

**Data Technician**

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| Name: Jordan Playil |
| 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 | **Comparison Between Different Tableau Plan** |

# 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 | **JOBS 2011 & 2014 PER CITY**    **Change in % per City**    **Average Jobs Change Per City**    **Map**    **DASHBOARD** |

# 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 | **Popularity and Energy for the Top 10 artists by energy**    **TOP 20 ARTISTS WITH THE SUM OF MINUTES**    **Top 10 Genres with their popularity/tempo/speechiness and valence**    **PIE Chart for % of mode for sum of popularity** |

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| What did you find? | The chart shows that Drake is the most popular artist among the top 10 ranked by energy, followed by Chris Brown and Nobuo Uematsu, who also have strong popularity and high energy levels. Eminem sits in the middle for both metrics. In contrast, artists like Chorus, Dorothée, Juice Music, and Kimbo Children’s Music have relatively moderate energy but very low popularity, showing that high energy does not always translate to high popularity. Overall, popularity varies widely across artists, even though their energy levels remain fairly similar.  The tree-map shows that Giuseppe Verdi has the highest total minutes of music among the top 20 artists, followed by Wolfgang Amadeus Mozart, Giacomo Puccini, and Georges Bizet, indicating that classical composers dominate the dataset in terms of total output. Modern artists like Drake, Chris Brown, Eminem, and Future appear much lower, with significantly fewer total minutes, showing that their contributions are smaller compared to classical composers. Overall, the chart highlights that classical artists have produced far more music in total minutes than contemporary artists in this dataset.  Pop is the most popular genre, while Hip-Hop has the highest speechiness. Tempo and valence remain fairly consistent across all genres, with only minor changes. Overall, popularity shows the biggest differences between genres, and speechiness is the main feature that separates them, especially for Hip-Hop.  The pie chart shows that major-mode songs make up the majority of the dataset, accounting for 63.72% of total popularity, while minor-mode songs represent the remaining share. This indicates that major songs are generally more popular overall compared to minor 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 | **Bottom 10 Countries with Life Expectancy Map**    **BMI vs Cholesterol in Countries with the Lowest Life Expectancy**    **Health Metrics by Continent**    **Population Growth by Continent Over Time** |
| What did you find and any reflections on how the NHS could use this? | African nations dominate the list of countries with the lowest life expectancy, concentrated in Central and Southern Africa. Chad, Nigeria, Lesotho, Central African Republic, South Sudan, Somalia, Eswatini, Côte d'Ivoire, Guinea, and Nigeria show life expectancies between 1,497-1,825.  The analysis of BMI versus cholesterol levels in countries with the lowest life expectancy reveals important insights about health determinants in these populations. Gender differences are clearly visible in the data distribution, with men and women forming somewhat distinct clusters across BMI ranges of 350-425 and cholesterol levels between 40-85.  Africa and the Americas show the highest lung cancer burden relative to population, while Asia demonstrates distinctively high stomach cancer rates. Europe exhibits a relatively lower disease burden despite older populations, reflecting superior healthcare systems. Population size heavily influences absolute numbers, with Asia leading in total cases.  Global population doubled from 3.7 billion to 7.8 billion over 50 years, with Africa showing the fastest growth rate and Asia the largest absolute growth. Europe's growth plateaued due to ageing demographics and lower birth rates, while the Americas showed moderate steady growth. |

# 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 | **Screenshots of Lab 1** |

# 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 | **Screenshots Of Lab 2** |

# 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** |