



OCTOBER 10, 2023

ASSIGNMENT 1-VISUALISATION  
APPLIED DATA SCIENCE

NADILLA SINDHU  
22077385



## Contents

Dataset Link.....	2
Git Repository Link.....	2
Plot 1.....	3
Line Plot.....	3
Closure.....	3
Plot 2.....	4
Bar Graph.....	4
Closure.....	4
Plot 3.....	5
Pie Chart.....	5
Closure.....	6
References.....	7

## **Dataset Link**

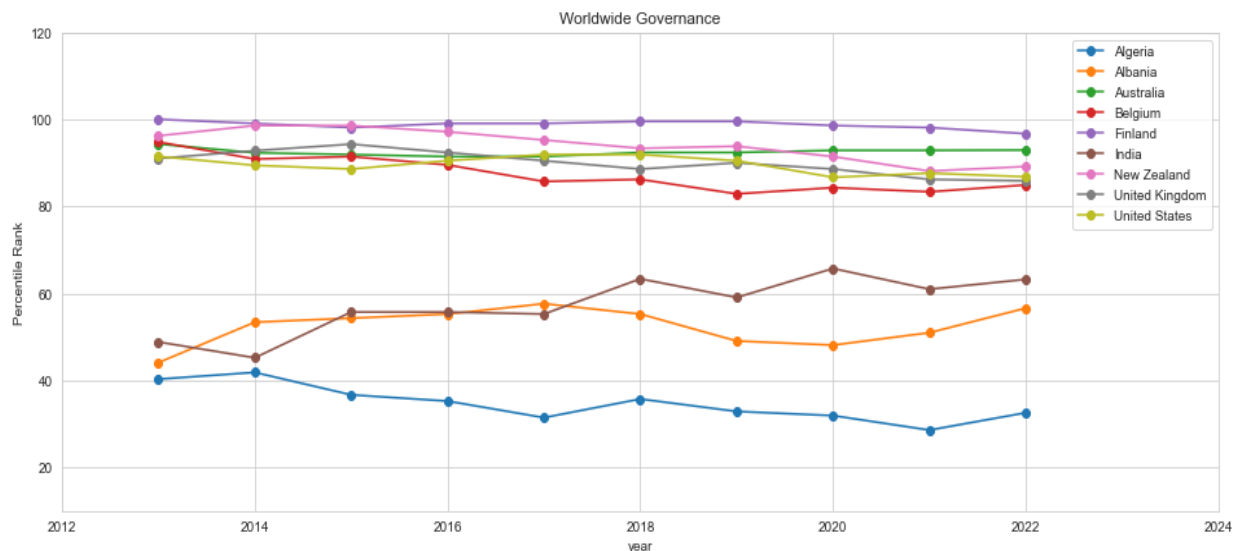
**<https://databank.worldbank.org/source/worldwide-governance-indicators>**

The dataset is downloaded from World bank organisation portal, and the data is about Worldwide Governance Indicators and their Percentile Ranks from year 2013-2022.

- Government Effectiveness refers to which a government can effectively and efficiently deliver its services to the public. It is also called as good governance.
- Percentile Rank is a statistical measure, which is comparison between the countries.

# Plot1

## Line Plot

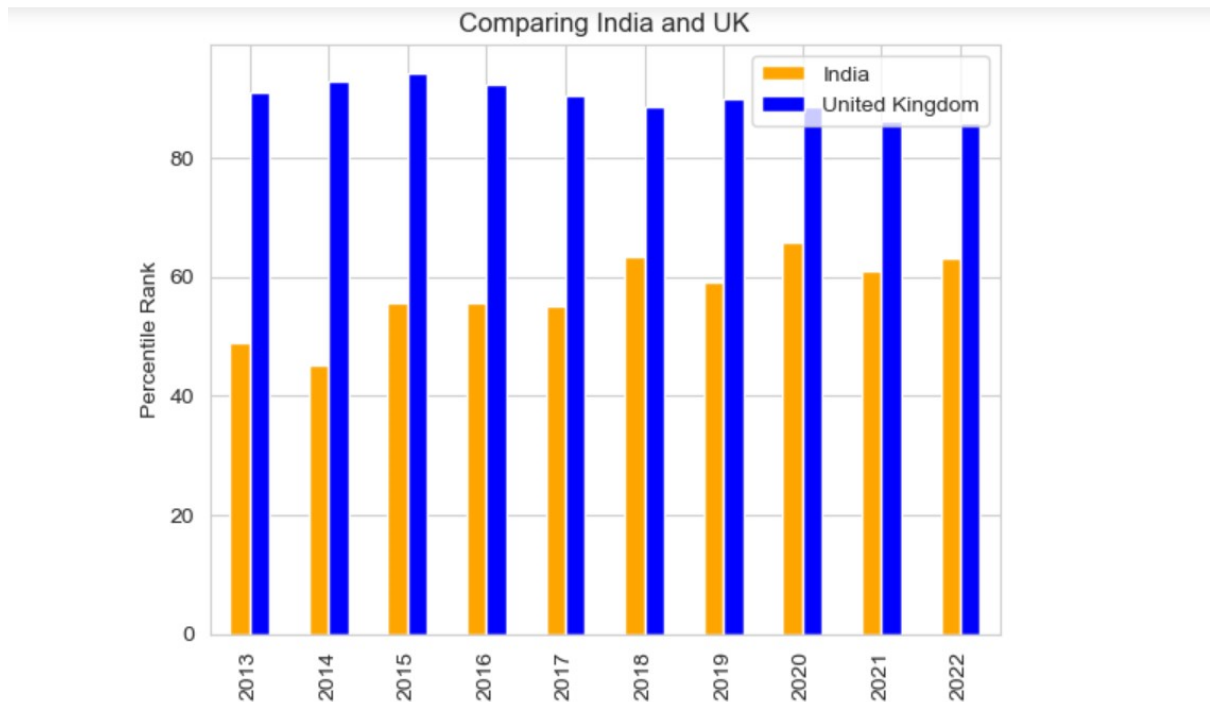


The above-mentioned figure is line plot of Worldwide Governance Indicators-Percentile Rank.

- The line plot gives a simple and effective way to visualize the change in data values over period of time.
- The above multiple line plot shows the Percentile Ranks for different countries i.e., Algeria, Albania, Australia, Belgium, Finland, India, New Zealand, United Kingdom and United States.
- Finland has the highest percentile ranking compared to the other countries; Even Finland is dipping over the past two years it has the good percentile rank compared to the other countries.
- Algeria is gradually decreasing its rank from the start and it has less percentile ranking compared to other countries.

## Plot 2

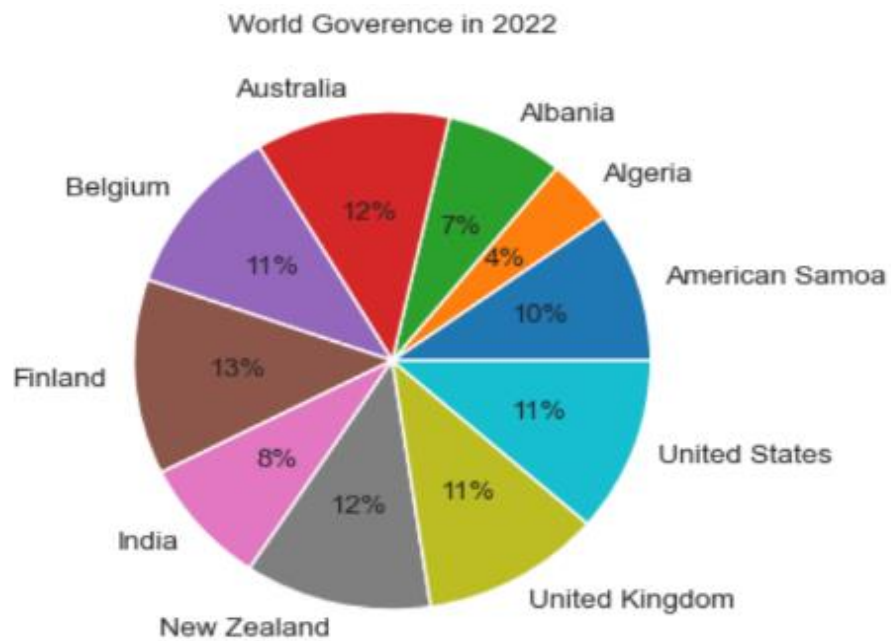
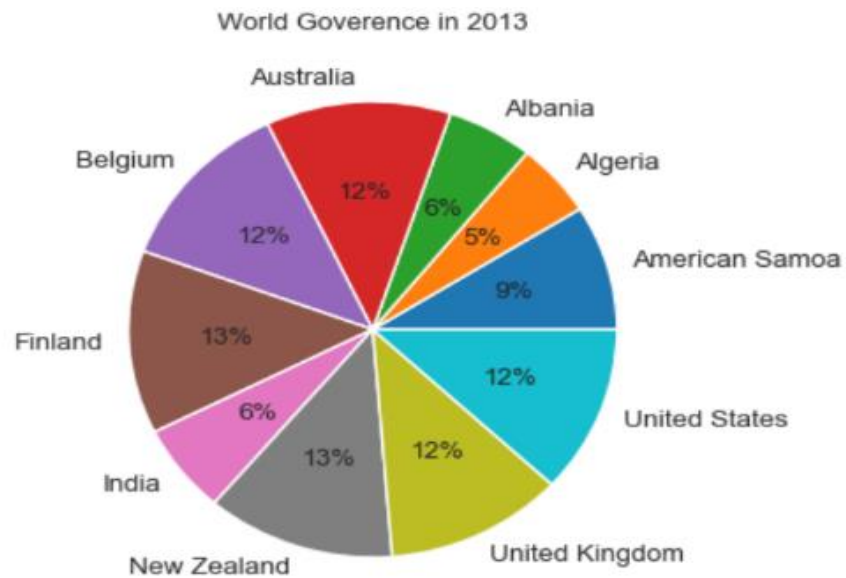
### Bar Graph



- Bar Graph is a Graphical representation of data, compares different sets of data from different groups.
- I have compared India and United Kingdom percentile ranks from 2013 to 2022. The figure shows that both India and United Kingdom have different governance rankings.
- In this comparison, year 2015 is the highest percentile rank for UK and year 2020 is the highest Percentile rank for India.
- Compared to India, United Kingdom has the highest percentile rank.

## Plot 3

### Pie Chart



- Pie charts are used to visualize fractions, percentages and proportions of a few categorical data.
- I have compared the World Governance Percentile Ranks for 2013 and 2022.
- Finland has the highest Percentile Rank among all other countries, it has 13% in both 2013 and 2022.
- Comparing the both pie charts, Australia, Albania, American Samoa, India and Finland have increased and some are having same percentile ranks.
- But, Algeria, United states, United Kingdom, New Zealand and Belgium are dipping gradually.

## References

- KattamuriMeghna(last updated: 28 Sep,2023), how to create multiple line plot by using matplotlib. [Online] [Accessed on November 05, 2023].  
[https://www.w3schools.com/python/matplotlib\\_histograms.asp](https://www.w3schools.com/python/matplotlib_histograms.asp)
- John Hunter, Darren Dale, Eric Firing, Michael Droettboom and the Matplotlib development team; 2012-2023 The Matplotlib development team. How to make bar plot of two variables. [Online] [Accessed on November 05, 2023].  
<https://matplotlib.org/stable/tutorials/pyplot.html>