

**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 | **Version** | **Key Features** | **Limitations** | **Best For** |
|  | **Tableau Desktop** | Full authoring tool, all data connectors, supports live & extracts, publish to Cloud/Server. | Paid licence required. | Professional analysts & enterprise use. |
|  | **Tableau Public (free)** | Free desktop app, connect to Excel/CSV/Google Sheets, publish to Tableau Public gallery. | Public only (no private work), limited connectors, max 15M rows, no live DB connections, only Google Sheets refresh (24h). | Learning, portfolio building, sharing open data. |
|  | **Tableau Cloud** | SaaS (hosted by Tableau), full analytics, collaboration, automatic upgrades. | Subscription cost, dependent on Tableau’s hosting. | Teams who want managed cloud BI. |
|  | **Tableau Server** | Self-hosted enterprise platform, full analytics & collaboration, on-premises control. | IT responsible for upgrades, scaling, and security. | Organisations needing on-premise control. |
|  | **Tableau Prep Builder** | Data cleaning, joining, reshaping before analysis, integrates with Desktop/Cloud. | Separate workflow tool, not for dashboarding. | Data prep before dashboarding. |
|  | **Tableau Reader** | Free app to view packaged workbooks (.twbx) offline. | No collaboration, only local files, limited vs Viewer roles. | Individuals reviewing shared files. |

# 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 |  |

# 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 |  |

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| What did you find? | **. Genre Popularity**  * **Pop** dominates as the most popular genre, followed by **Dance** and **Rap/Hip-Hop**. * Genres like **Reggaeton, Rock, R&B, and Indie** have smaller but still notable audiences. * This highlights that mainstream, high-energy genres capture the largest listener base, while niche genres remain secondary.  **2. Artist Analysis**  * Among top artists, **Drake** leads popularity across **Hip-Hop**, while **Chris Brown** shows influence across **R&B and Dance**. * **Eminem and Future** also rank strongly in Rap and Hip-Hop. * This suggests cross-genre artists (e.g., Chris Brown moving across R&B/Dance) may have broader reach compared to genre-specialist artists.  **3. Popularity & Danceability**  * The scatter plot shows that genres with higher **danceability scores** (e.g., Pop and Hip-Hop) tend to have higher popularity. * Pop in particular shows very high popularity linked to high danceability, confirming audience preference for upbeat, energetic tracks.  **4. Length & Popularity**  * The **Length & Popularity** chart indicates that songs around **3 to 4 minutes long** cluster at the higher end of popularity. * Very short or very long tracks are less represented among popular 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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| Paste your print screens here |  |
| What did you find and any reflections on how the NHS could use this? | **1. Life Expectancy vs BMI**   * There is a positive relationship between BMI and life expectancy, but only up to a point. * Regions with very high BMI show declining life expectancy, suggesting risks of obesity-related illnesses. * Europe and parts of the Americas cluster at higher BMI with higher life expectancy, while Africa shows lower BMI and lower life expectancy.   **2. Population Growth by Continent**   * Africa shows the highest population growth by far (over 4,000), highlighting future pressure on healthcare systems. * Asia is second in population growth (over 3,000), meaning healthcare demand will continue to increase significantly in those regions. * Europe shows the lowest population growth (149), indicating an ageing population rather than expansion.   **3. Cancer Rates by Region (Heat Map)**   * Some regions (Asia, parts of Europe, North America) have very high reported cases of lung and liver cancers. * Lower-income countries report fewer cases, which could indicate underdiagnosis and lack of access to screening rather than actual lower prevalence. * High-income countries face lifestyle-driven cancer rates (smoking, obesity, diet), while low-income countries face data under-reporting challenges.   **4. Life Expectancy Over Time**   * Globally, life expectancy has steadily increased from 1990 to 2008. * Europe shows the highest life expectancy (77+), followed by the Americas (73), and Oceania (71). * Africa lags behind significantly, underlining the impact of limited healthcare resources and higher disease burden. |

# 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 8 ‘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 12 ‘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 |  |

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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** |