

Data Technician

Name:

Course Date:

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Day 1: Task 1

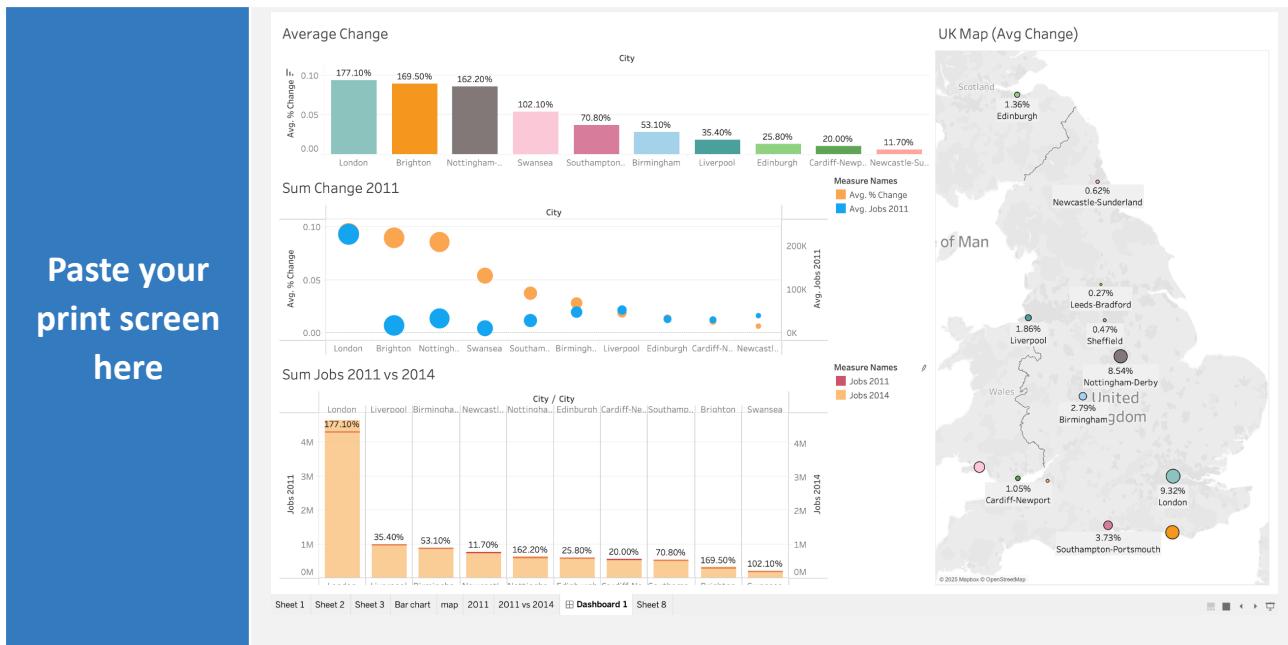
Please research the different versions of Tableau, compare and contrast them below and explain the limited functionality on 'Tableau Public'.

Different Tableau versions	Feature	Tableau Desktop	Tableau Public
	Cost	Paid (subscription or license)	Free
	Data Connections	Extensive options, including live database and server connections	Limited, primarily to local files like Excel and text files
	Saving Work	Locally to your computer	Only to the Tableau Public server
	Data Security	Private; can publish to secure servers like Tableau Server or Cloud	Public; all published work is visible to everyone
	Data Limits	No row limit; no data size limit	15 million row limit; 10 GB storage limit
	Data Refresh	Supports live data refresh	Limited to automatic 24-hour refresh for Google Sheets; needs to be republished for other changes
	Publishing	To Tableau Public, Tableau Server, or Tableau Cloud	Only to Tableau Public



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.

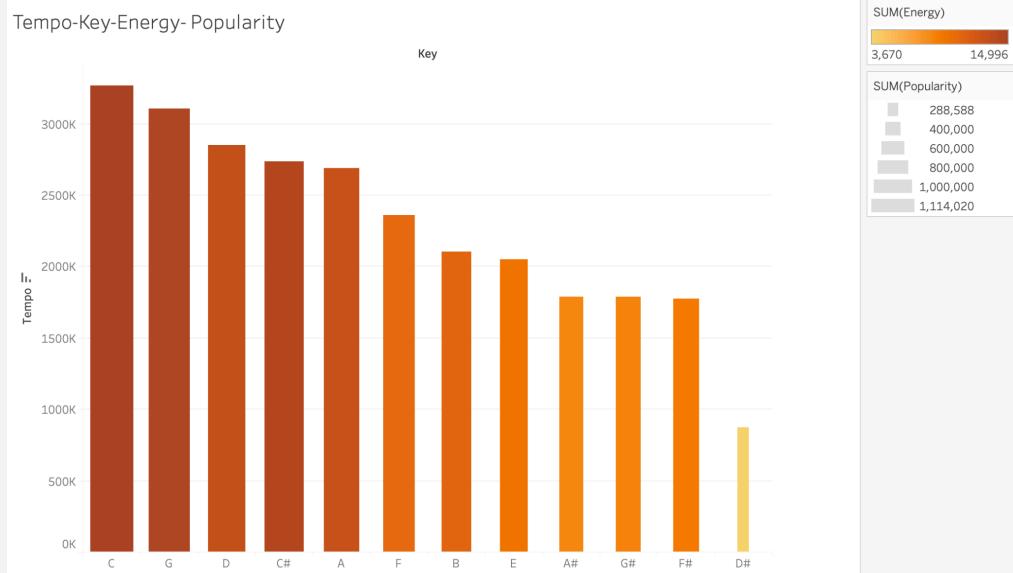


Day 2: Task 1

Using the Spotify data set, conduct an analysis to find trends and key information that could be used by an organisation for future projects.

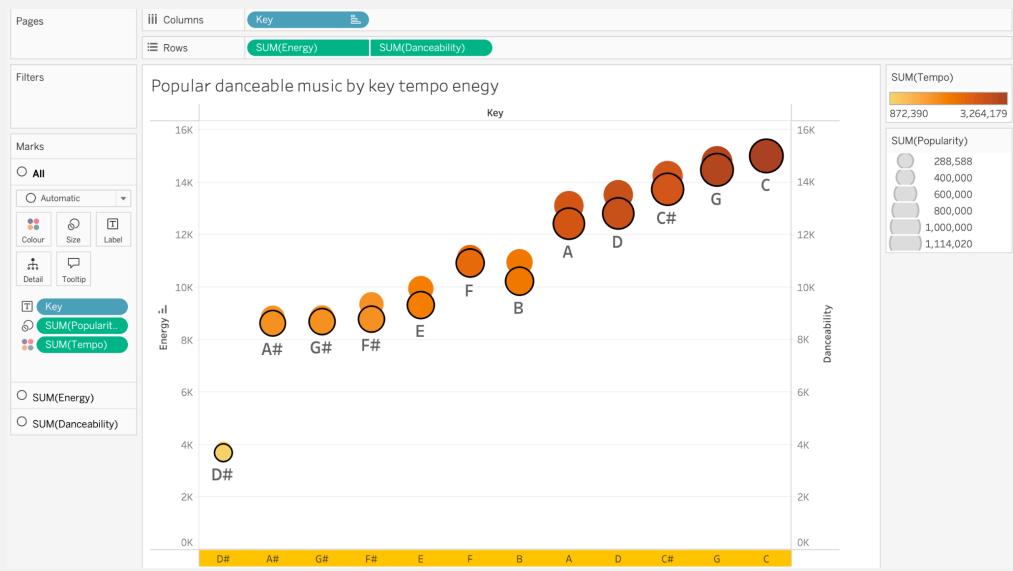
There is no set scope for the analysis, simply to find trends and document them below:

Chart 1)



Paste your
print screens
here

Chart 2)



What did you find?

1) In this chart (chart 1) I discovered popular songs on Spotify tend to be fast-paced, have a strong tempo, and are frequently in the key of C. Songs with fast tempos seem lively and enjoyable, which may be why people like them. Additionally, C is a simple key with no flats or sharps, which makes it simpler to play or sing. These characteristics don't necessarily make a song popular, but they do appear to be prevalent in hits. Chart (2) further supported my findings in chart 1.



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.



What did you find and any reflections on how the NHS could use this?

- 1) Chart 1 displays the population as an area graph and the population growth as a line graph for both men and women in each continent over 20 years. As you can see from this graph, you can see Asia has a high population; however, in 1992 we started to see a decline in the population growth. This was the trend until 1999 for men and 2003 for women.
- 2) Chart 2 displays the average blood pressure, BMI, and life expectancy of men and women across the five continents: Africa, the Americas, Asia, Europe, and Oceania.

Across the continents we can see the patterns are somewhat similar. Women tend to have a longer life expectancy with lower blood pressure, compared to men who have lower life expectancy and higher blood pressure.



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"

The image contains three screenshots of the Power BI Desktop application interface, illustrating the 'Get data in Power BI' lab process:

- Screenshot 1:** Shows the 'Replace Values' dialog box. A user is replacing the value 'Ware House' with 'Warehouse' in the 'DimSalesTerritory' query. The 'Replace With' field contains 'Warehouse'. The 'OK' button is highlighted.
- Screenshot 2:** Shows the 'Get data in Power BI' lab progress bar at 1 HR 42 Min Remaining. The 'Lab complete' section is visible, listing steps 1-6 for saving the report as a pbix file. The 'Congratulations' section states: 'You have successfully completed this lab. Click End to mark the lab as Complete.'
- Screenshot 3:** Shows the 'Get data in Power BI' lab progress bar at 1 Hr 10 Min Remaining. The 'Lab complete' section is visible, listing steps 1-6 for saving the report as a pbix file. The 'Congratulations' section states: 'You have successfully completed this lab. Click End to mark the lab as Complete.'

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”

Paste your completed lab here

The three screenshots illustrate the steps required to complete Lab 2:

- Screenshot 1: Choose Columns Dialog**
Shows the 'Choose Columns' dialog with the 'Applied Steps' pane open, listing 'Filtered Rows'. The 'APPLIED STEPS' pane contains steps 8 through 11, detailing how to remove columns, uncheck 'Select All Columns', and include specific columns like EmployeeKey and StandardCost.
- Screenshot 2: Custom Column Dialog**
Shows the 'Custom Column' dialog for the 'Cost' column. It displays the formula: `= IF([TotalProductCost] = null, item[OrderQuantity] * [StandardCost], item[TotalProductCost])`. The 'Available columns' dropdown shows OrderNumber, ProductKey, RowLabelKey, EmployeeKey, SalesTerritoryKey, and DimProduct.
- Screenshot 3: Merge Dialog**
Shows the 'Merge' dialog for joining the 'ColorFormats' and 'Product' tables. It lists columns from both tables and specifies a Left Outer Join. The 'Applied Steps' pane contains step 7, which instructs to use the default join type.



Lab complete

You may choose to save your Power BI report, though it's not necessary for this lab. In the next exercise, you'll work with a pre-made starter file.

1. Navigate to the "File" menu in the top left corner and select "Save As".
2. Select "Browse this device".
3. Select the folder where you want to save the file and give it a descriptive name.
4. Select the **Save** button to save your report as a .pbix file.
5. If a dialog box appears prompting you to apply pending query changes, select **Apply**.
6. Close Power BI Desktop.

Congratulations

You have successfully completed this lab. Click **End** to mark the lab as **Complete**.

Previous End

41 Minutes Remaining



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.

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The image contains three screenshots of the Microsoft Edge browser, each showing a different step in the completion of Lab 8: Starter-Sales Analysis.

- Screenshot 1:** Shows the first page of the lab. The main content area displays a bar chart titled "Sum of Sales by Group and Category" and a stacked bar chart titled "Sum of Quantity by Category". The sidebar on the right is titled "Design Power BI reports" and contains instructions for steps 30 through 33. Step 30: "To format the visual, open the Format pane." Step 31: "Format the bars, select, and then in the Color group, set the Color property to a suitable color (to complement the column/line chart)." Step 32: "Set the Data Labels section to On." Step 33: "Save the Power BI Desktop file." A progress bar at the bottom indicates "1 Hr 20 Min Remaining".
- Screenshot 2:** Shows the second page of the lab. The main content area displays the same charts as the first screenshot, but with filters applied. The sidebar on the right is titled "Design Power BI reports" and contains instructions for steps 20 through 22. Step 20: "To return to the report page, at the top-left, select Back to Report." Step 21: "Move the cursor over one of the visual's dots, then at the top-right, select the ellipsis (...), and then notice the menu options. Try out each of the options, except the ones under Share." Step 22: "At the left, in the Pages pane, select the Profit page." A progress bar at the bottom indicates "50 Minutes Remaining".
- Screenshot 3:** Shows the final page of the lab. The main content area displays a bar chart titled "Sum of Sales and Target by Month" comparing actual sales against targets for various months. The sidebar on the right is titled "Design Power BI reports" and contains instructions for steps 28 through 30. Step 28: "Interact with the page by modifying the slicer, and cross filtering the page." Step 29: "At the bottom of the window, notice the commands to change page, navigate backwards or forwards between pages, or to exit full screen mode." Step 30: "Select the right icon to exit full screen mode." A progress bar at the bottom indicates "40 Minutes Remaining".

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"

The image contains three screenshots of the Microsoft Edge browser displaying a Power BI task interface:

- Screenshot 1:** Shows the "Publishing to Power BI" dialog box. It indicates a "Success" status and provides a link to "Open '12-Starter-Sales Analysis.pbix' in Power BI". A "Get Quick Insights" button is also present. The background shows the Power BI desktop interface with a "Sales by Month" report.
- Screenshot 2:** Shows the "Refreshing" dialog box with a progress bar at 0%. It displays a "Sales by Month" chart and a "Sales by Product" chart. The background shows the Power BI desktop interface with a "Sales" report.
- Screenshot 3:** Shows the completed Power BI dashboard. It includes a logo for "ADVENTURE WORKS", a "Sales YTD FY2020" value of "\$36,568,898", a "Sales, Profit Margin BY MONTH" chart, a "Sum of Quantity BY CATEGORY" chart, and an "Order Lines BY STATE-PROVINCE" map. The background shows the Power BI desktop interface with a "Sales" report.

Paste your completed lab here





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.

