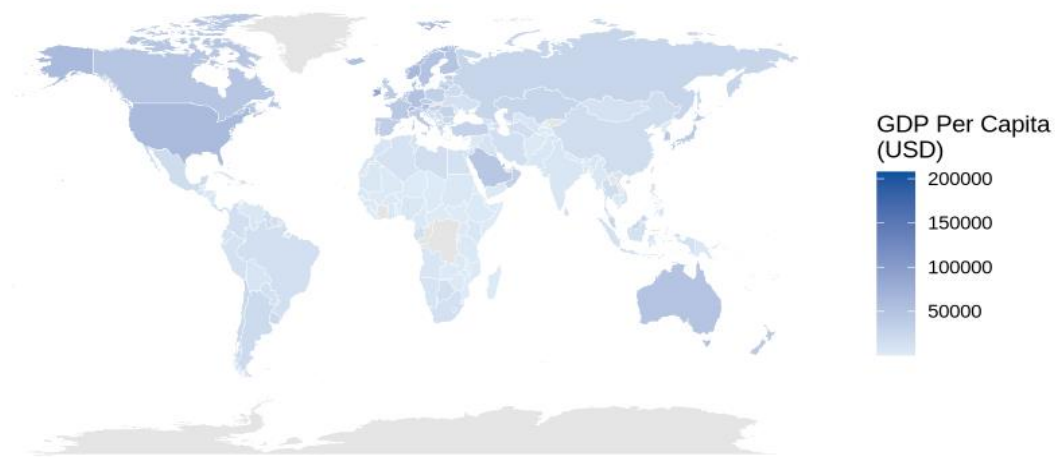**WORKSHOP 2 | AI-ASSISTED DATA ANALYSIS PRACTICE WITH JULIUS AI**

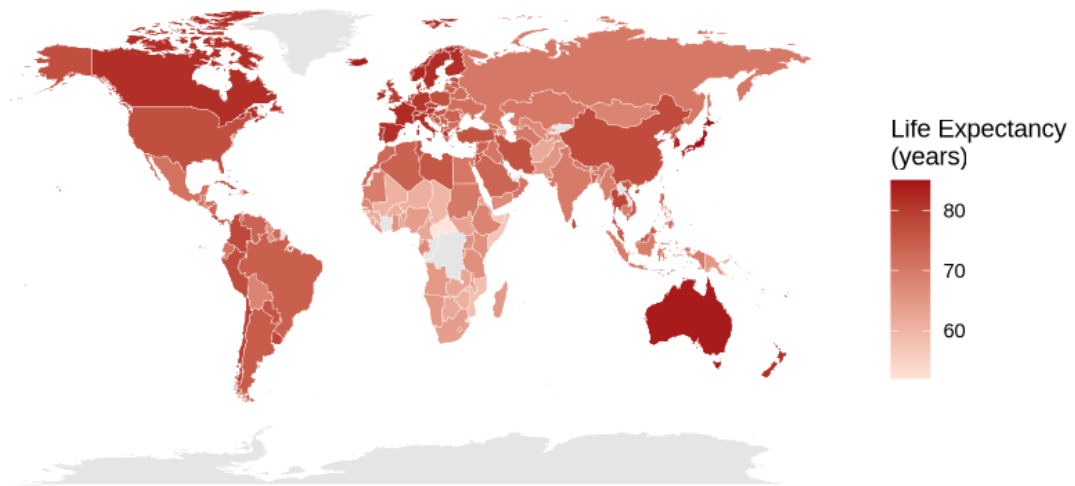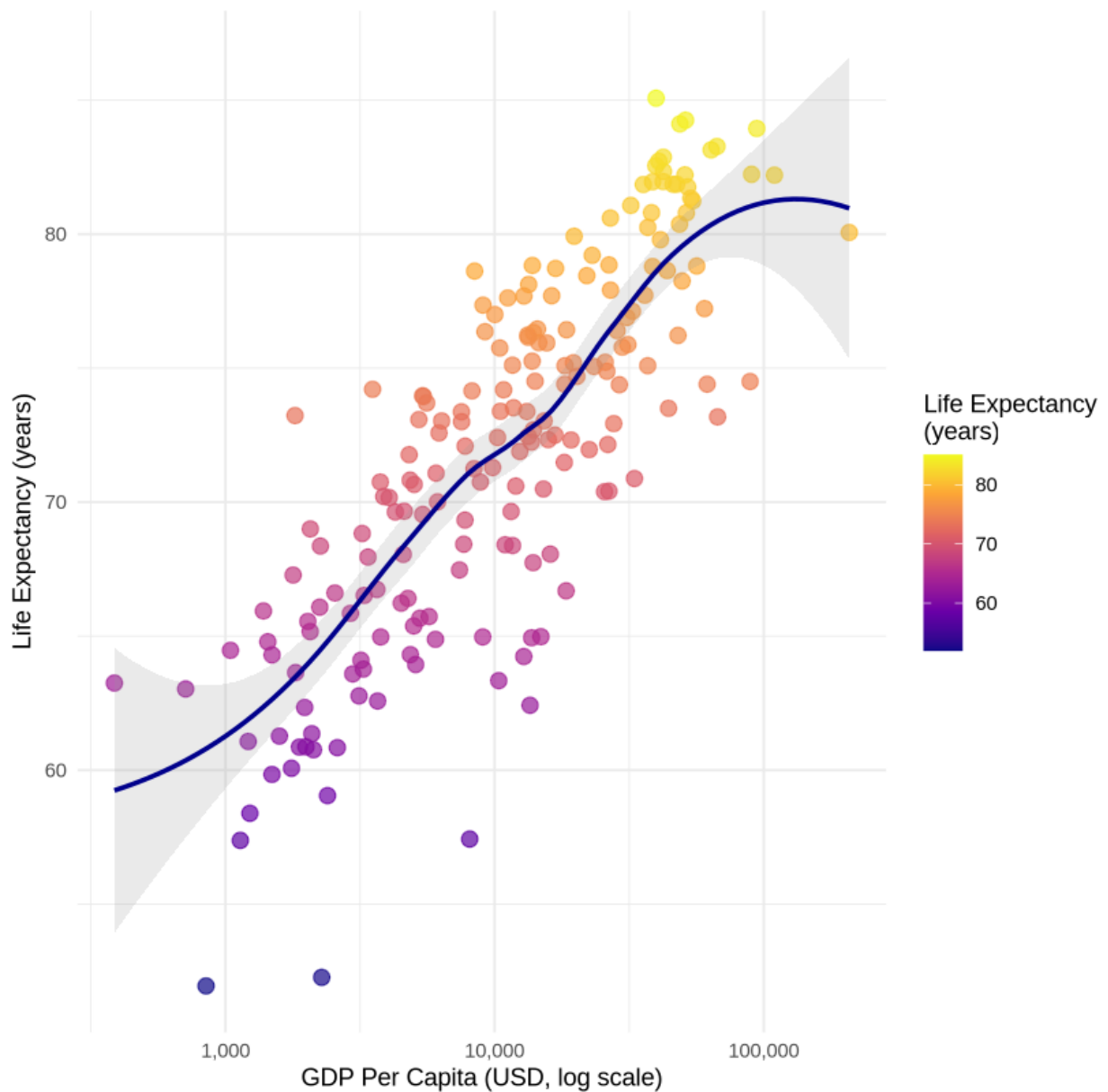TITILAYO ODEYEMI

23RD OCTOBER, 2025

GDP Per Capita by Country (2020)

Life Expectancy by Country (2020)

Relationship between GDP Per Capita and Life Expectancy (2020)

Interpretation

The scatterplot reveals a strong positive relationship between GDP per capita and life expectancy in 2020. Key observations:

Logarithmic relationship: The relationship follows a logarithmic pattern, meaning that initial increases in GDP per capita are associated with substantial gains in life expectancy, but the effect diminishes at higher income levels.

Diminishing returns: Countries with GDP per capita below $10,000 show steep improvements in life expectancy as income rises. However, beyond approximately $20,000-30,000 GDP per capita, additional wealth produces smaller gains in life expectancy.

Clustering patterns: Most high-income countries (GDP > $30,000) cluster around 75-85 years life expectancy, while lower-income countries show more variation, ranging from approximately 55-75 years.

Economic development matters: The data strongly suggests that economic prosperity is associated with better health outcomes, likely through improved healthcare access, nutrition, sanitation, and living conditions.

This classic relationship demonstrates that while wealth is important for longevity, other factors (healthcare systems, lifestyle, education) become increasingly important at higher income levels.

My reflection: The systematic guidelines makes Julius AI easy to use. Julius facilitates rapid handling and visualisation of large datasets, enabling swift scatterplot generation and pattern recognition. Leveraging on this collaboration augments analytical rigor of large data. It saves time and reduces stress.