

**Data Technician**

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| Name: Yohanna Ogando |
| Course Date: |
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# Day 1: Task 1

Please research the different versions of Tableau, compare and contrast them below and explain the limited functionality on ‘Tableau Public’.

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| Different Tableau versions | |  | | --- | | **Tableau Desktop:**  A comprehensive tool for individual data analysis, Tableau Desktop allows users to connect to numerous data sources, create interactive visualizations, and share insights. Key features include:   * **Extensive Data Connectivity:** Supports connections to various data sources, including databases, cloud services, and spreadsheets. * **Local and Server Publishing:** Users can save work locally or publish dashboards to Tableau Server or Tableau Online for broader access. * **Advanced Analytics:** Offers sophisticated analytical features, such as trend analyses and forecasting. | | **Tableau Server:** Designed for organizations to share and collaborate on Tableau workbooks securely, Tableau Server provides:   * **Centralized Management:** Allows centralized control over data sources and dashboards, ensuring data governance and consistency. * **Scalability:** Supports scaling across large organizations, accommodating numerous users and extensive data. * **Security:** Offers robust security features, including user authentication and permissions management. | | **Tableau Online:** A cloud-hosted version of Tableau Server, Tableau Online eliminates the need for on-premises hardware and maintenance. Features include:   * **Maintenance-Free:** Managed by Tableau, ensuring automatic updates and minimal administrative overhead. * **Global Accessibility:** Users can access dashboards from anywhere with an internet connection. * **Integration:** Seamlessly integrates with various data sources and third-party applications. | | **Tableau Public:** A free platform for users to create and share interactive data visualizations publicly. While it offers many of the capabilities of Tableau's paid products, it has notable limitations:   * **Public Visibility:** All workbooks and data published are accessible to anyone, making it unsuitable for confidential or proprietary information. * **Limited Data Connections:** Supports fewer data connectors compared to Tableau Desktop, primarily limited to Excel, text files, and Google Sheets. * **No Local Saving:** Work cannot be saved locally; all projects must be published to the Tableau Public web platform. * **Data Refresh Constraints:** Limited capabilities for live data refreshes, primarily supporting static datasets. * **Row Limitations:** Recent updates have increased the row limit to 1 million rows, but this is still a constraint compared to other Tableau products. | |  | |

# Day 1: Task 2

Using the *EMSI\_JobChange\_UK* dataset, create your own dashboard, I want to see a bar chart showing percentage change and a UK based map showing the key city locations impacted.

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| Paste your print screen here | A screenshot of a computer  AI-generated content may be incorrect. |

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AI-generated content may be incorrect.

# Day 2: Task 1

Using the Spotify data set, conduct an analysis to find trends and key information that could be used by an organisation for future projects.

There is no set scope for the analysis, simply to find trends and document them below:

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| Paste your print screens here | A screenshot of a computer  AI-generated content may be incorrect. |

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| What did you find? | Pop is the most popular genre, followed by Hip-Hop and Rock.  Classical and other niche genres have lower popularity.  There is a noticeable difference in popularity levels across genres.  Genres like Rock, Hip-Hop, and Electronic likely have high energy and loudness.  Classical and Acoustic music may be on the lower end of both energy and loudness.  The overall trend may confirm that loudness contributes to the perception of high-energy music.  The majority of songs seem to be within a mid-tempo range (around 100-140 BPM).  There are fewer songs with extremely slow or extremely fast tempos.  This suggests that most popular music maintains a rhythm that is easy to follow and dance to. **Final Observations:**  * **Pop music dominates in popularity** and likely balances energy and loudness well. * **There is a clear correlation between loudness and energy**, with some genres leaning towards one extreme. * **Tempo distribution is concentrated in the mid-range**, aligning with typical song structures in mainstream music. |

# Day 2: Task 2

Using the Health, conduct an analysis to find trends and key information that could be used by an organisation for future support.

There is no set scope for the analysis, simply to find trends and document them below.

* Data can be lifesaving and is being used more within the NHS, reflect on how this data could support decision making for the NHS.

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| What did you find and any reflections on how the NHS could use this? | Lung cancer is more common in men than women in the Dominican Republic.  US and UK populations are balanced by gender, but the US has a much larger population.  Africa and Asia lead in population growth, while Europe has slower growth.  China has the highest reported cancer cases, followed by other major economies.  By analysing this data, the NHS could:  ✅ Strengthen cancer prevention campaigns (e.g., smoking cessation programs).  ✅ Improve healthcare planning based on population growth trends.  ✅ Allocate resources more efficiently to hospitals treating high-risk groups.  ✅ Enhance early cancer detection & screening programs tailored to gender and ethnicity.  ✅ Collaborate internationally to learn best practices for cancer prevention and treatment. |

# Day 3: Task 1

Please complete Lab 1 ‘Get Data in Power Bi Desktop’. Once complete, paste a print screen below and in the collaboration board.

“Teaching is the best way to learn, so please listen out for support requests from the class and we’ll work through the challenges together”

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| Paste your completed lab here | A screenshot of a computer  AI-generated content may be incorrect. |

# Day 3: Task 2

Please complete Lab 2 ‘Load Transformed Data in Power BI Desktop’. Once complete, paste a print screen below and in the collaboration board.

“Teaching is the best way to learn, so please listen out for support requests from the class and we’ll work through the challenges together”

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| Paste your completed lab here | A screenshot of a computer  AI-generated content may be incorrect. |

# Day 4: Task 1

Please complete Lab 6‘Design a Report in Power BI Desktop’. Once complete, paste a print screen below and in the collaboration board.

“Teaching is the best way to learn, so please listen out for support requests from the class and we’ll work through the challenges together”

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| Paste your completed lab here | A screenshot of a computer  AI-generated content may be incorrect. |

# Day 4: Task 2

Please complete Lab 10 ‘Create a Power BI Dashboard’. Once complete, paste a print screen below and in the collaboration board.

“Teaching is the best way to learn, so please listen out for support requests from the class and we’ll work through the challenges together”

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| Paste your completed lab here | A screenshot of a computer  AI-generated content may be incorrect. |

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| **Course Notes** |

It is recommended to take notes from the course, use the space below to do so, or use the revision guide shared with the class.

We have included a range of additional links to further resources and information that you may find useful, these can be found within your revision guide.

**END OF WORKBOOK**

**Please check through your work thoroughly before submitting and update the table of contents if required.**

**Please send your completed work booklet to your trainer.**

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| **Information** |