

World Bank Development Indicators Data Analysis

Name: Your Abdul Rehman

Student Number: 23113350

GitHub Repository: <https://github.com/AR-KASHMIRI47/REFERRAL-Statistics-and-Trends.git>

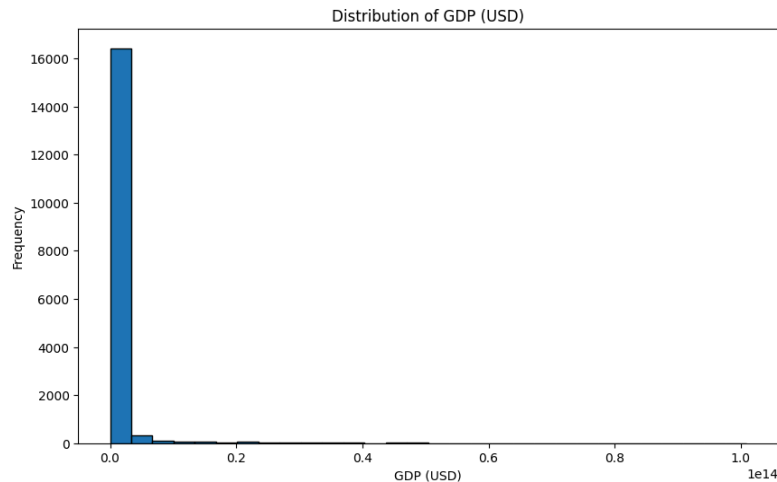
Introduction

This report explores the World Bank Development Indicators dataset [<https://www.kaggle.com/datasets/theworldbank/world-development-indicators>], focusing on economic, social, and environmental metrics across countries. The analysis aimed to uncover trends and relationships in global development through data cleaning, descriptive statistics, and visualization.

Analysis and Visualization

1. GDP Distribution

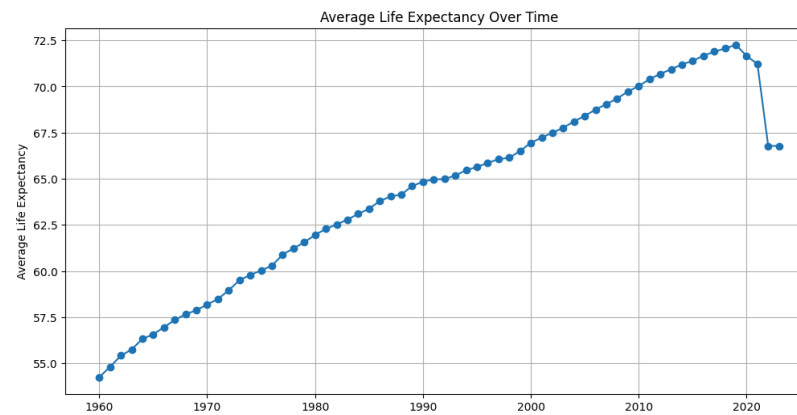
The first plot is a histogram displaying the distribution of GDP values across countries.



The distribution is heavily right-skewed, indicating that most countries have relatively lower GDP values, while a few countries have exceptionally high GDP. The median GDP is significantly lower than the mean due to these outliers.

2. Life Expectancy Trend

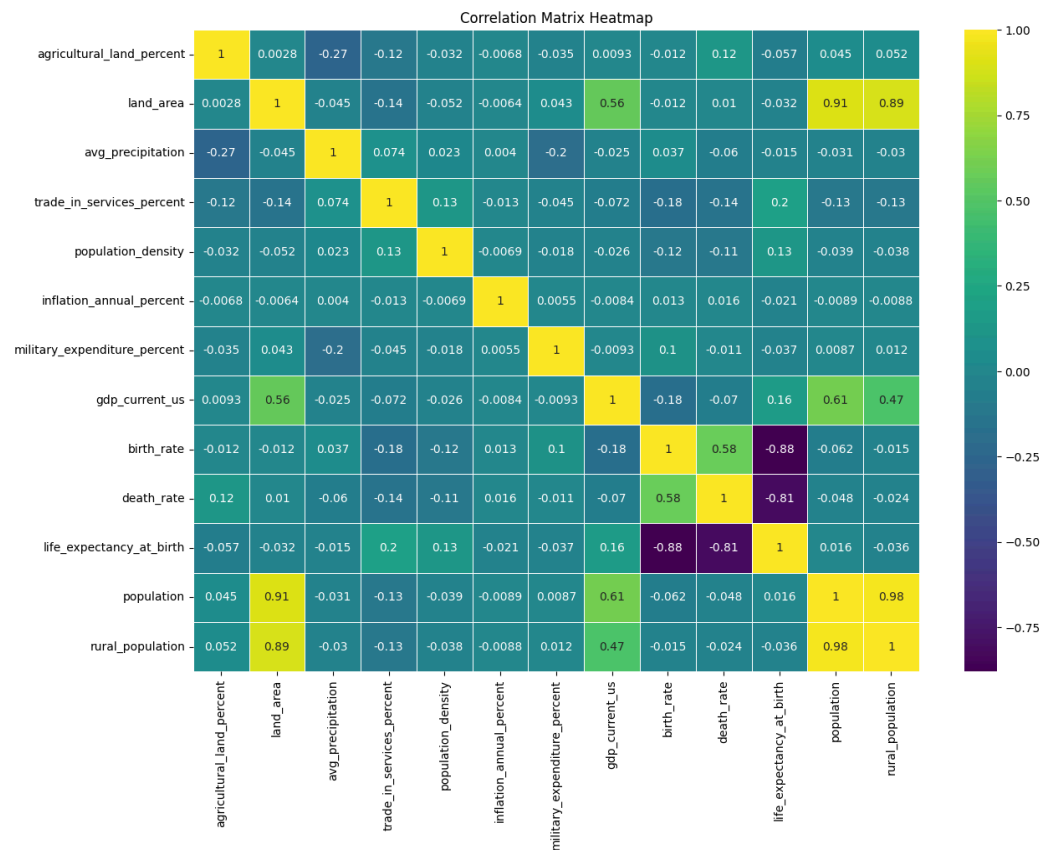
The second plot is a line graph showing the trend of average life expectancy over time.



It reveals a consistent upward trend, suggesting global improvements in healthcare and living standards. This trend is statistically supported by a positive correlation between life expectancy and time.

3. Correlation Matrix Heatmap

The third visualization is a heatmap of the correlation matrix, highlighting the relationships between key numerical indicators.



Positive correlations, such as between GDP and land area, and negative correlations, like trade in services and agricultural land, are clearly visible.

Conclusion

This analysis provided insights into global development trends, showing a significant disparity in GDP distribution, a positive trend in life expectancy, and diverse inter-variable relationships. Further exploration could focus on country-specific trends or predictive modeling of economic indicators.

GitHub Repository

You can access the complete analysis and code at:

[\[https://github.com/AR-KASHMIRI47/REFERRAL-Statistics-and-Trends.git\]](https://github.com/AR-KASHMIRI47/REFERRAL-Statistics-and-Trends.git)