

**Data Technician**

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| 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:   * It offers a wide range of features for reports and dashboards. It's a flexible service and allow for connectivity to data sources and options for publishing workbooks to Tableau Online/Server   It comes in two versions:   * Personal is designed for individual users for their projects. It has its limitations, restricted publishing and sharing options. It is recommended for personal data analysis when private use is prioritised. * Professional is designed for professional users who need more comprehensive data visualisation. It allows for access to all types of data connections, databases and cloud services. It lets the user publish and share work.   Tableau Service:   * Server is a secure and controlled environment for organisations to manage and share workbooks and visualisations. It is tailored towards companies and organisation that would need to have secure data and internal collaborations.   Tableau Online:   * It's a cloud-hosted version of Tableau Server which allows users to access visualisations without needing on-premises infrastructure. It allows for live updates and online data sources via the cloud.   Tableau Reader:   * It's a free version of Tableau that enables users to view and interact with visualisations made in Tableau, however it cannot be edited nor created. It is a service simply for viewing.   Tableau Public:   * It's a free, cloud-hosted version of Tableau which allows users to create and share visualisations publicly. There is, however, a lack of privacy and fewer data integrations options. |

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# 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? | * C Major and G Major are among the most popular keys, indicating a preference for these keys in mainstream music. * Among the minor keys, A Minor and C# Minor are highly preferred, showing that these scales are also common in various genres. * Genres like "A Cappella" and "Anime" have shorter durations overall compared to genres like "Hip-Hop" and "Pop," which dominate in total duration, possibly indicating their extensive use in playlists or as longer tracks. * Certain genres (like "Electronic" and "Dance") score highly in energy and danceability, while others (like "Classical" and "Jazz") have higher acousticness and instrumentalness. * Genres such as "Hip-Hop" and "R&B" show balance in energy and danceability, aligning with their mainstream appeal. * Genres like "Pop" and "Electronic" remain widely popular, whereas niche genres such as "A Cappella" and "Classical" cater to specific audiences with lower popularity scores. * Emerging trends or spikes in less dominant genres might reflect growing subcultural interests. |

# Day 2: Task 2

Using the Health [data set](https://justit831-my.sharepoint.com/:u:/g/personal/danpe_justit_co_uk/EZQ21qEcLdVHhvngLvlD4TsBmzGvgh98xkHGxM1XVNCKUg?e=E7UfGi), 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? | Life Expectancy Trends:   * The life expectancy data grouped by country and year reveals disparities across nations and regions. Higher-income countries tend to have longer life expectancies, while lower-income nations often lag. * For the NHS, this can emphasize the importance of addressing socioeconomic determinants of health within the UK, as areas with lower income may experience similar disparities.   BMI, Blood Pressure, and Cholesterol by Year:   * These metrics show trends over time, indicating potential lifestyle or public health impacts. If these indicators are rising in the UK population, this could correlate with preventable diseases like cardiovascular conditions. * The NHS could focus on targeted campaigns promoting healthy lifestyles, particularly in demographics or regions showing worsening trends.   Cancer Statistics:   * Cancer by year and gender highlights gradual increases in cases of liver, lung, and stomach cancers. Gender differences in cancer prevalence suggest the need for tailored prevention and screening strategies. * The NHS might adapt programs to focus on these cancers, enhancing public education on risk factors like smoking, alcohol consumption, and diet.   Population Growth and Life Expectancy:   * Population growth paired with life expectancy shows potential pressures on healthcare systems as populations grow older. * NHS planning for geriatric care and resource allocation will be critical in ensuring sustainable service delivery.   Regional Data Disparities:   * Differences in health outcomes across continents and countries suggest the importance of targeted approaches. Within the UK, regional disparities could mirror these trends. * The NHS could use such comparative analyses to identify and address regional healthcare gaps. * Data-Driven Public Health Campaigns * Resource Distribution * Preventative Healthcare (Blood Pressure and Cholesterol) * Cancer Screening Programs * Global Comparisons |

# 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 | Completed: |

# 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 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 |  |

# Day 4: Task 2

Please complete Lab 9 ‘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.**