

Expt 2: Socio-Economic Data

Problem Statement: 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

Software Used: Python

Dataset Used: World Socio Economic Dataset

1. Word Chart

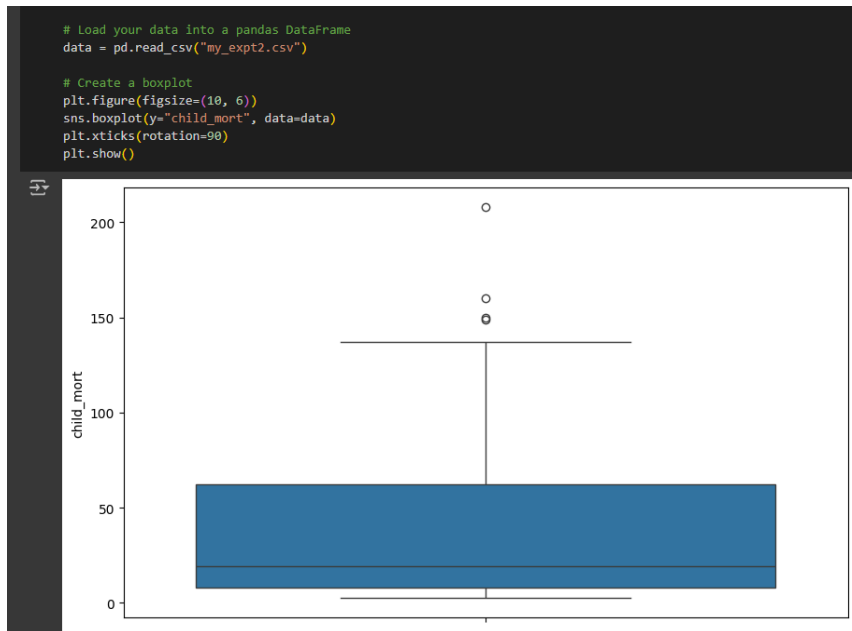
No suitable data, hence dummy.



As there was no suitable data, the graph was made on a dummy dataset.

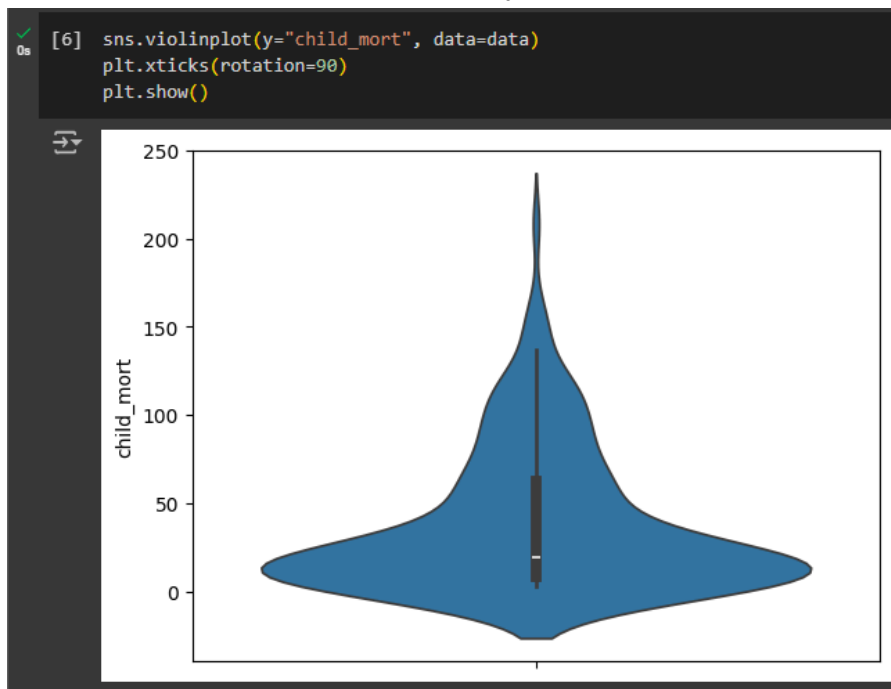
2. Box and Whisker Plot

The child mortality rate mean is around 15-20, min around 5-6 and max near 150.



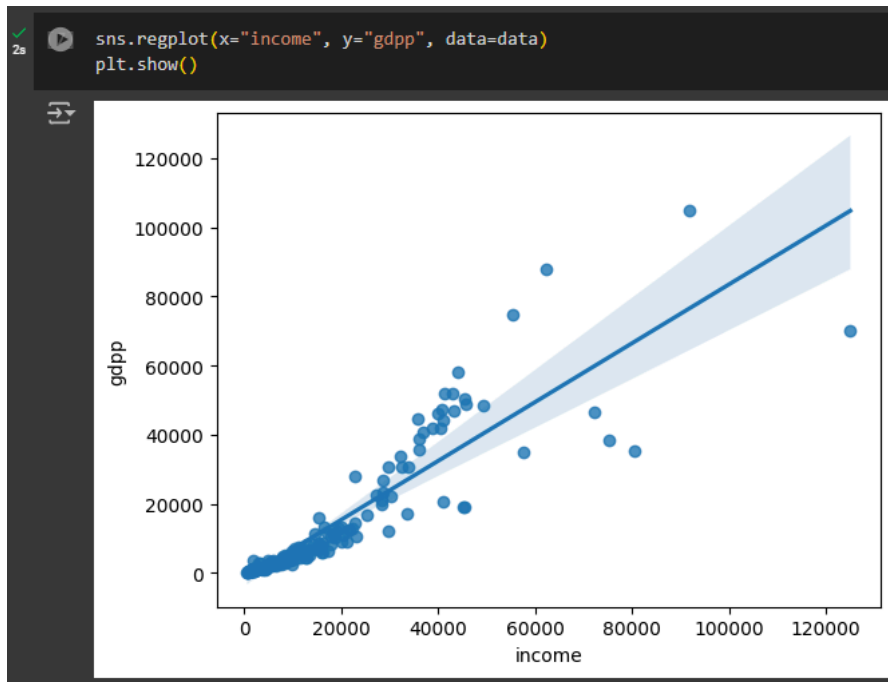
3. Violin Plot

Same as the box plot but shows density distribution also.



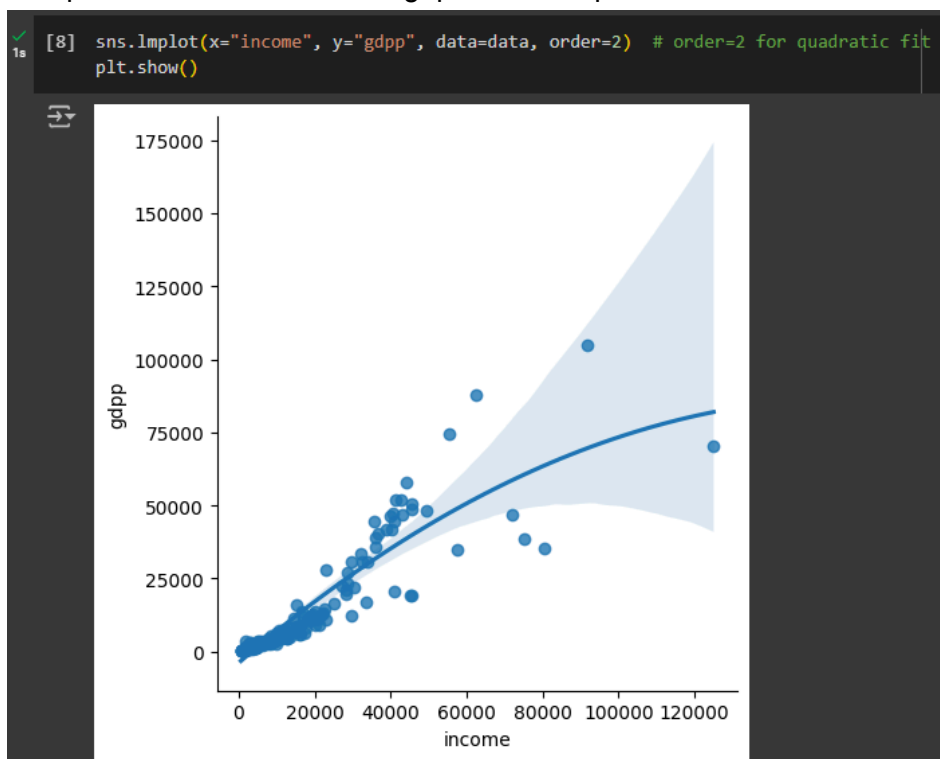
4. Regression Plot (Linear)

There is a somewhat linear relationship in income and gdp.



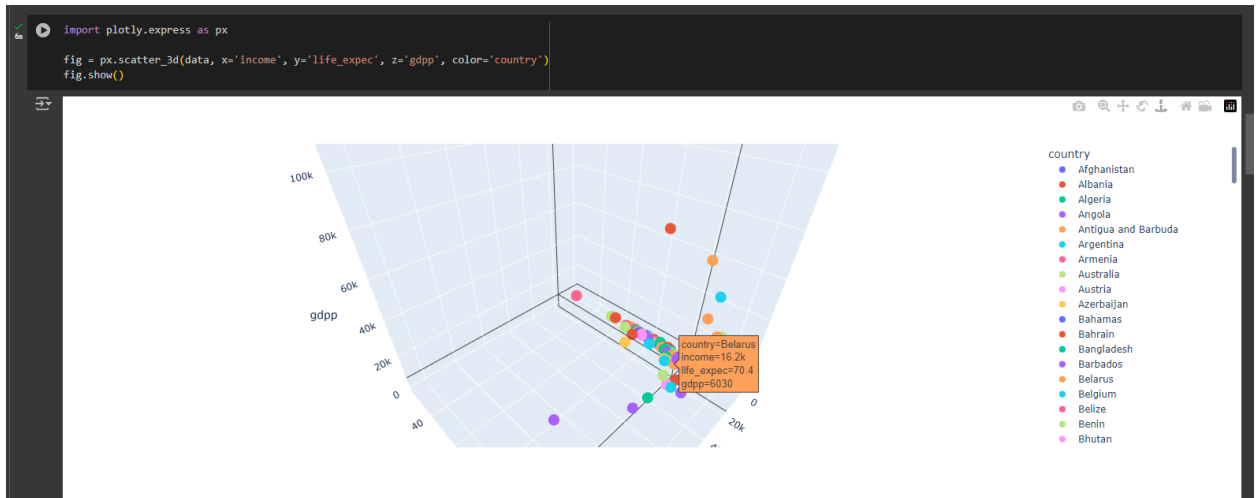
5. Regression Plot (Non-Linear)

This plot better fits the income-gdp relationship due to its non linear nature.



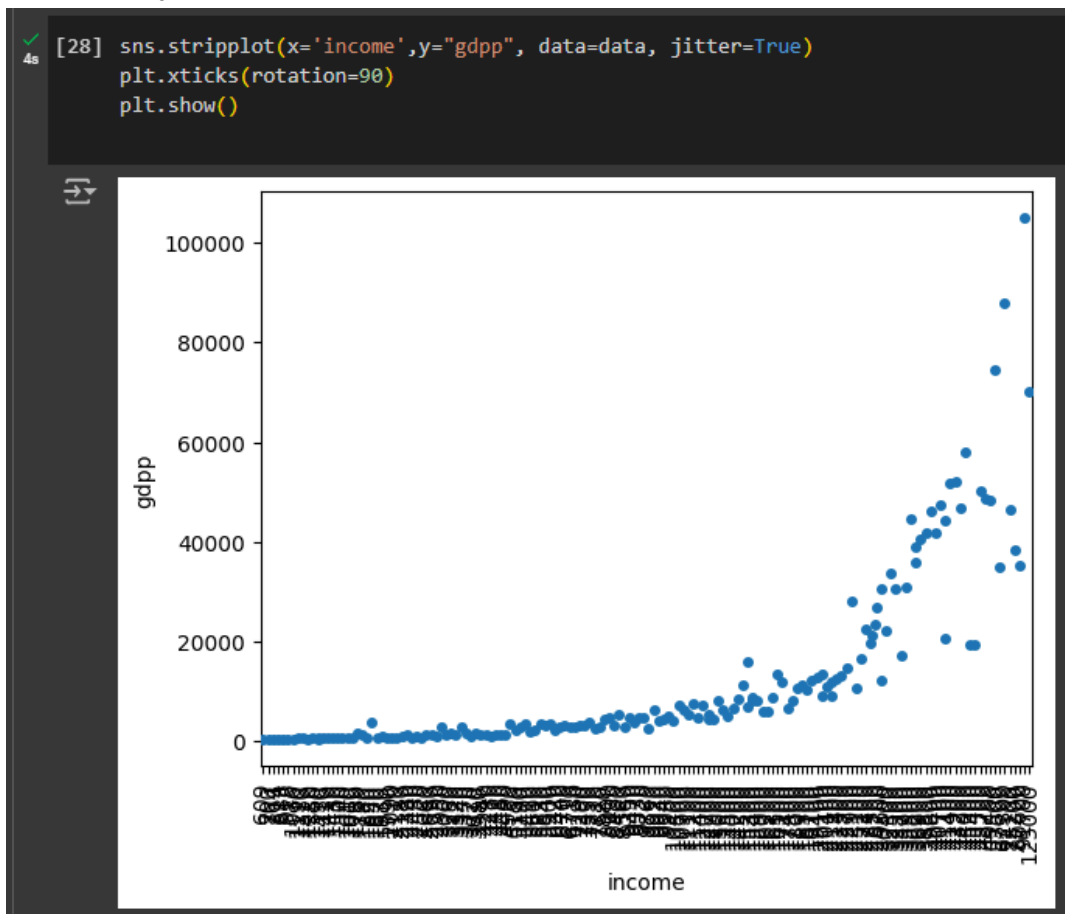
6. 3D-Chart

In general, high income and high gdp in the country leads to higher life expectancy in the country.



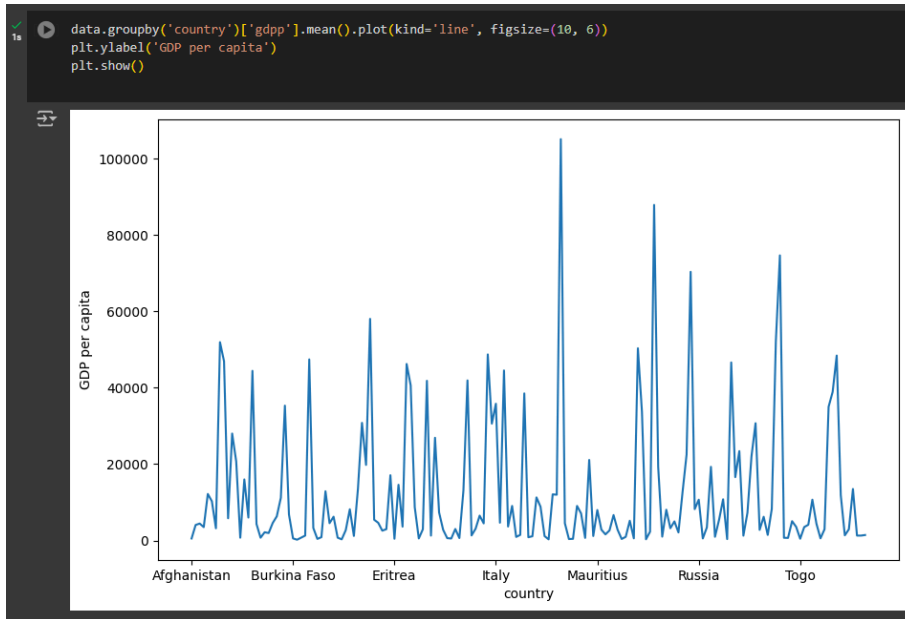
7. Jitter Chart

Jitter Plot is just like a scatter plot, but randomness is added to prevent overlap.



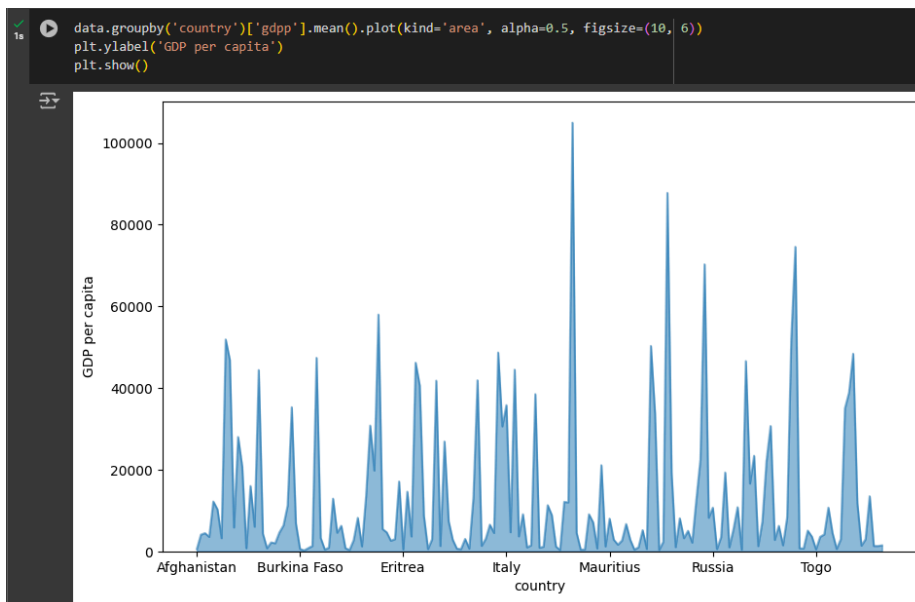
8. Line Chart

Mostly countries tend to come close to 50000 in gdp per capita.



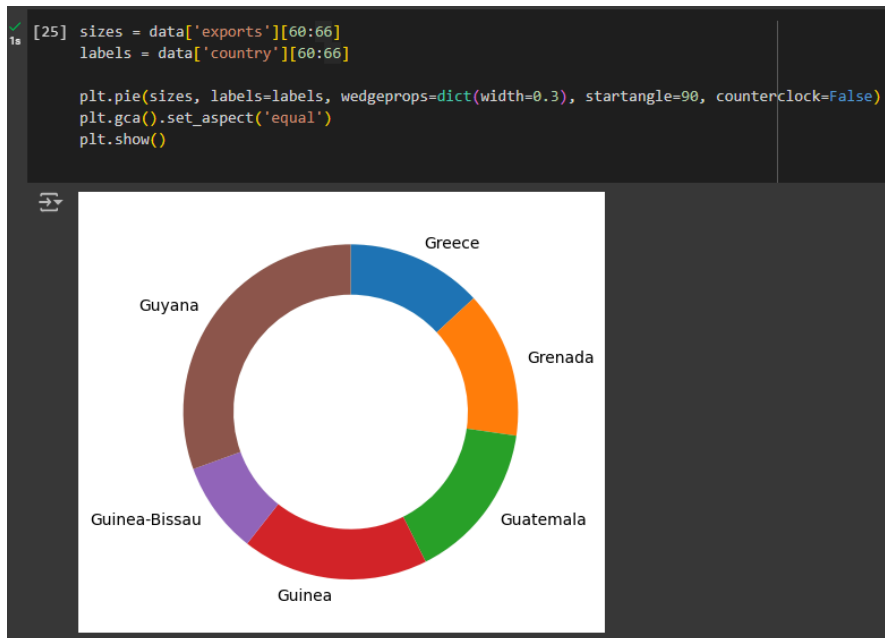
9. Area Chart

It is just like the line chart, but with the area highlighted so that cumulative analysis can also be done.



10. Donut Chart

It's like a pie chart hollowed out for better understanding. In the 6 countries selected we can see that Guyana accounts for most of the exports.



11. Treemap

A treemap shows comparison using area occupied. Nigeria has the highest inflation whereas European countries have the lowest.



12. Funnel Chart

No suitable data, hence dummy.

