

Data Technician Scenario

Demonstration - M-SD-DT3002

Level 3

Assessment Brief

You are required to complete a scenario demonstration to evidence your knowledge, skills and behaviours. The scenario will take 90 minutes to complete.

Scenario and instructions

A London-based technology vendor has asked for some insights in relation to product sales. They would like to know the amount of revenue that was generated in the first quarter of 2025 via top performing products, how online sales are performing versus in-store sales and to understand where to focus their sales campaigns. Data has been collected for transactions in January, February and March 2025.

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| 1 | Create a new folder called 'Evidence' on your desktop. |
| 2 | Download the source files and save them to your new 'Evidence' folder. |
| 3 | Create a new spreadsheet and name it 'Tech Sales Analysis'. Save it to your 'Evidence' folder. |
| 4 | Import the 'tech_sales_products.xlsx' dataset from the 'Evidence' folder into your 'Tech Sales Analysis' spreadsheet. Name the worksheet 'tech_sales_products'. |
| 5 | Import the 'tech_sales_transactions.xlsx' dataset from the 'Evidence' folder into a new tab in your 'Tech Sales Analysis' spreadsheet. Name the worksheet 'tech_sales_transactions'. |
| 6 | Create an audit report in a Word document or in a new tab in your Excel spreadsheet and save this in your 'Evidence' folder. |
| 7 | In the 'tech_sales_products' worksheet, format the data for any consistencies, filling in any missing data. |
| 8 | In the 'tech_sales_transactions' spreadsheet, format the 'total revenue' column into accounting format, with two decimal places to show the full number. |
| 9 | Sort the 'total revenue' column by ascending order. |
| 10 | Describe the relationship between the datasets in your audit report. |
| 11 | Using these as identifiers, combine the data to blend the category column/field from the 'tech_sales_products' worksheet into the 'tech_sales_transactions' worksheet. |
| 12 | Using the 'tech_sales_transactions' worksheet as your master sheet, parse the product name data column to extract the product code from the name into a new column. Name this column 'code check'. |
| 13 | Use a technique to check this new code against the existing product code to highlight any mismatches. |
| 14 | Fix any anomalies and take a screenshot for your audit report. |
| 15 | Check the rest of the data for any further data quality issues or inconsistencies and record these in your audit report. |
| 16 | Use a simple statistical approach to calculate the total revenue for all sales in January, February and March. Take a screenshot for your audit report. |
| 17 | Analyse the top 20 products by volume of sales and use an appropriate graph to show your findings. Take a screenshot for your audit report. |
| 18 | Create a visualisation to show how online sales have performed versus in-person sales. Take a screenshot for your audit report. |
| 19 | Summarise your findings in your audit report. |
| 20 | Note any recommendations on how you would set up and automate the data manipulation process if this were a repeatable report. |
| 21 | Provide a short evaluation of your chosen data transformation process today. |