

# Assignment 05: WDI 2022 Exploratory Analysis

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## 1 Introduction

The dataset comes from the World Bank World Development Indicators (WDI) database World Bank (2025b) and the World Bank Open Data portal World Bank (2025a).

## 2 Load data

	country	inflation_rate	exports_gdp_share	gdp_growth_rate	gdp_per_capita	adult_literacy_rate
0	Afghanistan	NaN	18.380042	-6.240172	352.603733	NaN
1	Albania	6.725203	37.395422	4.856402	6810.114041	98.5
2	Algeria	9.265516	31.446856	3.600000	5023.252932	NaN
3	American Samoa	NaN	46.957520	1.735016	19673.390102	NaN
4	Andorra	NaN	NaN	9.563798	42350.697069	NaN

### 3 Selected indicators for analysis

We analyze three key development indicators for 2022: - GDP per capita - Life expectancy - Unemployment rate

	gdp_per_capita	life_expectancy	unemployment_rate
0	352.603733	62.879	14.100
1	6810.114041	76.833	11.588
2	5023.252932	77.129	12.437
5	2933.484644	61.929	14.693
7	13650.604629	76.064	6.805

### 4 Exploratory data analysis

Table Table 4 shows the key descriptive statistics for the selected indicators.

	count	mean	std	min	25%	50%	75%
gdp_per_capita	179.0	17358.165812	23532.137393	259.025031	2264.235719	6810.114041	23011.114041
life_expectancy	179.0	72.165990	7.860414	52.997000	65.973500	73.444000	78.165990
unemployment_rate	179.0	7.246855	5.866449	0.130000	3.508500	5.504000	9.158000

Table 4: Descriptive statistics for GDP per capita, life expectancy, and unemployment rate (2022). Source: World Development Indicators (World Bank).

	count	mean	std	min	25%	50%	75%
gdp_per_capita	179.0	17358.165812	23532.137393	259.025031	2264.235719	6810.114041	23011.114041
life_expectancy	179.0	72.165990	7.860414	52.997000	65.973500	73.444000	78.165990
unemployment_rate	179.0	7.246855	5.866449	0.130000	3.508500	5.504000	9.158000

### 5 Visualizations

Figure Figure 1 shows the relationship between GDP per capita and life expectancy across countries in 2022.

Figure Figure 2 shows the top 10 countries by GDP per capita in 2022.

World Bank. 2025a. “World Bank Open Data.” <https://data.worldbank.org/>.

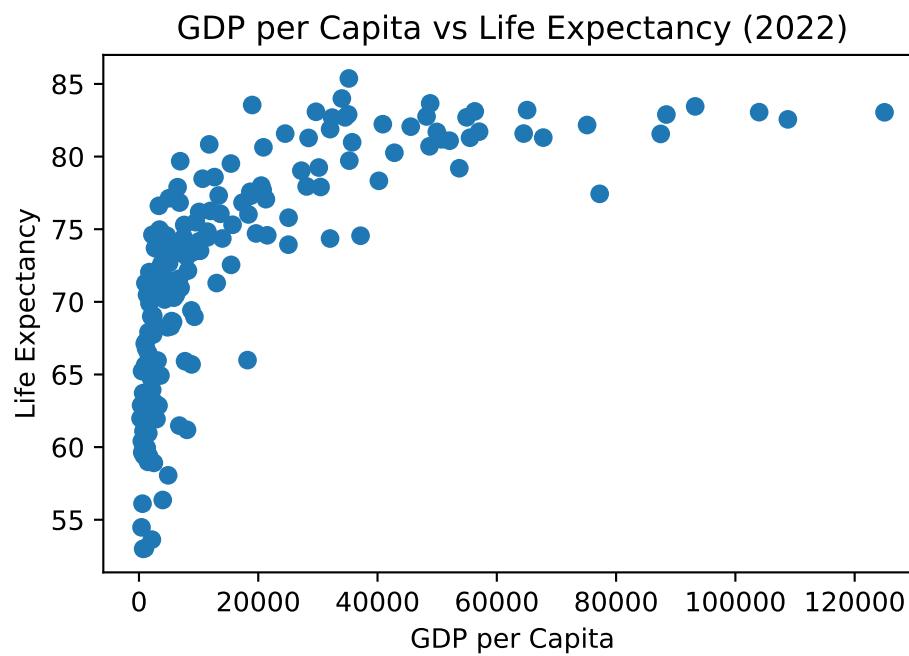


Figure 1: Scatter plot of GDP per capita vs Life Expectancy (2022). Source: World Development Indicators (World Bank).

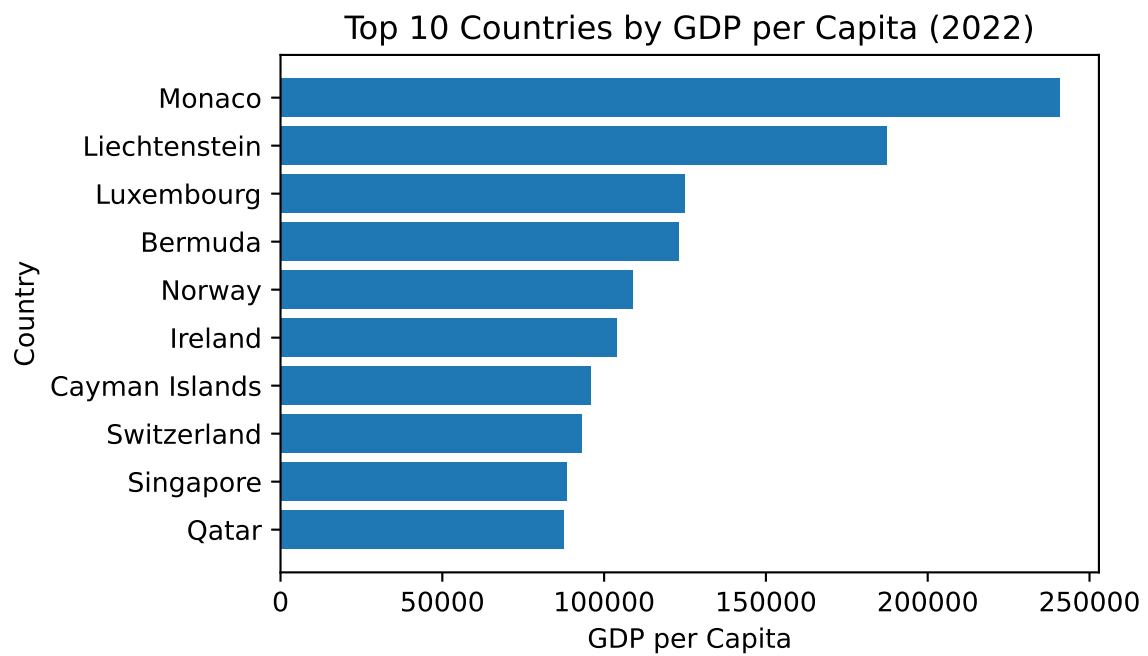


Figure 2: Top 10 countries by GDP per capita (2022). Source: World Development Indicators (World Bank).

———. 2025b. “World Development Indicators.” <https://databank.worldbank.org/source/world-development-indicators>.