Short Notes for the Report

Section 1

Introduction

This project focuses on visualizing key statistics across the world in 2023, using a global country information dataset. It covers economic, environmental, and social indicators for 195 countries. visualizations main aim to explore agricultural land use, unemployment rates, GDP, urban population, life expectancy, and CO2 emissions.

Link:-
https://public.tableau.com/app/profile/udaykiran.vakadani/viz/DashboardforGlobalcountryinformationdataset2023_17280163171410/Chart5

Section 2

Data Description

- **Domain**: Global statistics (Population, GDP, Environment).
- **Data File**: Contains 195 records and 25 columns, covering indicators like agricultural land use, life expectancy, and urban population.
- **Source**: Kaggle dataset - https://www.kaggle.com/datasets/nelgiriyewithana/countries-of-the-world-2023/discussion/460525 .

Section 3

Data Cleaning Strategies

Irrelevant records: During the data cleaning process, an irrelevant record located at row 152 in the raw data was identified and subsequently removed. This action was taken to enhance the quality of the dataset and improve the clarity of visualizations.

Missing Values: Missing values were identified in columns I (Capitals), U (Largest city), Q (GDP), and AB (Population). These gaps were filled with verified data obtained through online resources and research efforts.

Section 4

Clean Dataset

The cleaned dataset contains 195 countries, with updated values in critical columns like GDP and population.

Country	Population	GDP	Agriculture land(%)	Un Employement
USA	331,449,281	21,430	44.3	3.6
URUGUAY	3,518,552	56.79	82.6	7.1

Section 5.

Visualization Tool

I used Tableau 2024.2 because it makes it easy to create dashboards and storyboards and bring together different sets of data. Tableau also has tools that let me tell stories with the data and make interactive charts.

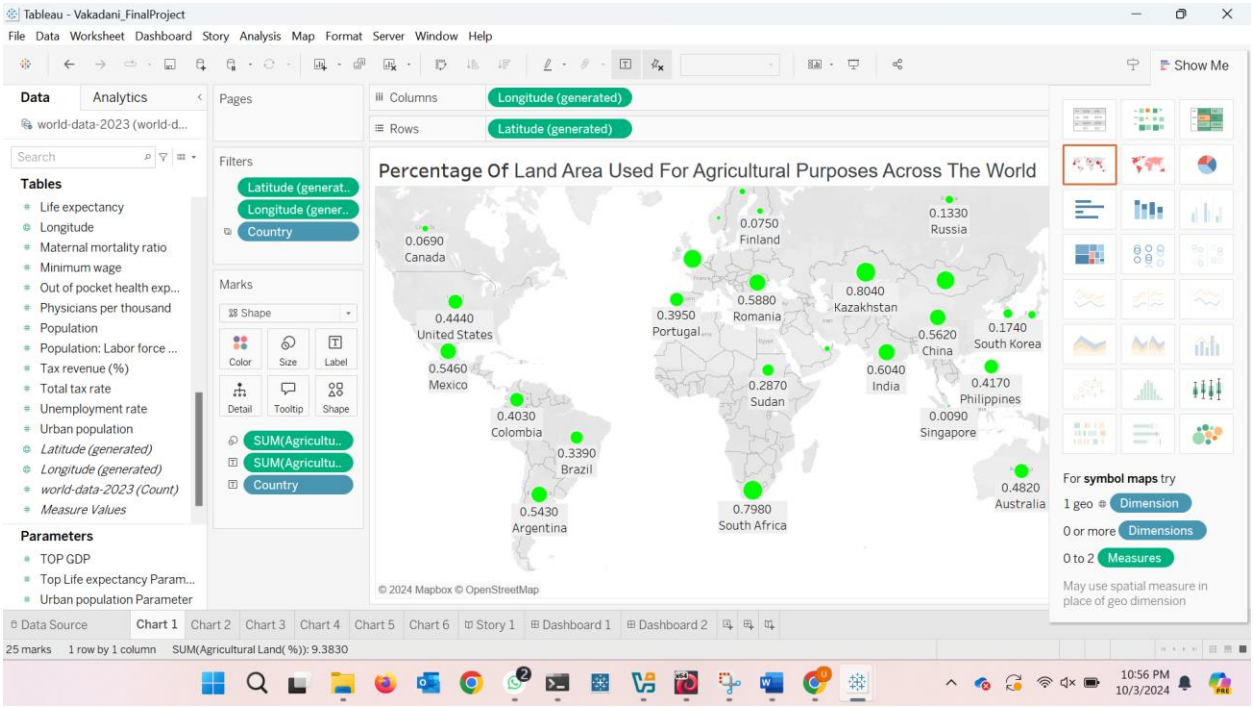
Link:-
https://public.tableau.com/app/profile/udaykiran.vakadani/viz/DashboardforGlobalcountryinformationdataset2023_17280163171410/Chart5

Section 6.

Visualizations and Stories

Goal 1: To analyze agricultural land use across the world.

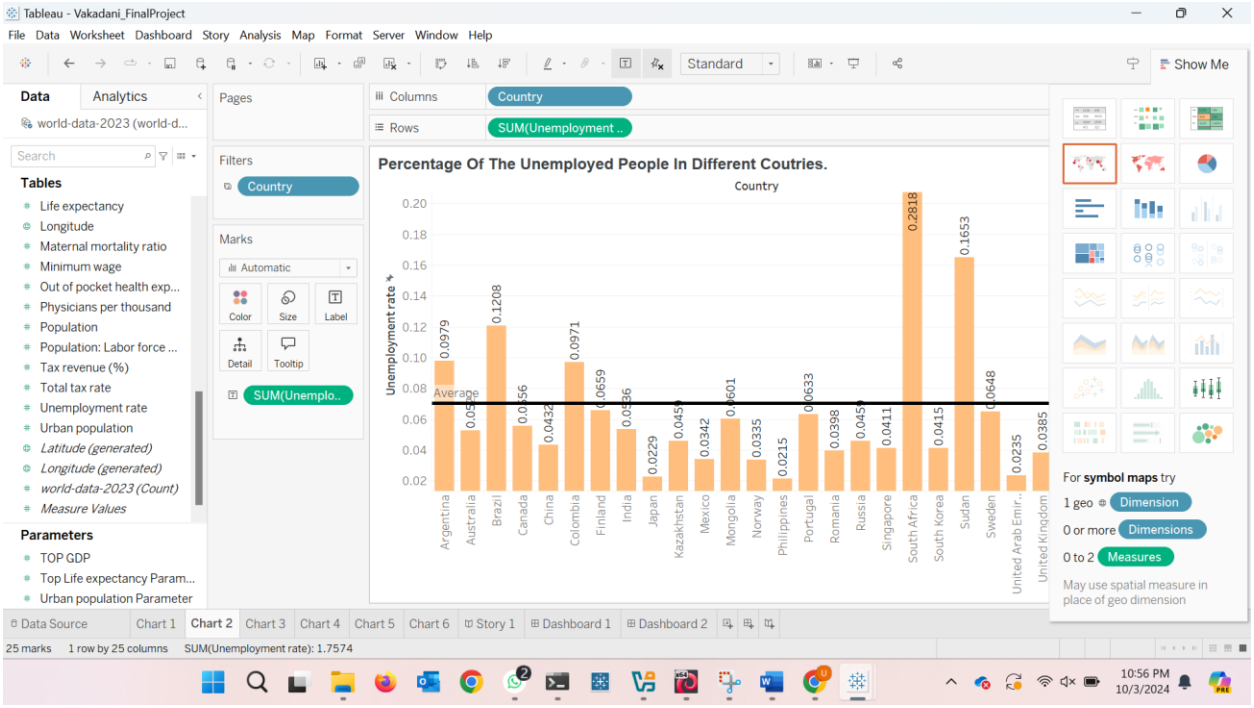
Chart: Choropleth map showing agricultural land percentage by country.



Story: **:** In the world, Uruguay has lots of farmland, around 82.6%, with fertile soil that helps communities for a long time. But Singapore, a busy city, only uses 0.9% of its land for farming, using cool ideas like rooftop gardens to grow food and stay secure. Even though they're different, both countries care about helping their people and finding new ways to make sure things stay good for the future.

Goal 2: To analyze unemployment rates across countries.

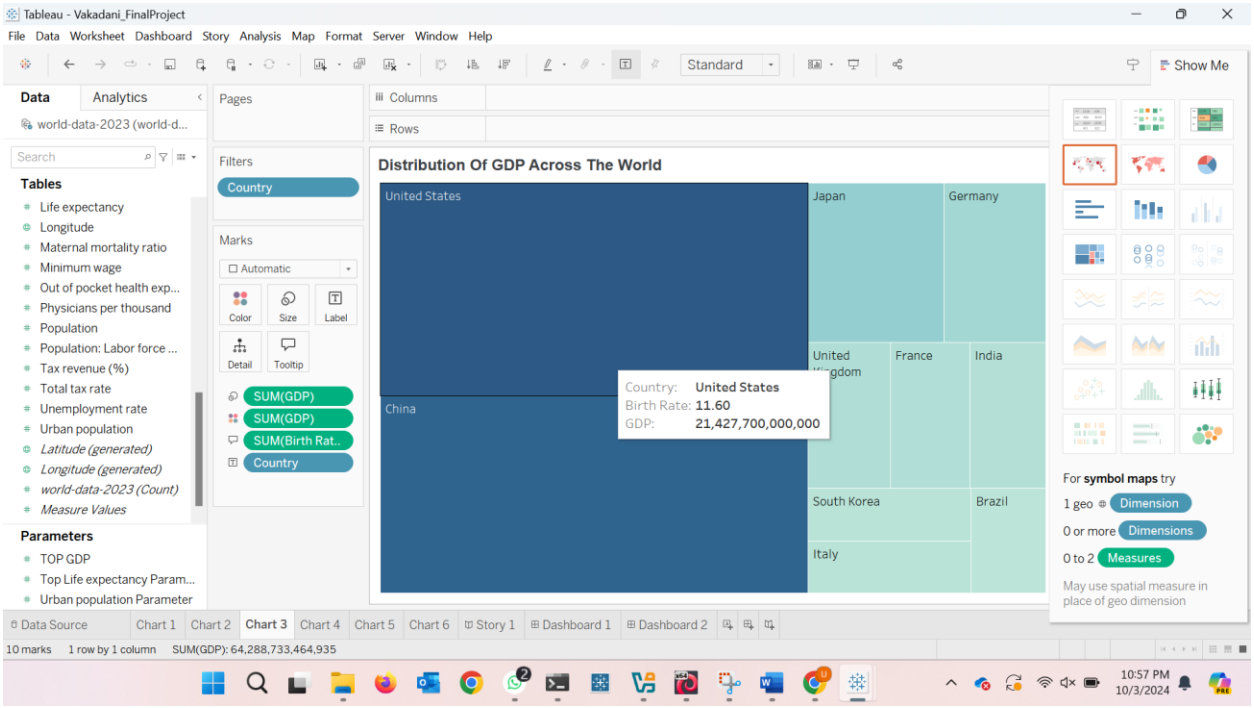
Chart: Bar chart showing unemployment rates.



Story: In Lesotho, many people don't have jobs, with a rate as high as 23.41%, while in Qatar, very few people are without jobs, with a rate as low as 0.09%. This tells us that different countries have different job situations because of how their economies work.

Goal 3: Distribution of GDP worldwide.

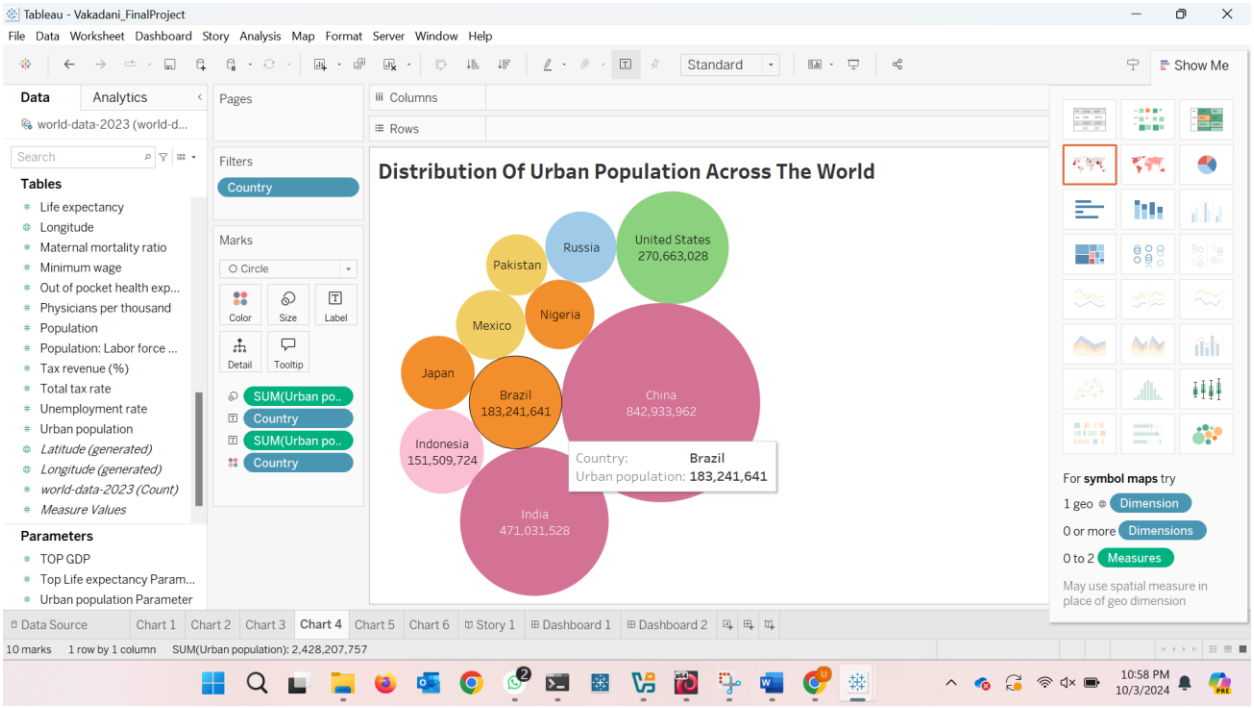
Chart: Tree Map showing GDP across countries.



Story: The United States having a very high GDP of $21.43 trillion, while others like Nauru have a much lower GDP of $133 million. This wide range highlights the diverse economic strengths and sizes across the globe.

Goal 4: Distribution of urban population.

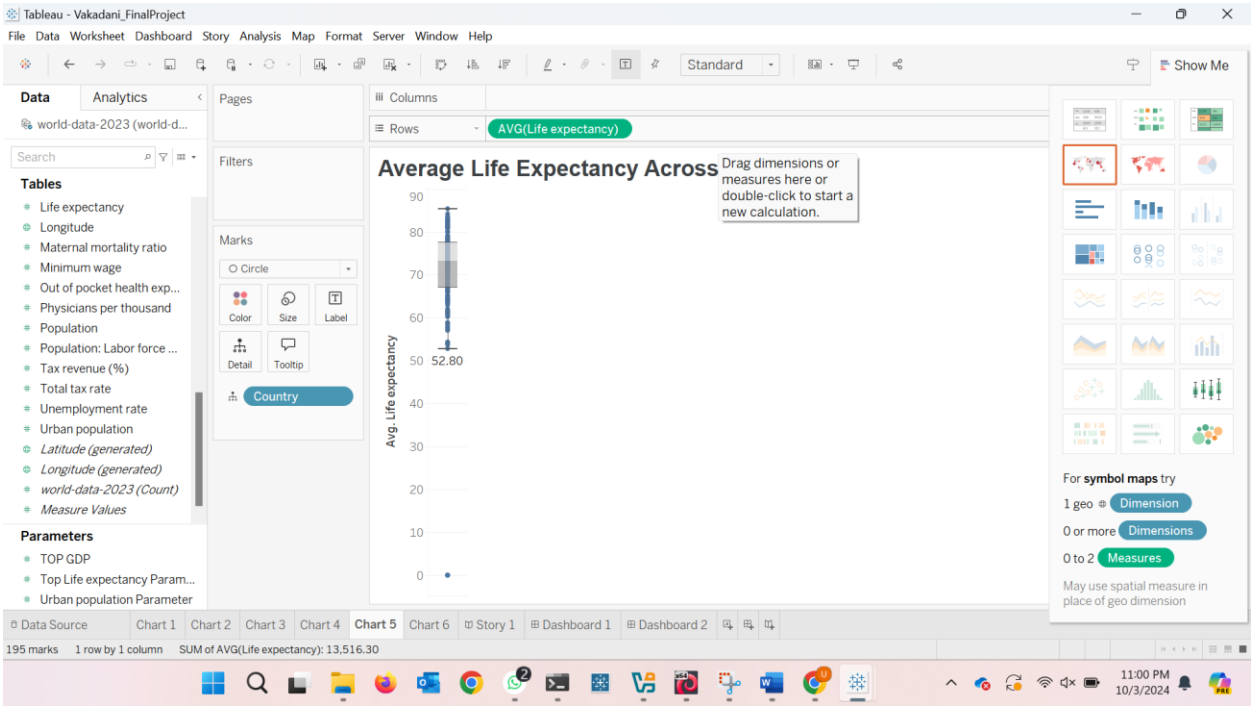
Chart: Bubble chart displaying urban population by country.



Story: In big countries like China, lots of people live in cities, more than 842 million, making it really crowded. But in tiny places like Tuvalu, there are way fewer city dwellers, only about 7,362, which is much less. This shows how cities can be really packed in some countries but not so much in others.

Goal 5: Life expectancy across countries.

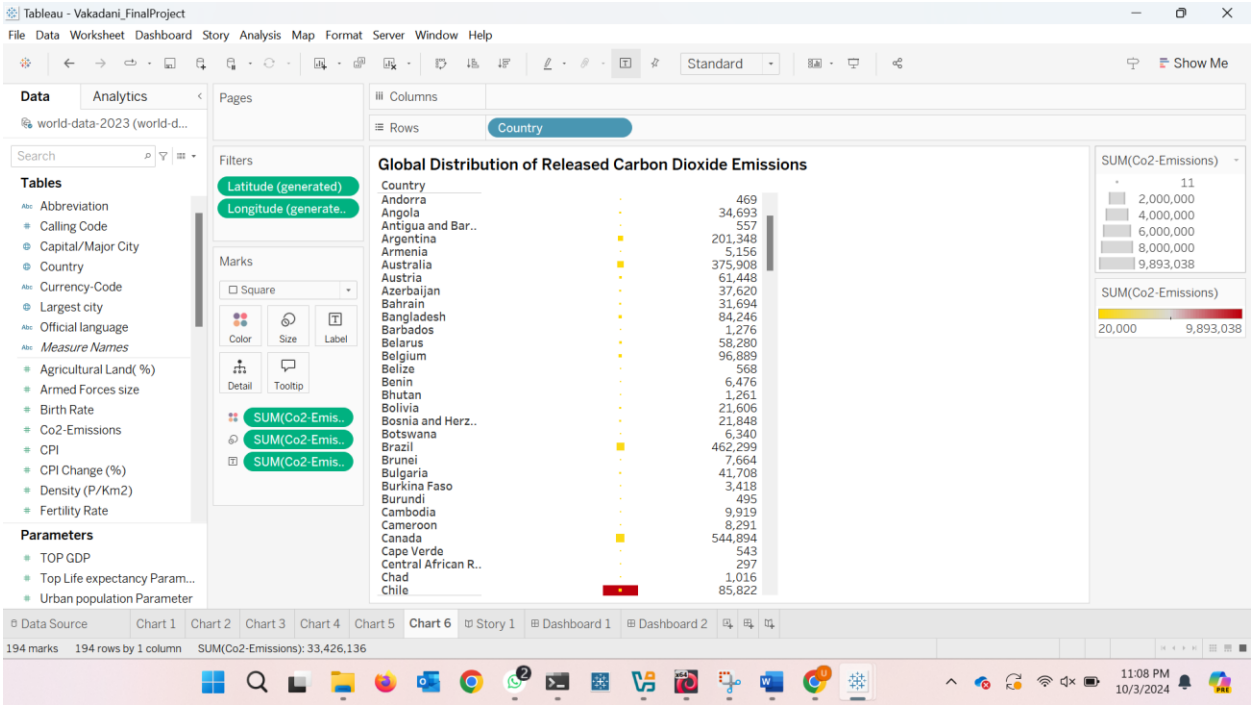
Chart: Box whisker plot showing life expectancy.



Story: Countries like Japan and Switzerland have high life expectancies of 84.2 and 83.6, respectively, while nations like Lesotho and Nigeria have much lower averages, standing at 53.7 and 54.3 years, respectively. This disparity reflects differences in healthcare, living conditions, and other factors influencing longevity worldwide.

Goal 6: Carbon dioxide emissions by country.

Chart: Visualizing CO2 emissions.



Story: **:** Nations like China and the United States have high emissions, with figures in the tons, while others like Nauru and Vatican City have much lower emissions. This difference reflects various factors like industrialization, population size, and energy consumption patterns.

Section 7.

Conclusion: -

In conclusion, the global landscape presents a wide range of imbalance across agricultural land usage, unemployment rates, GDP distribution, urbanization, life expectancy, and carbon emissions. To address these differences, we must prioritize innovative solutions such as urban agriculture, targeted job creation initiatives, inclusive economic policies, sustainable urban planning, healthcare access improvements, and concerted efforts to mitigate carbon emissions. By embracing these strategies, we can work towards a more equitable, prosperous, and sustainable future for all nations and communities.