EDA Analysis Presentation

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Introduction

This presentation aims to present all key findings and visualizations from the report with the WorldBank dataset. It will include a title slide, a few content slides, and a concluding slide, with summaries of findings for all figures.

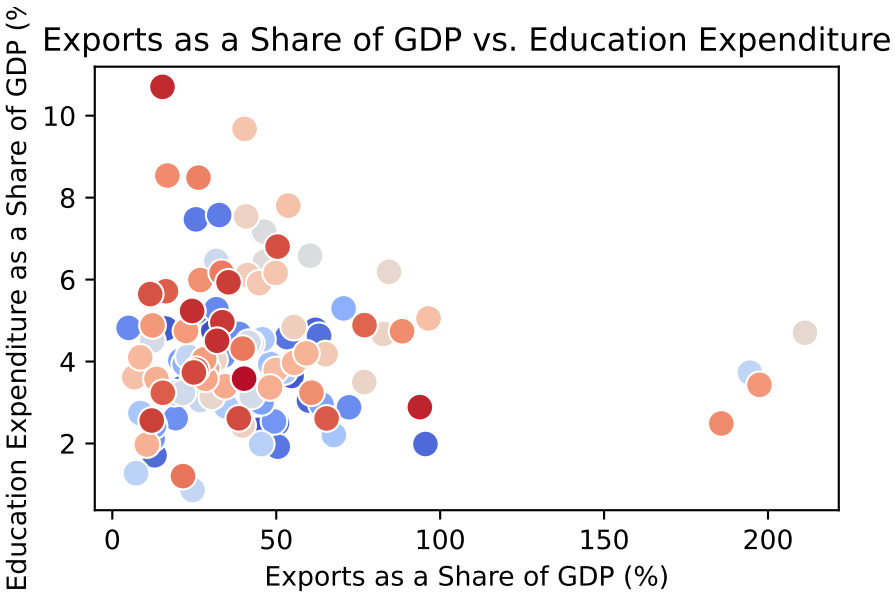
Data & Setup

```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
df = pd.read_csv("wdi.csv")
df.head()
```

	country	inflation_rate	exports_gdp_share	gdp_growth_rate	gdp_per_capita	adult_lite
0	Afghanistan	NaN	18.380042	-6.240172	357.261153	NaN
1	Albania	6.725203	37.197085	4.826688	6846.426143	98.5
2	Algeria	9.265516	30.808979	3.600000	4961.552577	NaN
3	American Samoa	NaN	46.957520	1.735016	18017.458938	NaN
4	Andorra	NaN	NaN	9.564612	42414.059009	NaN

Findings in Visualisations

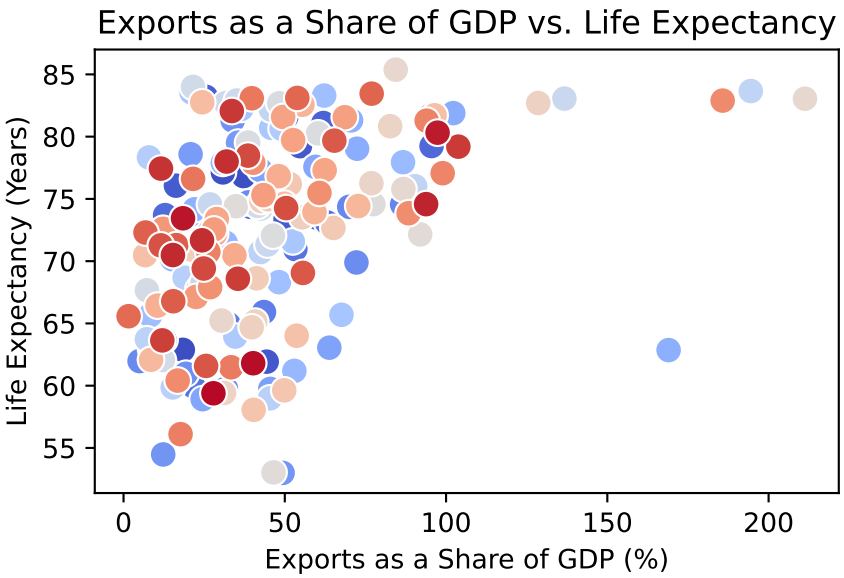
```
plt.figure(figsize=(5,3))
sns.scatterplot(data=df, x='exports_gdp_share', y='education_expenditure_gdp_share', hue='cou
plt.title("Exports as a Share of GDP vs. Education Expenditure")
plt.xlabel("Exports as a Share of GDP (%)")
plt.ylabel("Education Expenditure as a Share of GDP (%)")
plt.show()
```



Exports as a Share of GDP vs. Education Expenditure Countries with higher exports do not necessarily allocate more to education. This suggests that economic priorities vary, with some nations investing heavily in education regardless of trade levels.

Findings in Visualisations

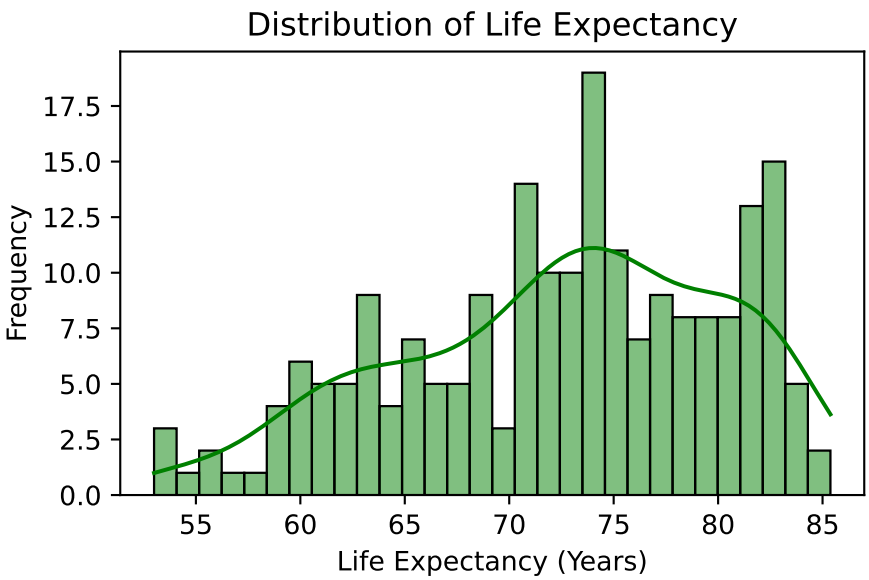
```
# Scatter Plot of Exports vs. Life Expectancy
plt.figure(figsize=(5,3))
sns.scatterplot(data=df, x='exports_gdp_share', y='life_expectancy', hue='country', palette=
plt.title("Exports as a Share of GDP vs. Life Expectancy")
plt.xlabel("Exports as a Share of GDP (%)")
plt.ylabel("Life Expectancy (Years)")
plt.show()
```



Exports as a Share of GDP vs. Life Expectancy A weak positive trend suggests that countries with a higher export share may experience better life expectancy, potentially due to increased economic stability and access to healthcare resources.

Findings in Visualisations

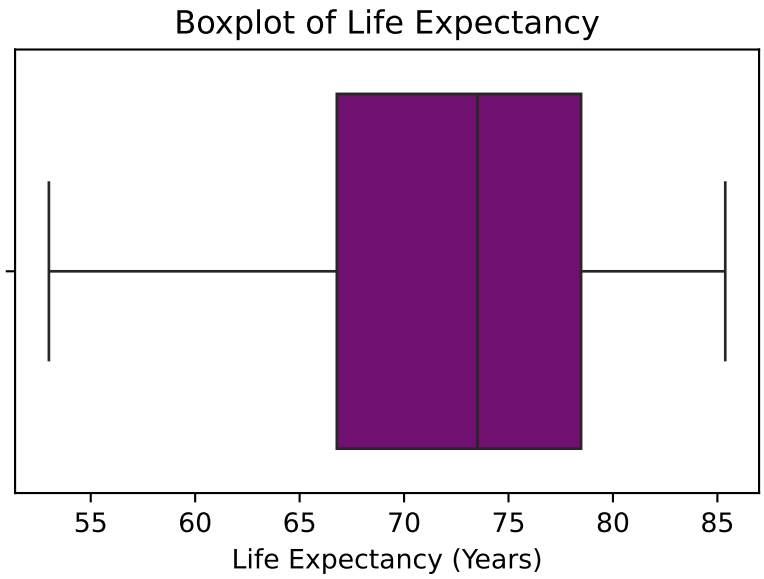
```
# Distribution of Life Expectancy
plt.figure(figsize=(5,3))
sns.histplot(df['life_expectancy'].dropna(), bins=30, kde=True, color='green')
plt.title("Distribution of Life Expectancy")
plt.xlabel("Life Expectancy (Years)")
plt.ylabel("Frequency")
plt.show()
```



Life Expectancy Distribution The distribution suggests most countries have life expectancy between 60 and 80 years, with a few outliers at both extremes. Nations with very high life expectancy likely benefit from robust healthcare systems and high living standards.

Findings in Visualisations

```
# Boxplot of Life Expectancy
plt.figure(figsize=(5,3))
sns.boxplot(x=df['life_expectancy'], color='purple')
plt.title("Boxplot of Life Expectancy")
plt.xlabel("Life Expectancy (Years)")
plt.show()
```



Boxplot of Life Expectancy The boxplot provides additional insights into life expectancy variation among countries. While most countries fall within a certain range, some outliers suggest extreme disparities, potentially linked to healthcare access and quality.

Discussion of Findings

The findings suggest that **while higher exports often correlate with increased life expectancy, trade alone does not determine health outcomes**. Factors such as **governance, healthcare access, and social policies** play a crucial role. The absence of a strong correlation between **exports and education expenditure** suggests that **education funding is influenced more by national priorities than trade revenue**. Some nations invest heavily in education despite low export activity, while others with strong trade sectors allocate fewer resources to education.