Insight into the world's population for the year 2019-2020

Charlie Thomas

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Excel and Tableau

Special Thanks to Mr. Yusuf Satilmis

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Section 1: Policies and Procedures

Excel and Tableau

1.1 Policies

When working with data, especially in contexts involving sensitive or personal information, it is crucial to adhere to a set of policies to ensure ethical, legal, and secure handling of the data. Here is an outline of some key policies that should be considered:

1. Data Privacy Policy:

- Clearly outline the types of data collected, including personally identifiable information (PII).
- Specify the purposes for which the data is collected and how it will be used.
- Detail procedures for obtaining consent from individuals for data collection and processing.
- Define guidelines for data retention and deletion to ensure compliance with privacy regulations.

2. Data Security Policy:

- Establish protocols for securing data against unauthorized access, disclosure, or alteration.
- Implement encryption techniques for data transmission and storage.
- Enforce access controls and user authentication mechanisms to restrict access to authorised personnel only.
- Define procedures for incident response and data breach notification to mitigate potential risks.

3. Data Retention Policy:

- Specify the duration for which data will be retained based on regulatory requirements and business needs.
- Define criteria for archiving or deleting data once it ends its retention period.
- Ensure compliance with laws and regulations governing data retention in relevant jurisdictions.

4. Data Quality Policy:

- Establish standards for data accuracy, completeness, and consistency.
- Define procedures for data validation and cleansing to ensure high-quality data.
- Implement mechanisms for regular data audits and validation checks.

5. Compliance Policy:

- Ensure compliance with relevant data protection regulations such as GDPR, CCPA, HIPAA, etc.
- Stay informed about updates and changes to data protection laws and adjust policies accordingly.
- Conduct regular compliance assessments and audits to identify and address any non-compliance issues.

6. Data Access and Sharing Policy:

- Define roles and responsibilities for accessing and sharing data within the organisation.
- Implement controls to monitor and track data access and sharing activities.
- Establish guidelines for securely sharing data with third parties, including vendors and partners.

7. Ethical Data Use Policy:

- Promote ethical principles such as transparency, fairness, and accountability in data handling.
- Prohibit unethical practices such as data discrimination or manipulation.
- Encourage responsible use of data for legitimate purposes while respecting individual privacy rights.

8. Training and Awareness Policy:

- Provide regular training sessions on data handling policies and procedures for employees.
- Raise awareness about the importance of data privacy and security among staff members.
- Ensure that employees understand their roles and responsibilities in safeguarding data.

9. Governance and Oversight Policy:

- Establish a governance structure with designated individuals or committees responsible for overseeing data management practices.
- Define reporting mechanisms for data-related incidents or breaches.
- Ensure accountability by holding individuals accountable for non-compliance with data policies.

10. Continuous Improvement Policy:

- Implement mechanisms for ongoing review and improvement of data policies and procedures.
- Solicit feedback from stakeholders and incorporate lessons learned from past experiences.
- Stay updated on emerging technologies and best practices in data management to adapt policies accordingly.

By adhering to these policies, organizations can promote responsible data-handling practices, mitigate risks, and build trust with stakeholders.

1.2 Reason to have Data Policy

Adhering to data policies is essential for several reasons, especially when overseeing sensitive or personal information. Here is why it is crucial to follow these policies:

- 1. **Protecting Privacy Rights**: Data privacy policies ensure that individuals' privacy rights are respected by specifying how their personal information is collected, stored, and used. Adhering to these policies helps prevent unauthorized access or misuse of sensitive data, safeguarding individuals' privacy.
- 2. **Ensuring Data Security**: Data security policies are crucial for protecting data from cyber threats, such as hacking or data breaches. By implementing security measures such as encryption, access controls, and incident response protocols, organizations can minimize the risk of data breaches and maintain the confidentiality and integrity of the data.
- 3. **Compliance with Regulations**: Many jurisdictions have enacted data protection regulations such as GDPR, CCPA, HIPAA, etc., which impose legal obligations on organizations regarding the handling of personal data. Adhering to data policies ensures compliance with these regulations, reducing the risk of legal penalties, fines, or lawsuits for non-compliance.
- 4. **Maintaining Data Quality**: Data quality policies help ensure that the data used for analysis is accurate, dependable, and consistent. By adhering to data quality standards and conducting regular validation checks, data analysts can rely on high-quality data to make informed decisions and derive accurate insights.
- 5. **Building Trust and Reputation**: Following data policies demonstrates a commitment to ethical and responsible data handling practices, which can enhance trust and credibility with customers, partners, and other stakeholders. Organizations that prioritize data privacy and security are more likely to earn the trust of individuals and maintain a positive reputation in the market.
- 6. **Mitigating Risks**: Adhering to data policies helps mitigate various risks associated with data handling, including security breaches, data loss, regulatory violations, and reputational damage. By implementing comprehensive policies and procedures, organizations can proactively identify and address potential risks before they escalate into serious issues.

1.3 Policies and Data Analyst

- 1. **Ethical Responsibility**: Data analysts have a responsibility to ensure that data is managed ethically and in compliance with relevant regulations and policies. Being aware of data policies helps data analysts make informed decisions about how to collect, analyse, and use data responsibly.
- 2. **Risk Management**: Data analysts often have access to sensitive or confidential information, making them responsible for protecting data from unauthorized access or misuse. Understanding data security and privacy policies allows data analysts to identify and mitigate potential risks to data integrity and confidentiality.
- 3. **Data Quality Assurance**: Data analysts rely on high-quality data to perform accurate analysis and generate reliable insights. By understanding data quality policies and procedures, data analysts can contribute to maintaining data quality standards and ensuring that the data used for analysis is accurate and dependable.

4. **Compliance Obligations**: Data analysts need to ensure that their data handling practices comply with relevant regulations and policies to avoid legal and regulatory consequences. Being aware of data privacy and security policies helps data analysts comply with legal obligations and prevent potential compliance violations.

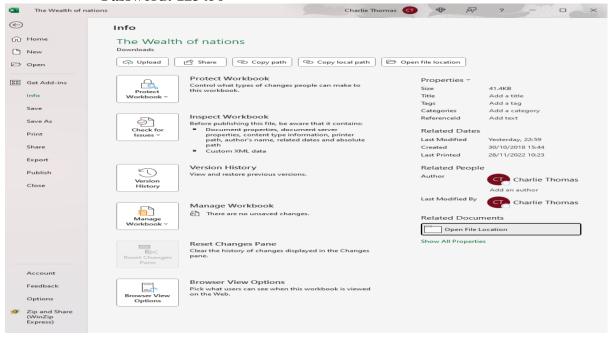
Overall, awareness of data policies is essential for data analysts to perform their roles effectively, ethically, and in compliance with legal and regulatory requirements.

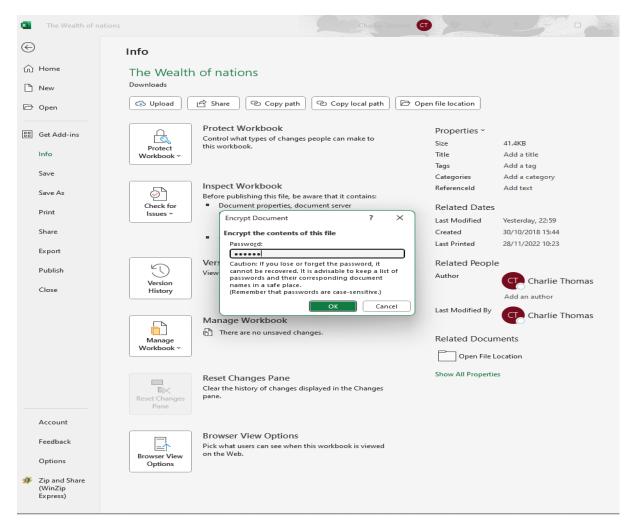
Section 2: Excel

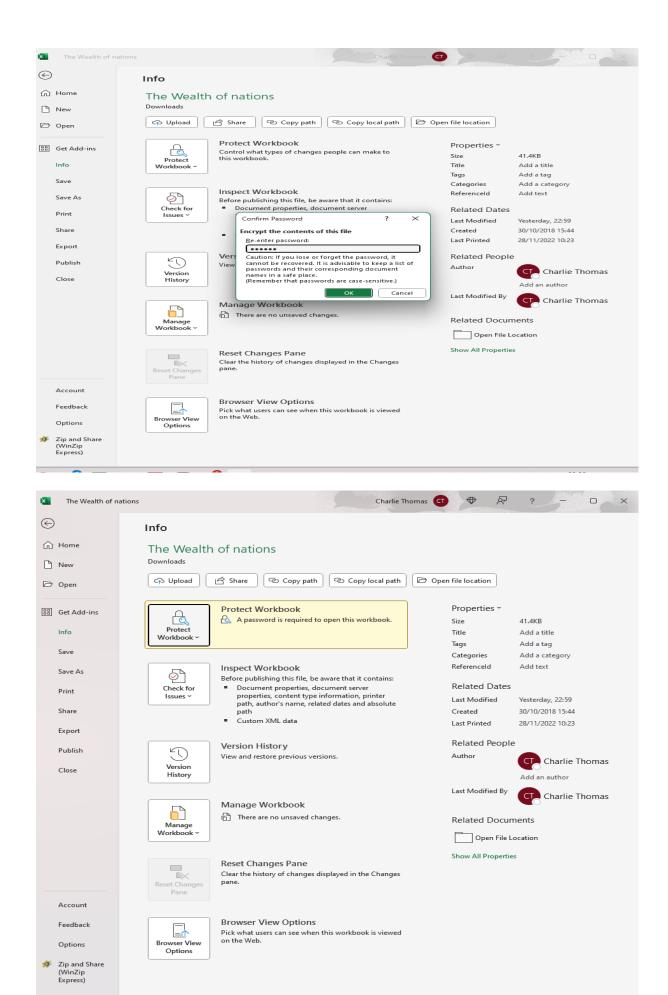
Excel and Tableau

2.1 Set a password to protect the workbook.

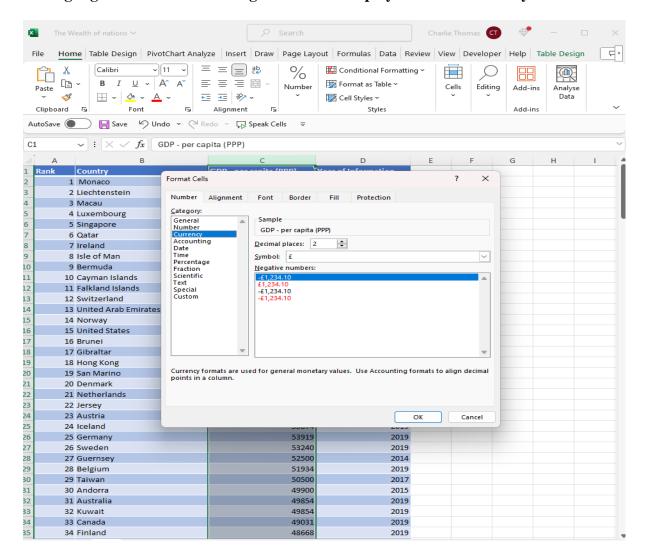
• Password: 123456







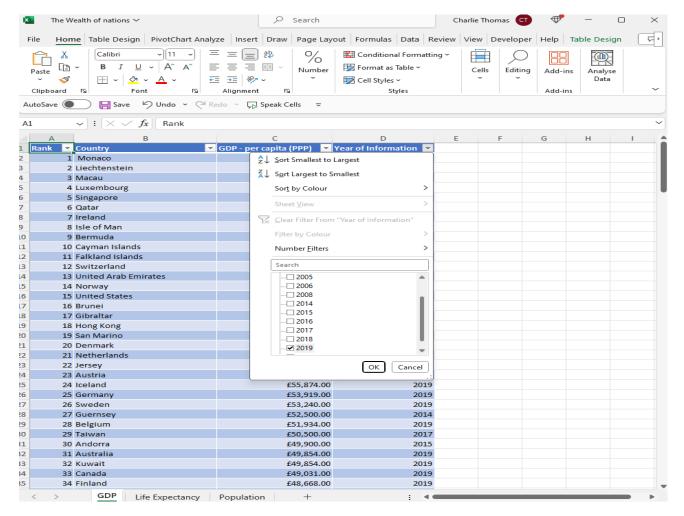
2.2 Highlight column C and change the data to display in British Pound symbol.



2.3 Turn the GDP sheet into a table.

Rank	Rank2	Rank3	Rank4
1	Monaco	£190,513.00	2019
2	Liechtenstein	£180,367.00	2018
3	Macau	£123,965.00	2019
4	Luxembourg	£115,874.00	2020
5	Singapore	£97,341.00	2019
6	Qatar	£90,044.00	2019
7	Ireland	£86,781.00	2019
8	Isle of Man	£84,600.00	2014
9	Bermuda	£81,798.00	2019
10	Cayman Islands	£71,549.00	2018
11	Falkland Islands	£70,800.00	2015
12	Switzerland	£68,628.00	2019
13	United Arab Emirates	£67,119.00	2019
14	Norway	£63,633.00	2019

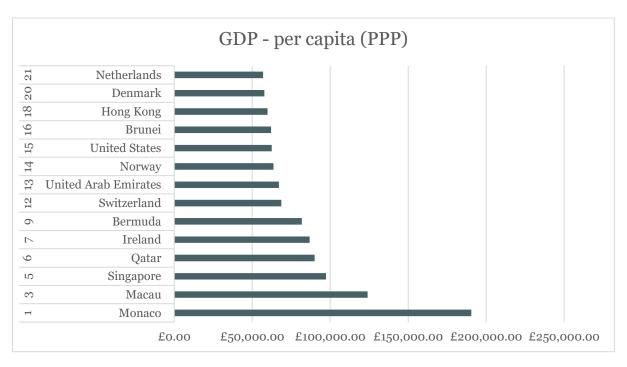
2.4 Filter the table to display only the information for 2019.



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

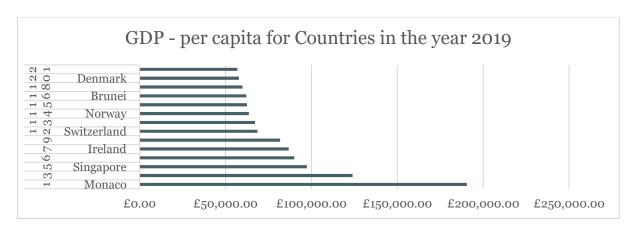
26	Sweden	£53,240.00	2019
28	Belgium	£51,934.00	2019
31	Australia	£49,854.00	2019
32	Kuwait	£49,854.00	2019
33	Canada	£49,031.00	2019
34	Finland	£48,668.00	2019
35	Saudi Arabia	£46,962.00	2019
36	United Kingdom	£46,659.00	2019
38	France	£46,184.00	2019
39	Bahrain	£45,011.00	2019
40	EU	£44,436.00	2019
41	Malta	£44,032.00	2019
42	New Zealand	£42,888.00	2019

2.5 Create a chart that display the following data 'Rank, Country, and GDP - per capita (PPP).

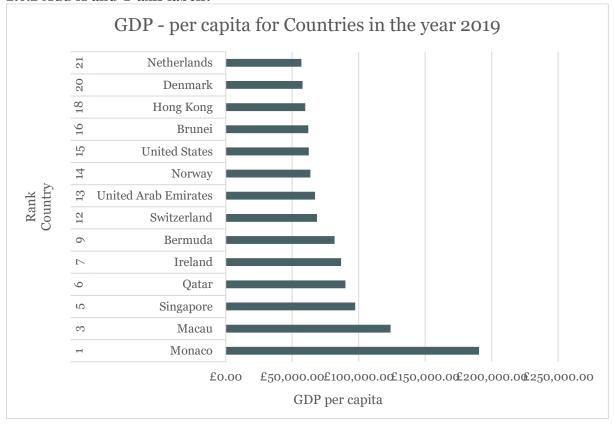


2.6 Edit the chart.

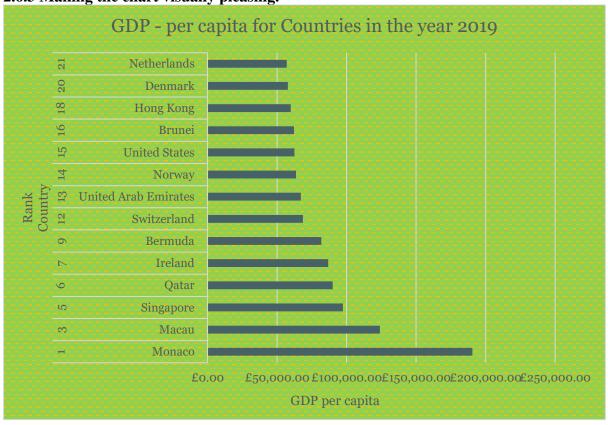
2.6.1 Add title.



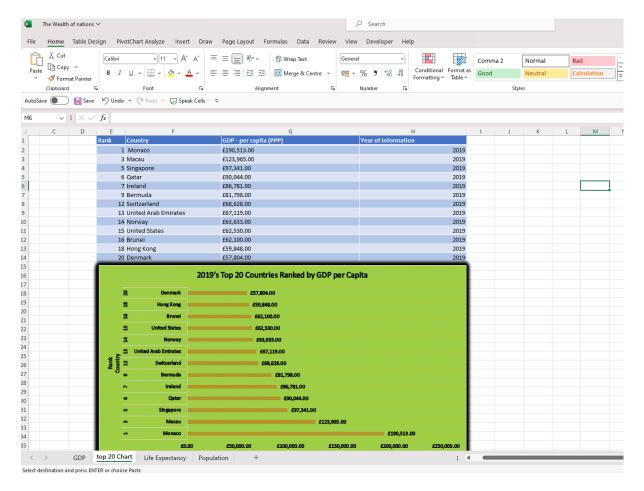
2.6.2 Add X and Y axis labels.





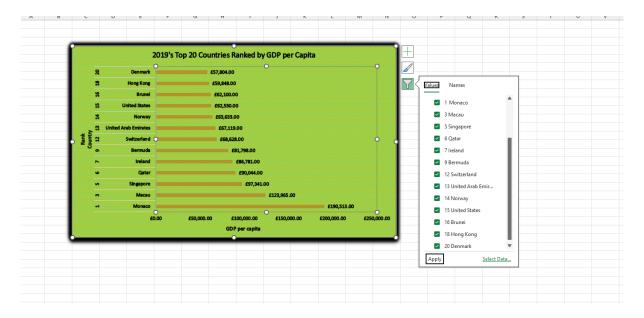


2.7 Move the chart to a new sheet tab and label with a suitable name.



2.8 Create a sort for the top twenty highest ranking countries.

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



2.9. Create a new Bar chart to display the twenty highest-ranking countries from your sort.

Rank	Country	GDP - per capita (PPP)	Year of Information	
	1 Monaco	£190,513.00	Teal of Information	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
1	2 Switzerland	£68,628.00		2019
1	3 United Arab Emirates	£67,119.00		2019
14	4 Norway	£63,633.00		2019
1.	5 United States	£62,530.00		2019
10	.6 Brunei	£62,100.00		2019
18	8 Hong Kong	£59,848.00		2019
20	0 Denmark	£57,804.00		2019
	유 Denmark	2019's Top 20 Countries Ran £57,804.00	ked by GDP per Capita	
	Hong Kong Superior Brunei	£57,804.00 £59,848.00 £62,100.00	ked by GDP per Capita	
	Hong Kong Brunei United States	£57,804.00 £59,848.00 £62,100.00 £62,530.00	ked by GDP per Capita	
	Hong Kong Strunel United States Norway	£57,804.00 £59,848.00 £62,100.00 £62,530.00 £63,633.00	ked by GDP per Capita	
	Hong Kong Strunel United States Norway United Arab Emirates	£57,804.00 £59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00	ked by GDP per Capita	
	명 Hong Kong 명 Brunel 당 United States Norway 명 United Arab Emirates 당 Switzerland	£57,804.00 £59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00		
	Hong Kong Strunel United States Norway United Arab Emirates	£57,804.00 £59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00	.00	
	위 Hong Kong 의 Brunel 의 United States 가 Norway 의 United Arab Emirates 의 Switzerland 아 Bermuda	£57,804.00 £59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798	3.00 781.00	
	Hong Kong Hong Kong United States Norway United Arab Emirates Switzerland Hong Hong Hong United Arab Emirates Hong Hong Hong Hong Hong Kong Hong Hong Hong Hong Hong Hong Hong H	£57,804.00 £59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798 £86,7	81.00 81.00 ,044.00	
	Hong Kong Hong Kong United States Norway United Arab Emirates Switzerland Bermuda Ireland Gatar	£57,804.00 £59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798 £86,7	3.00 781.00	
	Hong Kong Hong Kong United States Norway United Arab Emirates Switzerland Hong Hong United Arab Emirates Hong Hong Hong Hong Hong Hong Hong Hong	£57,804.00 £59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798 £86,7	1.00 781.00 781.00 797,341.00	
	Hong Kong Hong Kong United States Norway United Arab Emirates Switzerland Hong Kong Norway United Arab Emirates Hong Kong Norway United States Norway Hong United Arab Emirates Switzerland Germuda Frieland Gatar Gatar Macau Monaco	£57,804.00 £59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798 £86,7	£123,965.00 £190,513.00	00.00

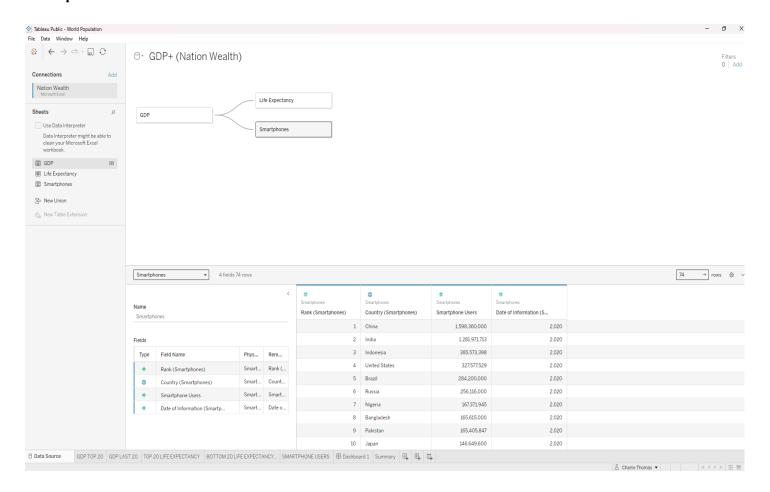
2.10 Colour the background

	Country	GDP - per capita (PPP)	Year of Information
1	Monaco	£190,513.00	20
3	Macau	£123,965.00	20
5	Singapore	£97,341.00	20
6	Qatar	£90,044.00	20
7	Ireland	£86,781.00	20
9	Bermuda	£81,798.00	20
	Switzerland	£68,628.00	20
13	United Arab Emirates	£67,119.00	20
	Norway	£63,633.00	20
	United States	£62,530.00	20
	Brunei	£62,100.00	20
	Hong Kong	£59,848.00	20
20	Denmark	£57,804.00	20
	Denmark Hong Kong Brunei	£57,804.00 £59,848.00 £62,100.00	
Rank Country	Hong Kong Hong Kong United States United States United Arab Emirates Switzerland Bermuda Ireland	£59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798.00	
Rank Country	Hong Kong Hong Hong Kong H	£59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798.00 £86,781.00	
Rank Country	Hong Kong Hong Hong Kong H	£59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798.00 £86,781.00 £90,044.00	
Rank Country	Hong Kong Hong Hong Kong H	£59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798.00 £86,781.00	
Rank Country	Hong Kong Hong Hong Kong H	£59,848.00 £62,100.00 £62,530.00 £63,633.00 £67,119.00 £68,628.00 £81,798.00 £86,781.00 £90,044.00	23,965.00 £190,513.00

Section 3: Tableau

Excel and Tableau PAGE 17

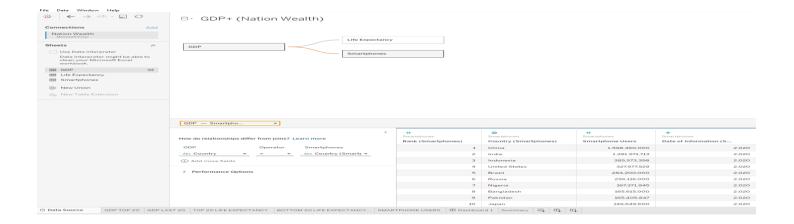
3.1 Import Data



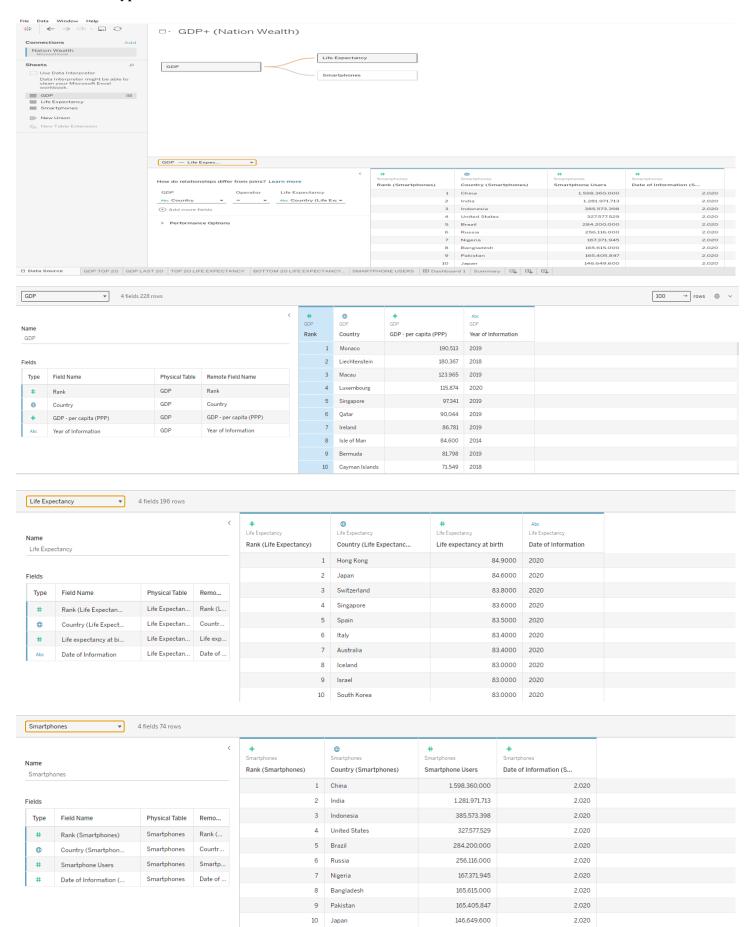
3.2 Set relationships

⊖- GDP+ (Nation Wealth)

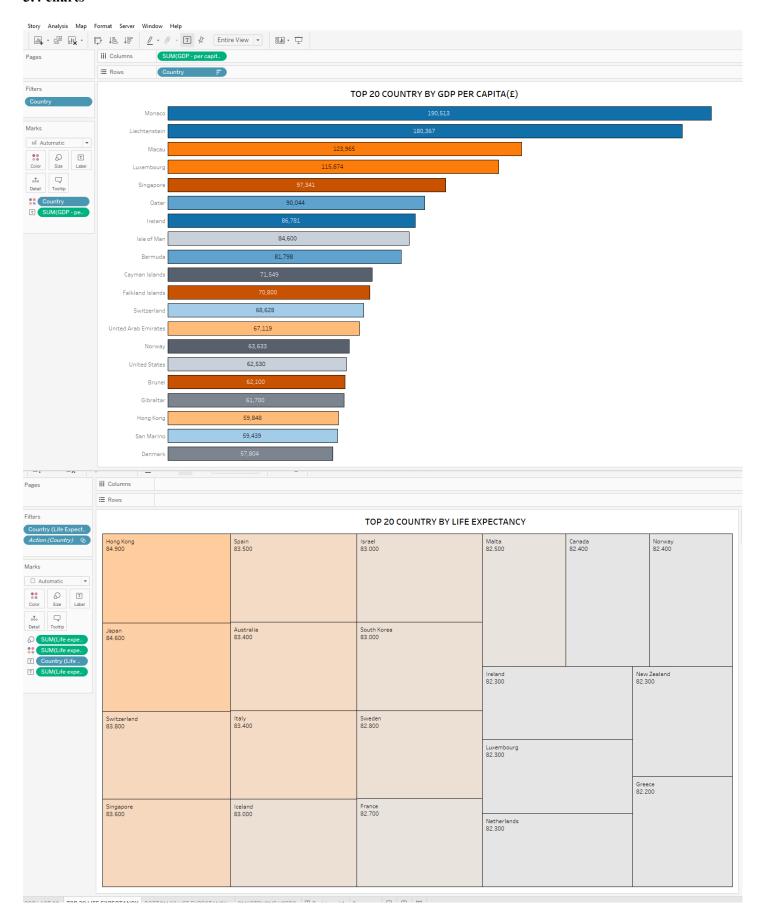


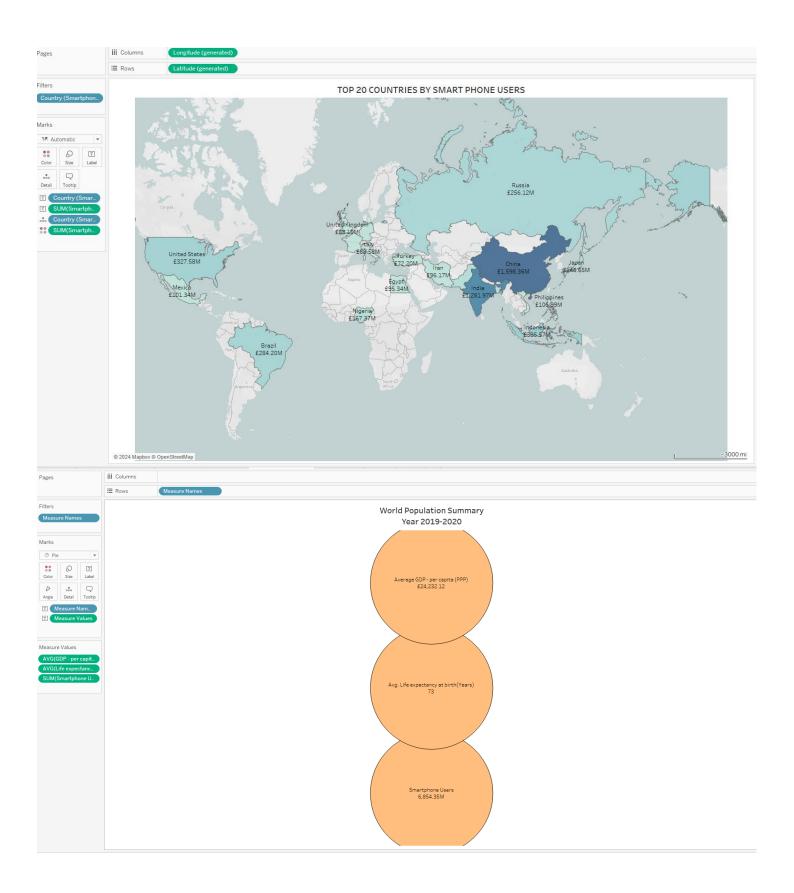


3.3 Check data types

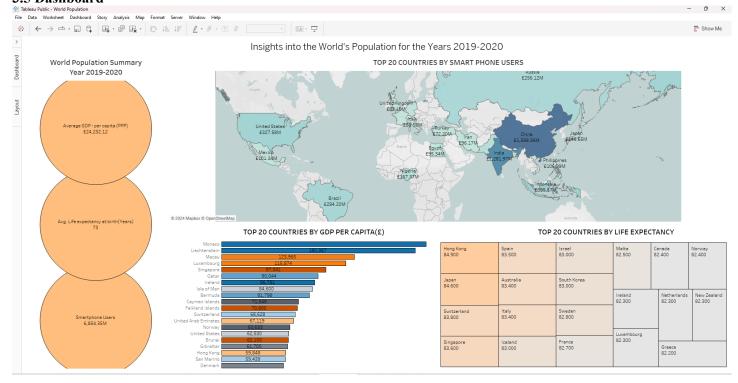


3.4 charts





3.5 Dashboard



Reflection

Excel and Tableau

The Excel and Tableau project: Insight into the world's population for the year 2019-2020 aimed to analyse and visualize sales data to identify trends, patterns, and insights for informed decision-making. This reflective account evaluates the project, highlighting successes, areas for improvement, and lessons learned throughout the process.

4.1 What Went Well:

- 1. **Data Gathering and Cleaning**: The initial phase of collecting and cleaning data went smoothly. I was able to access relevant data and effectively preprocess it to ensure accuracy and consistency.
- 2. **Excel Analysis**: Excel proved to be a robust tool for performing in-depth analysis of the data. I successfully utilized Excel functions and formulas to calculate metrics and generate insightful chart.
- 3. **Tableau Visualization**: Transitioning from Excel to Tableau for data visualization was a significant success. Tableau's intuitive interface allowed me to create dynamic and visually appealing dashboards that effectively conveyed key insights from the data.
- 4. **Documentation**: The Data analysis and visualization process has been documented in this report.

4.2 Areas for Development:

- 1. **Advanced Analysis Techniques**: While the Excel analysis provided valuable insights, there is room for improvement in incorporating more advanced analytical techniques such as regression analysis or predictive modelling to uncover deeper insights and forecast future trends.
- 2. **Tableau Proficiency**: Although I successfully created visualizations in Tableau, further development of skills in advanced Tableau features and techniques could enhance the sophistication and interactivity of the dashboards.

4.3 Lessons Learned:

- 1. **Flexibility and Adaptability**: The project highlighted the importance of being adaptable to changing requirements and circumstances. Flexibility in approach and willingness to iterate based on feedback were key factors in achieving project success.
- 2. **Continuous Learning**: The project underscored the value of ongoing learning and upskilling in data analysis and visualization tools. Investing time in acquiring new skills and staying abreast of emerging trends and technologies is essential for professional growth and project effectiveness.
- 3. **Attention to Detail**: Paying attention to detail during data analysis and visualization is paramount to ensure accuracy and reliability of findings. Thorough data validation and verification processes help mitigate errors and enhance the credibility of insights.
- 4. **Iterative Improvement**: Reflecting on the project, I recognize the value of embracing a mindset of continuous improvement. Each project provides opportunities to learn from successes and challenges, refine processes, and enhance skills for future endeavours.

In conclusion, the Excel and Tableau project provided valuable insights into world's population with successes in data processing, analysis, visualization. While there were areas for development, including advanced analysis techniques, Tableau proficiency, the project yielded valuable lessons learned in flexibility, continuous learning, attention to detail, and iterative improvement. Moving forward, these insights will inform future projects and contribute to ongoing professional growth and development in data analytics and visualization.