Assignment 1 Data Visualisation

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Data Analyst Bootcamp

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# Introduction

## Scenario

In order for a client to better understand and gain improved insights into their business model and in turn be empowered to take decisions which improve business outcomes and lead to better experiences I have been tasked with creating a visual report using the provided “Wealth Of Nations” data set to help inform the client, the report will combine charts and maps within tableau and will be considerate and compliant to the policies surrounding Data protection and computer misuse.

# Policies and Procedures

*Imperva.com* describes three key strategies regarding successful data protection as:

* **Data Security** - Protecting data from accidental or malicious damage
* **Data Availability** – Quickly restoring data in the event of damage or loss
* **Access Control –** Ensuring data is accessible to those that actually need it and not anyone else.

My takeaway from these points, from the perspective of a data analyst is that the protection of the subject of the data and the integrity of the company must be at the forefront of any actions taken by a data handler. Therefore, a safeguard and an acknowledged set of agreed behaviours must be in place, to help regulate what can and cannot be done within varying roles across data professions, these are the policies and procedures.

Before working with the “Wealth of Nations” data set it is essential that I adhere to the correct policies and procedures set out by my client’s business. These policies and procedures importantly serve to provide an understanding to myself of how to remain lawful within my use of company data.

A *Google AI overview* of a **Data Protection Policy** determines that it contains details of how a company will carry out their use of data lawfully, this includes the methods of how they interact with data, how they apply data minimalization (the commitment of only gathering and harnessing relevant data for a specific use) as well as the means taken to protect the rights of the data subjects. The policy should also detail the system security measures in place as well as the company’s policy and tools to ensure the continuous training of staff in relation to data security and proper handling. It is important as a data analyst that I do not breach the terms and conditions of the policy by leaving the data at risk of falling into the wrong hands or interact with the data unethically.

A **Data Governance Policy** lends itself to the business as an explanation of the rules for the employees and data handlers in the business itself. This policy is aligned most fundamentally to the pillar of Data Management, the responsibilities of which include appropriate and lawful: **collection**, **processing**, **analysis,** **storage** and **protection** of data. *Atlan.com* describes additional principles of a comprehensive data governance policy including: **data quality**, **privacy**, **security**, **lifecycle**, **ethics**, **definitions** and **models**.

As a data analyst I must fully understand the impact of my use of data across the entire data lifecycle, ensuring that the data I receive is relevant to my pre thought out purpose only, and once the appropriate analysis is carried out, and my use of the data is complete I should protect the data set compliantly and safely so that the next potential user of the data has been given the proper permissions to access it and to prevent risk of avoidable errors being made or even deletion of valuable and sensitive data.

Data producers such as data analysts also play a part in the maintenance and development of data governance policies, their experience and requirements of access to data during its processing, cleaning and transforming period is of key importance when the framework of a governance policy is being constructed or built on.

Importantly these policies are acknowledged by the parties involved within the business by signature, to cement a lawful agreement that the content of the policies has been understood and that a commitment has been made by the individuals in the organisation to use data within the lawful perimeters set out in the framework of the policies.

# Excel

## GDP Tasks

1. Set a password to protect the workbook.
2. Select “Review” from ribbon.

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1. Select “Protect Workbook”

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1. Enter Password and Verify it, tick or untick “Protect Structure” to disable or enable modifications to the workbook (e.g creating or deleting new or existing worksheets) Click Ok.

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1. The Password is now required to access the workbook.

A screenshot of a computer error

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2) change the data to display in British Pound symbol.

a) Highlight Column C as this is the current currency data displayed in Dollar format.

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b) Right click highlighted column, and select format cells.

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c) Under “Number” tab, Select “Currency” and select the Symbol dropdown box.

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1. Select British Pound Symbol and click Ok.

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1. Currency for column C has now been amended to British Pound Symbol.

A screenshot of a data

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3) Turning the GDP Sheet into a table

a) select cell A1.

A screenshot of a spreadsheet

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b) Select “Insert” ribbon and Table option.

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c) Check create table menu has full range of data selected and “My Table has headers” has been ticked and click Ok.

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d) Data has now been converted into a table.

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4) Filter the Table to only display information for 2019.

a) Select drop down arrow for “Year of information” column.

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b) Deselect “select all”.

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c) Scroll down and select “2019” and apply filter.

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d) Table has now been filtered to show only results from the year 2019.

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5) Create a chart to display Rank, Country and GDP - per capita (PPP)

a) Select columns Rank, Country and GDP.

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b) Select Insert ribbon, and your choice of chart for data from the drop down tab.

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c)