

**Data Technician**

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| Name: |
| 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 | | **Feature** | **Tableau Desktop** | **Tableau Server** | **Tableau Cloud** | **Tableau Public** | | --- | --- | --- | --- | --- | | **Purpose** | Full-featured analytics tool for creating dashboards | Enterprise platform for sharing dashboards | Cloud-based alternative for sharing dashboards | Free version for public data visualization | | **Data Connections** | Wide range (databases, cloud services, APIs, Excel, etc.) | Same as Desktop | Same as Desktop | Limited to Excel, CSV, and Google Sheets | | **Saving Options** | Save locally or publish to Tableau Server/Cloud | Hosted on internal servers | Hosted on Tableau’s cloud | No local saving, only public publishing | | **Collaboration** | Limited without Tableau Server/Cloud | Secure collaboration within an organization | Online collaboration | Public sharing only (anyone can see your work) | | **Security & Privacy** | Full control over data privacy | Organization controls access | Secure but managed by Tableau | No data privacy (all work is public) | | **Data Refresh** | Supports scheduled refreshes | Scheduled & live refreshes | Scheduled & live refreshes | Limited (Google Sheets refreshes every 24 hours) | | **Advanced Features** | Full access to calculations, forecasting, scripting, and more | Same as Desktop | Same as Desktop | Limited advanced functionalities | | **Best For** | Data analysts, business users, organizations | Organizations needing secure collaboration | Businesses that prefer cloud solutions | Students, educators, public data enthusiasts |   **Limitations of Tableau Public**   1. **Data Source Connections** → No direct connection to databases (e.g., SQL Server, Oracle, Snowflake). 2. **Data Privacy** → All published dashboards are **publicly accessible**. 3. **Saving Work** → No local save; must be published to Tableau Public’s online gallery. 4. **Data Refresh** → Limited auto-refresh (Google Sheets updates once every 24 hours). 5. **Advanced Features** → Lacks **data security, scheduled refreshes, and private sharing**. |

# 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

Description automatically generated

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# 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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| What did you find? | Key Insights from the Visuals   1. Duration vs. Popularity (Scatter Plot)    * The trend line suggests a positive correlation between song duration and popularity.    * Longer songs tend to be more popular, but the data points indicate some variability. 2. Danceability vs. Popularity (Scatter Plot)    * Reggaeton and Hip-Hop have the highest danceability and popularity.    * Classical and Opera music have low danceability and lower popularity. 3. High-Energy Tracks and Dance-Friendliness (Bar Chart)    * Genres like Ska, Reggaeton, and Rock have the highest energy levels.    * Comedy, Children's Music, and Alternative also show relatively high energy but are not necessarily the most danceable.    * Genres with high energy tend to align with danceability. 4. Most Popular Genres (Bar Chart)    * Pop, Rap, and Rock dominate as the most popular genres.    * Genres like Folk, Alternative, and Children's Music are less popular.    * Pop music has the highest average popularity, confirming its mainstream appeal.   What These Findings Mean   * Music Industry & Artists:   + Artists aiming for mainstream success might consider longer, high-energy, and danceable tracks.   + Reggaeton and Hip-Hop are highly danceable and perform well in popularity.   + Pop remains the dominant genre, so artists in this category have a higher chance of reaching mass audiences. * Streaming Services (Spotify, Apple Music, etc.):   + Platforms can optimize recommendations by factoring in danceability, energy, and duration to enhance user experience.   + Playlists can be curated based on energy levels to match moods (e.g., workout playlists = high-energy songs). |

# 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? | **Key Insights**  **1. Life Expectancy Trends Over Time (First Visualization)**   * **Overall Increase**: Life expectancy is gradually increasing across all continents from 1990 to 2008. * **Regional Disparities**:   + **Europe and the Americas** show **higher life expectancy**.   + **Africa has the lowest life expectancy**, with little improvement over the years. * **Gender Differences**:   + Women consistently **live longer than men**, confirming global trends.   **2. Impact of Key Health Indicators (Second Visualization)**   * **Positive Correlation with Cholesterol, BMI, and Blood Pressure**:   + Higher **BMI and cholesterol** appear linked to **higher life expectancy**.   + **This could indicate better access to healthcare and nutrition rather than healthier lifestyles**. * **Regional Differences**:   + **Oceania and Africa have lower life expectancy** despite variations in these health factors.   + **Europe and Asia show higher life expectancy**, even with increased cholesterol/BMI.   **How the NHS Could Use This Data**  **Preventative Healthcare Planning**   * The NHS can use **gender-specific health interventions** to **address disparities**. * Focus on **early intervention programs** for men, who have a lower life expectancy.   **Tackling Health Inequalities**   * **Targeted public health campaigns** in at-risk communities, especially for diseases linked to **high BMI, cholesterol, and blood pressure**. * **Regional data insights** can guide **resource allocation** and **screening programs**. * **Promoting Public Health Awareness** * Educate the public on **the impact of lifestyle choices** (e.g., diet, exercise, managing blood pressure). * Use **data-driven policies** to emphasize **preventative rather than reactive care**.   **Final Reflections**   * **Understanding gender-based differences** can help **shape NHS policies for longevity**. * **The relationship between life expectancy and health metrics suggests that healthcare access and quality of life play a crucial role**. * **Targeted NHS initiatives** focusing on **nutrition, exercise, and chronic disease management** could help **increase life expectancy** further. |

# 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 |  |

# 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 |  |

# Day 4: Task 1

Please complete Lab 7 ‘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 |  |

# 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 | Alla this lab keeps on stopping but will try again and send you the screen shot. |

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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** |