



CORONA VIRUS **ANALYSIS**

SQL Queries and Key Findings

Overview of the Dataset

The dataset used for this analysis is the corona virus dataset, which contains information about COVID-19 cases, including confirmed, deaths, and recovered cases across various regions and dates.



Objectives:

- 1.To ensure data quality by identifying and handling NULL values.
- 2.To analyze the spread of COVID-19 over time and across different regions.
- 3.To identify key trends and patterns in the data.

Handling NULL Values

Check for NULL Values:

- There are no NULL values
- There is no need to update NULL to zero value

<div><div> Results</div><div> Messages</div></div>								
Province	Country_Region	Latitude	Longitude	Date	Confirmed	Deaths	Recovered	

Descriptive Analysis

Total number of rows

Results		Messages
	Total_rows	
1	78386	

Start and End Date

Results		Messages
	start_date	end_date
1	01-01-2021	31-12-2020

Date Range Analysis

Monthly Average of whole data. this goes on

Results		Messages		
	monthly	average_confirmed	average_deaths	average_recovered
1	01-01-2	3301	61	1675
2	01-02-2	1415	33	821
3	01-03-2	949	24	662
4	01-04-2	2436	57	1094
5	01-05-2	2783	58	2237
6	01-06-2	1748	59	1994
7	01-07-2	1330	32	698
8	01-08-2	1569	38	1152
9	01-09-2	1678	42	1636
10	01-10-2	1982	55	1387
11	01-11-2	2877	30	1472

Most Frequent Values per Month

Findings

Results		Messages			
	Year	Month	Confirmed	Deaths	Recovered
1	NULL	NULL	0	0	0
2	2020	1	0	0	0
3	2020	2	0	0	0
4	2020	3	0	0	0
5	2020	4	0	0	0
6	2020	5	0	0	0
7	2020	6	0	0	0
8	2020	7	0	0	0
9	2020	8	0	0	0
10	2020	9	0	0	0
11	2020	10	0	0	0

Minimum and Maximum Values per Year

Results		Messages		
	Year	MinConfirmed	MinDeaths	MinRecovered
1	2021	0	0	0
2	2020	0	0	0
	Year	MaxConfirmed	MaxDeaths	MaxRecovered
1	2021	414188	7374	386404
2	2020	823225	3410	1123456

Total Number of cases per month yearly

Results		Messages			
	Year	Month	TotalConfirmed	TotalDeaths	TotalRecovered
1	2020	3	2445188	57518	1508499
2	2020	11	2624064	58965	1803809
3	2021	7	3347823	64456	2286558
4	2021	1	3126561	66780	2250527
5	2021	4	3128264	63355	2216803
6	2021	2	3138304	64185	2298336
7	2020	9	2463796	58759	1524523
8	2020	6	2388639	53382	1423110
9	2020	12	2563361	55521	2674858
10	2021	10	3082334	69799	2052737
11	2020	1	2296241	57475	1539929

Spread out of Corona Virus

Average, Variance and standard deviation

<div><div><div></div></div>Results</div> <div><div><div></div></div>Messages</div>				
	TotalConfirmed	AvgConfirmed	VarianceConfirmed	StdDevConfirmed
1	169065144	2156	157290931.698175	12541.5681514783

Snippet of Death case per month

<div><div><div></div></div>Results</div> <div><div><div></div></div>Messages</div>						
	Year	Month	TotalDeaths	AvgDeaths	VarianceDeaths	StdDevDeaths
1	2020	3	57518	33	23858.6168981102	154.462347833089
2	2020	11	58965	34	25656.3016229059	160.175845940972
3	2021	7	64456	69	90888.2358580387	301.476758404423
4	2021	1	66780	72	98610.5430907121	314.023156933867
5	2021	4	63355	68	80475.8840443594	283.682717211252
6	2021	2	64185	69	80556.935884538	283.825537759621
7	NULL	NULL	2158453	45	43842.7308016703	209.386558311823
8	2020	9	58759	34	25355.3316911569	159.233575891383
9	2020	6	53382	31	18694.1980151621	136.726727508421
10	2020	12	55521	32	20394.4012455621	142.808967665067
11	2021	10	69799	75	132491.503270204	363.993823120948

Cases



Recovered Cases

<div><div><div><div></div></div></div><div>Results</div></div> <div><div><div></div></div></div> <div>Messages</div>
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Country having highest cases

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Highest, Lowest and Top 5 Countries

<div><div> Results</div><div> Messages</div></div>		
	Country_Region	TotalConfirmed
1	US	33461982
	Country_Region	TotalDeaths
1	Marshall Islands	0
	Country_Region	TotalRecovered
1	India	28089649
2	Brazil	15400169
3	US	6303715
4	Turkey	5202251
5	Russia	4745756