

World Development Indicators Analysis 2022

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Loading Dataset

```
# Load the dataset using preferred programming language
df <- read.csv("wdi.csv")

# Display the first few rows of the dataset
head(df)
```

	country	inflation_rate	exports_gdp_share	gdp_growth_rate
1	Afghanistan	NA	18.38004	-6.240172
2	Albania	6.725203	37.39542	4.856402
3	Algeria	9.265516	31.44686	3.600000
4	American Samoa	NA	46.95752	1.735016
5	Andorra	NA	NA	9.563798
6	Angola	21.355290	44.39962	3.045403
	gdp_per_capita	adult_literacy_rate	primary_school_enrolment_rate	
1	352.6037	NA	NA	
2	6810.1140	98.5	95.60671	
3	5023.2529	NA	108.34393	
4	19673.3901	NA	NA	
5	42350.6971	NA	90.14735	
6	2933.4846	72.4	NA	
	education_expenditure_gdp_share		measles_immunisation_rate	
1	NA		68	
2	2.74931		86	
3	NA		79	
4	NA		NA	
5	2.66623		98	
6	2.33200		37	

	health_expenditure_gdp_share	income_inequality	unemployment_rate
1	NA	NA	14.100
2	NA	NA	11.588
3	NA	NA	12.437
4	NA	NA	NA
5	NA	NA	NA
6	NA	NA	14.693

	life_expectancy	total_population
1	62.879	41128771
2	76.833	2777689
3	77.129	44903225
4	NA	44273
5	NA	79824
6	61.929	35588987

Explore the Dataset

```
# Conduct exploratory data analysis on at least three indicators. Summarise findings in mark
summary(df[, c("gdp_per_capita", "gdp_growth_rate", "adult_literacy_rate")])
```

gdp_per_capita	gdp_growth_rate	adult_literacy_rate
Min. : 259	Min. : -28.759	Min. : 27.28
1st Qu.: 2571	1st Qu.: 2.439	1st Qu.: 72.40
Median : 7588	Median : 4.204	Median : 83.78
Mean : 20346	Mean : 4.369	Mean : 79.57
3rd Qu.: 25983	3rd Qu.: 6.200	3rd Qu.: 95.50
Max. : 240862	Max. : 63.440	Max. : 100.00
NA's : 14	NA's : 15	NA's : 168

Graph #1

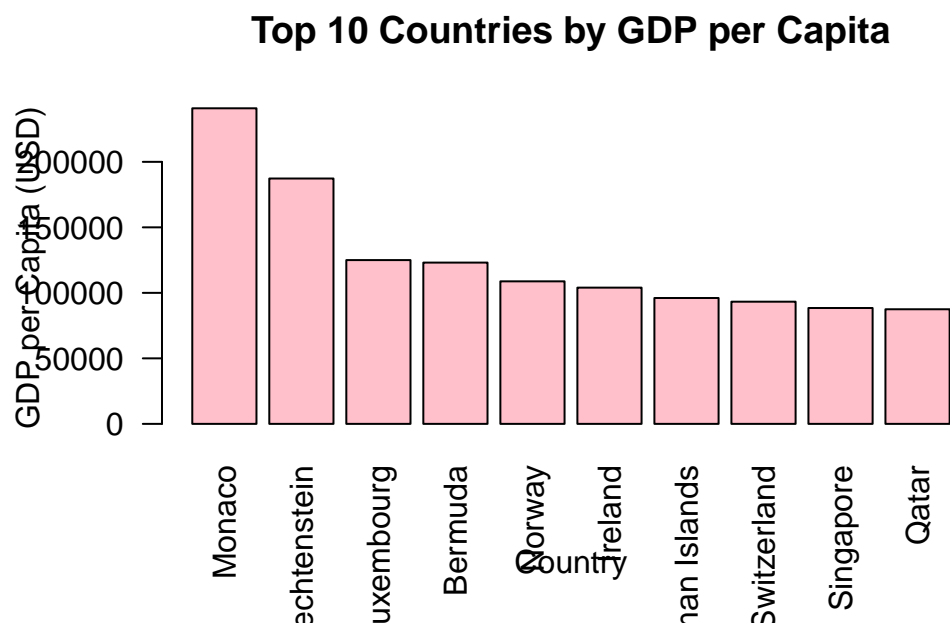
```
# Sort the dataset by GDP per capita and select the top 10 countries
top10_gdp <- df[order(-df$gdp_per_capita), ][1:10, ]

# Create a bar chart for the top 10 countries by GDP per capita
barplot(
  height = top10_gdp$gdp_per_capita,
  names.arg = top10_gdp$country,
  col = "pink",
```

```

las = 2,
main = "Top 10 Countries by GDP per Capita",
xlab = "Country",
ylab = "GDP per Capita (USD)"
)

```

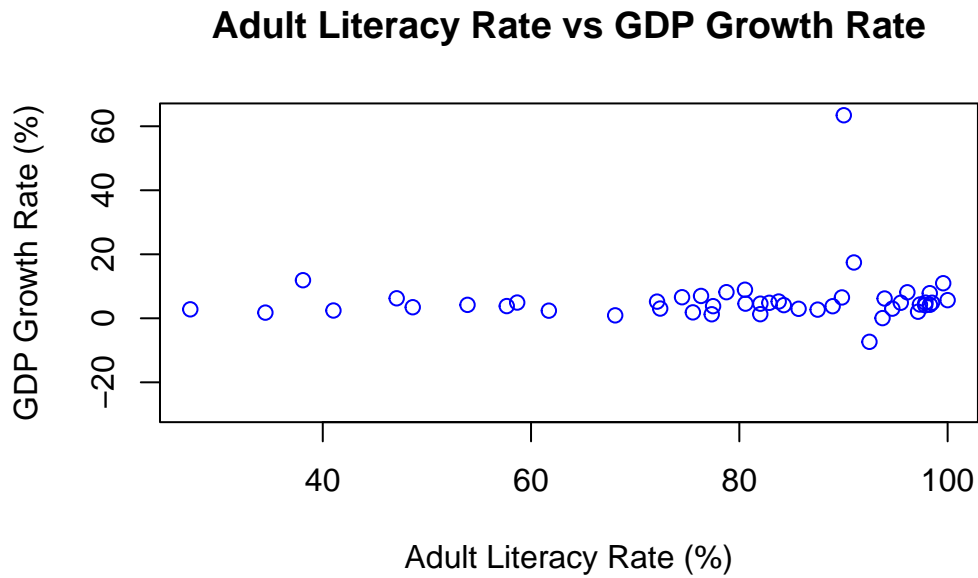


Graph #2

```

# Scatter plot of Literacy Rate vs GDP Growth Rate
plot(
  df$adult_literacy_rate, df$gdp_growth_rate,
  xlab = "Adult Literacy Rate (%)",
  ylab = "GDP Growth Rate (%)",
  main = "Adult Literacy Rate vs GDP Growth Rate",
  col = "blue",
)

```



(Figure World Bank 2022) shows Top 10 countries with highest GDP (Figure “Low Rates of Adult Literacy Can Lead to a \$1.4 Trillion Loss in Gross Domestic Product” 2023) shows the relationship between literacy rate and GDP growth rate

Summary Table

```
cat(
  "Indicator               | Mean          | Range\n",
  "-----|-----|-----\n",
  "GDP Per Capita           |", round(mean(df$gdp_per_capita, na.rm = TRUE), 2), "|", min(d
  "GDP Growth Rate         |", round(mean(df$gdp_growth_rate, na.rm = TRUE), 2), "|", min(
  "Adult Literacy Rate     |", round(mean(df$adult_literacy_rate, na.rm = TRUE), 2), "|", m
)
```

Indicator	Mean	Range
GDP Per Capita	20345.71	259.025 - 240862.2
GDP Growth Rate	4.37	-28.75859 - 63.43986
Adult Literacy Rate	79.57	27.28 - 99.99998

“Low Rates of Adult Literacy Can Lead to a \$1.4 Trillion Loss in Gross Domestic Product.”
2023. 2023. <https://coabe.org/low-rates-of-adult-literacy-can-lead-to-a-1-4-trillion-loss-in-gross-domestic-product/>.

World Bank. 2022. “World Development Indicators.” <https://databank.worldbank.org/source/world-development-indicators>.