



Presented by :  
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# World Population Review



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# Executive Summary



## The Purpose of The Report

This review offers accessible global demographic data, transforming complex stats into easy-to-understand charts, graphs, and articles, covering population, health, economy, and more, aiming to make population trends understandable for researchers, students, and the public through interactive tools and reliable data visualization



## Key Finding

Countries with higher GDP per capita generally have higher happiness score and higher health life expectancy. The relationship is not perfectly linear, indicating that other factors contribute to happiness and health life expectancy. Other variables like social support, life expectancy, freedom, and absence of corruption also influence happiness levels and health life expectancy.



## The Implication

Policy makers and governments can prioritize infrastructure investments and economic development strategies to draft "better policies for better lives". World organizations can provide assistance to countries with low GDP, health life expectancy, and happiness scores to improve their standard of living



# Introduction

This report was created for people, government, policy-makers, etc. to provide an overview of quality of life parameters in various countries in the world based on surveys that have been conducted, which can be used to:

(a) **Assessing Current Conditions:** To provide a comprehensive picture of the current living conditions within each country, often using objective indicators such as income levels, access to essential services (e.g., clean water, sanitation, healthcare, education), and housing quality.

(b) **Informing Policy Makers:** To provide data and analysis that assists policymakers and development practitioners in designing and implementing targeted interventions aimed at improving quality of life, reducing poverty, and promoting inclusive growth.

(e) **Identifying Key Factors:** To determine which specific factors significantly influence living standards, thus guiding resource allocation.

# Methodology

**01**

## Data Sources

The World Happiness Survey Report (landmark survey of the state of global happiness). The reports review the state of happiness in the world today and show how the new science of happiness explains personal and national variations in happiness.

**02**

## Collection Method

Load the dataset from the URL to a pandas dataframe.

**03**

## Data Wrangling Method

- Checking for correct data types
- Change the data types
- Checking for missing values
- Imputing missing values
- Database querying

**04**

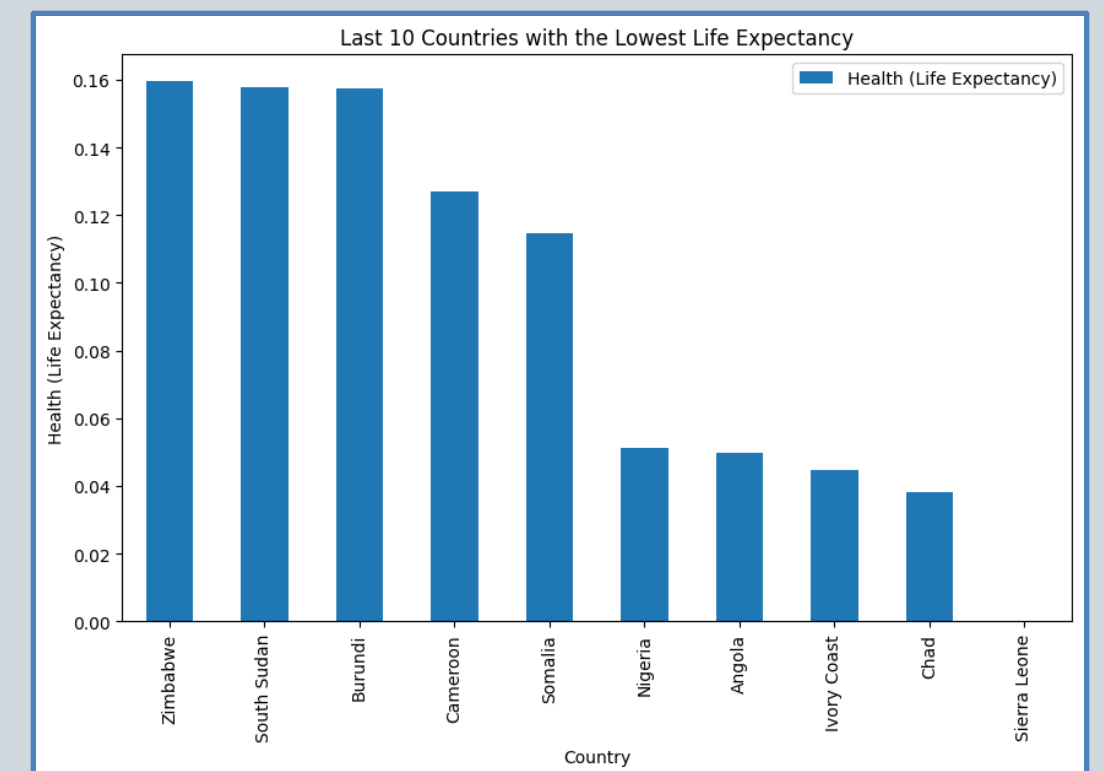
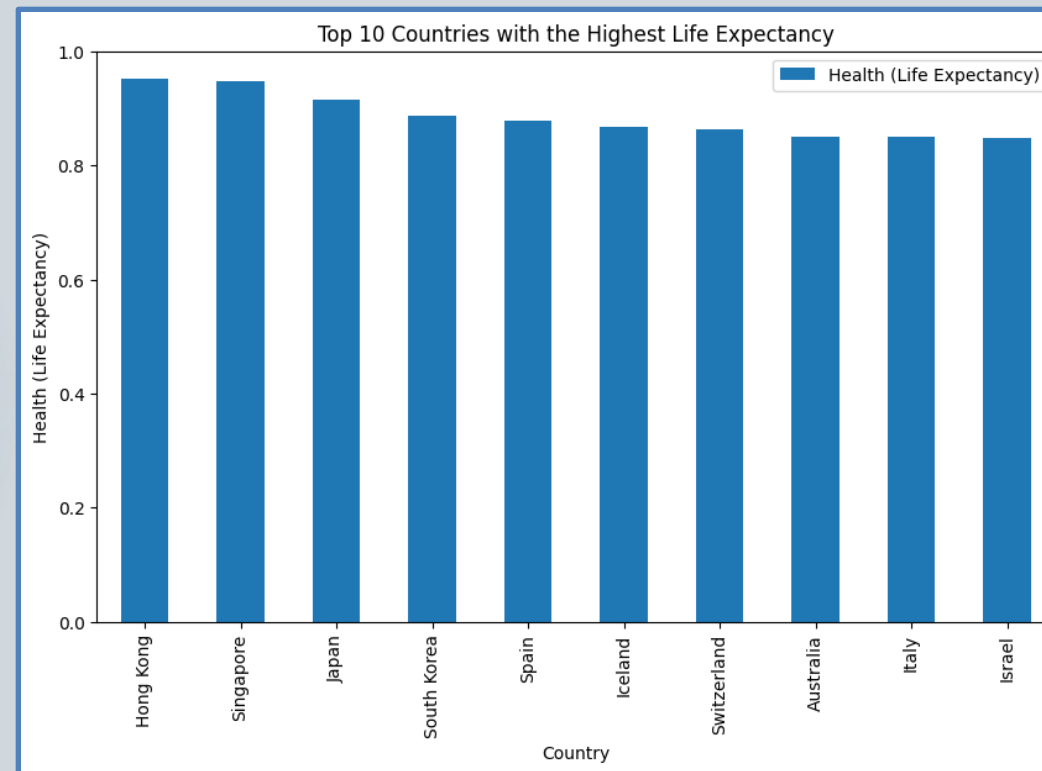
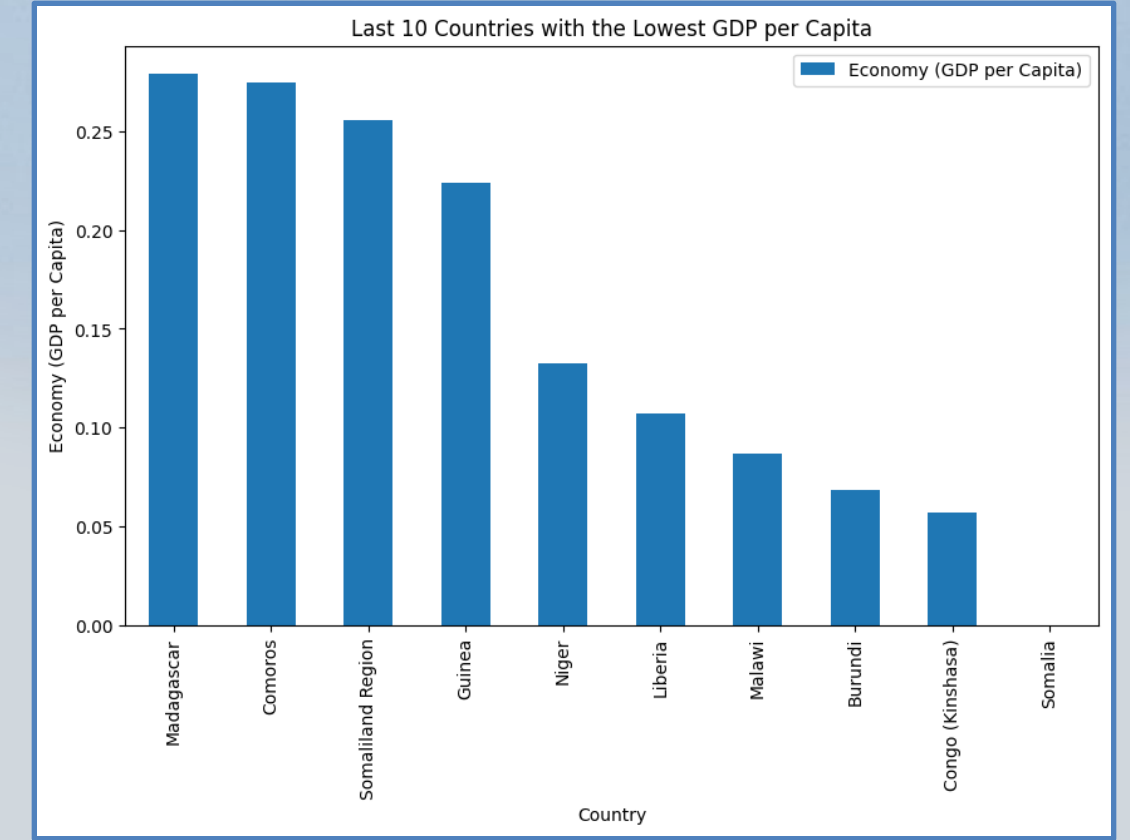
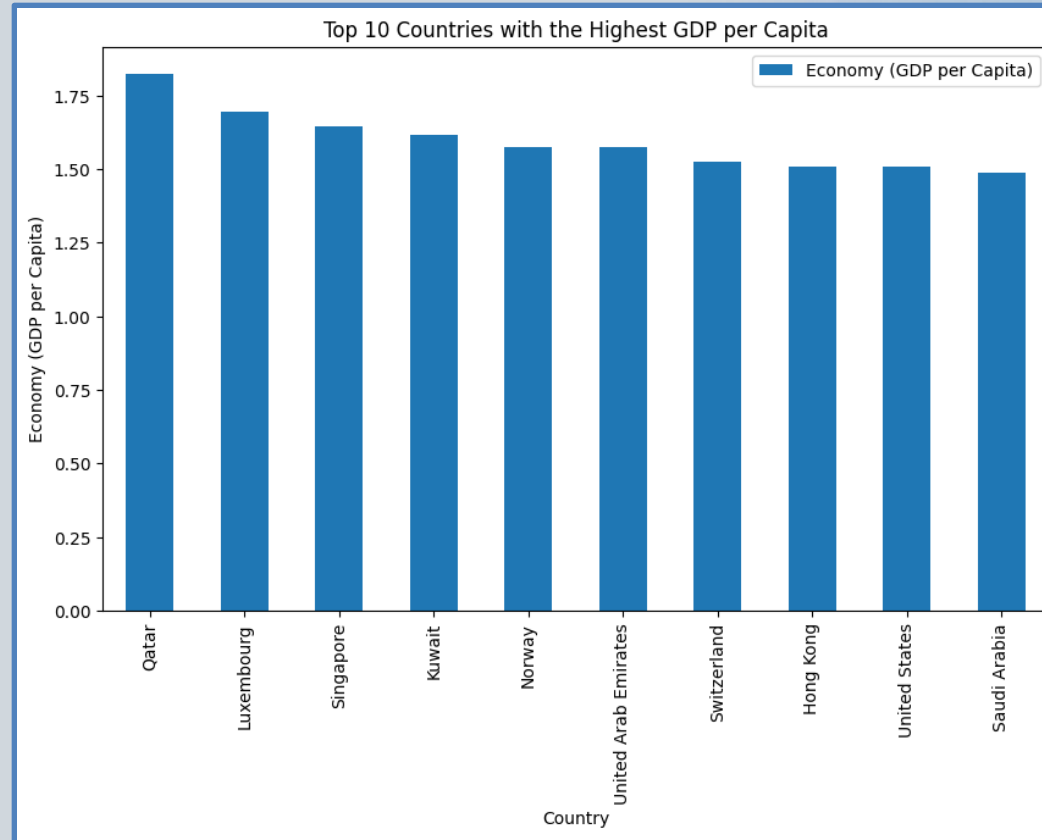
## Data Exploration & Visualization Method

- Analyzing the data
- Visualizing the data





# GDP per Capita vs Healthy Life Expectancy





# The Influence of GDP per Capita on Healthy Life Expectancy

## FINDING

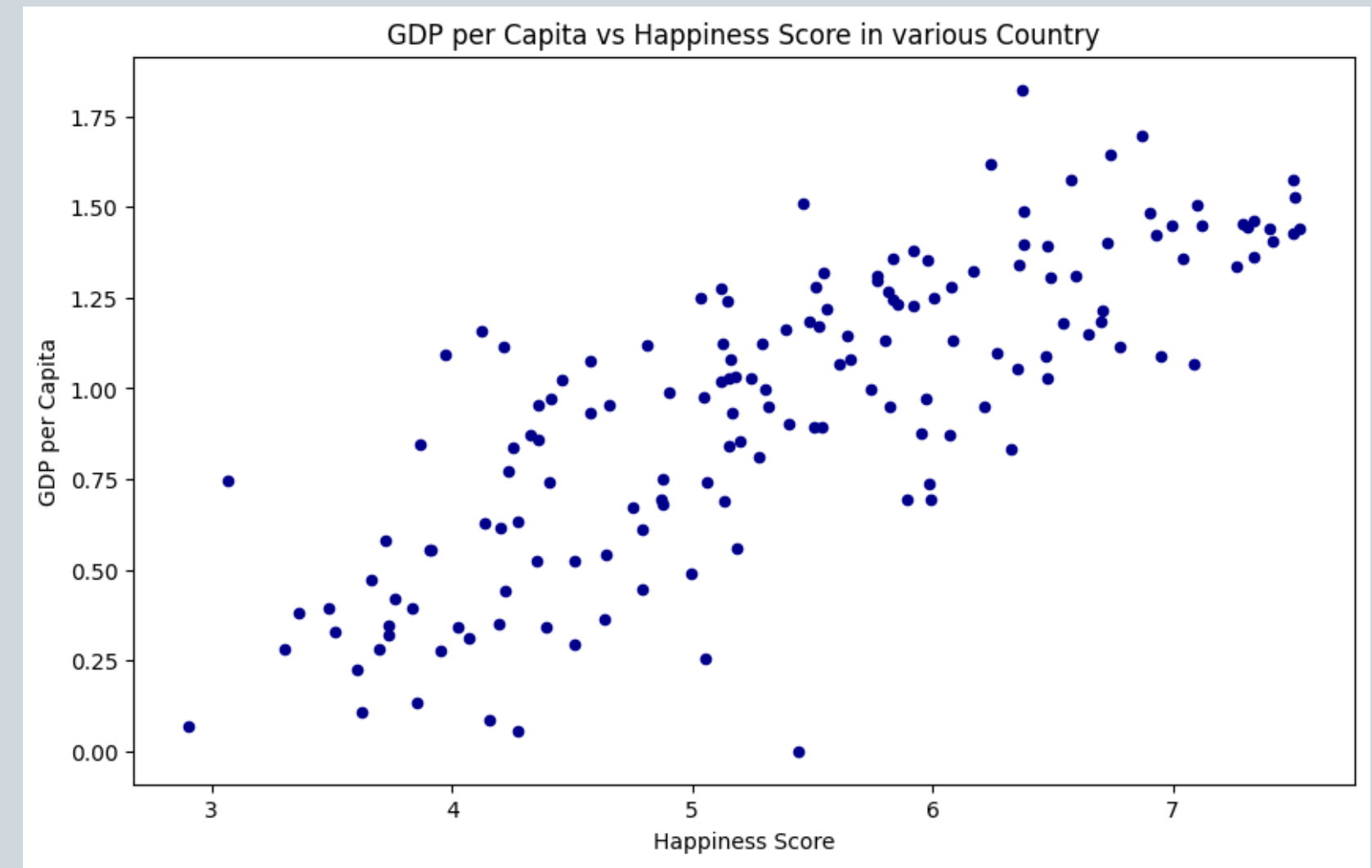
- **Wealth Concentration:** The top 10 countries with the highest GDP per capita (e.g., Qatar, Luxembourg, Singapore) have significantly higher economic output per person compared to the bottom 10 (e.g., Niger, Somalia, Burundi), where the figures are near zero.
- **Health Disparities:** Similarly, there is a stark contrast in health outcomes. Top countries like Hong Kong and Singapore have high life expectancies, while bottom countries such as Zimbabwe and Sierra Leone have very low figures.
- **Geographic Patterns:** Countries with the lowest metrics for both GDP per capita and life expectancy are predominantly in Africa, indicating regional challenges in economic development and public health.
- **Correlation:** A general positive correlation is observable; countries with high GDP per capita tend to have high life expectancy, and vice versa.

## IMPLICATION

- **Development Link:** The data implies a strong link between a nation's economic prosperity (GDP per capita) and the health and longevity of its population (life expectancy).
- **Resource Allocation:** Higher GDP likely means more resources are available for healthcare infrastructure, sanitation, nutrition, and education, leading to better health outcomes.
- **Quality of Life:** The significant disparities suggest vast differences in the overall quality of life and human development across different regions of the world.
- **Policy Focus:** The charts highlight specific countries and regions where targeted interventions and development aid are critically needed to improve living standards and public health.



# GDP Per Capita vs Happiness Score



**Positive correlation:** Countries with higher GDP per capita generally have higher happiness score

The relationship is not perfectly linear, indicating that other factors contribute to happiness

The data points are spread, representing a moderate strength in the relationship

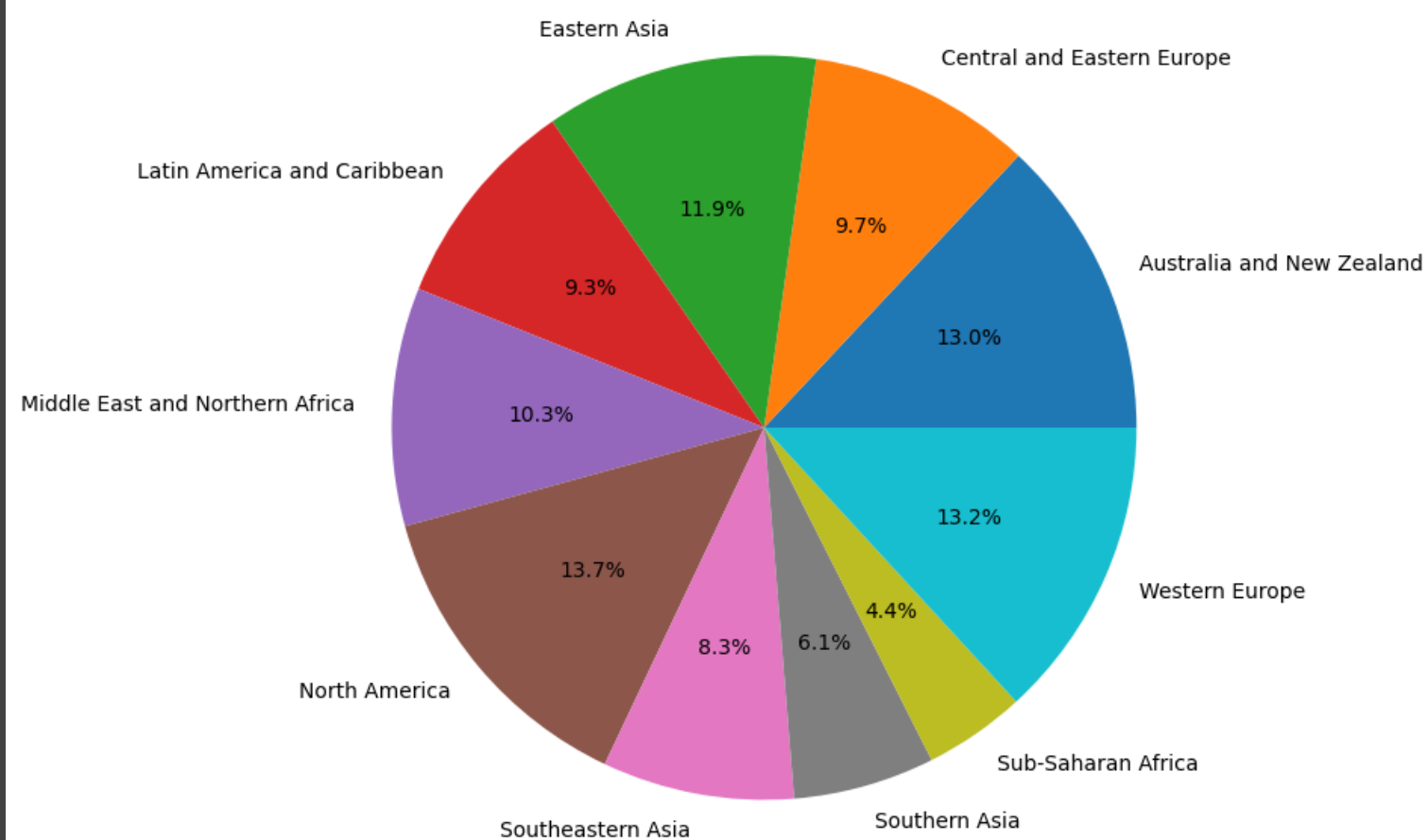
Other variables like social support, life expectancy, freedom, and absence of corruption also influence happiness levels.



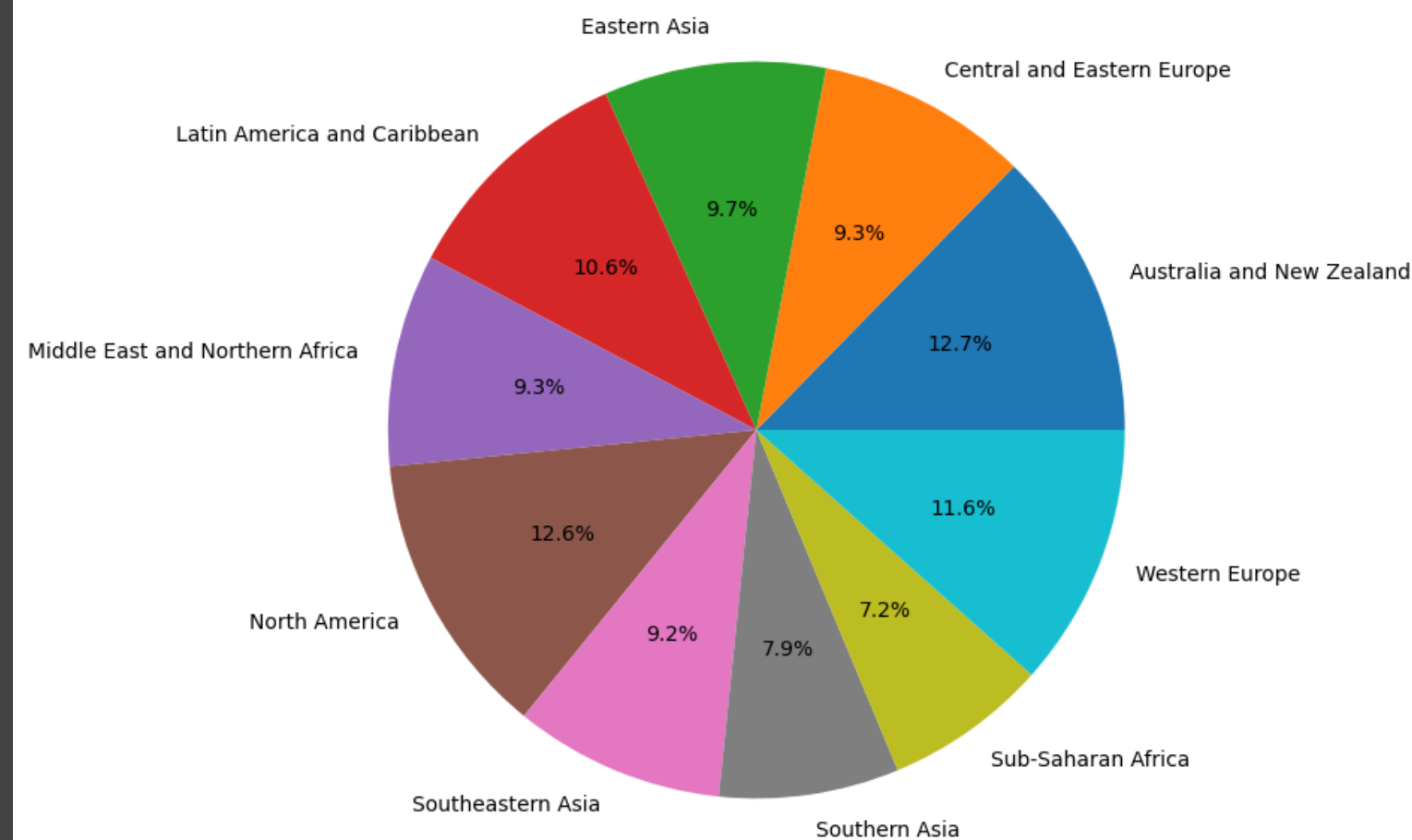


# Average in Region

Average of GDP per Capita by Region



Average of Happiness Score by Region





# The Influence of GDP per Capita on Happiness Score by Region

## FINDING

- **Regional Dominance:** North America and Western Europe have the largest segments in both the GDP per capita chart and the Happiness Score chart.
- **High Correlation:** Regions with a high average GDP per capita, such as North America, Western Europe, and Australia and New Zealand, also exhibit high average happiness scores.
- **Low Correlation:** Conversely, regions with a low average GDP per capita, such as Sub-Saharan Africa and Southern Asia, generally show lower average happiness scores.
- **Proportional Representation:** The relative size of the slices for most regions appears visually consistent between the two charts, suggesting a strong relationship between economic prosperity and reported happiness levels.

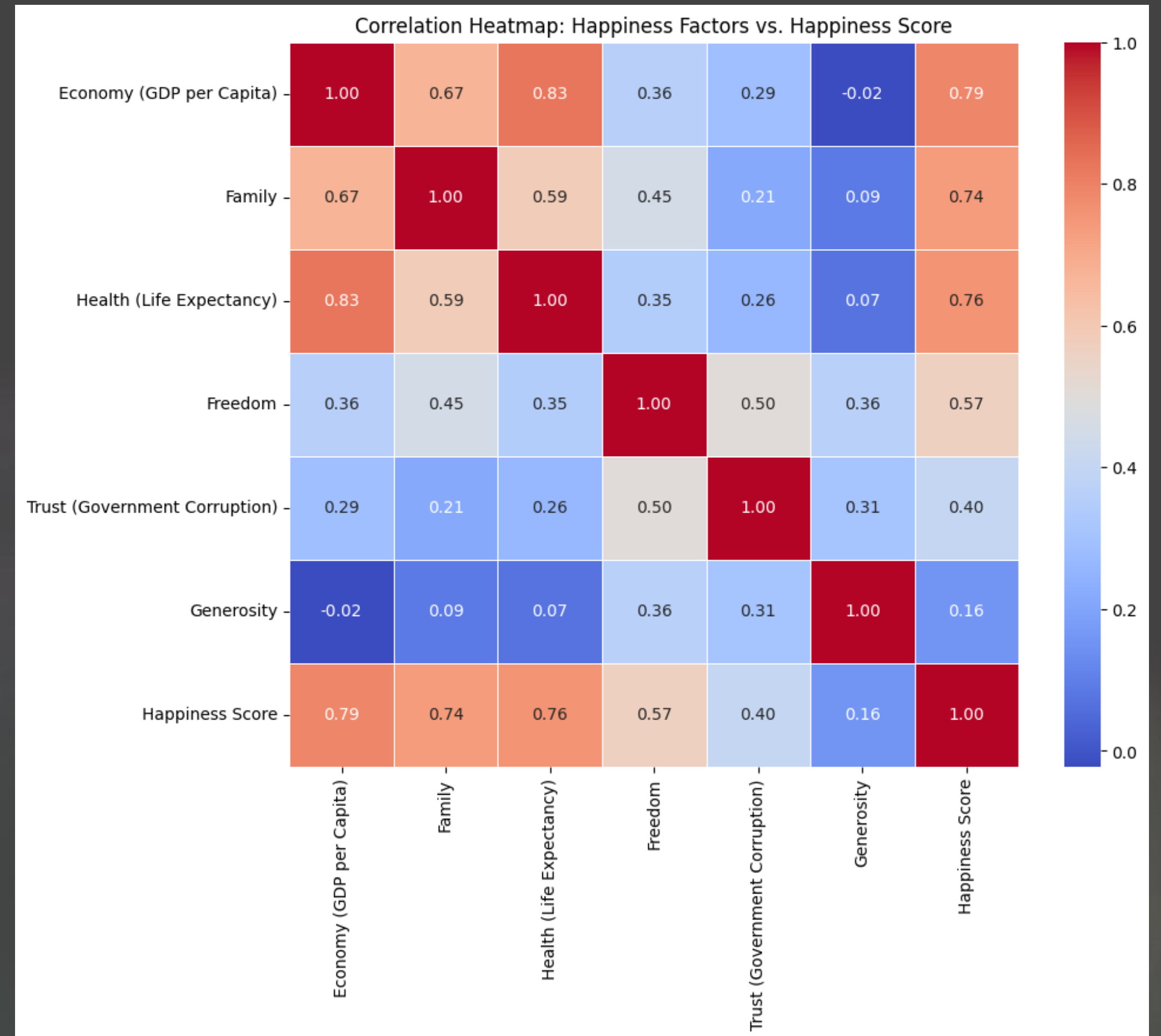
## IMPLICATION

- **Economic Well-being and Happiness:** The primary implication is a strong positive correlation between a region's economic output per person (GDP per capita) and the general happiness of its population.
- **Policy Considerations:** These findings suggest that economic development and wealth creation may be significant factors in improving overall life satisfaction and well-being within a region.
- **Quality of Life:** Higher GDP often translates to better infrastructure, healthcare, education, and social services, which are factors that likely contribute to increased happiness scores.



# Correlation Heatmap

- **Economy (GDP per Capita)** has the strongest positive correlation with the **Happiness Score** ( $r = 0.79$ ).
- **Health (Life Expectancy)** ( $r = 0.76$ ) and **Family** ( $r = 0.74$ ) also show positive correlation with the **Happiness Score**.
- **Trust (Government Corruption)** has a moderate positive correlation with the **Happiness Score** ( $r = 0.40$ ).
- **Generosity** has the weakest correlation with the **Happiness Score**.





# Discussion



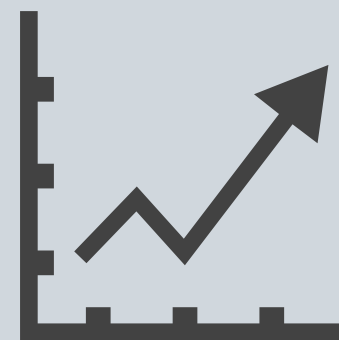
## Largest Shares

North America and Western Europe have the highest average GDP per capita and higher average happiness scores. Australia and New Zealand also have a notable share.



## Correlation

There is a general correlation between average GDP per capita and average happiness scores. Regions with higher GDP per capita tend to also have higher happiness scores. Economic factors is one of a significant contributor to overall regional happiness levels.



## Disparities

Significant disparities exist globally in both economic prosperity and perceived happiness, with regions like Sub-Saharan Africa and Southern Asia consistently showing lower averages in both metrics compared to more developed regions.





# Overall Finding

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- Regions with higher GDP per capita tend to have higher happiness scores. Economic factors is one of a significant contributor to overall regional happiness levels.
- Countries with the lowest metrics for both GDP per capita and life expectancy are predominantly in Africa, indicating regional challenges in economic development and public health.

# Overall Implication

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- Policy makers and governments can prioritize infrastructure investments and economic development strategies to draft "better policies for better lives".
- World organizations can provide assistance to countries with low GDP, health life expectancy, and happiness scores to improve their standard of living.



# Conclusion

## Point 01

There is a significant difference in GDP between the European and African regions, which results in a large difference in happiness scores and health life expectancy between countries in the European and African regions.

## Point 02

GDP and happiness score have positive correlation. This is also happened to GDP and health life expectancy. Countries with higher GDP generally have higher happiness score and health life expectancy.

## Point 03

Another variable may also influence happiness score and health life expectancy.





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# Thank You

for your time  
and attention