

**Data Technician**

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| Course Date: Week commencing 06/01/25 |
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# Day 1: Task 1

Please research the different versions of Tableau, compare and contrast them below and explain t

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| Different Tableau versions | **Tableau:** provides a list of versions released across the different time cycles for all its suite of products. This o curs because of newer versions being released. All these variants serve different purposes within the industry.  Tableau software sometimes introduces new connector support with a maintenance release. This can introduce compatibility issues between newer and older versions, eg. Between two version of Tableau such as **Tableau 2024.3** and **Tableau 2023.3** due to the difference in when these upgraded and released one may encounter compatibility issues, publishing from eg. Tableau Desktop to Tableau Server. Research indicates that the Compatibility issues usually arise only between release upgrade versions of Tableau product rather than maintenance releases.  Furthermore, if Tableau Desktop is upgraded and Tableau Server is not, there function may not be compactable with each other.  Further research indicates that one can only publish workbooks and data sources to Tableau server if the version is the same as Tableau Desktop Research indicates that, depending on the year tableau version are releases much of the newer release focuses on enhancement of the software and practical improvements, making the understanding of data analytics more powerful, scalable, and seamless. The version are labile with the year this was release such as **Tableau 2023.3,** named after when it was release.The major highlights of this latest version include; Tableau Prep Builder, Spatial support and improvements, Redshift spatial support, etc. Further, it involves a strong resource monitoring tool for Tableau Server on Linux, multiple marks layer support, etc. Also, it has offline map support for Servers, etc.Other than the above, there are improvements in the Custom Views tab for better visuals, enhancement in predictive modelling functions, web authoring, Analytics extensions, and many more. All this makes this version much powerful with changes implemented.**Compatibility between versions of Tableau Desktop** Tableau Desktop users can share workbooks –eg by emailing them or copying them to a location on the company network. But if two users are using different versions of Tableau Desktop, sharing isn't always possible. The rule is easy:   * A newer version of Tableau Desktop can open a workbook created with an older version. * An older version of Tableau Desktop can't open a workbook created with a newer version. * The workbook will be upgraded when it is saved. The upgraded file can't be read by earlier versions of the application.   A workbook created with any version of Tableau Desktop can connect to any supported version of Tableau Server. But after you’re connected, compatibility can be an issue depending on the version one is using and the action you're performing.  **Tableau Version List**  Tableau provides a list of versions released across the different time cycles for all its suite of products  **Tableau 2024.3** offers new ways to visualize data and makes it easier for organizations to administer analytics at scale. Highlights include Tableau Cloud Manager, Table Viz Extension, Spatial Parameters, Tableau Cloud App for Microsoft Teams, and more.  **Tableau 2024.2** has new capabilities that helps one create data in new ways and explore data with an AI assistant in Tableau. Highlights include Tableau Agent, Tableau Pulse enhancements, Multi-Fact Relationships, Viz Extensions, and more.  **Tableau 2024.1** has new capabilities that helps drive better and faster decision-making with trusted generative AI. Highlights include Tableau Pulse, Amazon Marketplace availability, Viz Navigation for Text Table, and more.  **Tableau 2023.3** has new capabilities that aids understanding and act on ones’ data. Highlights include dynamic axis ranges, the Embedding Playground, the native Lightning Web Component for Tableau, and more.  Tableau Public is more limited, supporting connections only to Excel, text files, and Google Sheets. Tableau public does not let one users save dashboards when working on it. One can only publish them to the public cloud where they will be visible to everyone on the internet.  Tableau Desktop, Tableau Server, Tableau Online, Tableau Prep, and Tableau Public, each catering to specific needs.  **Limitations of Tableau Public**  Limited data sources: Tableau Public only connects to Excel, Google Sheets, text files, and Web Data connectors. No direct access to databases or other data sources provided by Tableau is allowed.  Data privacy: All visualizations created with Tableau Public are publicly accessible.  Limited customization options: While Tableau Public offers some customization, it has fewer options compared to Tableau Desktop.  Tableau versions represent different software releases of Tableau products. Each release contains a set of new features, bug fixes, enhancements to the existing features, or other improvements to the Tableau products.  Tableau regularly releases upgrades to their products, which fall into two categories, i.e., new releases and maintenance releases.  Tableau provides a list of versions released across the different time cycles for all its suite of products. |

# Day 1: Task 2

Using the *EMSI\_JobChange\_UK* dataset, create a bar chart showing jobs 2014 and create a map showing top 5 cities for the jobs in 2014 .

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| Paste your print screen here |  |

# Day 2: Task 1

Using the Global Superstore data set, conduct an analysis to find trends and key information that could be used by an organisation for future projects. (Hint: Countries or region with low profit or sales. Or product with low sales or profits etc. )

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? | Analysing some aspects of data in Global superstore following using PowerBI to visualise low sales within specific region. Using this visualised aid will help forecast rational for less demand for different product categories within specified regions.  Following the use of data set -Global data, this has helped to reveal some of the trends and key information in identifying regions with low sales. During the analysis, it indicates that on average, when analysing the sum of sales, noted there is decrease in sales. Indicating less sale over a specific year as per filtered during transformation of data 2015  Across categories of these sales, the visualization chart share lights on office suppliers to be items on high purchases, whiles furniture and technology are low in sales. For organization and stakeholder to be able to make easily quick decisions by visualizing this data, bar chart with key influencers was used to analysis this data.  Stakeholders will then use this information to enhance strategy to use to help improve the increase in sales across furniture and technology. Nevertheless, organizations can also boost their overall sales by selling products that are materials, and need replenished every now and then or a combination of this items.  Considering this analysis, this data shares light on regions which high sales across office supplies whiles regions such as Weston and Northen Europe have lowest sales on furniture and technology, a reason which could be, these items with low sales are not easily replaced over time. On this analysis, items such as technology and furniture are fixture, whiles office suppliers are materials, which is used over time and replenish on a regular basis. |

# Day 3: Task 1

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

“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 ‘Design a Data Model in Power BI’. 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 | Hi Yusuf,  Sorry, I attempted few times to complete this, however I got stuck, so unable to= (Design a Data model in power BI.) I will try to complete this soon as.  Many thanks |

# Day 4: Task 1 (Optional Lab)

Please complete Lab ‘Create DAX Calculations in Power BI Desktop’. Once complete, paste a print screen below and in the collaboration board. You can visit this page to learn more about DAX Calculations

[Data Analysis Expressions (DAX) Reference - DAX | Microsoft Learn](https://learn.microsoft.com/en-us/dax/)

or watch the video

[How to use DAX in Power BI | Microsoft Power BI for Beginners](https://www.youtube.com/watch?v=vcijg0gUXSg&t=268s&ab_channel=AlexTheAnalyst)

“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:

**Power BI** – is a data visualization and business intelligence tool that one can quickly connect data, prep data, model and create a visualisation in a secured site. This business tool helps make decision in real time.

Power BI helps business’ analysis and understand performance area within the business, this then highlights areas that needs improvement.

Power-BI, this intelligence tool helps make life interaction visuals, that turn data into smarter decision for business use.

Power BI helps to aggregate data from many different sources from different serves to aid creative approach in analysing data.

When data set is obtained, it is important to clean, shape and transform these data. PowerBI has visual side that helps to predict visualization chart to be use. One can use filters to transform data into a model to be used in the data canvas to aid creativity, use visualization to analysis and make decision.

Data can be transformed by filtering, deleting items that are not relevant in the data to be analysed. PowerBI also has slicers and format that can help to be creative, to express and reflect data in a specific area that needs to be highlighted. Ribbon side on the view also helps to enhance and adjust colouring and text which can be found in format as well. PowerBI creates a platform for collaboration and sharing of ideas, through publishing reports within the server.

Power BI- can be created on desktop, distributed to services and accessible on mobile.

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| **Additional Information** |

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.**