Covid 19 Data Analysis Report

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Course title

Power Bi

Teacher's name

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Introduction

The COVID-19 pandemic, caused by the novel coronavirus SARS-CoV-2, has emerged as one of the most significant global health crises in recent history. Since its initial outbreak in late 2019, the virus has spread rapidly across the globe, affecting millions of people and disrupting economies, healthcare systems, and daily life.

The unprecedented scale and impact of the COVID-19 pandemic have underscored the importance of data-driven approaches to understanding and mitigating its effects. This project aims to leverage Power BI to analyze and visualize key aspects of the pandemic, providing stakeholders with actionable insights and decision support.

Source of the Data

I have imported the two files having the data of Global and India COVID-19 from github site and also gathered information from Wikipedia. The site has vast collection of data. This data is certified from WHO and all the information is accurate.

Data Cleaning and Methodology

Data cleaning is a critical step before loading data for analysis. I renamed the column name for better understanding also removed the errors and unwanted column like latitude and longitude. Added a conditional column in which if-else condition is applied according to country name and get the name of region. Also detect the datatype of all column.

Measures and Dimension

In both the tables, I created new measures named as Fartality Rate and Recovery Rate by applying following expression:

For Global table:

```
Fatality Rate = DIVIDE(SUM(Global[Death]),SUM(Global[Confirmed]))
Recovery Rate = DIVIDE(SUM(Global[Recovered]),SUM(Global[Confirmed]))
```

For India table:

```
Fatality_Rate = DIVIDE(SUM(India[Death]),SUM(India[Total Confirmed cases]))
Recovery_Rate = DIVIDE(SUM(India[Recovered]),SUM(India[Total Confirmed cases]))
```

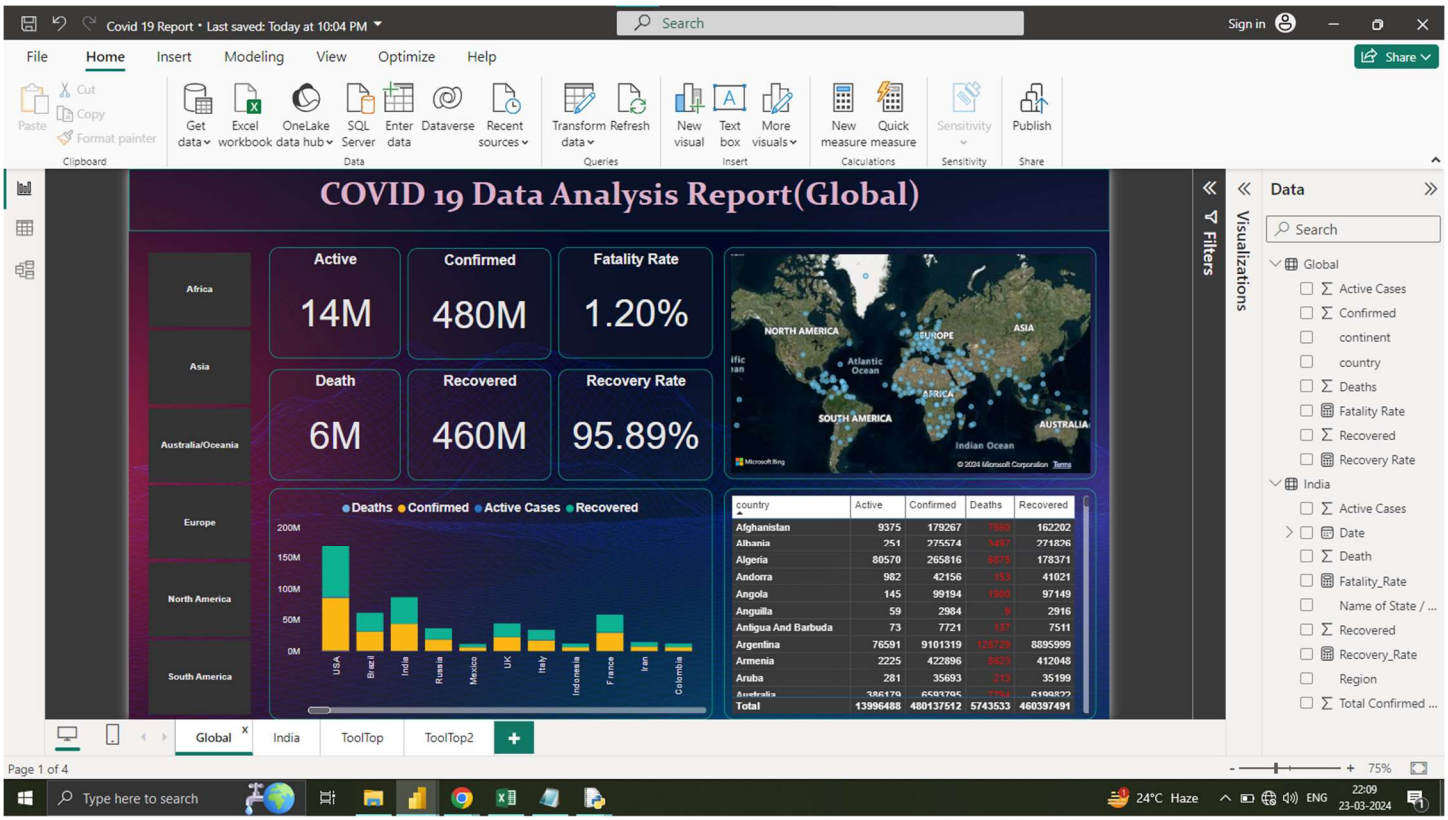
After writing the expression, select the percentage to get the RATE.

Dashboards

In Report view, many visualizations are used like stacked column chart, KPI, Maps, slicer and table for the dashboard.
The data of Active, Confirmed, Death, Recovered cases are shown in KPI. In map, the active cases are shown globally for global's dashboard and states for india's dashboard through the size bubble, cases are directly proportional to the size of bubble. I put continents in the slicer in global's dashboard and region in india's dashboard. In chart all the cases are represented graphically and insert the tootip by creating a new page named as ToolTop and ToolTop2. In these Tooltip I have inserted the chart for all the cases according to location and Kpi for fartality rate and recovery rate.

Conclusion

As the pandemic continues, predictive Power Bi tool will continue to play a significant role in monitoring the impact of the virus, from patient outcomes to areas of increased disease spread. The global health crisis has only further highlighted the importance of Power Bi analytics in healthcare and could accelerate the use of these tools in standard care going forward. COVID-19 studies with Power Bi could be valuable tools in decision-making and more importantly, social mobilization and community responses. The increasing focus on electronic health records, and the corresponding geographic information contained within them will open many new possibilities for population health analysis and planning. Power Bi has been found to be an essential technology in a wide variety of health and human services agencies and activities. As we continue to battle this pandemic and prepare for future, understanding the risk and being prepared is the first step in potential care and treatment planning.


Covid 19 Report • Last saved: Today at 10:04 PM
Search
Sign in
File
Home
Insert
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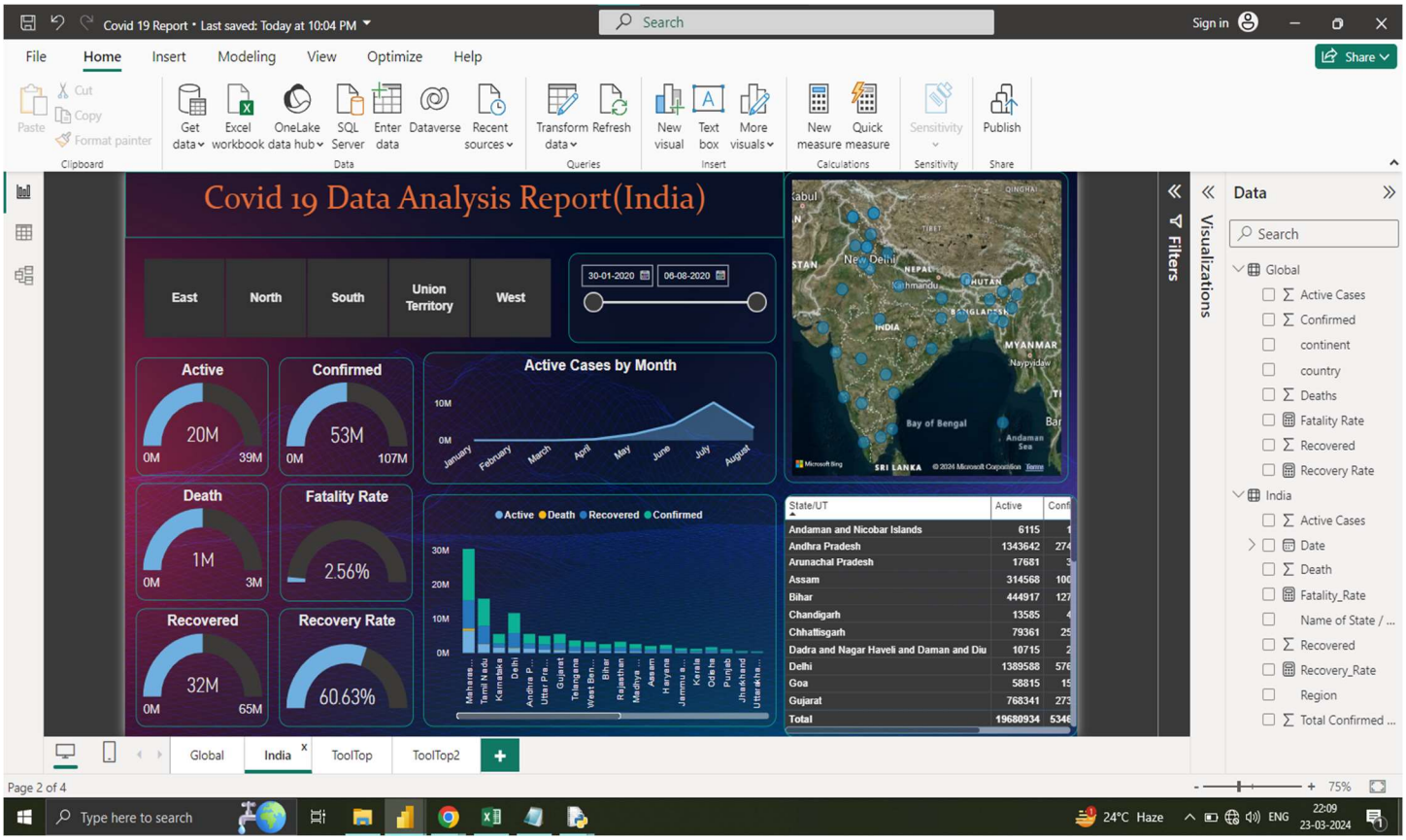
View
Optimize
Help
Share
COVID 19 Data Analysis Report(Global)
Africa
Asia
Australia/Oceania
Europe
North America
South America
Active
14M
Confirmed
480M
Fatality Rate
1.20%
Death
6M
Recovered
460M
Recovery Rate
95.89%
NORTH AMERICA
EUROPE
ASIA
Atlantic Ocean
AFRICA
SOUTH AMERICA
AUSTRALIA
Indian Ocean
Deaths Confirmed Active Cases Recovered
200M
150M
100M
50M
0M
USA
Brazil
India
Russia
Mexico
UK
Italy
Indonesia
France
Iran
Colombia
country Active Confirmed Deaths Recovered
Afghanistan 9375 179267 7680 162202
Albania 251 275574 3497 271826
Algeria 80570 265816 8875 178371
Andorra 982 42156 153 41021
Angola 145 99194 1900 97149
Anguilla 59 2984 9 2916
Antigua And Barbuda 73 7721 137 7511
Argentina 76591 9101319 128729 8895999
Armenia 2225 422896 8823 412048
Aruba 281 35693 213 35199
Total 13996488 480137512 5743533 460397491
Data
Search
Global
Active Cases
Confirmed
continent
country
Deaths
Fatality Rate
Recovered
Recovery Rate
India
Active Cases
Date
Death
Fatality_Rate
Name of State / ...
Recovered
Recovery_Rate
Region
Total Confirmed ...
Filters
Visualizations
Global
India
ToolTop
ToolTop2
Page 1 of 4
75%
Type here to search
24°C Haze
ENG
22:09
23-03-2024


Covid 19 Data Analysis Report(India)
East
North
South
Union Territory
West
30-01-2020
08-08-2020
Active
20M
0M
39M
Confirmed
53M
0M
107M
Active Cases by Month
10M
0M
January
February
March
April
May
June
July
August
Death
1M
0M
3M
Fatality Rate
2.56%
Recovered
32M
0M
65M
Recovery Rate
60.63%
Active Death Recovered Confirmed
30M
20M
10M
0M
Maharas...
Tamil Nadu
Karnataka
Delhi
Andhra P...
Uttar Pra...
Gujarat
Telangana
West Ben...
Bihar
Rajasthan
Madhya ...
Assam
Haryana
Jammu a...
Kerala
Odisha
Punjab
Jharkhand
Uttarakha...
State/UT Active Conf
Andaman and Nicobar Islands 6115 1
Andhra Pradesh 1343642 274
Arunachal Pradesh 17681 3
Assam 314568 100
Bihar 444917 127
Chandigarh 13585 4
Chhattisgarh 79361 25
Dadra and Nagar Haveli and Daman and Diu 10715 2
Delhi 1389588 576
Goa 58815 15
Gujarat 768341 273
Total 19680934 5346
NEPAL
BHUTAN
INDIA
BANGLADESH
MYANMAR
Bay of Bengal
Andaman Sea
SRI LANKA
Data
Search
Global
Active Cases
Confirmed
continent
country
Deaths
Fatality Rate
Recovered
Recovery Rate
India
Active Cases
Date
Death
Fatality_Rate
Name of State / ...
Recovered
Recovery_Rate
Region
Total Confirmed ...
Filters
Visualizations
Global
India
ToolTop
ToolTop2
Page 2 of 4
75%
Type here to search
24°C Haze
ENG
22:09
23-03-2024