DATA VISUALIZATION

The Wealth of Nations

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Just IT

B2W group

Apprenticeships | Training | Recruitment

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Scenario

Data visualisation has become an essential business capability to help transform information into insights that can drive meaningful business outcomes and improved experiences. Today, most organizations have accumulated a wealth of data from the different corners of their businesses they are then unable to see how this data can help them make better decisions, making actions, and results.

You have been asked to Look at the data workbook and familiarize yourself with this data. You have also been asked to create a visual report that will show the data in the form of charts and maps using Tableau to the client requirements. You will also need to consider data protection and computer misuse policies.

Task 1

Policies and Procedures

Key Policies to Adhere to When Working with Data

1. Data Privacy and Confidentiality

- **What**: Ensure that any personally identifiable information (PII) or sensitive data is protected and not disclosed without proper authorization.
- **Why**: To comply with data protection regulations such as the General Data Protection Regulation (GDPR) in Europe or the California Consumer Privacy Act (CCPA) in the United States. Protecting data privacy helps in maintaining trust and avoiding legal repercussions.

2. Data Security

- **What**: Implement measures to protect data from unauthorized access, breaches, or theft. This includes using encryption, secure access controls, and regular security audits.
- **Why**: To safeguard the data against cyber threats and to ensure the integrity and availability of data. Data security is crucial to prevent financial losses, reputational damage, and legal consequences.

3. Data Quality and Integrity

- **What**: Ensure the data is accurate, complete, and reliable. Regularly clean, validate, and update data to maintain its quality.
- **Why**: High-quality data is essential for making accurate analyses and informed decisions. Poor data quality can lead to incorrect conclusions and undermine the credibility of the analysis.

4. Ethical Use of Data

- **What**: Use data ethically and responsibly, avoiding manipulation or misuse. Ensure that the data is used for its intended purpose and in a way that does not harm individuals or communities.
- **Why**: Ethical considerations are critical to maintaining public trust and upholding the integrity of the data analysis profession. Misuse of data can lead to ethical breaches and loss of trust.

5. Compliance with Legal and Regulatory Requirements

- **What**: Adhere to relevant laws and regulations governing the use of data. This includes data protection laws, intellectual property rights, and industry-specific regulations.
- **Why**: Non-compliance can result in legal penalties, fines, and damage to the organization's reputation. Staying compliant ensures lawful and ethical operations.

6. Transparency and Accountability

- **What**: Maintain clear documentation and provide transparency in data collection, analysis, and reporting processes. Ensure accountability in all stages of data handling.
- **Why**: Transparency builds trust with stakeholders and allows for reproducibility of results. Accountability ensures that any errors or issues can be traced and rectified promptly.

7. Data Retention and Disposal

- **What**: Follow policies on how long data should be retained and the proper methods for disposing of data that is no longer needed.
- **Why**: To ensure that data is not kept longer than necessary, reducing the risk of data breaches and complying with data minimization principles. Proper disposal of data helps in preventing unauthorized access after the data is no longer useful.

Importance of Adhering to These Policies as a Data Analyst

1. Ensuring Legal Compliance

Adhering to data policies helps avoid legal issues and ensures that the organization complies with all relevant laws and regulations. This protects the organization from legal actions and fines.

2. Protecting Stakeholder Trust

By following these policies, data analysts help maintain the trust of stakeholders, including customers, partners, and the general public. Trust is crucial for the long-term success of any organization.

3. Maintaining Data Integrity and Quality

Ensuring data quality and integrity is fundamental for accurate and reliable analysis. This leads to better decision-making and enhances the value derived from the data.

4. Upholding Ethical Standards

Ethical use of data reflects the professionalism and integrity of data analysts. It helps prevent misuse of data and ensures that analyses are conducted fairly and responsibly.

5. Preventing Data Breaches and Loss

Data security measures protect against data breaches and loss, which can have severe financial and reputational consequences for an organization.

6. Facilitating Effective Data Management

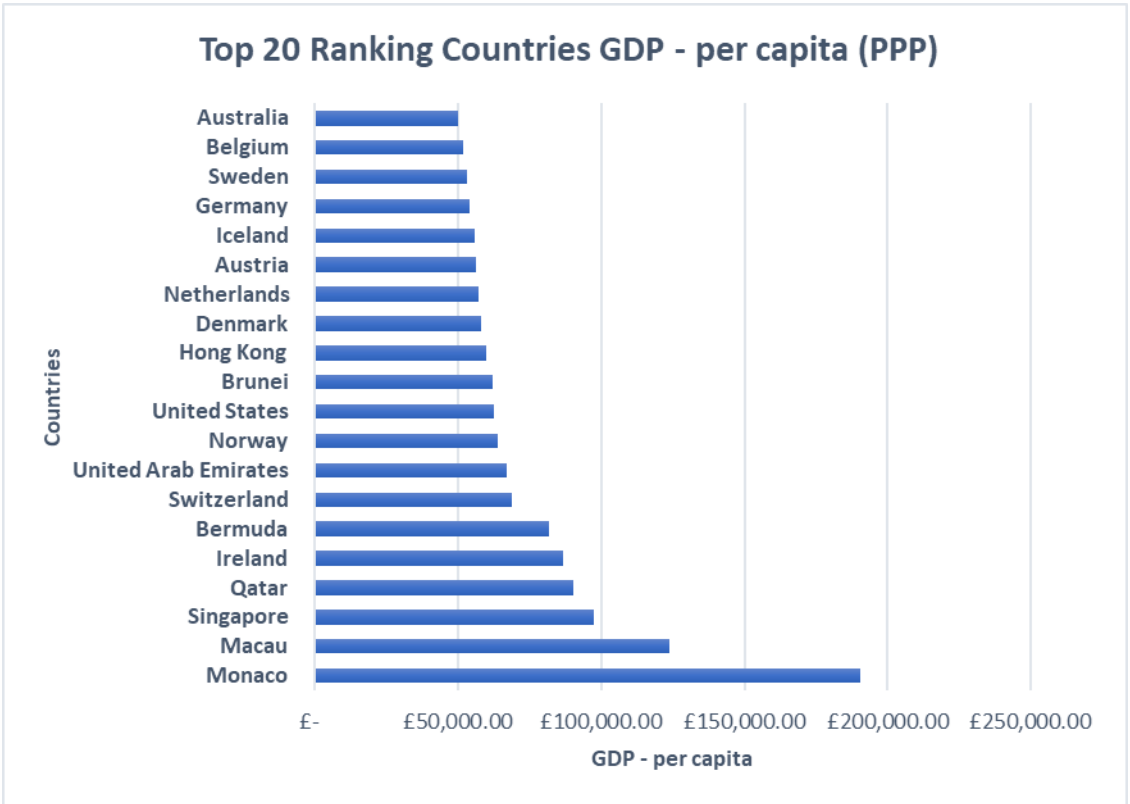
Adhering to data retention and disposal policies helps in managing data efficiently, ensuring that only necessary data is retained, and old data is disposed of properly.

In summary, as a data analyst working with data, it is crucial to adhere to these policies to ensure ethical, legal, and effective data management practices. This not only protects the organization and its stakeholders but also enhances the overall quality and reliability of the data analysis work.

Task 2

Excel

Rank	Country	GDP - per capita (PPP	Year of Informatic
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



Note: On the GDP Tasks *8. Create a sort for the top 20 highest ranking countries*, the screenshot example only shows the Top 13 as per below. Therefore, the correct table and chart are shown on page 6.

I used a common colour-blind-friendly palette (blue).

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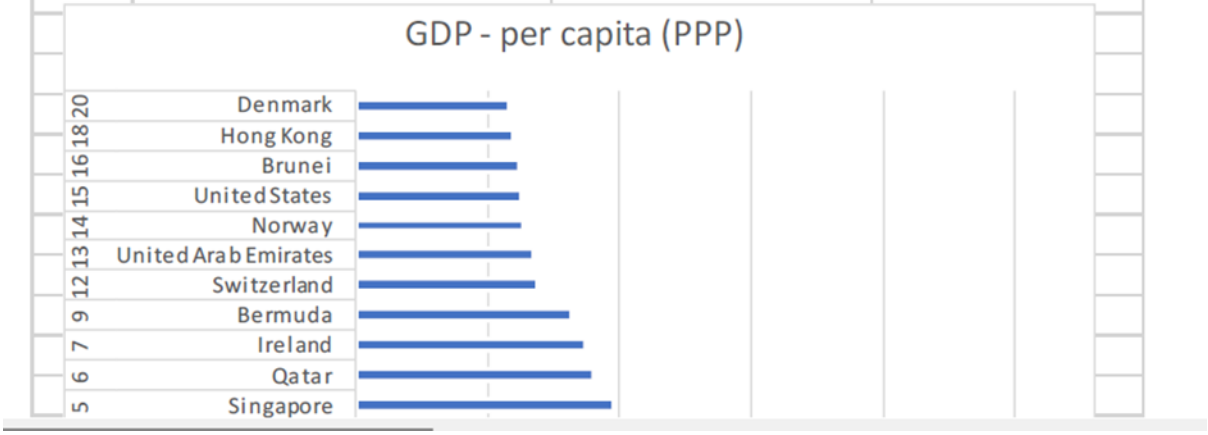

Task 3

Tableau

Client Requirements

The client is colour blind and requested you to bear this in mind when building your dashboard. The client is only interested in the top 20 highest ranking countries. All your visuals should be for the top 20 highest ranking countries.

Dashboard

I used a common colour-blind-friendly palette (blue/teal).

Tableau Public link

I have published my work onto Tableau Public. Please see link below.

https://public.tableau.com/app/profile/jonnel.mendoza/viz/The_Wealth_of_Nations_Assignment1/Dashboard1?publish=yes

Below is a screenshot of my dashboard.