

Project Report

on

Data Visualization with Tableau

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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

Zagdu Singh Charitable Trust's (Regd.)

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

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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.

Tableau Desktop Public Edition Buy Tableau

Connections Add

covid_19_data
Microsoft Excel

Sheets p

☐ Use Data Interpreter
Data Interpreter might be able to clean your Microsoft Excel workbook.

covid_19_data

New Union

New Table Extension

covid_19_data (covid_19_data) Filters 0 | Add

covid_19_data

covid_19_data 11 fields 205951 rows 100 rows

#	covid!19!data	covid!19!data	covid!19!data	covid!19!data	covid!19!data
S No	Observation Date	Province/State	Country/Region	Last	
2,047	22-02-2020	Yunnan	Mainland China	22-0	
2,048	22-02-2020	Hainan	Mainland China	22-0	
2,049	22-02-2020	Guizhou	Mainland China	22-0	
2,050	22-02-2020	Tianjin	Mainland China	22-0	
2,051	22-02-2020	Shanxi	Mainland China	22-0	
2,052	22-02-2020	null	Japan	22-0	
2,053	22-02-2020	Liaoning	Mainland China	22-0	
2,054	22-02-2020	Gansu	Mainland China	21-0	

Data Source Covid 19 Analysis

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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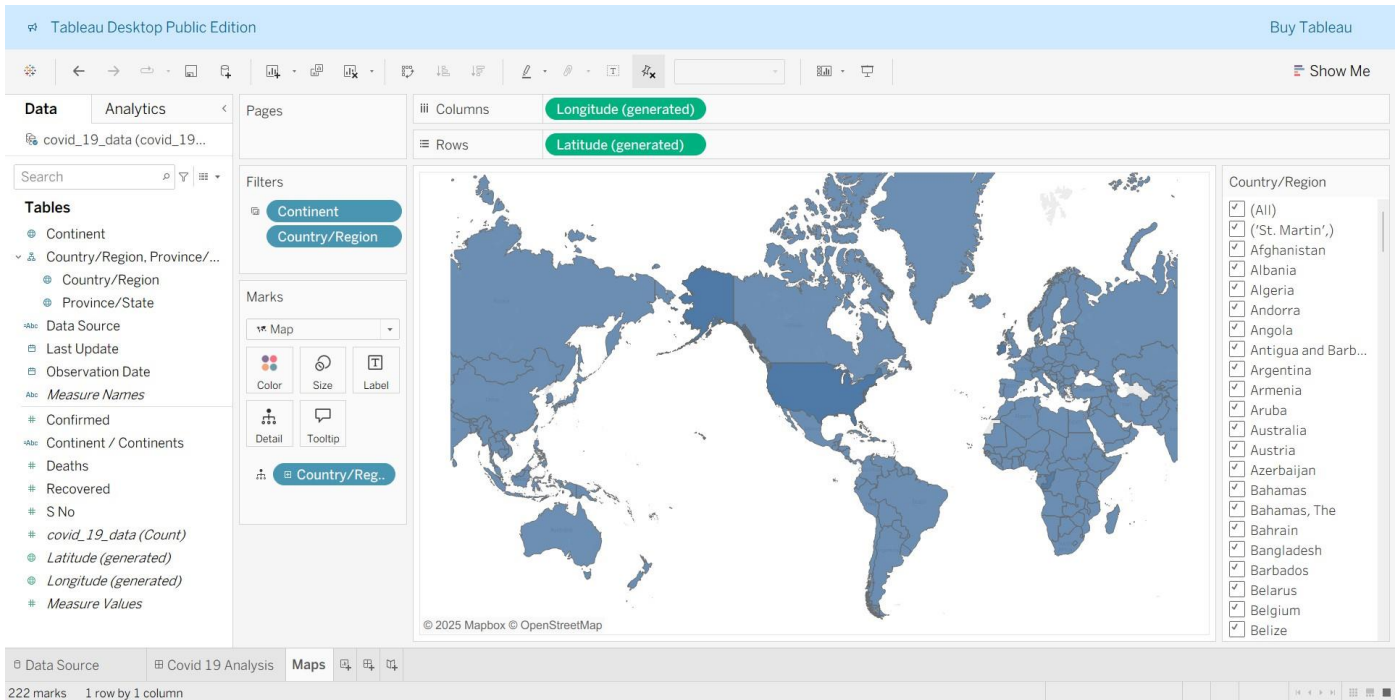
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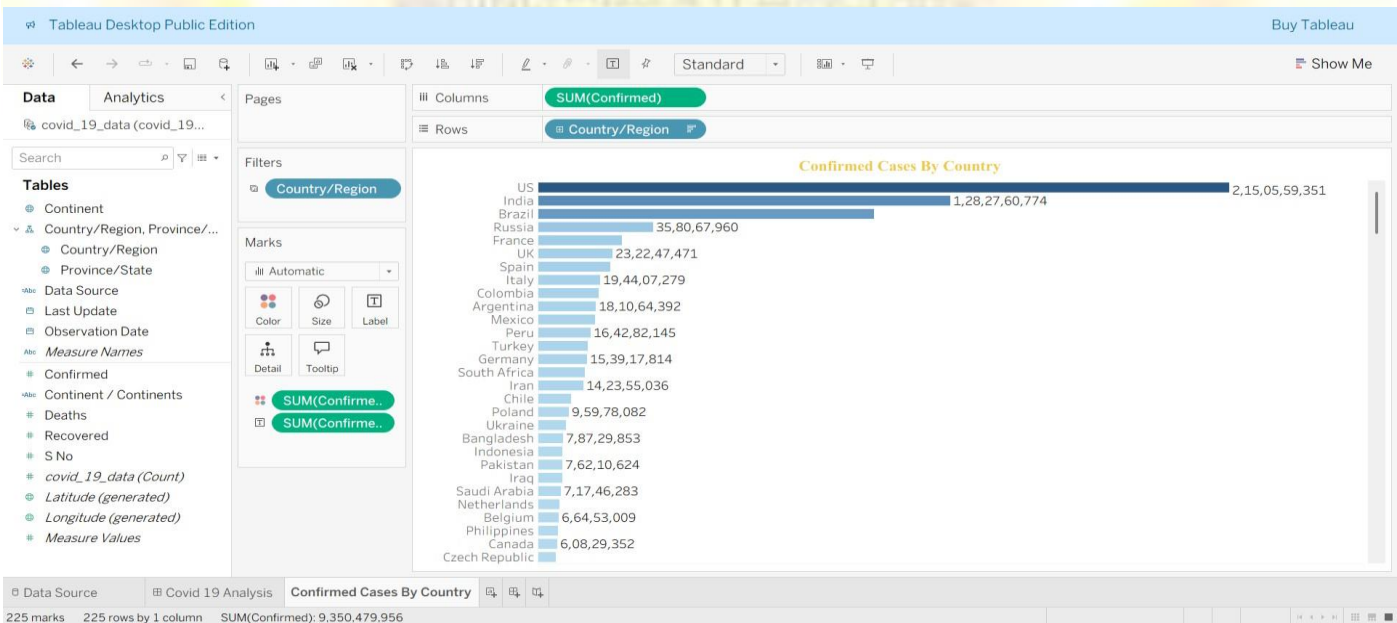
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Step 3: Creating Confirmed Cases By Country Sheet –

- 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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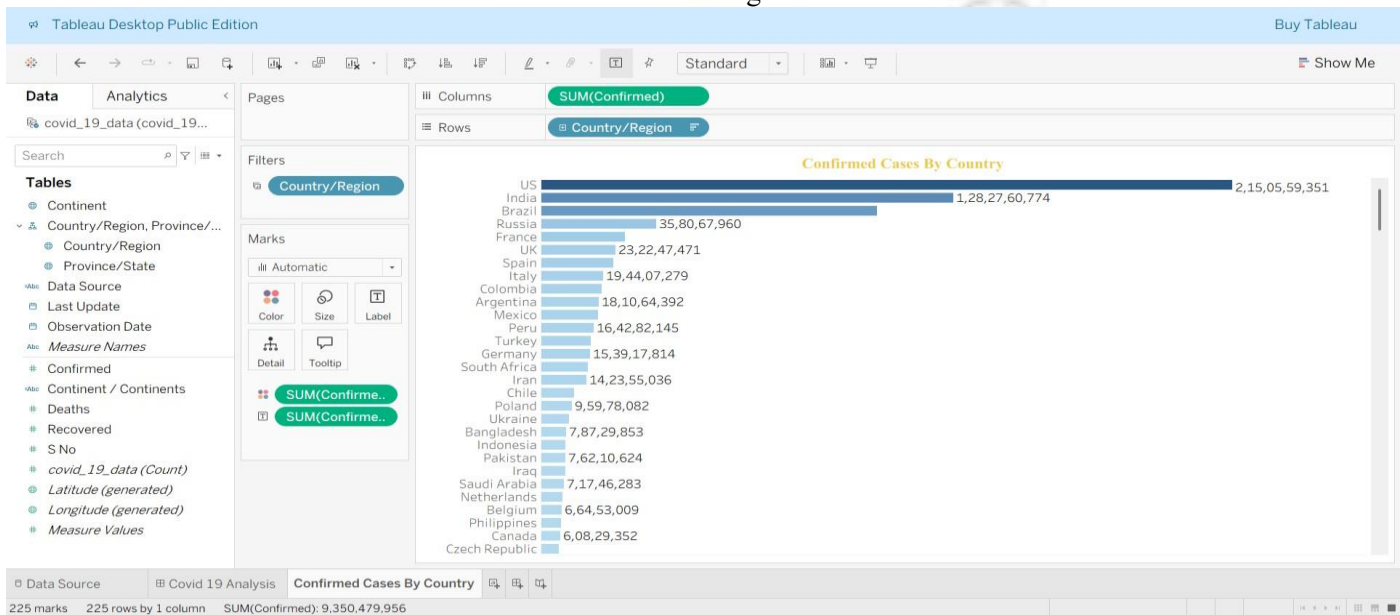
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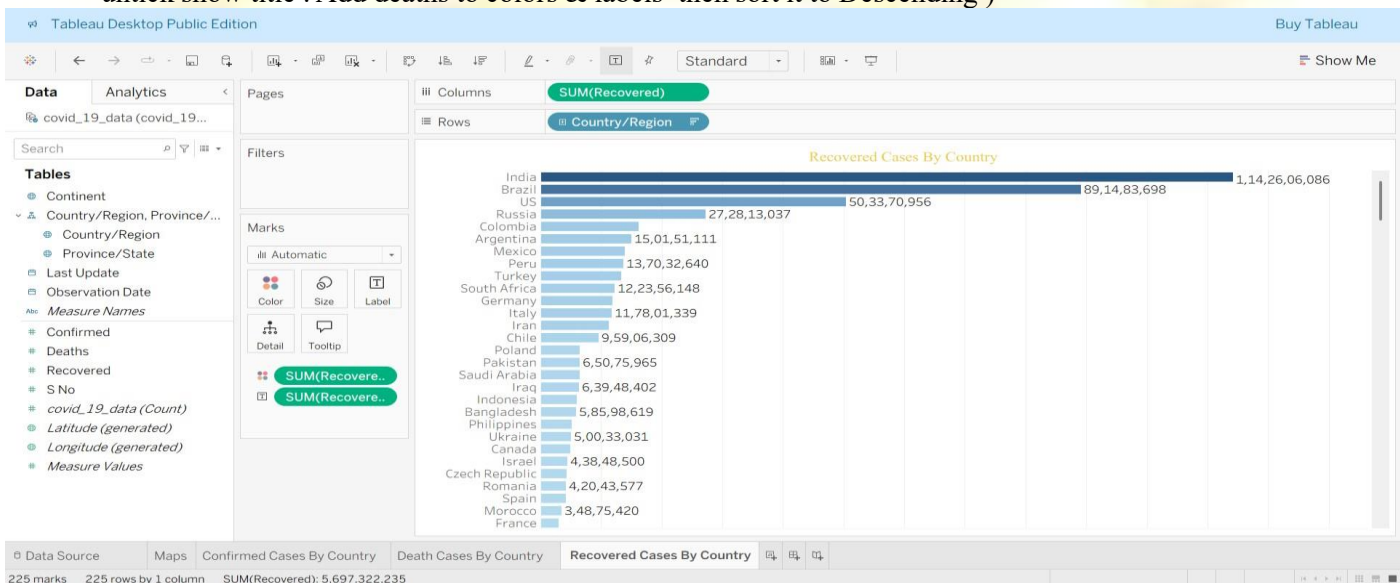
Step 4: Creating A Death Cases By Country Sheet –

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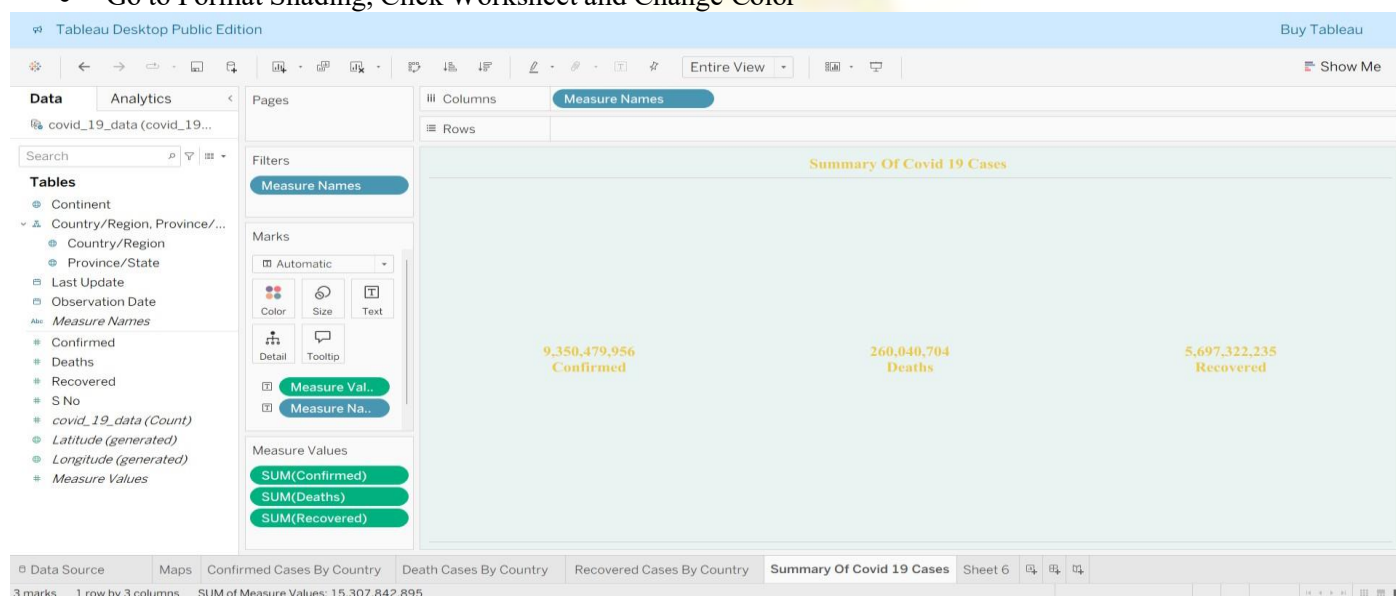
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Step 6: Creating a Summary Of Covid 19 Cases Sheet -

- 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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The screenshot shows the Tableau Desktop Public Edition interface. The top bar includes the Tableau logo, navigation icons, and a 'Buy Tableau' link. The main workspace is divided into several panes: 'Data' on the left showing a list of tables and fields for 'covid_19_data', 'Pages' in the center, 'Columns' and 'Rows' on the right, and 'Filters' below 'Pages'. The 'Marks' pane is also visible, showing 'Automatic' as the mark type. A status bar at the bottom indicates '1 mark 1 row by 1 column'. The data source is identified as '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

Tableau Desktop Public Edition

Buy Tableau

Entire View

Show Me

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

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

Summary Of Covid 19 Cases All

8,358,479,956 Confirmed 260,648,784 Deaths 5,697.3 Recov

Continent (All)

All Using Related Data Sources

All Using This Data Source

Selected Worksheets...

Only This Worksheet

Oceania South Ame...

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 Database

Include Values

Exclude Values

Add Show/Hide Button

Floating

Fix Height

Edit Height...

Select Container: Vertical Container

Deselect

Apply Filter to Worksheets [Continent]

Filter will be applied to 2 worksheets.

Enter search text

<input type="checkbox"/>	Worksheets
<input checked="" type="checkbox"/>	Maps
<input type="checkbox"/>	Confirmed Cases By Country
<input type="checkbox"/>	Death Cases By Country
<input type="checkbox"/>	Recovered Cases By Country
<input checked="" type="checkbox"/>	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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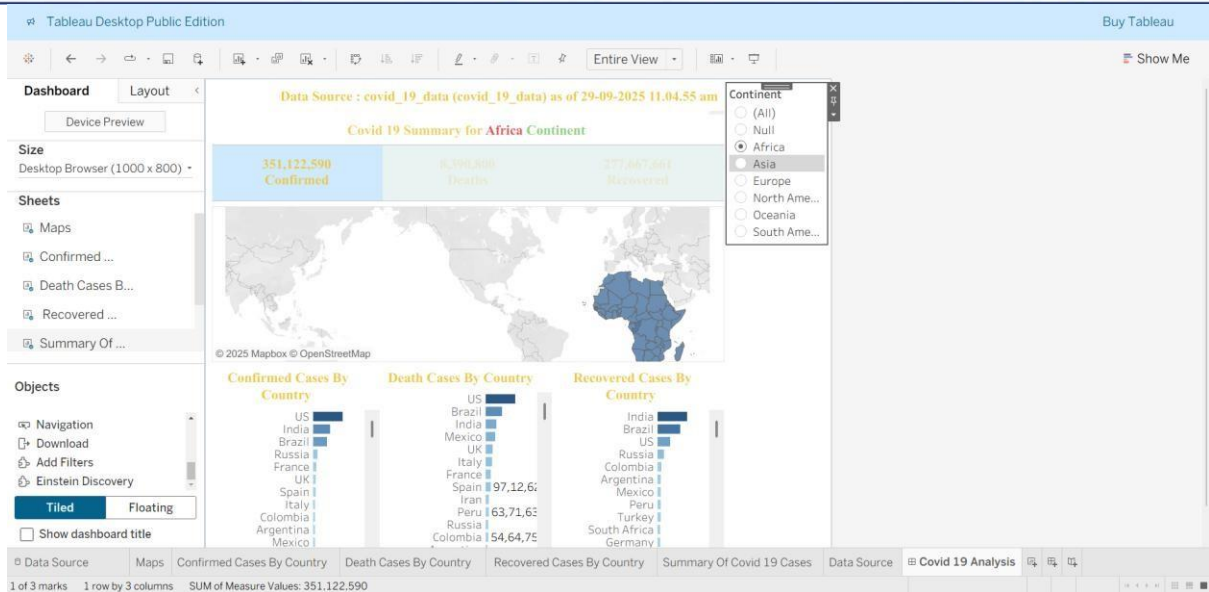
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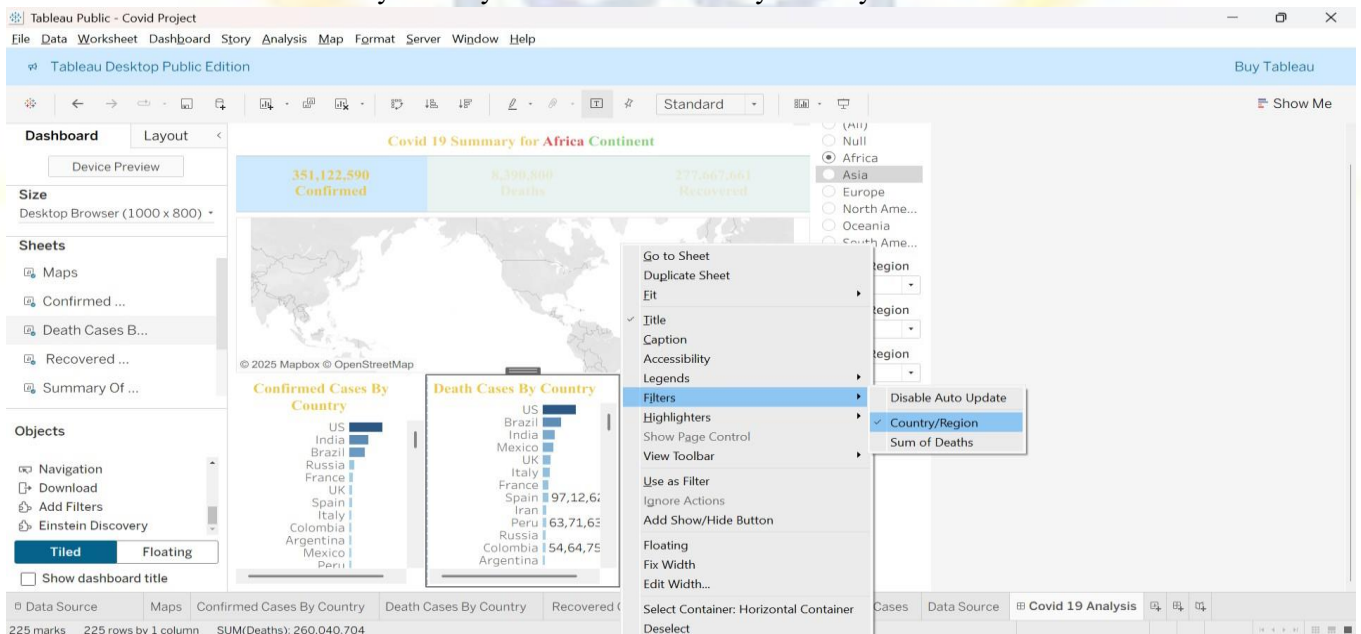
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- In Maps sheet – Country/region drop down arrow Click Show filter same for recovered cases by country
- In the Recovered Cases By Country sheet , click the Country/Region side panel, click the drop down arrow and select Multiple Values Dropdown
- 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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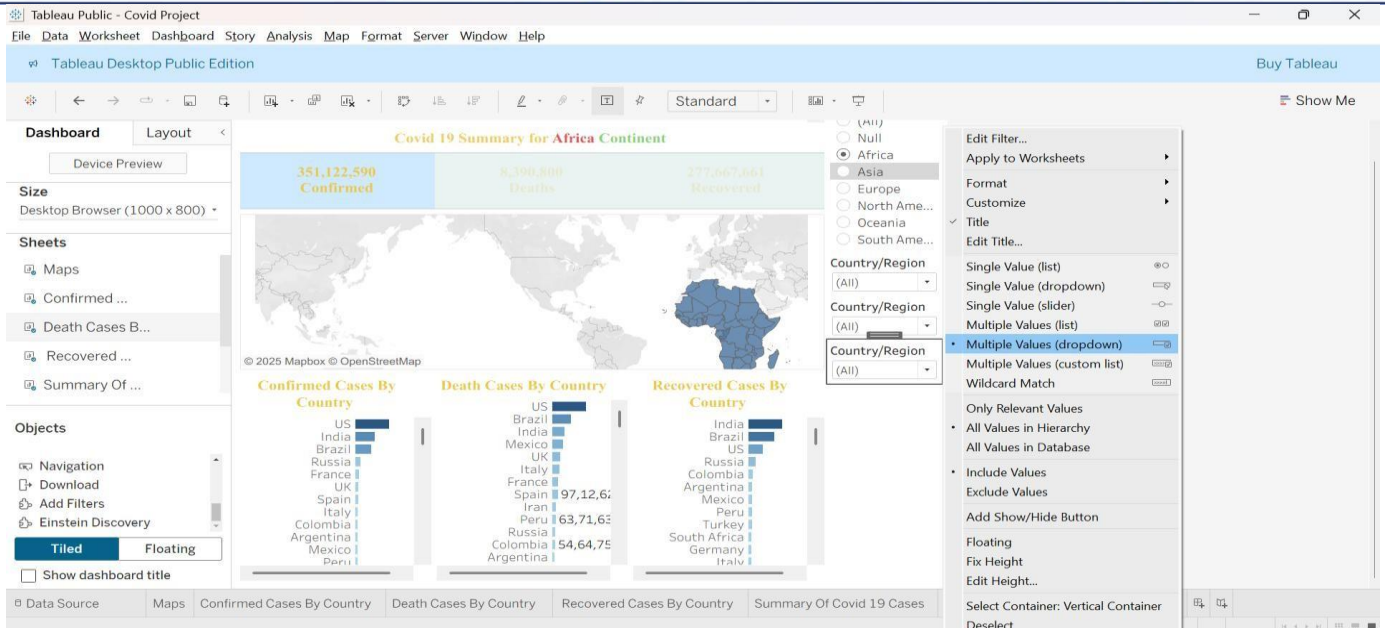
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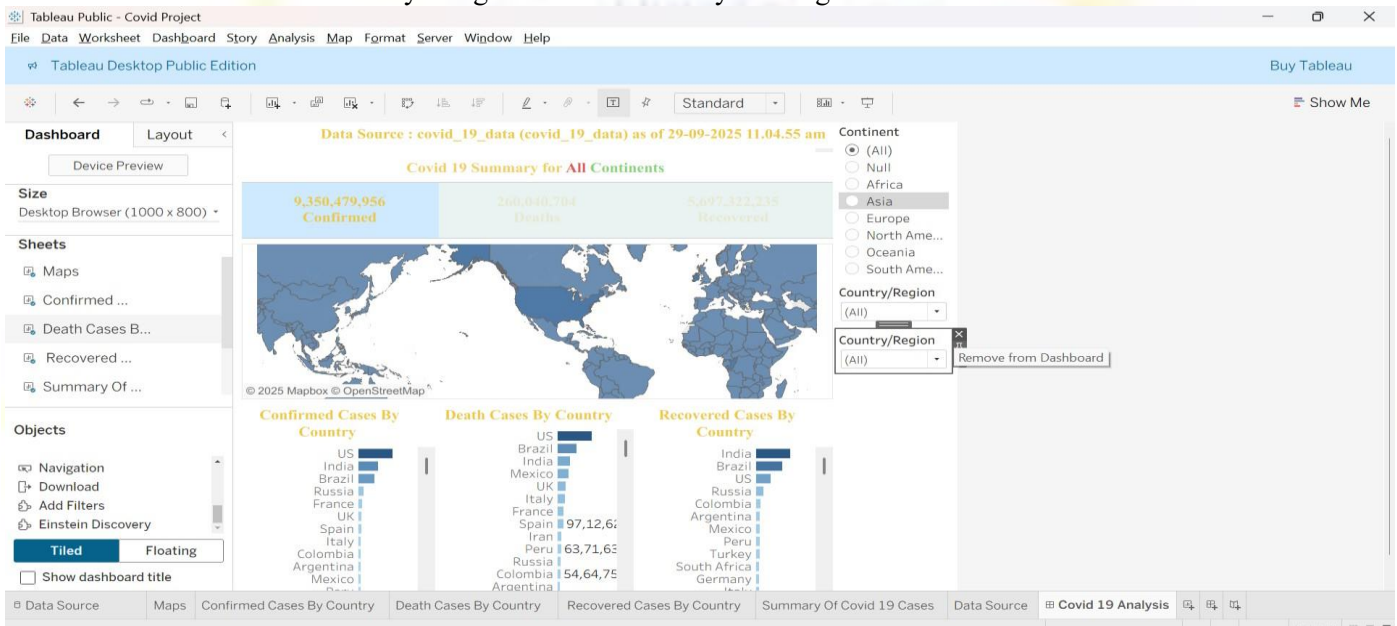
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- Remove Extra Country / Region filters created by clicking on the small x



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



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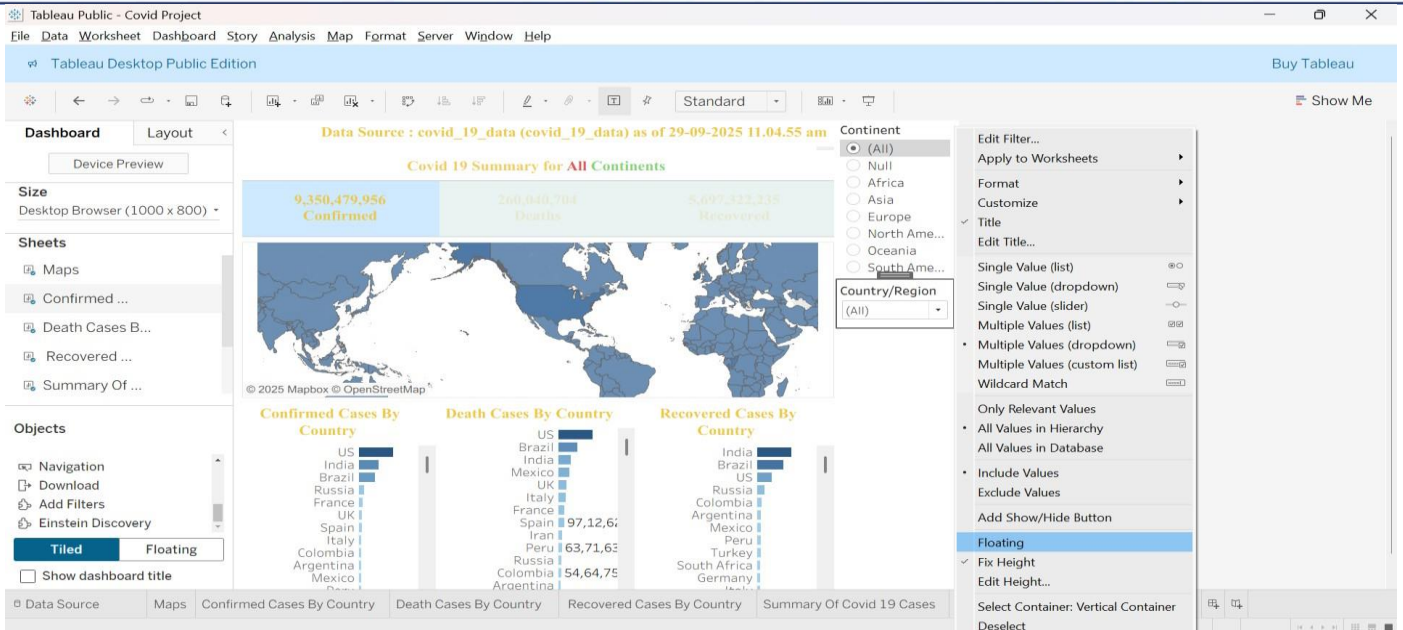
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- The dashboard should now look like this



- 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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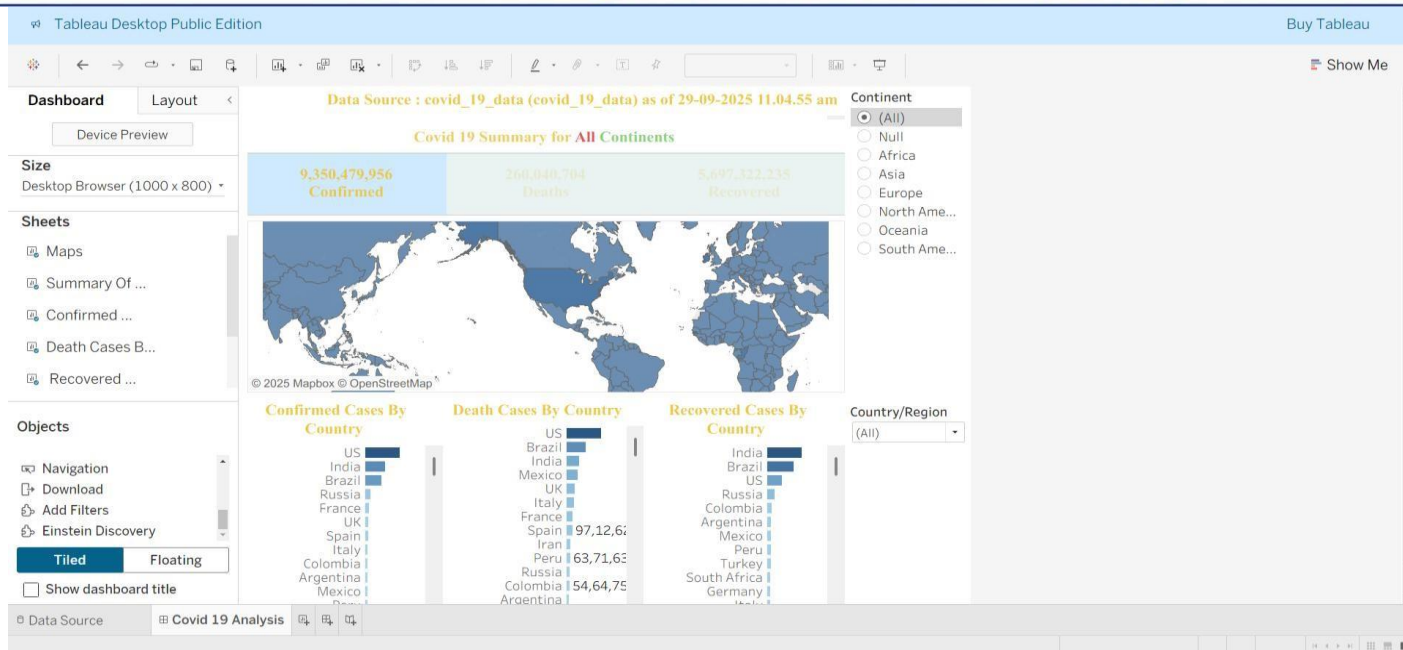
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Conclusion:

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				