

Project Report
on
Data Visualization with Tableau
By
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TY B.VOC (Artificial Intelligence and Data Science)
Roll No: 34



**Choice Based Credit Grading System with Holistic Student Development
(CBCGS-H 2023)**

**Bachelor of Vocation (2025-26)
Department of Skill Development & Vocational Studies**

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THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY
Autonomous College Affiliated to University of Mumbai

Approved by All India Council for Technical Education(AICTE) and Government of Maharashtra

A - Block, Thakur Educational Campus, Shyamnaranayen Thakur Marg, Thakur Village, Kandivali (East), Mumbai - 400 101
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PRACTICAL 1

Aim: To Perform Analysis on Covid 19 Dataset using Tableau Public.

Step 1: Load the covid_19_data and open it.

- Open Tableau Public
- In Connect to a File Choose Microsoft Excel
- Select covid_19_data from your device
- Change the data type of Observation date & Last Update from abc to Date similarly for continent from abc to geographic Role and in it select country / region
- A data source like this should be visible.

The screenshot shows the Tableau interface. On the left, the 'Connections' pane shows 'covid_19_data' selected from a Microsoft Excel file. The main workspace displays the 'covid_19_data' sheet with 11 fields and 205951 rows. The data preview shows columns: S No, Observation Date, Province/State, Country/Region, and Last. The data is for COVID-19 cases in China, including Yunnan, Hainan, Guizhou, Tianjin, Shanxi, Japan, Liaoning, and Gansu. The bottom navigation bar includes 'Data Source', 'Covid 19 Analysis', and other icons.

Step 2: Creating Maps Sheet -

- Open a New Worksheet and rename it as Maps
- Double click country / region to get a symbol Map in show me select Filled Maps
- Click 8 unknown on the bottom right & edit locations
- Click Edit Locations and Change Diamond Princess to United States, Mainland China to China, MS Zaandam to United States, North Ireland to Ireland and occupied Palestinian to Palestinian Territories and Click OK.
- Right Click and Hide Indicator.



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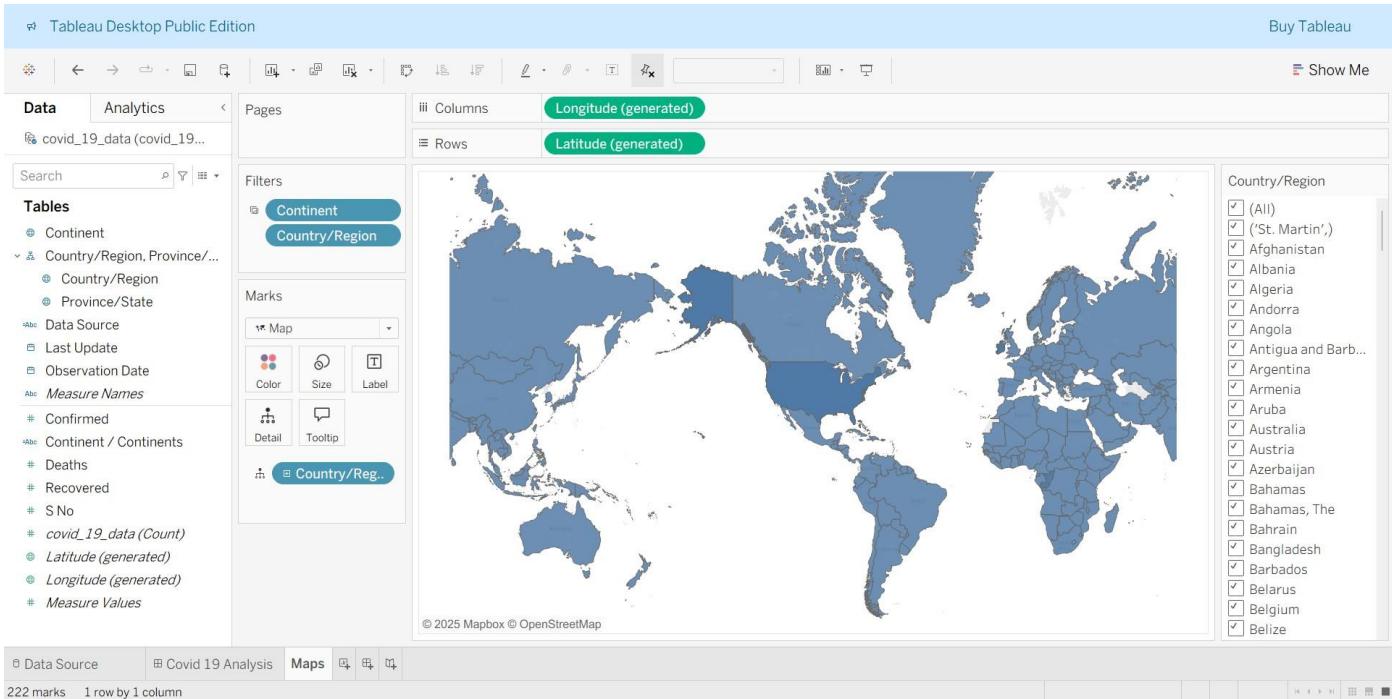
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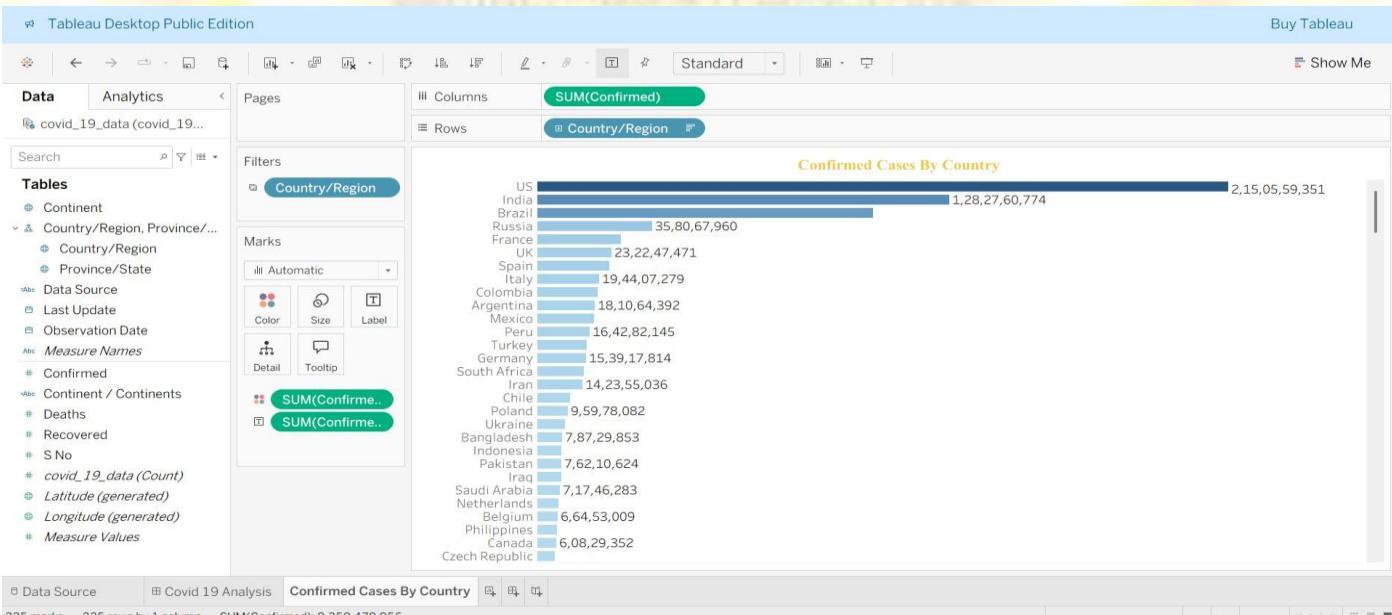
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Step 3: Creating Confirmed Cases By Country Sheet –

- Create a New Worksheet named Confirmed Cases By Country
- Format the title in the sheet to change its Font style , size , color and Alignment
- Add country / region to rows and confirmed to column then sort from Ascending to descending
- Drag & drop confirmed to color and label and Hide Side Card
- Also Hide Field Labels for rows by right clicking Country / Region
- Also Right click confirmed & Click Show Header





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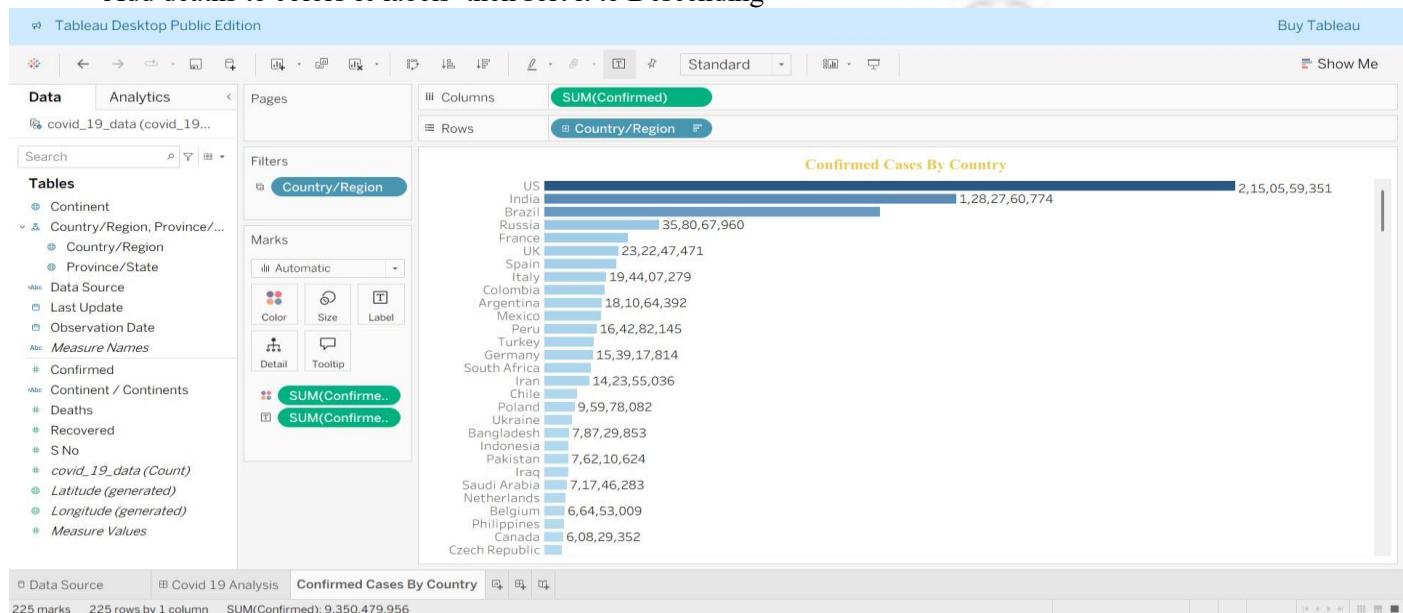
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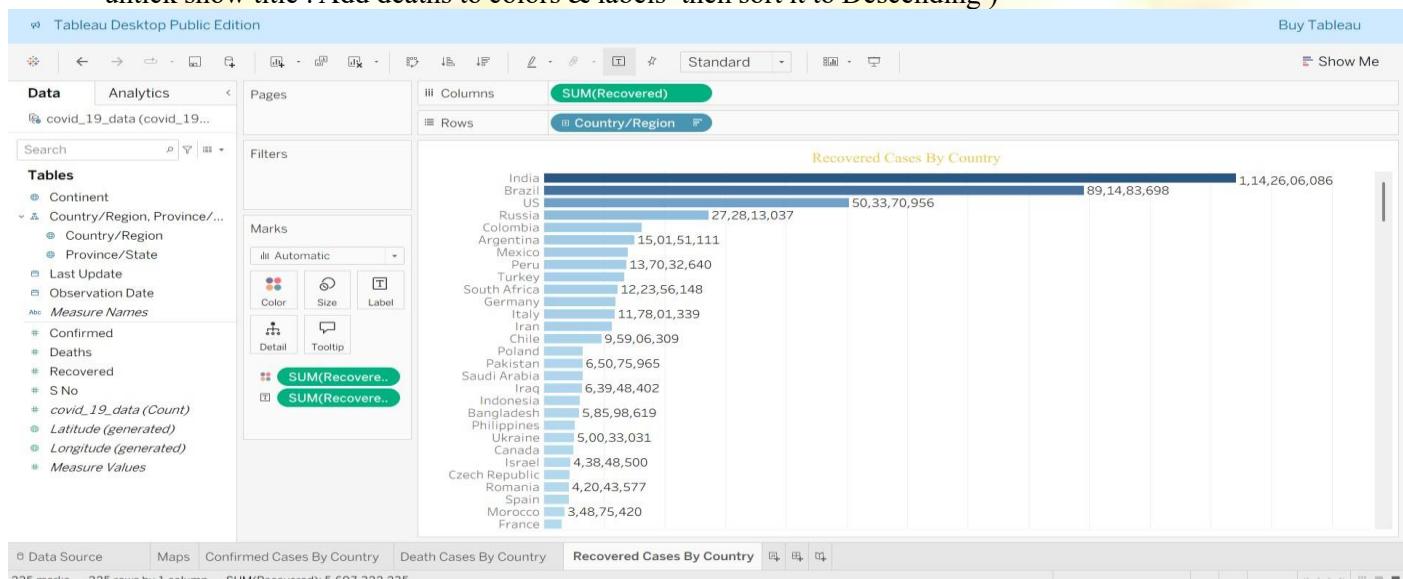
Step 4: Creating A Death Cases By Country Sheet –

- Rename the sheet to Death Cases By Country
- Format the title
- Add deaths to column and country / region to rows Hide Card , rows and columns and untick show title , Add deaths to colors & labels & sort
- Hide Card , rows and columns and untick show title
- Add deaths to colors & labels then sort it to Descending



Step 5: Creating a Recovered Cases By Country Sheet -

- Renaming the sheet to Recovered Cases By Country
- Performing same steps as above (Add deaths to column and country / region to rows Hide Card , rows and columns and untick show title , Add deaths to colors & labels & sort. Hide Card , rows and columns and untick show title . Add deaths to colors & labels then sort it to Descending)





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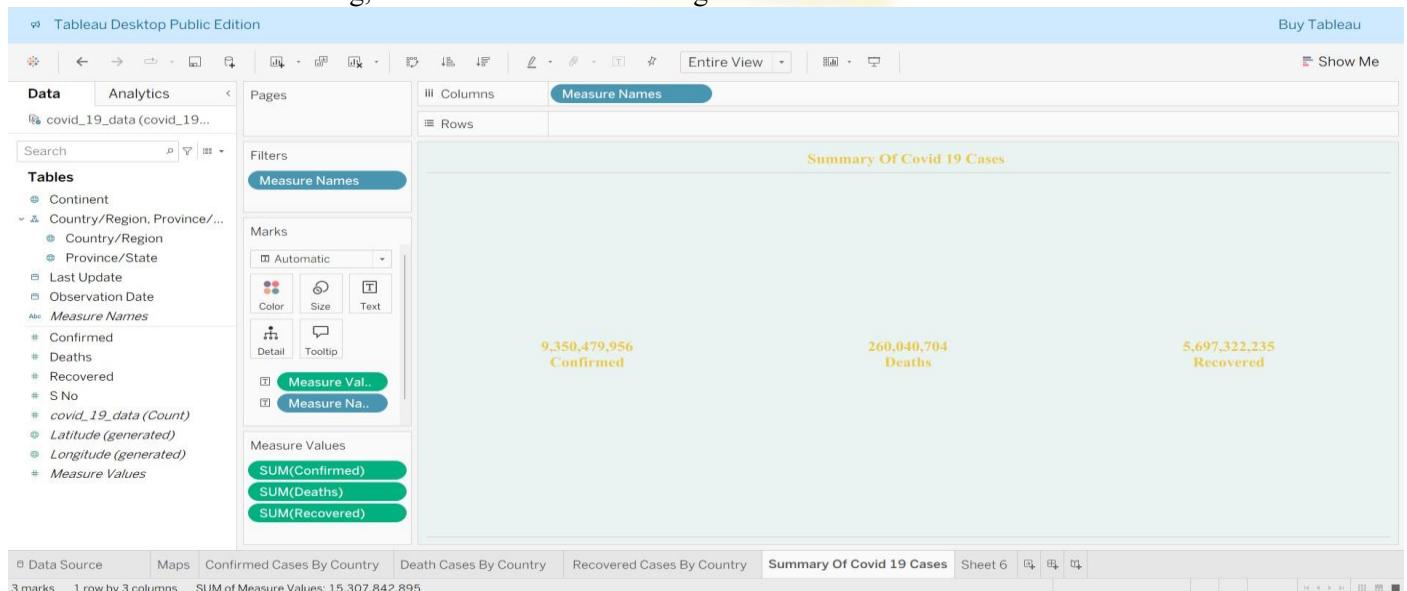
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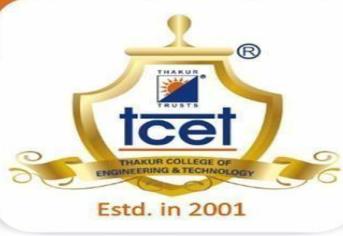
Step 6: Creating a Summary Of Covid 19 Cases Sheet -

- Drag and Drop the Confirmed column into Text
- Double click on the Recovered & Deaths Column
- Drag the Measure Names from rows to columns
- Change View from standard View to Entire View
- Click Measure Names Press Ctrl and Drag & Drop to Text
- Click ... After Clicking Text to format, align and Change colour
- Change Alignment to Middle Centre
- Click Confirmed Right Click and Remove Show Header
- Go to Format Shading, Click Worksheet and Change Color



Step 7: Creating a Data Source Sheet –

- Create a calculated field named Data Source
- Write the Formula – “ ”
- Click Apply and OK
- Double Click title to rename the sheet to – Data Source : <Data Source Name> as of <Data Update Time>
- (to add <Data Source Name> and <Data Update Time> click on Insert and select them from the dropdown) Click Apply and OK
- Drag Data Source to Text to get date and current time



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Tableau Desktop Public Edition

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The screenshot shows the Tableau interface with the "Data" tab selected. On the left, the "Tables" pane lists various data sources and measures, including "Continent", "Country/Region, Province/...", "Data Source", "Last Update", "Observation Date", "Measure Names", and specific metrics like "Confirmed", "Deaths", "Recovered", "S No", and "covid_19_data (Count)", "Latitude (generated)", "Longitude (generated)", and "Measure Values". The "Data Source" button is highlighted in blue. The main workspace is empty, and the status bar at the bottom indicates "Data Source : covid_19_data (covid_19_data) as of 29-09-2025 11.04.55 am".

Step 8: Creating a Dashboard named Covid 19 Analysis

- Click New Dashboard Rename it to Covid 19 Analysis
- In confirmed cases by country sheet click on Format, Select Lines and choose Grid Lines and Select None, do the same for all the sheets Death Cases By Country & Recovered Cases by Country
- Back in the dashboard click Phone Layout and Choose Delete
- In size change Fixed Size and Desktop Browser
- Hide the title from both from map sheet and the dashboard put the map on dashboard
- Drag summary of Covid cases and put it above the map and hide the title
- From objects drag Vertical container put it horizontal and, in that put, the Confirmed cases by country, confirmed death cases, recovered cases by country
- Drag the Data source put it above summary data
- Go Back to the Summary Sheet, Click on Continent, press the drop down arrow and click show filter
- In Dashboard click summary card drop down then filter continent again by clicking on the drop down and choose single value list
- In summary sheet double click title and insert <continent>
- In the Covid 19 Dashboard Click on the Continent side bar on the black arrow drop down and select apply to workbooks and choose selected workbooks option in which tick Maps and click OK



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Tableau Public - Covid Project

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

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Dashboard Layout

Size: Desktop Browser (1000 x 800)

Sheets: Maps, Confirmed ..., Death Cases B..., Recovered ..., Summary Of ...

Objects: Navigation, Download, Add Filters, Einstein Discovery, Tiled (selected), Floating, Show dashboard title

Data Source: covid_19_data (covid_19_data) as of 29-09-2025 11:04:55 am

Summary Of Covid 19 Cases All

9,350,479,956 Confirmed, 260,040,704 Deaths, 5,697,3 Recovered

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Continent (radio buttons): (All) (Selected Worksheets...)

Apply to Worksheets

- All Using Related Data Sources
- All Using This Data Source
- Selected Worksheets... (selected)
- Only This Worksheet
- Oceania
- South America

Confirmed Cases By Country

Country	Cases
US	97,12,61
India	63,71,63
Brazil	54,64,75
Russia	Colombia
France	Argentina
UK	Mexico
Spain	Peru
Italy	Turkey
Colombia	South Africa
Argentina	Germany
Mexico	

Death Cases By Country

Country	Cases
US	97,12,61
Brazil	63,71,63
India	54,64,75
Mexico	
UK	
Italy	
France	
Spain	
Colombia	
Argentina	
Mexico	

Recovered Cases By Country

Country	Cases
India	97,12,61
US	63,71,63
Russia	54,64,75
Colombia	
Argentina	
Mexico	
Peru	
Turkey	
South Africa	
Germany	

Summary Of Covid 19 Cases

Apply Filter to Worksheets [Continent]

Filter will be applied to 2 worksheets.

Enter search text

Worksheets

Maps

Confirmed Cases By Country

Death Cases By Country

Recovered Cases By Country

Summary Of Covid 19 Cases

Select all on dashboard Show all worksheets in workbook

Cancel OK

- In the Maps sheet a Calculated field – Continent / Continents and add this formula in it –
 IF COUNTD([CONTINENT]) >1
 THEN “Continents”
 ELSE “Continent”
 END
 Click Apply and OK
- In summary page drag the Continent / continents into detail, double click title and change it to – Covid 19 Summary for <Continent> <AGG(Continent/ Continents)>
 Click Apply and OK
- The Dashboard Should look like this –



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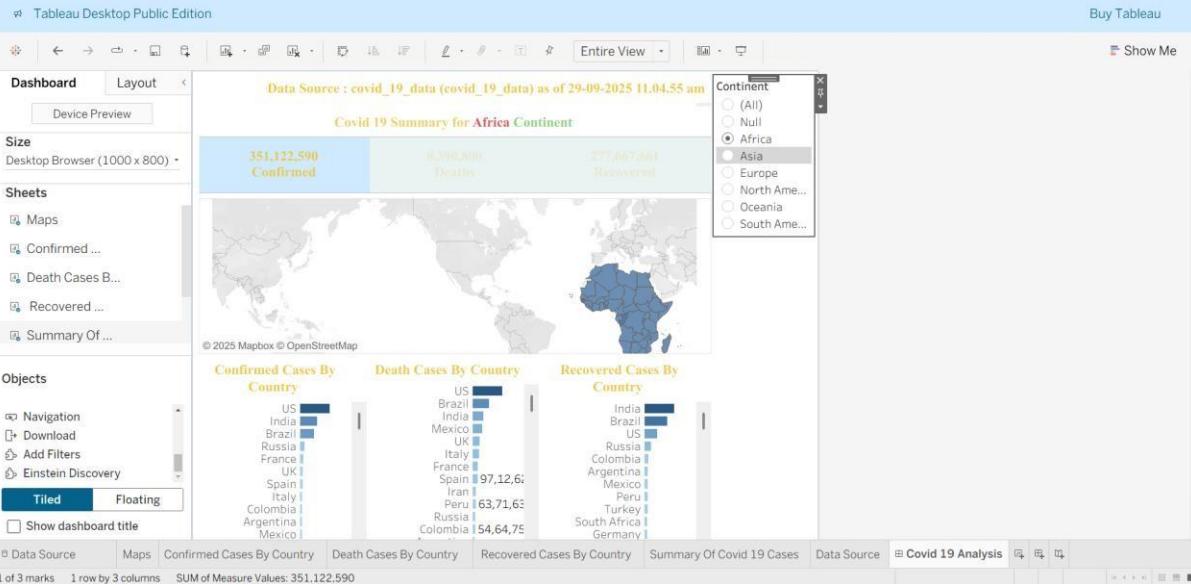
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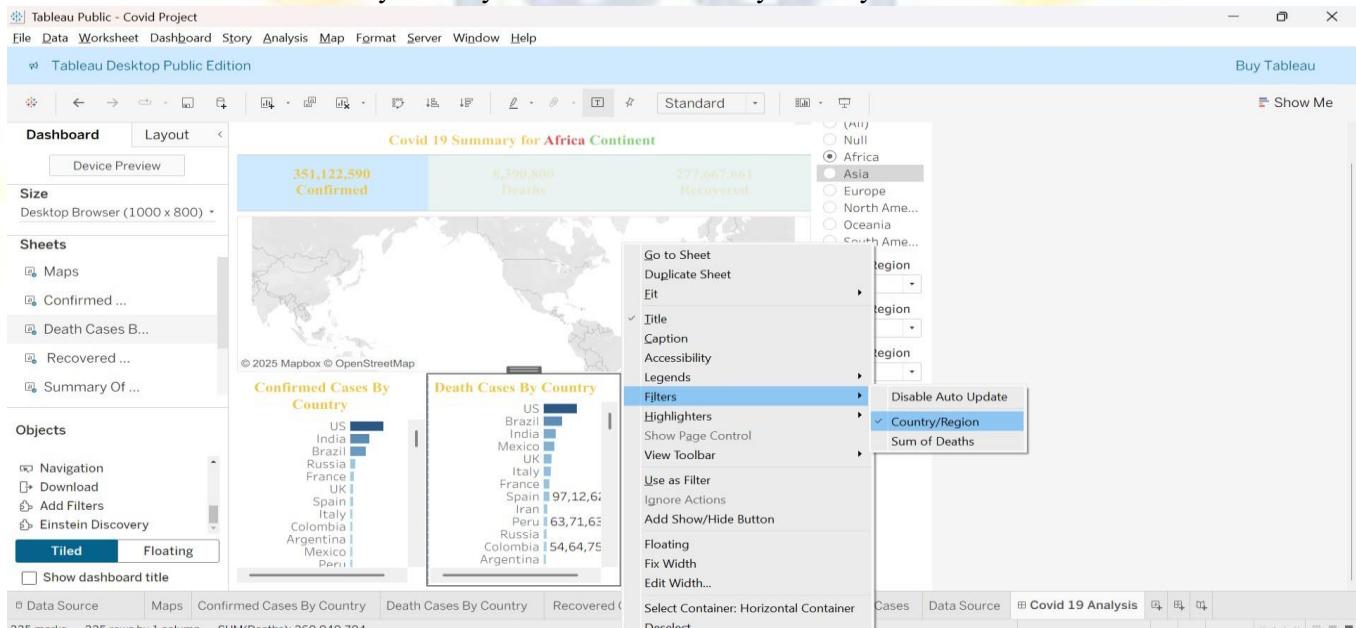
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- In Maps sheet – Country/region drop down arrow Click Show filter same for recovered cases by country
- In the Recovered Cases By Country sheet , click the Country/Region side panel, click the drop down arrow and select Multiple Values Dropdown
- Also click Apply to Worksheets in the same drop down and choose Selected Worksheets and select death cases by country and click ok
- In the Dashboard click Confirmed Cases by Country title, click Filters and then click Country / Region , do similar for Death Cases by Country & Recovered Cases by Country



- Click Country / Region filter and select multiple values drop down



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Covid 19 Summary for Africa Continent

351,122,590 Confirmed 8,390,800 Deaths 277,667,661 Recovered

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Confirmed Cases By Country

Country	Cases
US	351,122,590
India	8,390,800
Brazil	277,667,661
Russia	1,000,000
France	500,000
UK	400,000
Spain	300,000
Italy	200,000
Colombia	150,000
Argentina	100,000
Mexico	80,000
Peru	60,000

Death Cases By Country

Country	Cases
US	351,122,590
Brazil	8,390,800
India	277,667,661
Mexico	1,000,000
UK	500,000
Italy	400,000
Spain	300,000
France	200,000
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Recovered Cases By Country

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India	351,122,590
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Colombia	500,000
Argentina	400,000
Mexico	300,000
Peru	200,000
Turkey	150,000
South Africa	100,000
Germany	80,000
Italy	60,000

Country/Region Filter

- (All)
- Null
- Africa
- Europe
- North America
- Oceania
- South America

Edit Filter...

Apply to Worksheets

Format

Customize

Title

Edit Title...

Single Value (list)

Single Value (dropdown)

Single Value (slider)

Multiple Values (list)

Multiple Values (dropdown)

Multiple Values (custom list)

Wildcard Match

Only Relevant Values

All Values in Hierarchy

All Values in Database

Include Values

Exclude Values

Add Show/Hide Button

Floating

Fix Height

Edit Height...

Select Container: Vertical Container

Deselect

- Remove Extra Country / Region filters created by clicking on the small x

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Covid 19 Summary for All Continents

9,350,479,956 Confirmed 260,040,704 Deaths 8,407,322,238 Recovered

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Confirmed Cases By Country

Country	Cases
US	9,350,479,956
India	260,040,704
Brazil	8,407,322,238
Russia	1,000,000
France	500,000
UK	400,000
Spain	300,000
Italy	200,000
Colombia	150,000
Argentina	100,000
Mexico	80,000

Death Cases By Country

Country	Cases
US	9,350,479,956
Brazil	260,040,704
India	8,407,322,238
Mexico	1,000,000
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Italy	400,000
Spain	300,000
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Recovered Cases By Country

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Argentina	400,000
Mexico	300,000
Peru	200,000
Turkey	150,000
South Africa	100,000
Germany	80,000
Italy	60,000

Country/Region Filter

- (All)
- Null
- Africa
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- South America

Remove from Dashboard

- Click on the country / Region filter and select Floating to move its place to the required place



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Dashboard Layout

Device Preview

Size
Desktop Browser (1000 x 800)

Sheets
Maps, Confirmed ..., Death Cases B..., Recovered ..., Summary Of ...

Objects
Navigation, Download, Add Filters, Einstein Discovery

Tiled Floating Show dashboard title

Data Source : covid_19_data (covid_19_data) as of 29-09-2025 11.04.55 am

Covid 19 Summary for All Continents

9,350,479,956 Confirmed | 260,040,704 Deaths | 8,697,323,238 Recovered

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Turkey	100,000
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Germany	50,000

Continent
Edit Filter... Apply to Worksheets Format Customize Title Edit Title... Single Value (list) Single Value (dropdown) Single Value (slider) Multiple Values (list) Multiple Values (dropdown) Multiple Values (custom list) Wildcard Match Only Relevant Values All Values in Hierarchy All Values in Database Include Values Exclude Values Add Show/Hide Button Floating Fix Height Edit Height... Select Container: Vertical Container Deselect

Data Source Maps Confirmed Cases By Country Death Cases By Country Recovered Cases By Country Summary Of Covid 19 Cases

- The dashboard should now look like this

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Continent
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Data Source Maps Confirmed Cases By Country Death Cases By Country Recovered Cases By Country Summary Of Covid 19 Cases Data Source Covid 19 Analysis

- We hide the other sheets and keep only the Covid 19 Analysis Dashboard
- This is how the Analysis should finally look like -



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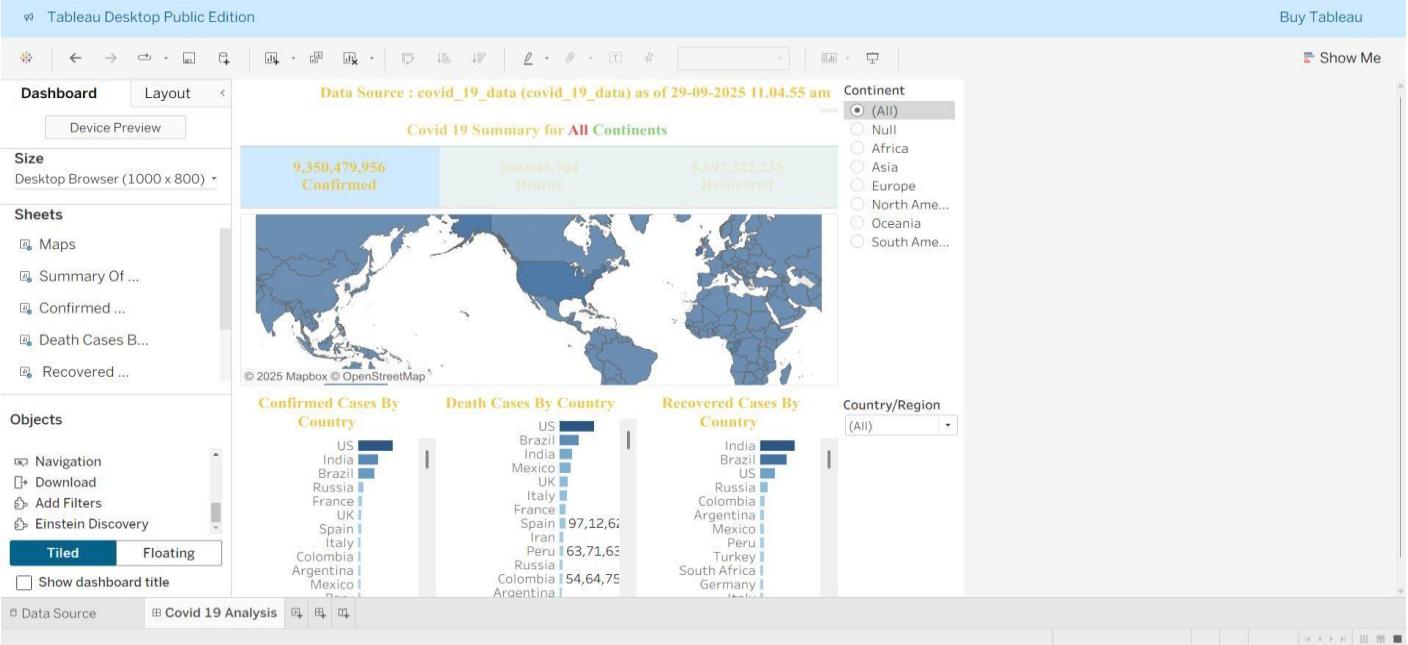
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Conclusion:

The **Covid-19 Global Analysis Dashboard** provides an insightful and interactive summary of the pandemic's worldwide impact. By combining multiple analytical views — including **maps, summaries, and bar charts** — it effectively visualizes the overall distribution of confirmed, death, and recovered cases across continents and countries. From the analysis:

- The total **confirmed cases** have reached approximately **9.35 billion**, with around **260 million deaths** and **5.69 billion recoveries** globally.
- The **world map** visualization highlights that **Asia, Europe, and North America** experienced the highest concentration of cases, indicating major global hotspots.
- The **country-level breakdown** reveals that the **United States, India, and Brazil** recorded the largest numbers of confirmed and recovered cases, while the **U.S. and Brazil** reported the highest death tolls.
- The dashboard allows filtering by **continent and country**, making it easier to compare trends and assess the pandemic's impact across regions.

Overall, this Tableau dashboard serves as a **comprehensive analytical tool** that visually tracks Covid-19's progression, supports regional comparison, and aids in understanding global recovery patterns.

For Faculty Use

Correction Parameters	Formative Assessment [40%]	Timely completion of Practical [40%]	Attendance / Learning Attitude [20%]	
Marks Obtained				