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<b>BRANCH:</b>	B.E CSE-AIML
<b>BATCH:</b>	I
<b>SUBJECT</b>	Advanced Data Visualization
<b>EXPERIMENT No.</b>	2

**AIM:** Create advanced charts using Tableau / Power BI / R / Python / Plotly or Chart or D3.js to be performed on the dataset - Socio economic data

- Advanced - Word chart, Box and whisker plot, Violin plot, Regression plot (linear and nonlinear), 3D chart, Jitter, Line, Area, Waterfall, Donut, Treemap, Funnel
- Write observations from each chart

Practice dataset:

World Socio Economic dataset and Power BI file

**DATASET:** This dataset contains about 95 statistical indicators of the 66 countries. It covers a broad spectrum of areas including

General Information

Broader Economic Indicators

Social Indicators

Environmental & Infrastructure Indicators

Military Spending

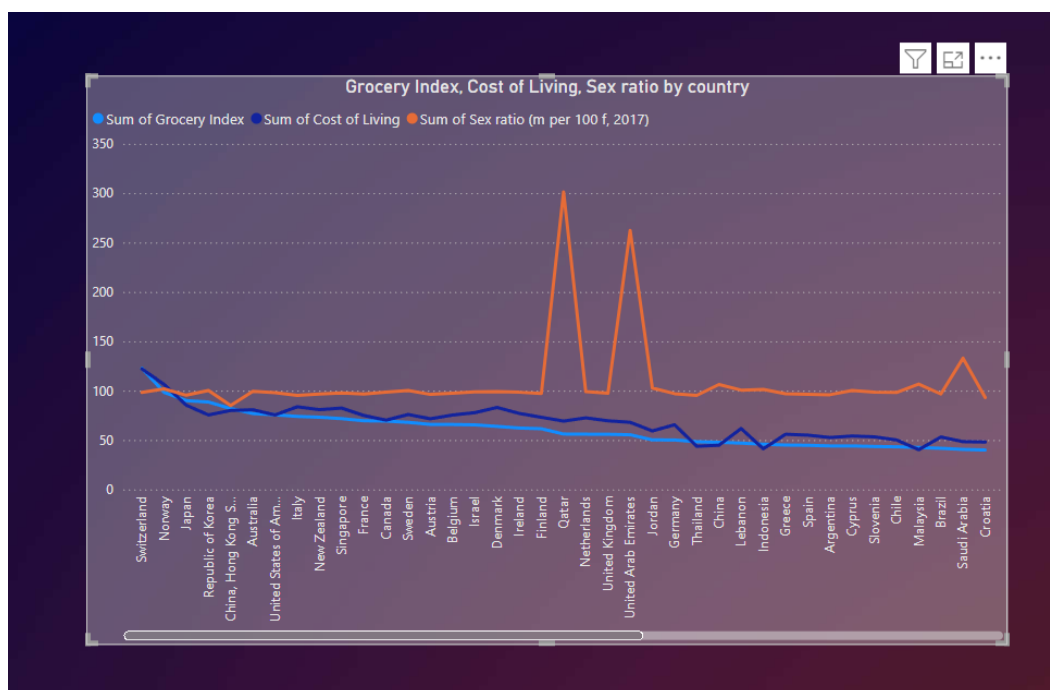
Healthcare Indicators

Trade Related Indicators e.t.c.

Link: <https://www.kaggle.com/datasets/nishanthshalian/socioeconomic-country-profiles>

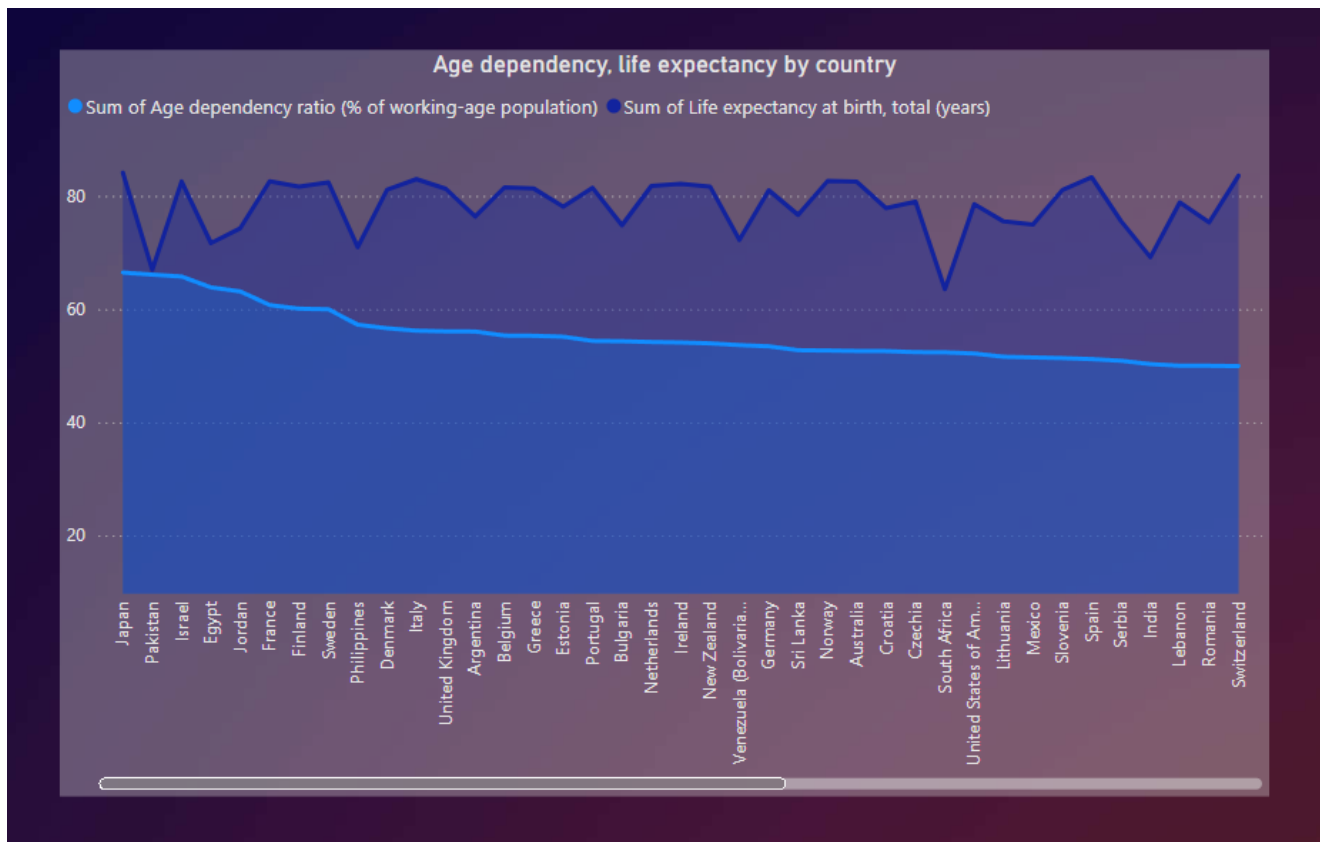
## ANALYSIS:

### Line Chart



the above line chart gives information about the grocery index, cost of living, sex ratio of the country in the list. This helps us to understand how these variables are related and changes over different countries.

## Aera Chart



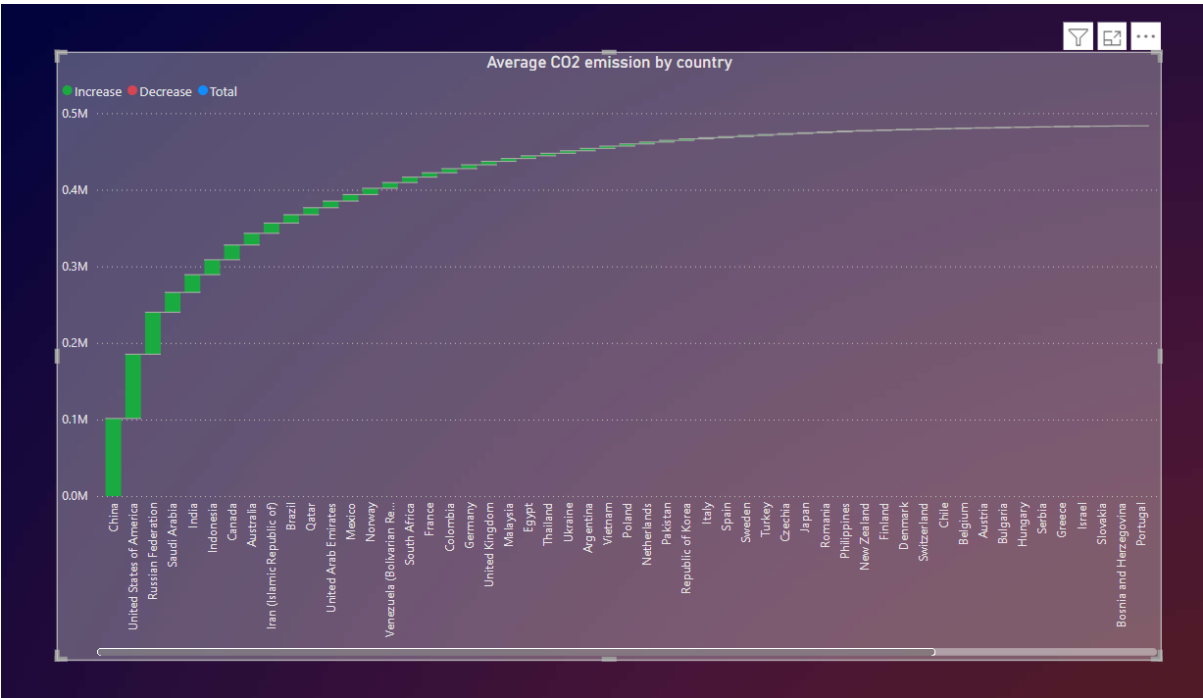
The above aera chart gives information about the life expectancy and age dependency country wise. This helps us to understand how much a country is depended on person (age dependency) vs the average life expectancy of the person.

# Treemap



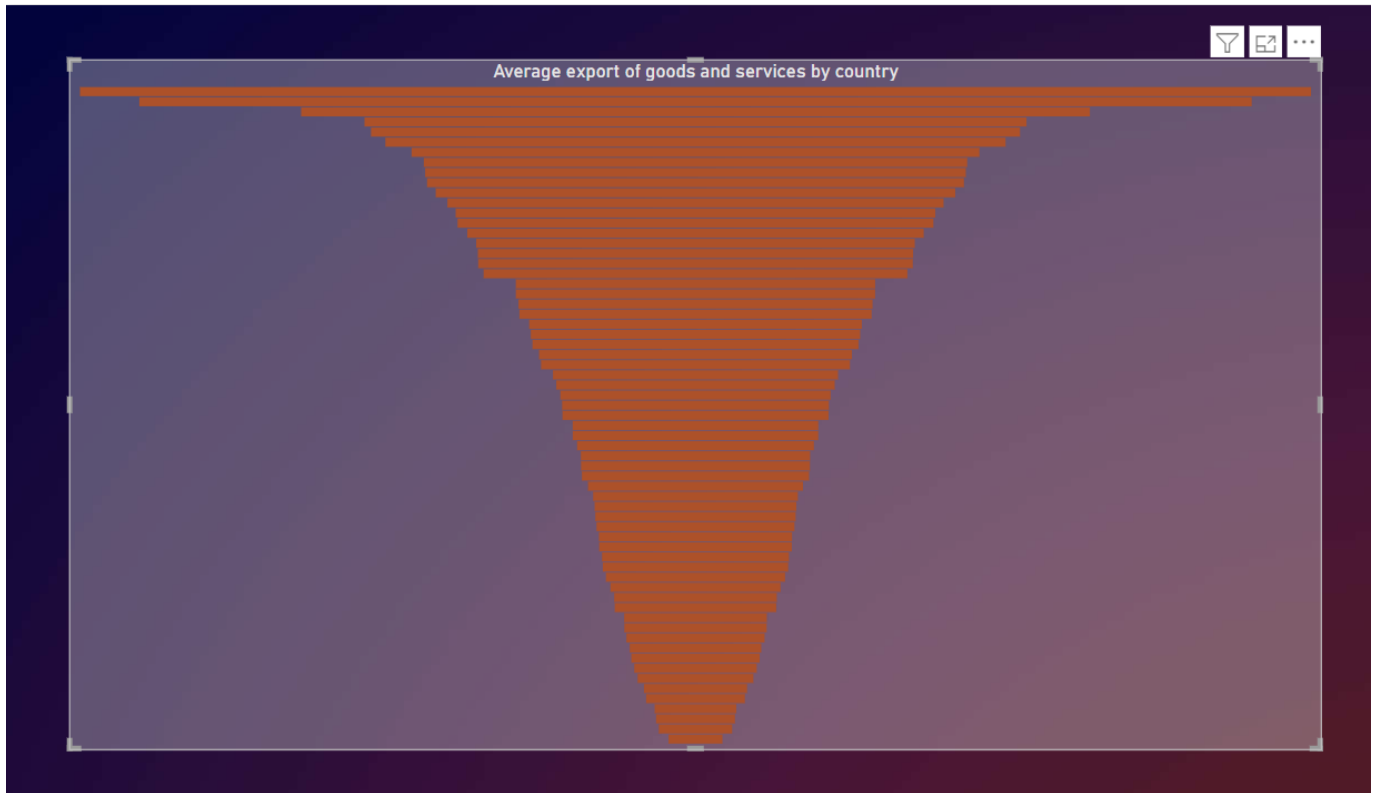
The above treemap gives information about the health care expenditure of each country (in GDP). This helps us to understand which country have highest health care expenditure and which has lowest. And gives average view of all country expenditure.

# Waterfall Chart



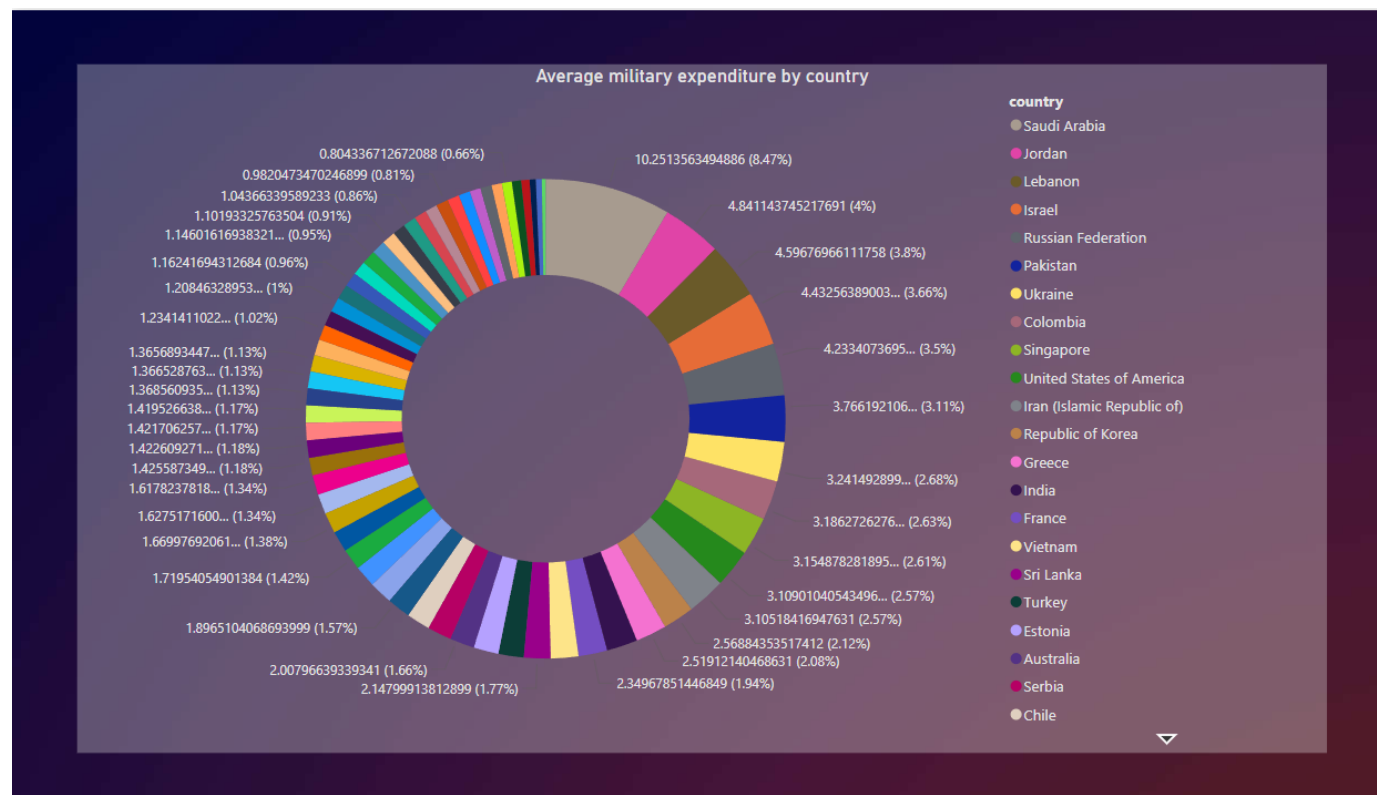
The above waterfall chart gives information about the average CO2 emission of each country. Since we don't have the negative thus the chart shown as rising only. This helps us to understand which country emits more average CO2 in the world.

## Funnel Chart



The above funnel chart gives the information about the average export of goods and services by each country. The visualization helps us to understand the which country exports more and which exports less in the world.

# Donut Chart



The above donut chart gives information about the military expenditure of each country in the world. This helps us to understand which country has strong military force and which has weak force depending upon the military expenditure.

**Conclusion:** Successfully implemented all the given chart in Power BI and explained each visualization.