Poverty, Economy and Life Expectancy in African Context

Olayinka Akerekan

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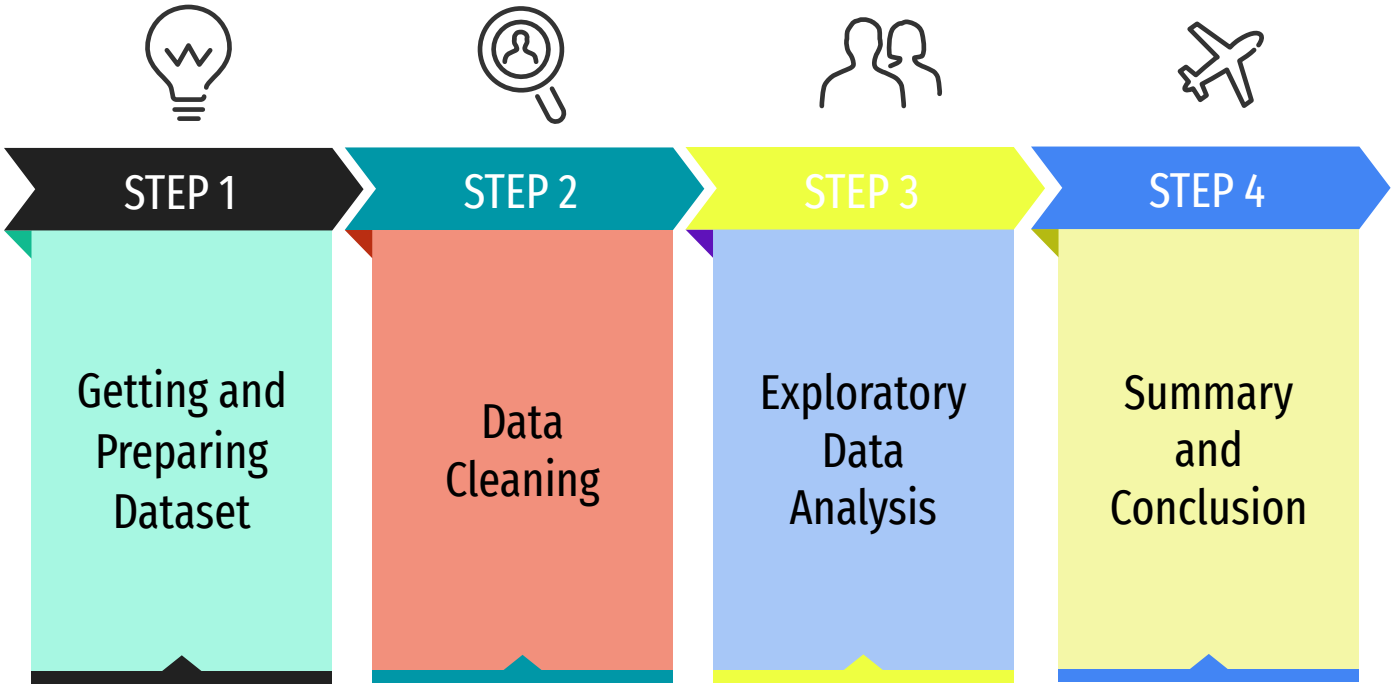
PROBLEM STATEMENT

- This project seeks to explain the relationship between poverty, life expectancy and the GDP of a country with the African context, looking at them microscopically regionally, and making meaningful recommendations

INTRODUCTION...

- According to the IMF, a state of living below $1 Per day is know as Poverty, and it can be characterized by the absence of drinking water or food
- In 2013, the United Nations came up with a Framework consisting of 17 main component, of which **No poverty** was clearly highlighted as a goal to this end, we will be analyzing the dataset to measure the impact of GDP on Poverty and Life expectancy.
- This framework is known as the sustainable development Goal(SDG).

PROCESS WORKFLOW



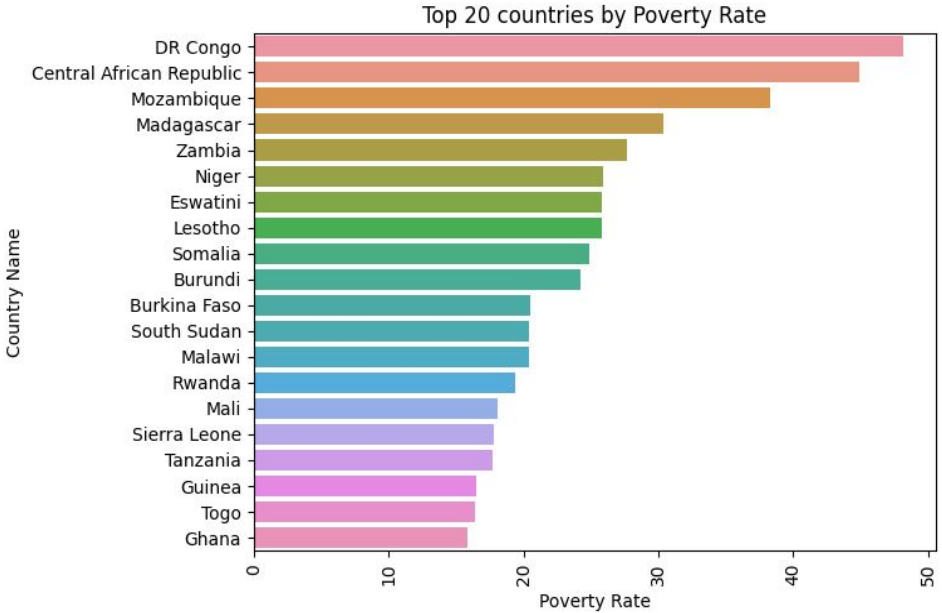
DATASET DESCRIPTION

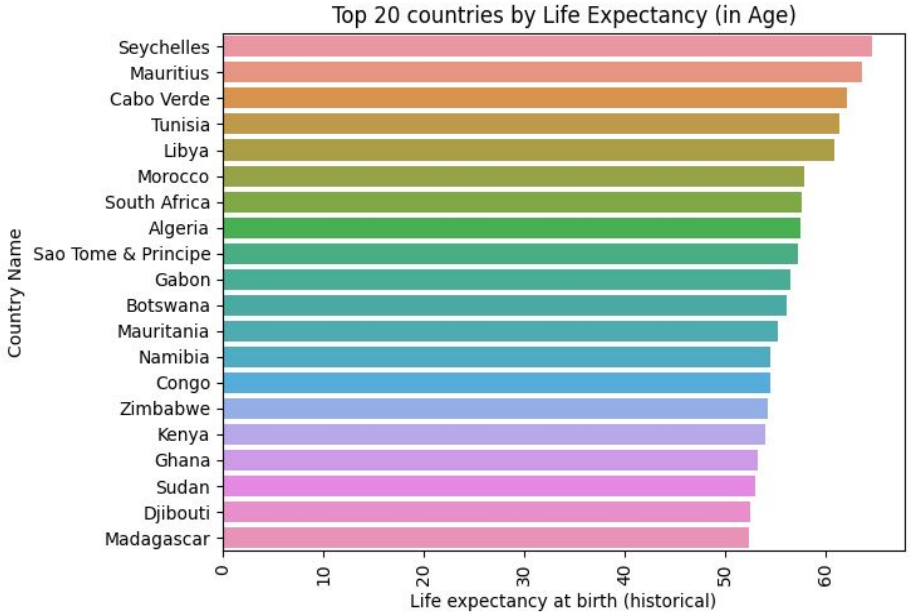
- The dataset used for this project was provided by the 10Alytics Team
- Contain data from four excel Workbooks - population-xlsx, GDP.xlsx, Country Code.xlsx, life expectancy.xlsx
- The data is for the period, 1960 - 2021

- Here is the shape of the population, GDP, Life, Country Code ((239, 11), (54, 64), (3937, 3), (54, 4))
- Let get straight to business...

INFORMATION FROM EDA

- The EDA was plotted with the python libraries seaborn, captures the top 20 nations with Poverty Rate and Life Expectancy.





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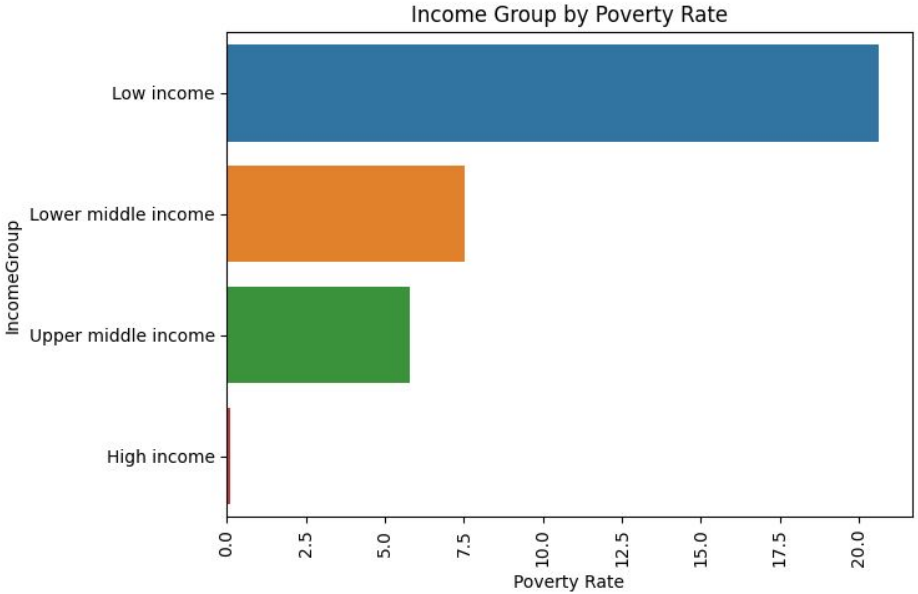
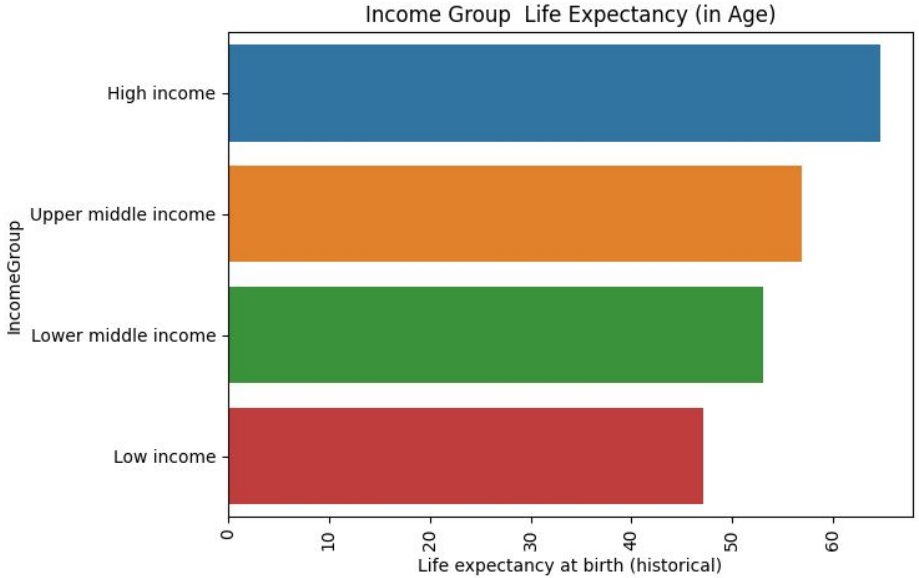
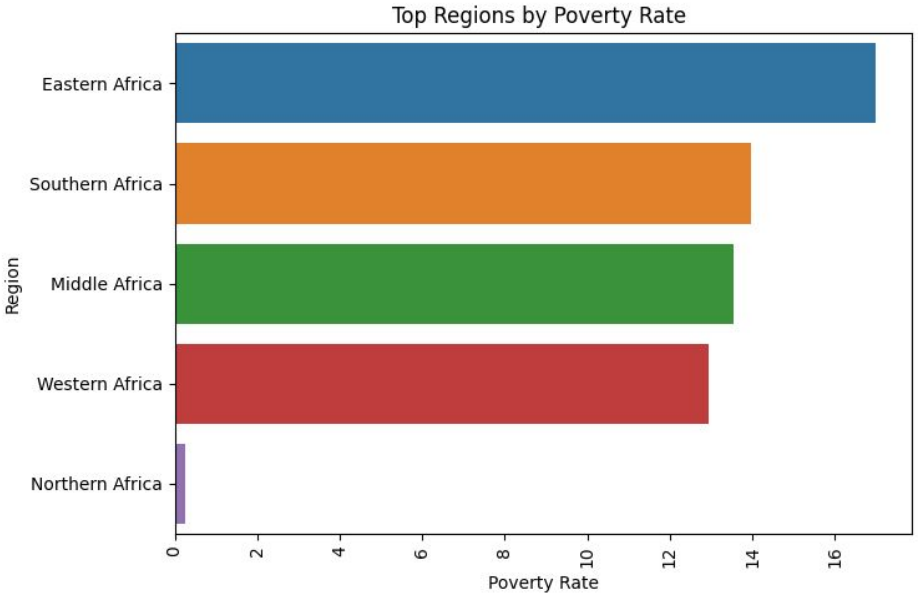


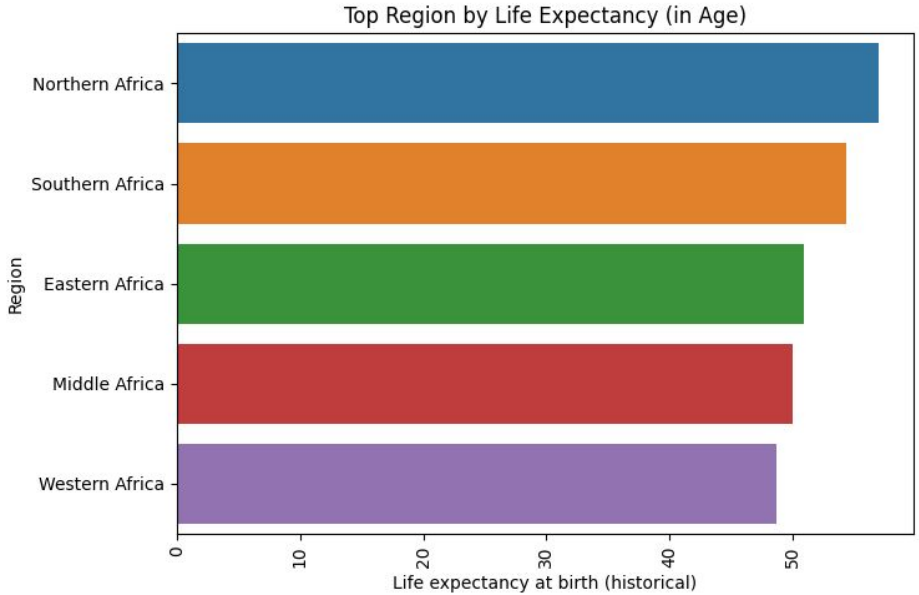


The charts shows the correlation between the Income group, life Expectancy and Poverty

The people with higher income generally lived longer than the people with the lower income, and are less likely to be in poverty since they have higher income

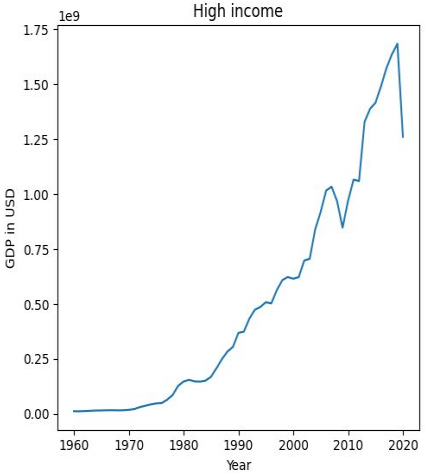
EDA

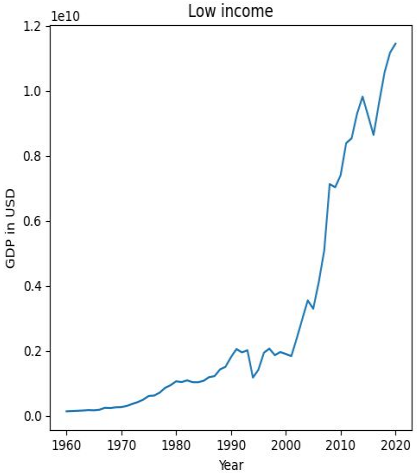


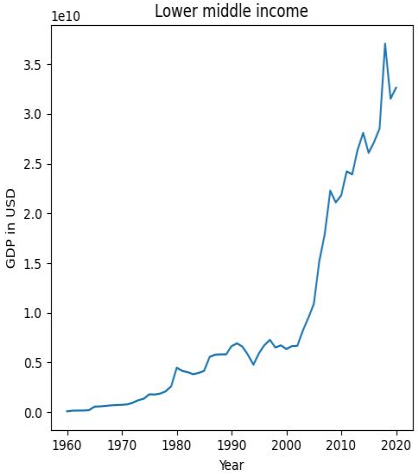


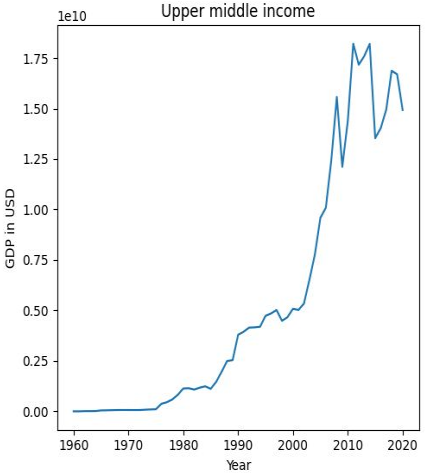
This is a plot of the poverty and life expectancy, From this chart we could clearly see an inverse relationship with Poverty and Life expectancy. Region with higher life expectancy are generally less poorer than other

EXPLORATORY DATA ANALYSIS



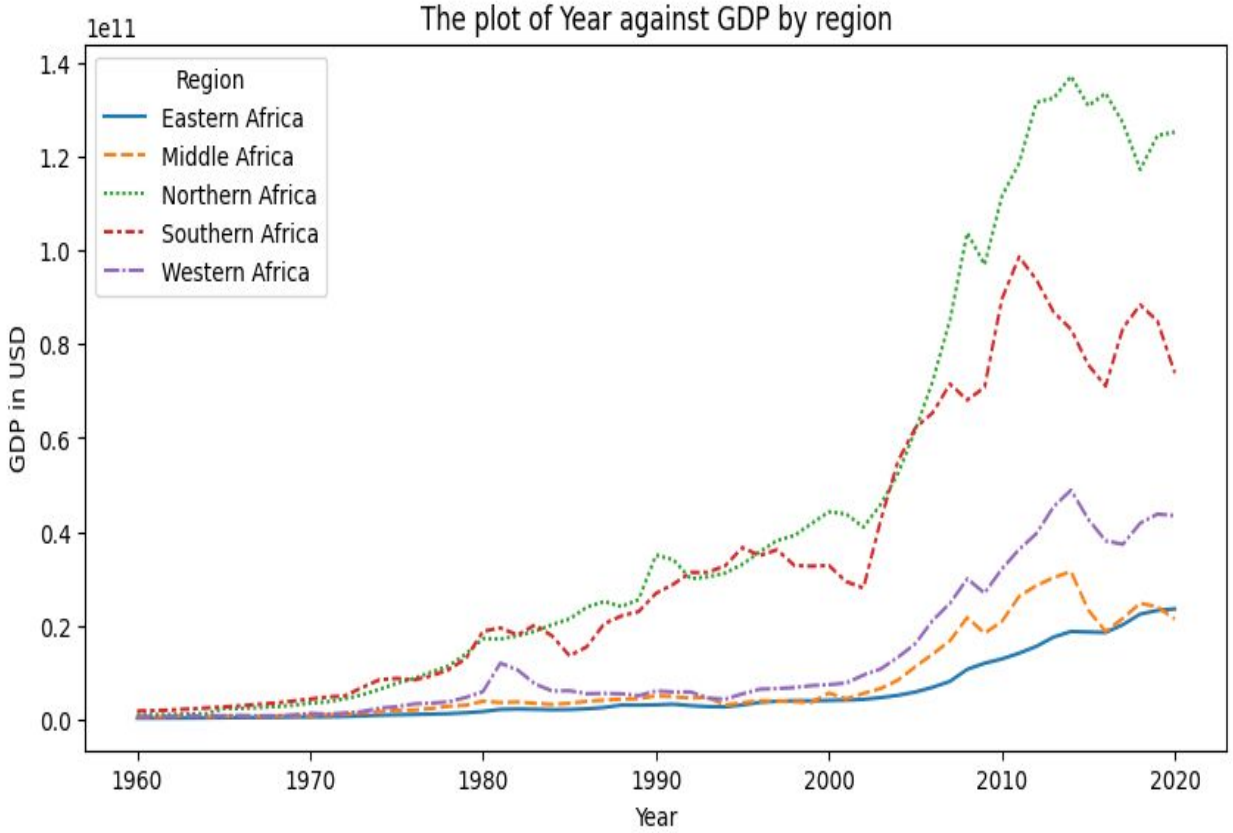






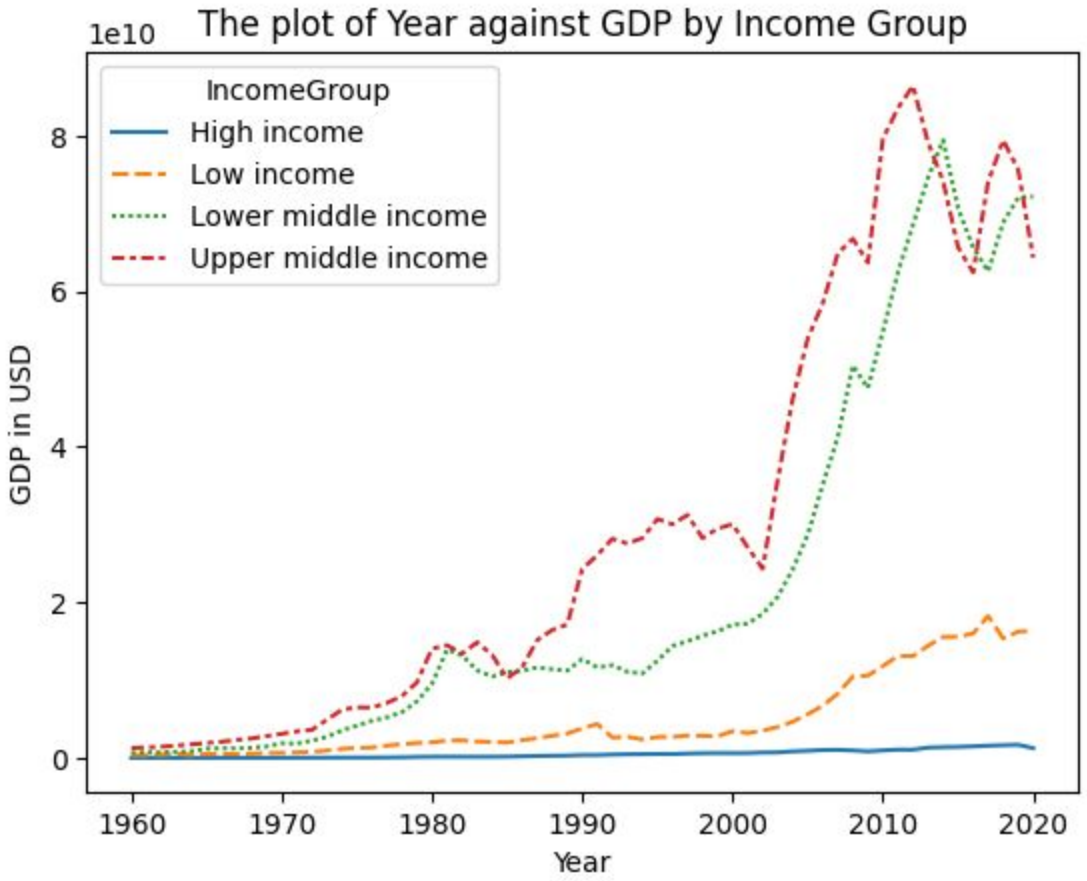
- The GDP of high income nations are seems not to be following the pattern set out in the book, as lower middle nation have the GDP in the last years, followed closely by upper middle class and High Income, The low income countries comes last.

EDA



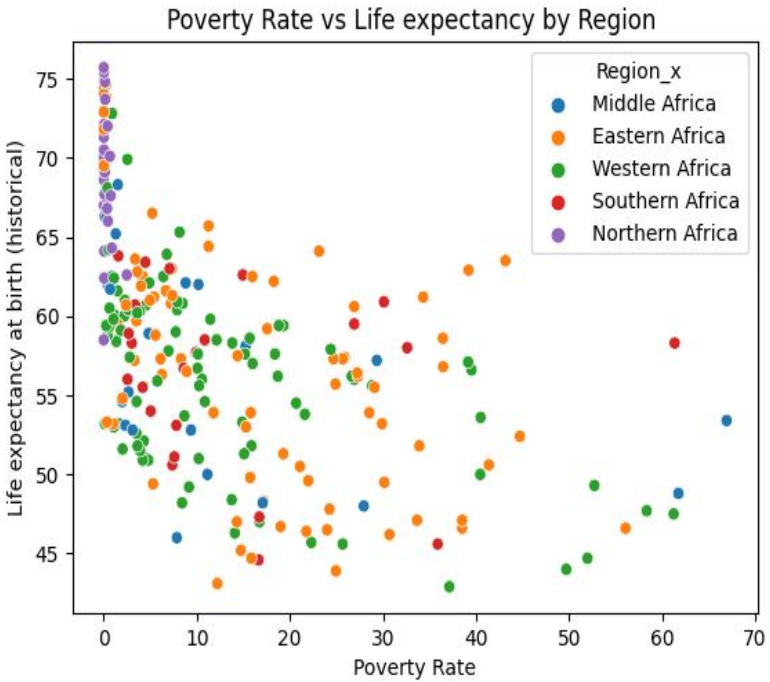
- The GDP according to region have continued to increase over the year, with the North leading the Pack, although their growth more need to be done

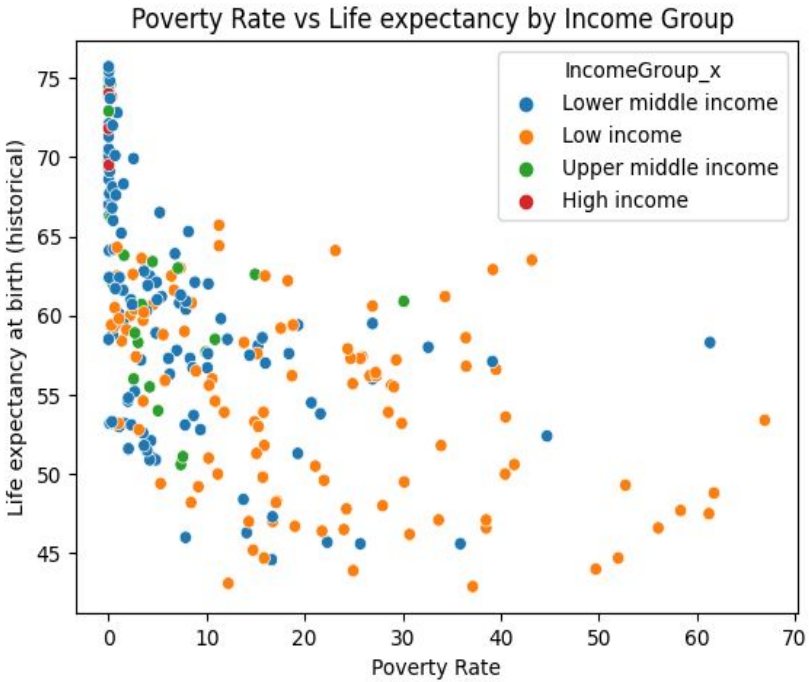
EDA



- The income group generally come from Countries with the highest GDP, and the GDP have been steadily increasing over the year

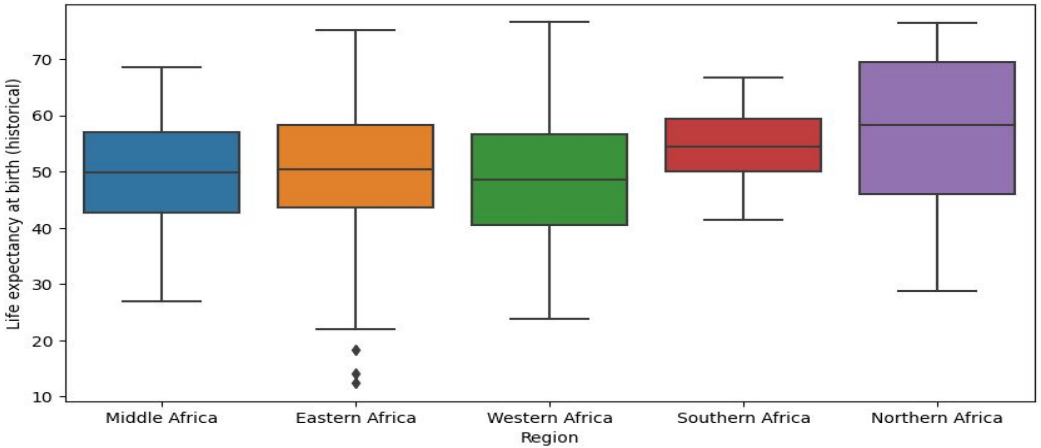
EDA



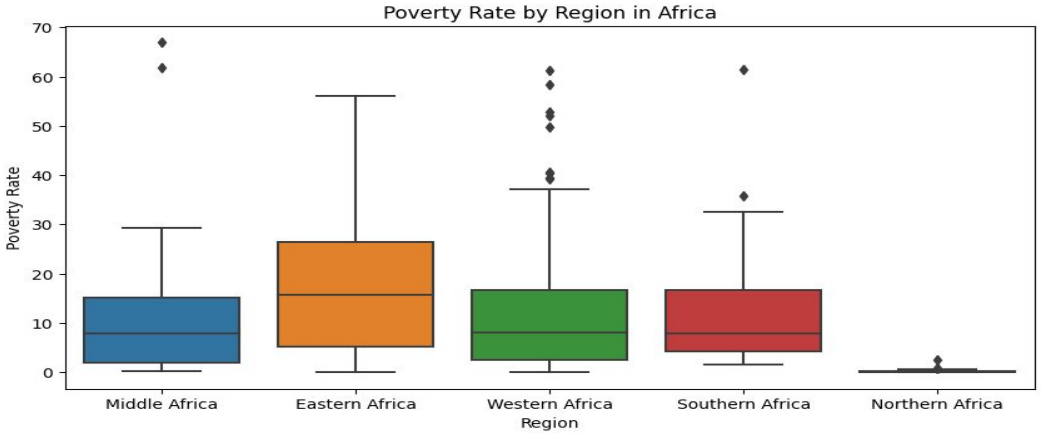


- Life expectancy is negatively correlated with number of people below the poverty line, such as more people are below the poverty line in a region. The people will higher income tends to live longer, because they are prolly afford healthcare

EDA

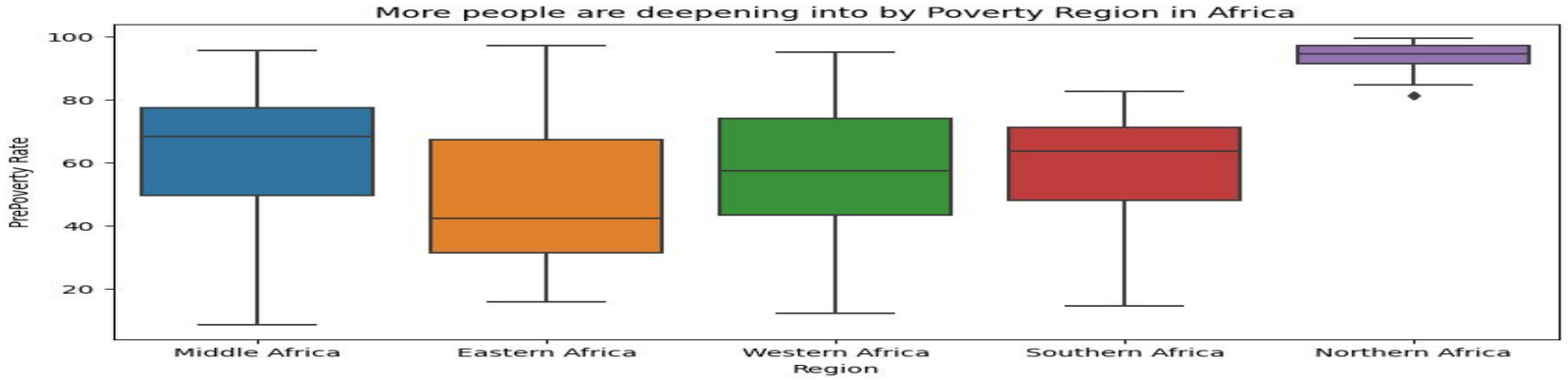


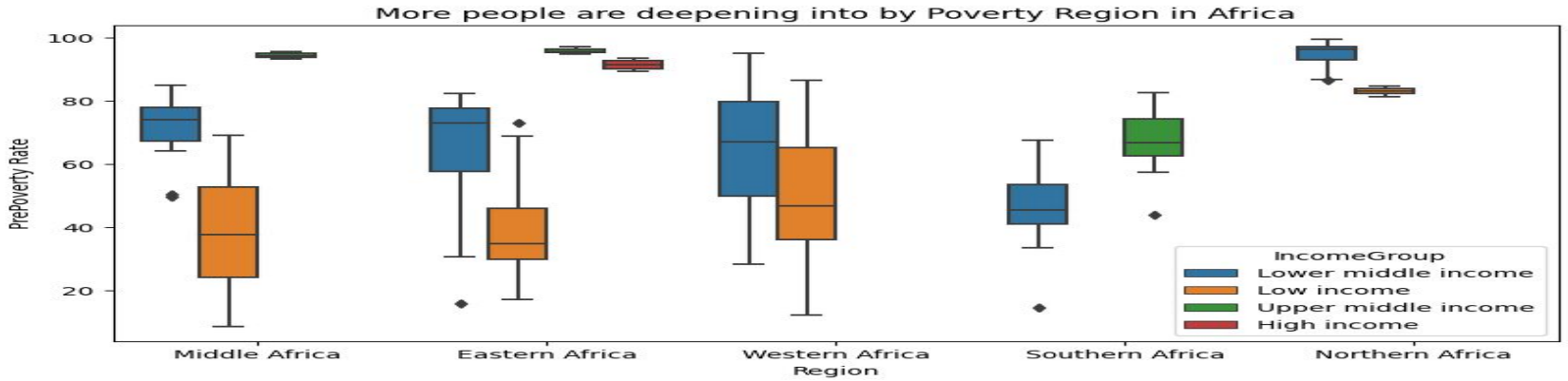
- North African generally have a higher median Life expectancy than those from other regions



- Eastern Africa have the highest Poverty Rate in this research and so, also the lower life expectancy

EDA


More people are deepening into by Poverty Region in Africa
PrePoverty Rate
100
80
60
40
20
Middle Africa
Eastern Africa
Western Africa
Southern Africa
Northern Africa
Region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Middle Africa
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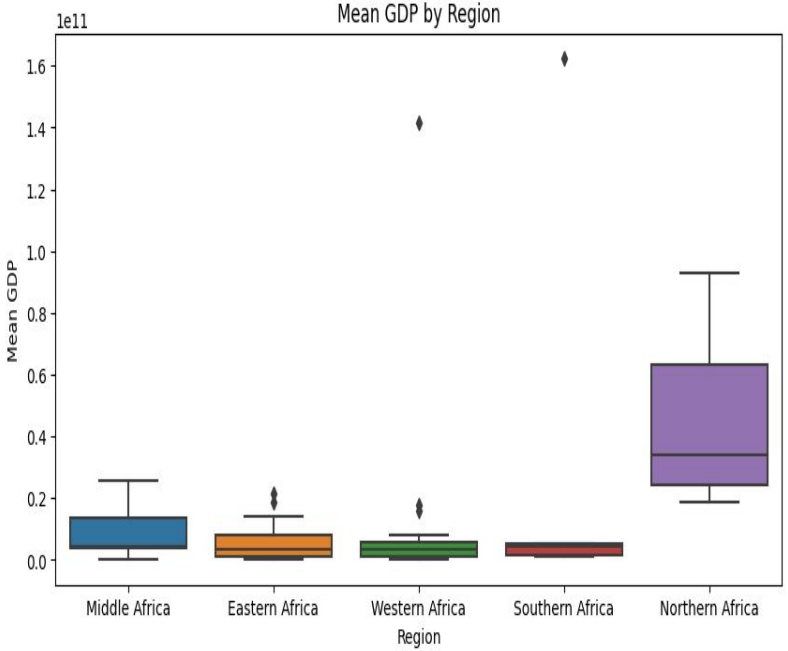
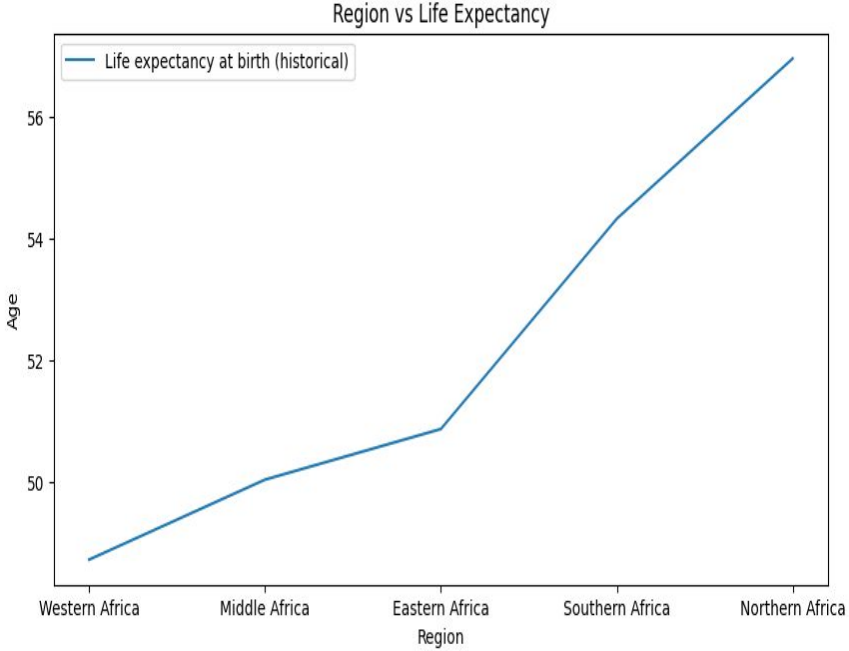
Southern Africa
Northern Africa
Region
IncomeGroup
Lower middle income
Low income
Upper middle income
High income

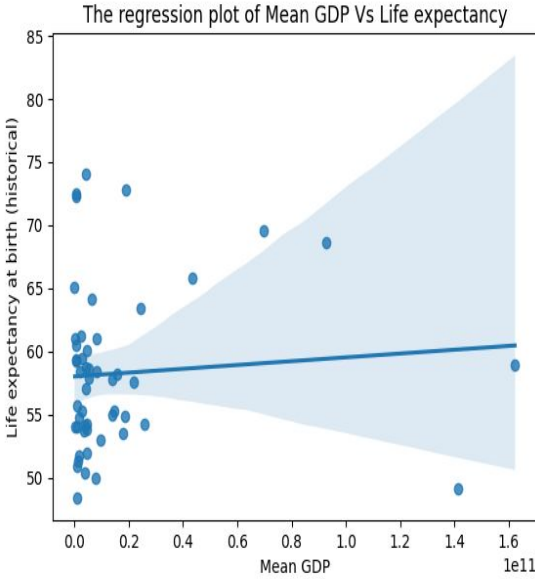
EDA



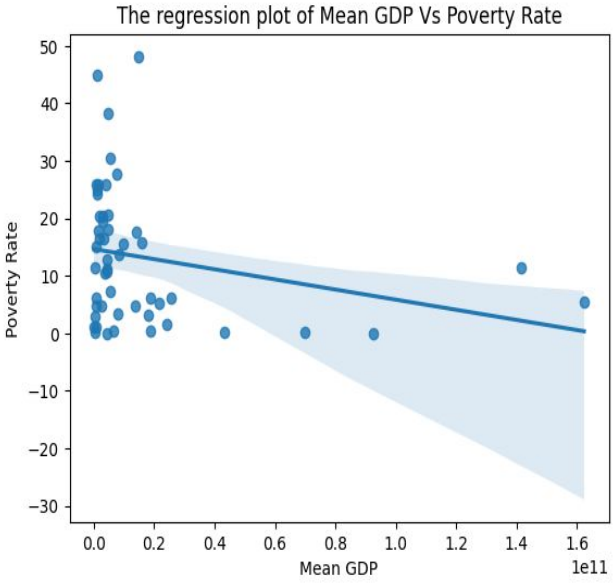


- The Mean GDP of North Africa stands out clear from the rest of Africa, and so their life Expectancy, a lot could have contributed to this not captured in this study

EDA - correlation and Regression plot



R > 0,
Weakly
Positively Correlated



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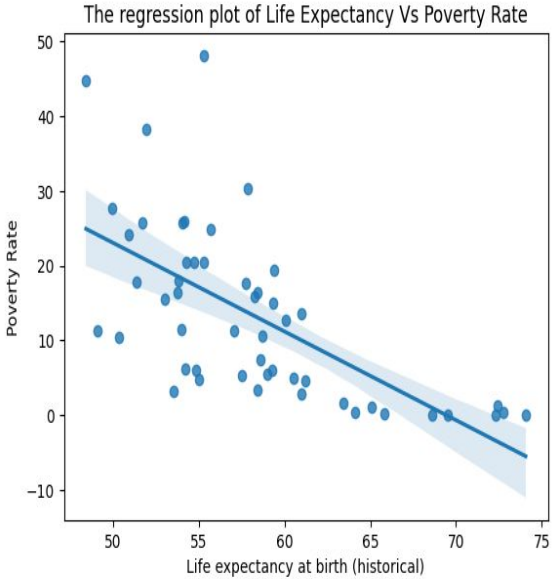
Weakly
Negatively Correlated



R > 0,
Strongly
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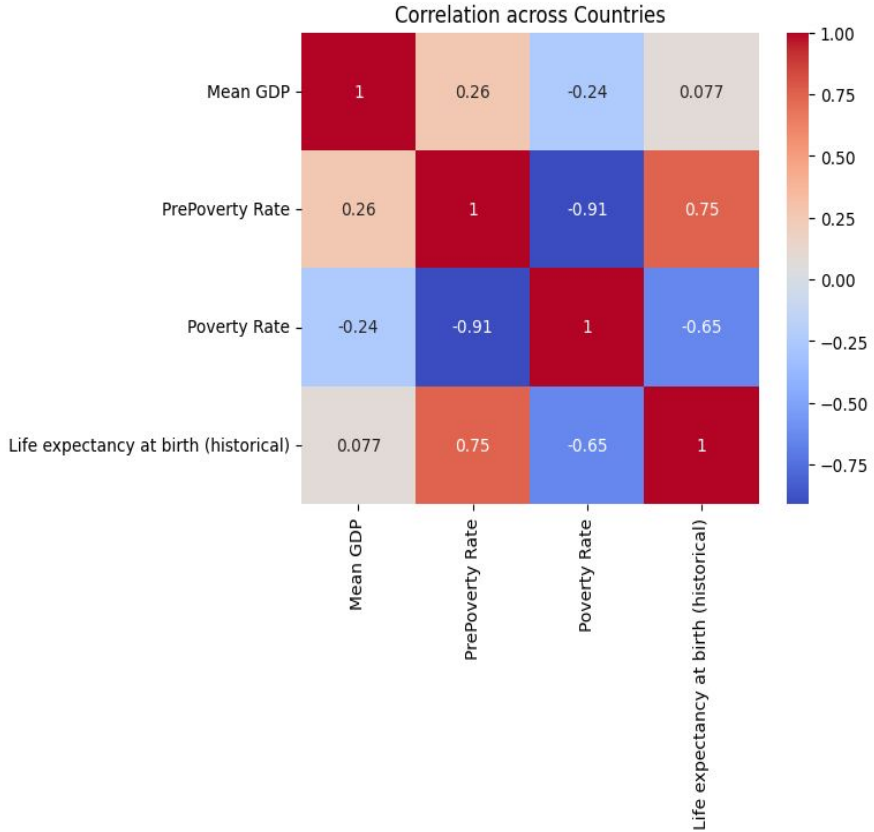
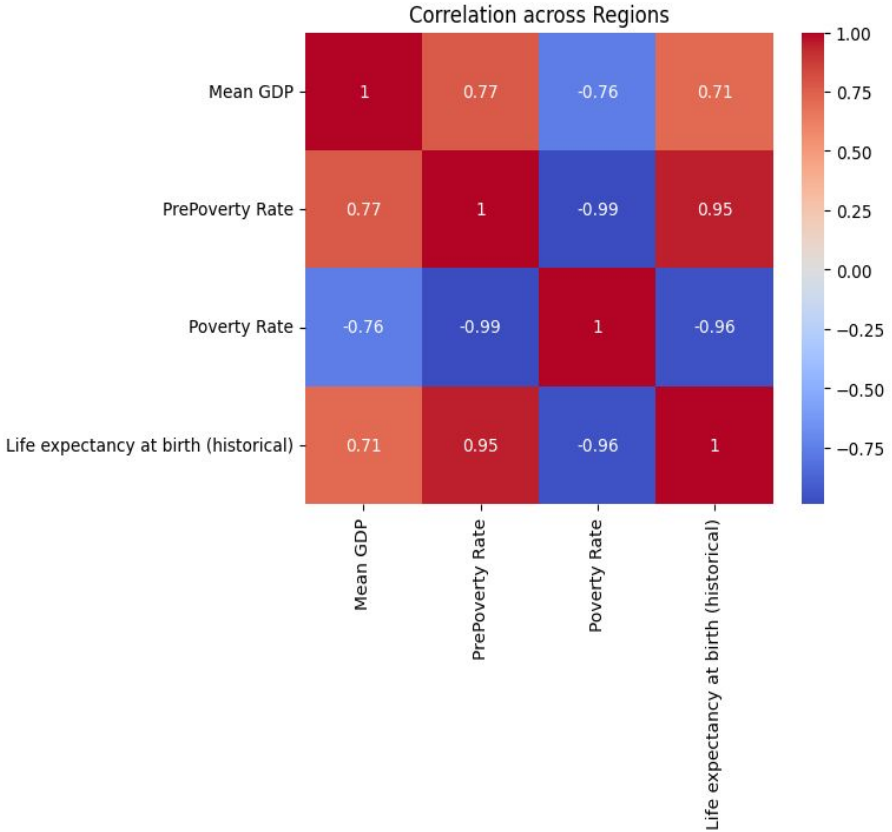
EDA - correlation





RECOMMENDATIONS

- Increase investments in healthcare: One of the key factors affecting life expectancy is access to healthcare. Increasing investments in healthcare infrastructure and services can help improve the health outcomes of the population and increase life expectancy. Based on finding Life expectancy is generally low across Africa, but lower in the middle and Eastern African region.

- Implement poverty reduction programs: Poverty can have a negative impact on both life expectancy and GDP. Implementing programs that help lift people out of poverty, such as job training and education initiatives, can help to improve economic conditions and increase life expectancy. Implementing. Poverty is negatively correlated to longer life expectancy, if you are poor, you are less likely to live long.

RECOMMENDATIONS

- Promote economic growth: GDP is an important measure of a country's economic health. Policies that promote economic growth, such as reducing barriers to trade and investment, can help to improve GDP and potentially reduce poverty. From our research, GDP have been increasing over the years but more still need to be done, as 1% can lead to approximately 0.77% decrease in poverty rate and 0.07% increase in life expectancy

- Improve access to education: Education is closely linked to poverty and economic growth. By improving access to education, countries can help to reduce poverty, increase economic opportunities, and improve overall quality of life.

- Focus on sustainable development: Sustainable development can help to address poverty, improve health outcomes, and promote economic growth in a way that is environmentally sustainable. Policies that prioritize sustainability, such as investments in renewable energy and conservation efforts, can help to create a more equitable and sustainable future for all.

CONCLUSION

- Although most time, Correlation may not infer causation, but it thus says a lot about a relationship between them and other factors which may not be covered in this study.

- In conclusion, a higher GDP will likely lead to higher life expectancy and reduced poverty rate in African Countries.

THANK YOU