



ASSIGNMENT-1

Data Visualization

ASSIGNMENT REQUIREMENT

1. Data and Data Structures
2. Development of Data sets using Excel
3. Introduction to Tableau

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Policies and Procedure:

Data governance policies are crucial for safeguarding data, protecting individuals' privacy, and ensuring ethical data usage. These policies establish clear guidelines and procedures for data collection, storage, access, and utilization, helping organizations navigate the complexities of data management in a responsible and compliant manner.

Several compelling reasons underscore the importance of adhering to data policies:

Protecting Individual Privacy: Data policies prioritize the privacy of individuals by defining who can access their personal information and specifying the permitted uses of that data.

Ensuring Data Accuracy and Integrity: Data policies implement controls over data collection, storage, and updates, ensuring the accuracy, completeness, and reliability of data throughout its lifecycle.

Preventing Data Breaches: Data policies act as a shield against data breaches by mandating robust security measures that safeguard data from unauthorized access, disclosure, or misuse.

Compliance with Laws and Regulations: Data policies align organizations' data practices with applicable laws and regulations, such as GDPR, CCPA, and HIPAA, mitigating legal risks and fostering regulatory compliance.

Building Trust with Stakeholders: Adherence to data policies fosters trust with stakeholders, including customers, employees, and regulators, by demonstrating a commitment to data stewardship and ethical data practices.

Examples of specific data policies include:

- **Data Security Policies:**

These policies articulate the security measures implemented to protect data from unauthorized access, disclosure, disruption, modification, or destruction, safeguarding data integrity and confidentiality.

- **Data Retention Policies:**

These policies specify the duration for which organizations retain data and the conditions under which it is deleted, ensuring responsible data management and compliance with data privacy regulations.

- **Data Usage Policies:**

These policies define the authorized uses of data by employees and other authorized users, preventing data misuse and misappropriation.

- **Data Sharing Policies:**

These policies establish protocols for sharing data with third parties, ensuring that data sharing agreements, confidentiality requirements, and data anonymization practices are in place to protect sensitive information.

Data policies are not static document, they must be regularly reviewed and updated to reflect changes in technology, evolving data privacy regulations, and shifting business practices. By steadfastly adhering to data policies, organizations can effectively protect data, maintain compliance with relevant laws, and cultivate trust among stakeholders, fostering a culture of data responsibility and ethical data governance.

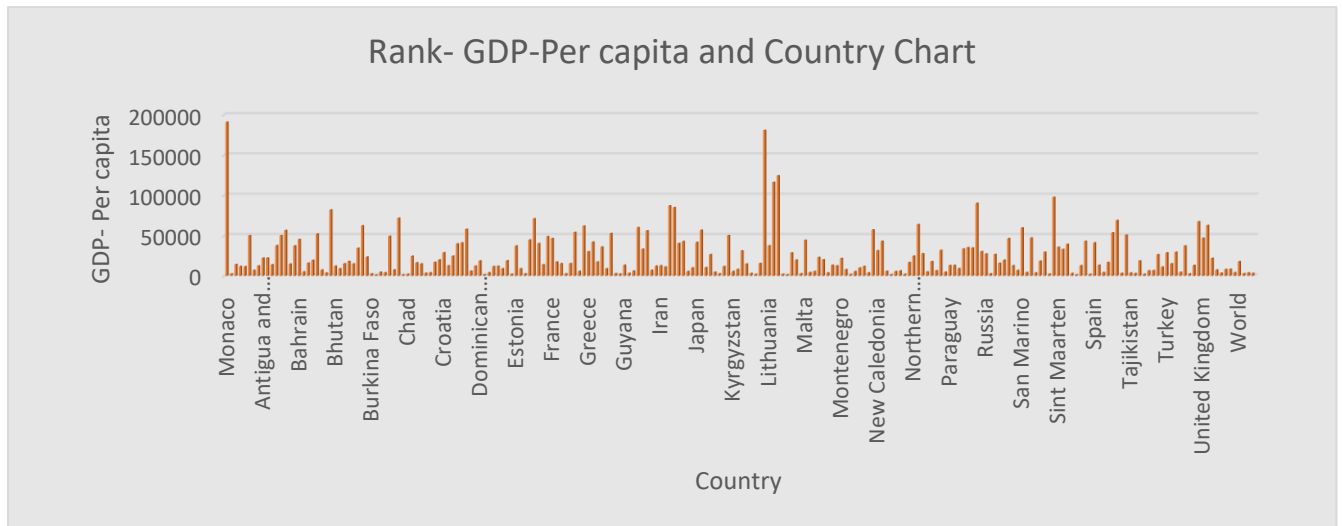
A Reflective

This Assignment explained the influence of GDP, life expectancy, and smartphones through visualization tools such as Microsoft Excel and Tableau. The author places greater emphasis on utilizing historical statistics from 'The Wealth of Nations' Dataset spanning from 2003 to 2020. Within this context, the visualizations created with Excel and Tableau highlight the top 20 highest-ranking countries, providing a comprehensive overview of the impact of Rank-GDP per capita and Country-specific implications.

Main Body Report:

This report analyses data from various countries in specific fields such as GDP, Life Expectancy, and Smartphones, employing a range of tools, including Microsoft Excel and Tableau

Fig 1.0: Rank-GDP and Country wise data



Source: Self-generated using Ms Excel

The graph above provides an inclusive overview of country-specific data, including GDP, life expectancy, and smartphone statistics. Notably, Lithuania emerges as the top-ranking country in the chart, boasting a GDP per capita of approximately £180,000. The remaining countries are depicted in the graph accordingly.

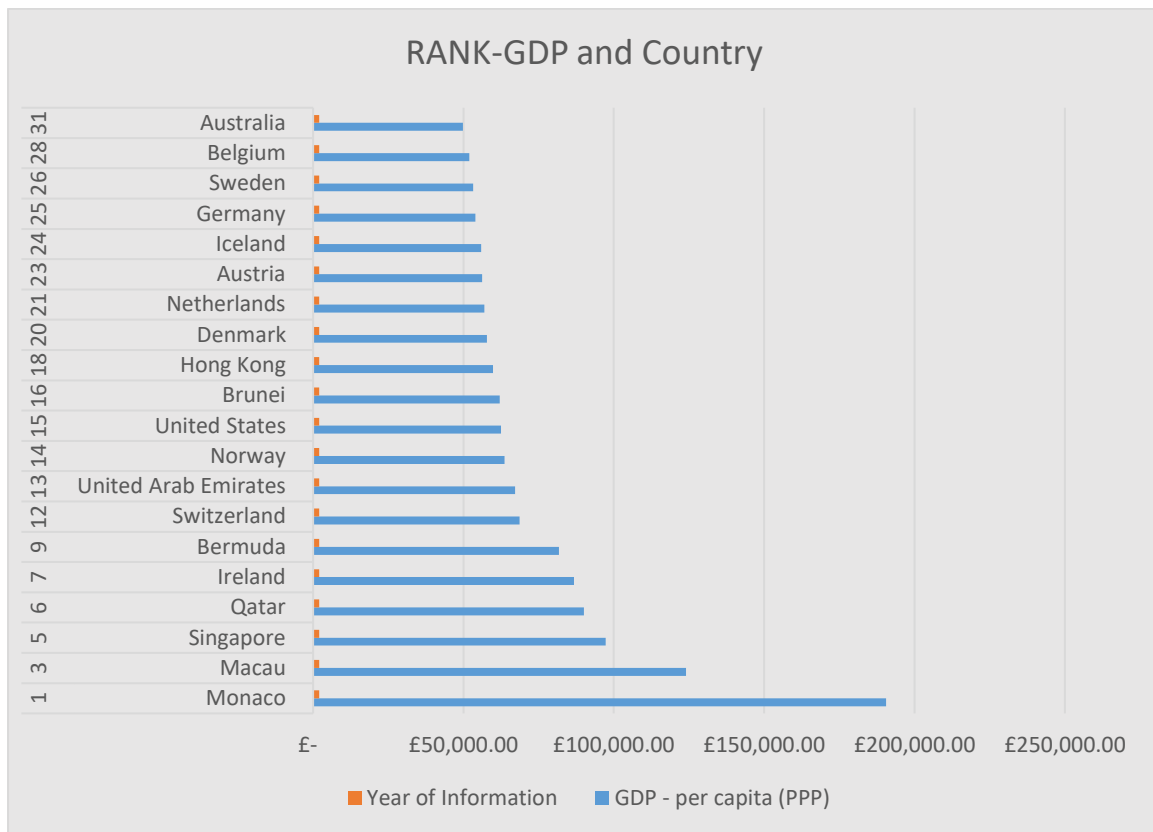
Fig 1.1: Rank-GDP and Country data of year 2019

Rank	Country	GDP - per capita (PPP)	Year of Information
1	Monaco	£190,513.00	2019
3	Macau	£123,965.00	2019
5	Singapore	£97,341.00	2019
6	Qatar	£90,044.00	2019
7	Ireland	£86,781.00	2019
9	Bermuda	£81,798.00	2019
12	Switzerland	£68,628.00	2019
13	United Arab Emirates	£67,119.00	2019
14	Norway	£63,633.00	2019
15	United States	£62,530.00	2019
16	Brunei	£62,100.00	2019
18	Hong Kong	£59,848.00	2019
20	Denmark	£57,804.00	2019
21	Netherlands	£56,935.00	2019
23	Austria	£56,188.00	2019
24	Iceland	£55,874.00	2019
25	Germany	£53,919.00	2019
26	Sweden	£53,240.00	2019
28	Belgium	£51,934.00	2019
31	Australia	£49,854.00	2019

Source: Self-generated using Ms Excel

The table above displays the 2019 rankings and GDP-per capita (PPP). Monaco takes the lead in the chart with a GDP-per capita of £190,513.00, followed by Macau in the second position with a GDP of £123,965, and Singapore securing the third spot with a GDP-per capita of £97,341.

Fig 1.2: Top 20 Highest Ranking Countries



Source: Self-generated using Ms Excel

The graph above is presented to illustrate the Top-ranking countries among the top 20 based on their Rank and GDP-per capita (PPP). At the pinnacle of the chart is Monaco, boasting a GDP-per capita of £190,513.00. Following closely is Macau in the second position with a GDP of £123,965, and Singapore secures the third position with a GDP-per capita of £97,341.

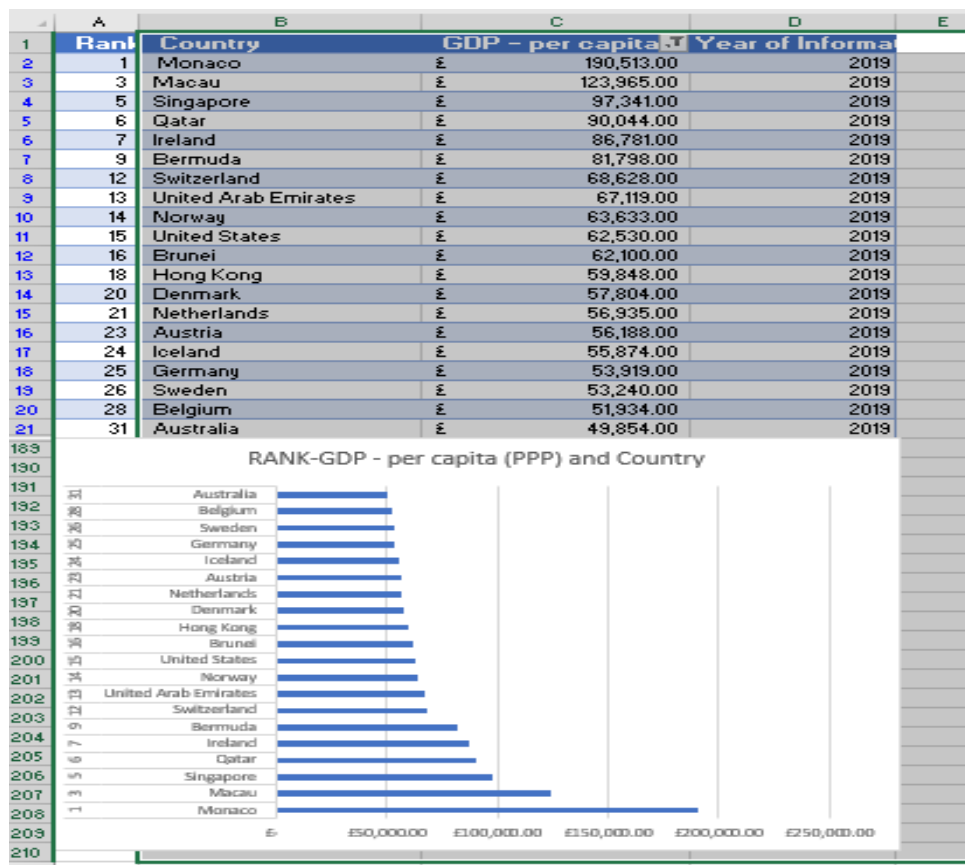
Fig 1.3: Macro Used for copy Top 20 Highest Ranking Countries Page

Macros

Print

Save

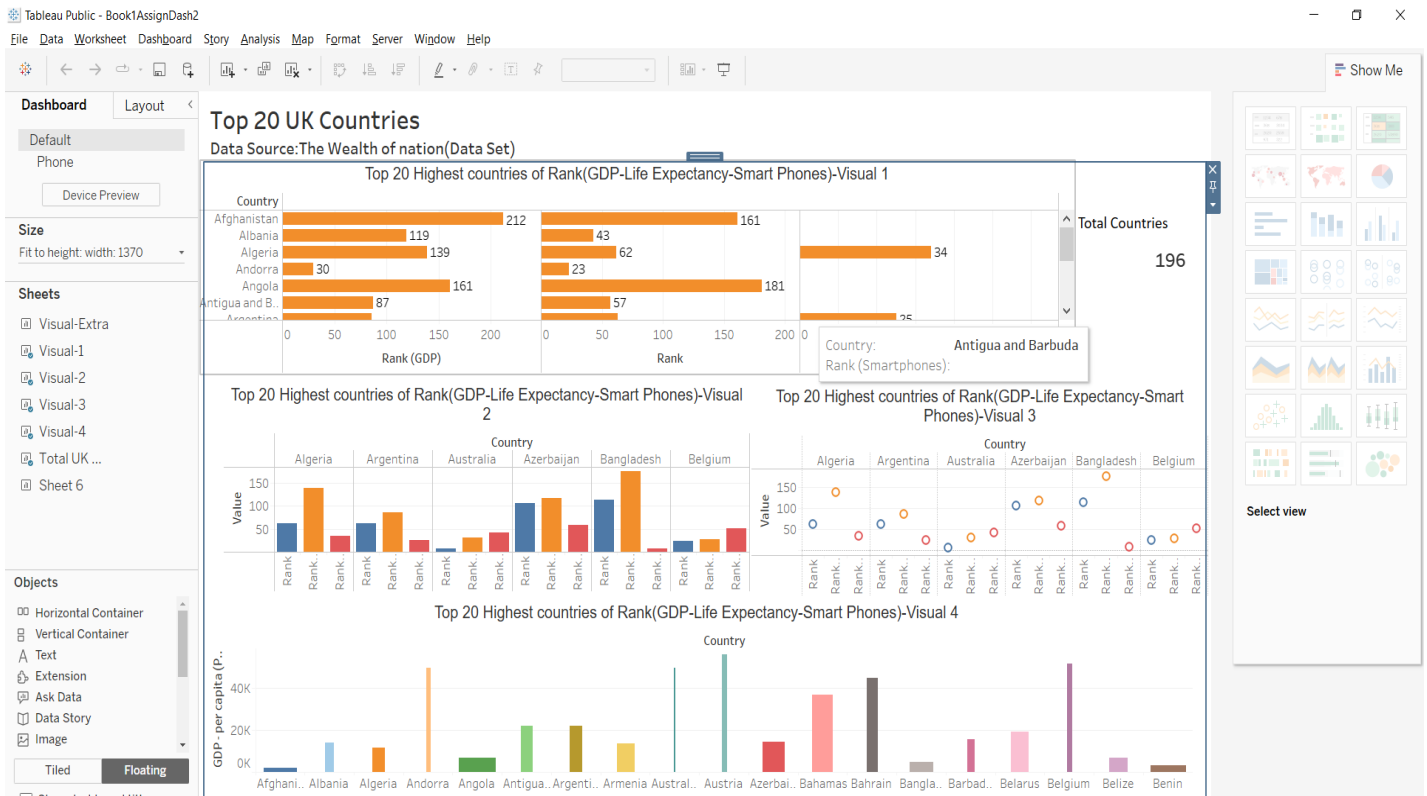
COPY



Source: Self-generated using Ms Excel

The macros above depict the correlation between copying the data of the Top 20 highest-ranking countries. By pressing the "Copy" button, the macros record and transfer the current page featuring the top-ranking countries onto an Excel sheet.

Fig 1.4: Dashboard by using Tableau



Source: Self-generated using Tableau

The dashboard utilizes the Tableau tool to showcase the top 20 UK countries, offering diverse visuals with the goal of improving understanding regarding the influence on GDP-per Capita, life expectancy and smartphone usage.