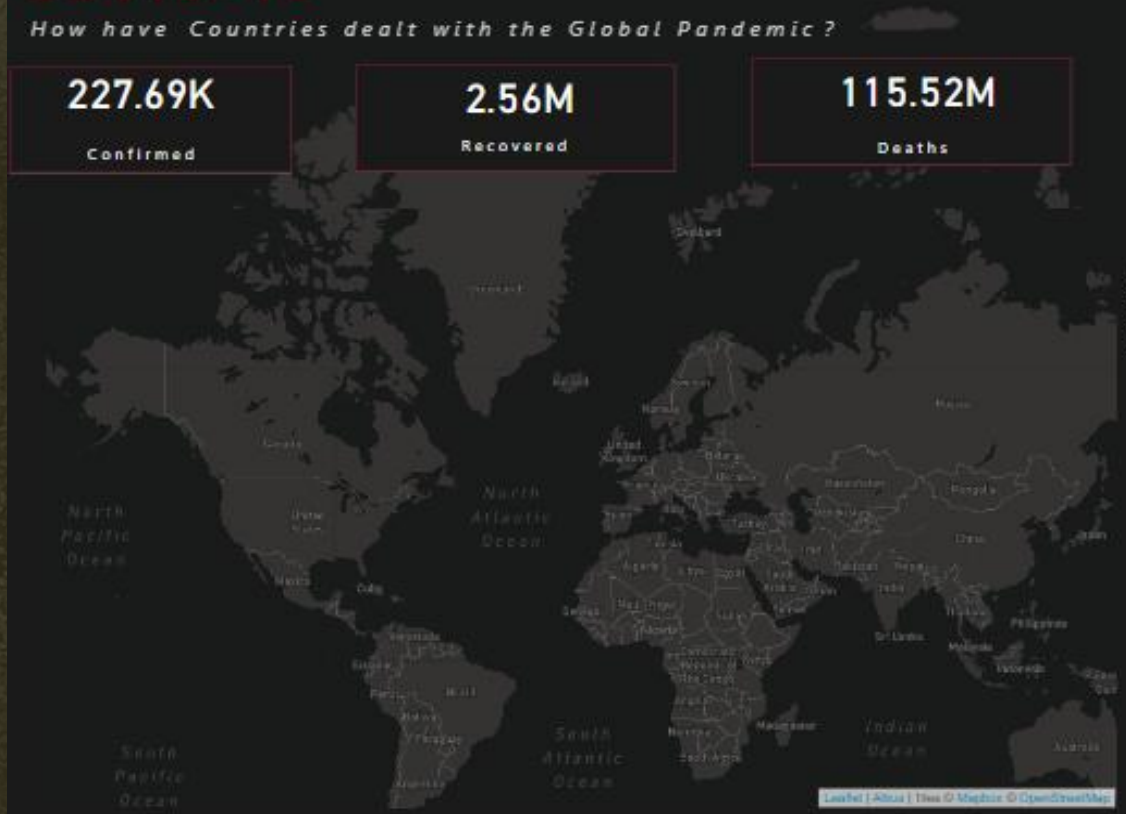
Visualization using Power BI

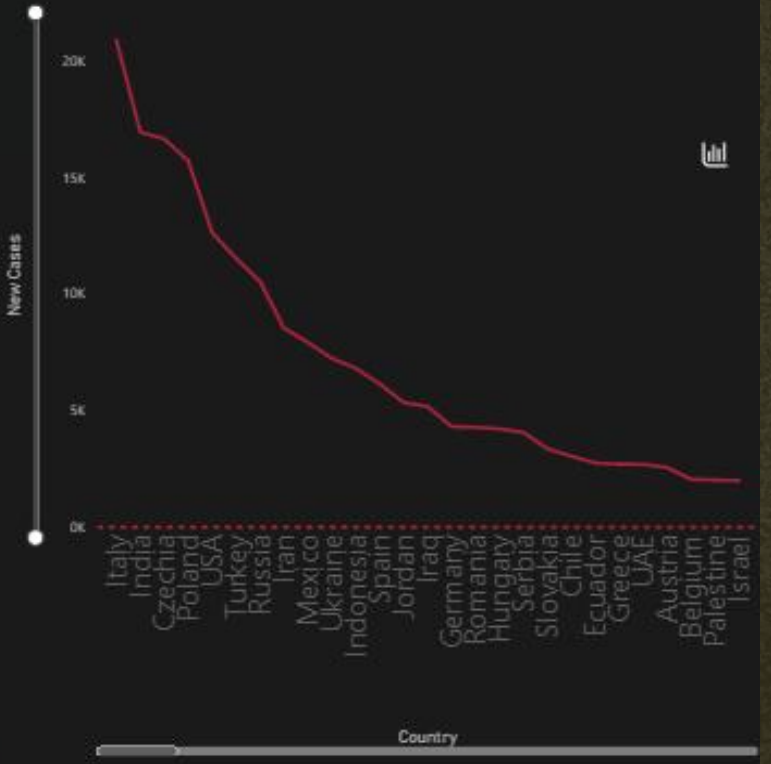


COVID-19

How have Countries dealt with the Global Pandemic?

227.69K	2.56M	115.52M
Confirmed	Recovered	Deaths





Thanks

Team A :

- Mahmoud Ameer
- Farah Mohamed
- Mohamed Ahmed
- Ragab Sayed