Assignment 1 Data visualisation

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**Main Report**

**Policies and Procedures**

1. All data must be handled, stored, and transmitted in a secure and responsible manner in accordance with the company’s data security policy.

2. All data must be encrypted when stored and transmitted.

3. All data must be backed up regularly to ensure data availability and security.

4. All employees must receive training on proper data handling and use of data.

5. Access to data must be restricted to those who need it for their job functions.

6. All data must be kept confidential and only used for the purposes for which it was collected and authorized.

7. All data must be destroyed securely and in accordance with applicable laws and regulations when no longer needed.

8. All data must be regularly monitored to ensure accuracy and integrity.

9. All data must be handled in accordance with applicable laws and regulations.

10. All data must be stored in a secure location and with appropriate access controls in place.

As a data analyst, it is important to be aware of these policies and procedures because they are essential to ensuring the security and integrity of data. These policies and procedures provide guidance on how to store and handle data securely, how to encrypt data, how to back it up, and how to keep it confidential. Additionally, they provide guidance on how to comply with applicable laws and regulations, and how to monitor data for accuracy and integrity. Being aware of these policies and procedures is essential for a data analyst to ensure the protection of data and to comply with applicable laws and regulations.

In the UK, the data protection and computer misuse policies are governed by the Data Protection Act (DPA) 2018 and the Computer Misuse Act (CMA) 1990. The DPA outlines the obligations for anyone processing personal data, including the need for consent, the right to access and rectify data, and the right to be informed. The CMA outlaws unauthorized access to computer systems, including hacking into other people’s computer systems and using computer systems for fraud. It also makes it a criminal offence to distribute malicious software, such as viruses and worms.

**Screenshots of Project**

The screenshot below shows the process of setting a password to protect the Excel workbook.

Graphical user interface, text, application, email

Description automatically generated

The screenshot below shows changing the GDP per capita (PPP) to British Pounds, display only the information for the year 2019 (filtering) and transform the data into a Table.

Graphical user interface, application, table

Description automatically generated

The screenshot below shows the table data converted into a chart showing the GDP Per Capita (PPP) by Country rank (I created a sort for the top 20 highest countries).

Graphical user interface, application, table, Excel

Description automatically generated



The screenshot above shows the same chart with the background colour of the chart changed to a blue fill. Then three Macro buttons, Print, Save and Copy were created.

**Tableau Dashboard showing “The Wealth of Nations” Data Visualisation**

The first step was to import the data into the Tableau software and then set the relationships. The next step was to check the data types and handle any missing data and then build the 4 charts and the final Dashboard.

With the client being colourblind, I endeavoured to ensure the charts and dashboard were colourblind friendly.

Graphical user interface

Description automatically generatedGraphical user interface

Description automatically generated with low confidence

**A reflective Account**

This project started with working with data in an excel spreadsheet where a number of tasks were assigned as part of the project. We were versed on how important it is to get the formatting correct and this was a learning process as I have never used excel or any kind of spreadsheet before this training bootcamp. There is so much to learn from simple formatting to inserting charts and tables in order to better visualise the data.

The first task was to understand and document the policies and procedure that need to be adhered to when working with data. It became very clear when finding out the policies and procedures in the UK how important it is to securely handle the data and only those authorised to do so should have access to the data.

Working with Macros where tasks are automated was an eye opener. It was very clear that by automating tasks, a lot of time could be saved over the course of a project. Creating charts showed me how important it is to create correctly labelled charts that add to the story that the data is trying to tell.

Finally, it is very clear that design is a very important part of the layout of the work. The ways the colours and fonts are chosen by trial and error is an important part of the design process. For example, background colours should not be too bright so that it distracts from the data that the reader is looking at.

To fully understand excel and how to perform calculations, organise data and generate visualisations efficiently I will need to spend many hours practicing doing these things in Excel.