

**Data Technician**

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# Day 1: Task 1

Please complete the below boxes on commons laws and regulations that must be followed when working with customers data, use the below bulleted list to support your answers.

* What is it
* Why is it important
* Provide a real-world example of how you can follow it
* How does it impact working with data
* What could happen if you breached it

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| Data Protection Act | The **Data Protection Act** is a law designed to protect personal data by ensuring it is collected, stored, and used fairly, securely, and lawfully. It is important because it safeguards individuals’ privacy and prevents misuse of sensitive information. For example, a business can follow the DPA by encrypting customer data and only using it for authorised purposes. When working with data, organisations must ensure that personal details are accurate, secure, and only accessed by authorised personnel. Breaching the DPA can lead to legal penalties, heavy fines, reputational damage, and loss of customer trust. |
| GDPR | The **General Data Protection Regulation** is a privacy law in the European Union that governs how personal data is collected, stored, and processed. It is important because it protects individuals’ privacy rights and ensures companies handle data responsibly. For example, an online retailer can follow GDPR by obtaining clear customer consent before sending marketing emails and allowing users to opt out at any time. When working with data, organisations must ensure it is accurate, securely stored, and only used for specific, lawful purposes. Breaching GDPR can result in severe penalties, including hefty fines, legal action, and damage to a company’s reputation. |
| Freedom of Information Act | The **Freedom of Information Act** is a law that gives the public the right to access information held by government agencies, promoting transparency and accountability. It is important because it helps ensure public bodies are open about their actions and decisions. For example, a journalist can request government spending records to investigate how public funds are used. FOIA impacts working with data by requiring organisations to manage and store records securely while ensuring sensitive information like personal or classified data is protected. Breaching FOIA can result in legal consequences, fines, damage to an organization’s reputation, and loss of public trust. |
| Computer Misuse Act | The **Computer Misuse Act** is a law that protects computer systems from unauthorised access, hacking, and cybercrimes. It is important because it helps prevent data breaches, fraud, and damage to digital infrastructure. For example, an employee can follow the law by using only authorised systems, keeping passwords secure, and avoiding unauthorised access to company files. It impacts working with data by requiring organisations to implement strong cybersecurity measures, restrict access to sensitive data, and monitor system use. Breaching the act can lead to criminal charges, fines, imprisonment, job loss, and serious reputational damage for both individuals and organisations. |

# Day 2: Task 1

Please research and complete the following tasks within the retail-sales\_dataset.xlsx document, paste a print screen into the provided boxes below:

1. In the sheet ‘retail\_sales\_dataset’ add all available data between columns A –J into a ‘table’
2. Using the ‘filter’ function, filter ‘Age’ to ‘largest to smallest’
3. Using the ‘SUM’ function, show me the commission total in cell ‘L10’
4. Using the ‘AVERAGE’ function, show me the average commission in cell ‘L11’

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| Print screen 1 |  |
| Print screen 2 |  |
| Print screen 3 |  |
| Print screen 4 |  |

# Day 2: Task 2

Please research and complete the following tasks within the retail-sales\_dataset.xlsx document, paste print screens into the provided box below:



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| Print screen 1 |  |

# Day 2: Task 3

Using the skills developed today, have some fun with the data set you have imported. Paste your work below and enjoy!

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| Print screen 1 |  |
|  | What I did：   * Data import form CSV fromat file to Excel. * Split Data Using Text to Columns by a delimiter (space) of Shipping Type * Data validation of date. |

# Day 3: Task 1

Please download the dataset ‘Day\_3\_Task\_1\_Bike\_Sales\_Pivot\_Lab.xlsx’ from [here](https://justit831-my.sharepoint.com/:x:/g/personal/danpe_justit_co_uk/Eb73L6LixCJHtafDJ4AOh-ABR9CVF0n9sdEgB4foSh261g?e=jh493A).

The lab instructions can be found [here](https://justit831-my.sharepoint.com/:b:/g/personal/danpe_justit_co_uk/EVySAtWQiEVDmrtCufrqTgwBuLVxX6mEKYqEAe0Mgl6b9Q?e=i05yOa). Do not worry if you do not complete the lab, just working with data and playing with the pivot table will be good experience.

Please paste your final pivot table below and complete the reflection questions:

|  |  |
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| Print screen 1 |  |
| In which markets does Germany have customers? |  |
| What country has sales in all markets? | No country has sales in all age markets |
| What are the most profitable markets by country, age group, and gender? |  |
| Any other findings? | State of California has the most total of revenue. |

# Day 3: Task 2

The dataset below tracks the sales performance of different products in various counties in England. Please paste the dataset into a blank Excel workbook. Your task is to:

* **Create a Pivot Table** to summarise the data by county and product.
* **Use the SWITCH function** to categorise products based on their sales volume.

#### **Dataset:**

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| --- | --- | --- |
| **County** | **Product** | **Sales Volume** |
| Yorkshire | Laptops | 500 |
| Yorkshire | Smartphones | 200 |
| Cornwall | Laptops | 700 |
| Cornwall | Printers | 400 |
| Lancashire | Smartphones | 150 |
| Lancashire | Laptops | 600 |
| Essex | Printers | 800 |
| Essex | Smartphones | 300 |
| Durham | Laptops | 250 |
| Durham | Printers | 300 |
| Greater Manchester | Smartphones | 600 |
| Greater Manchester | Laptops | 400 |

#### **Step 1: Create a Pivot Table**

* Select the dataset (columns A to C).
* Insert a Pivot Table to summarise the data by **County** in the rows and **Products** in the columns. Use **Sales Volume** as the value to be summarised.

#### **Step 2: Use the SWITCH Function**

In a new column next to your data, use the SWITCH function to categorise products based on **Sales Volume** as follows:

* + For sales greater than 600: **"High"**
  + For sales between 300 and 600: **"Medium"**
  + For sales less than 300: **"Low"**

**SWITCH Function Example**:

=SWITCH(TRUE, C2 > 600, "High", C2 >= 300, "Medium", "Low")

* Apply this formula to each row, and check if the products are categorised correctly.

#### **Submission:**

* A completed Pivot Table summarising sales by county and product.
* A new column in the dataset categorising products by sales volume using the SWITCH function.
  + Please paste your completed work below

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| Print screen 1 |  |

# Day 3: Task 3

Please download the dataset ‘Day\_3\_Task\_3\_Bike\_Sales\_Visualisations\_Lab.xlsx’ from [here](https://justit831-my.sharepoint.com/:x:/g/personal/danpe_justit_co_uk/ESeJLtyZhYxIpZXluVywvvkBxgx2EtpPUzmxLCzQBGTKNQ?e=naSu4B).

The lab instructions can be found [here.](https://justit831-my.sharepoint.com/:b:/g/personal/danpe_justit_co_uk/Ec1IWsNPl_ZMuaSbNcaLyVcByy3JcZaQgoG1FeFwO9neRQ?e=6lsJG1) Do not worry if you do not complete the lab, just working with data and playing with the charts will be good experience.

Please paste your results below:

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| Print screen 1 |  |

# Day 4: Task 1

You have been asked to deliver your analysis findings to the board of directors, within your analysis you have identified that customers are leaving your company at the 12-month point, this is typically when they receive their renewal price.

Conduct research and complete the below questions:

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| How would you prepare for the delivery? | * Research the board members' backgrounds, priorities, and expectations. * Identify 2-3 main takeaways from the analysis. * Use a logical flow: problem → analysis → insights → recommendations. * Rehearse, anticipate questions, and prepare responses. * Ensure all technical equipment works and presentation materials are ready. |
| What tools would you use for the delivery? | PowerPoint, Google Slides  Tableau, Power BI, Excel (for charts and dashboards)  Zoom, Microsoft Teams (if remote) |
| What is prospecting and why would you complete this before your delivery? | **Prospecting** involves gathering relevant data and insights before presenting to the board.  It ensures:   * **Data Accuracy**: Validate and update analysis results. * **Relevant Insights**: Focus on factors most important to the board. * **Anticipation of Questions**: Prepare for potential questions by exploring deeper insights. |
| Tell me best practices for public speaking and providing updates to senior leaders | * Focus on strategic insights, not technical details. * Begin with a compelling story or key insight. * Use simple, direct language. * Show only critical data points; avoid overwhelming the audience. * Involve the audience and pause to emphasize key points. * Build confidence through repetition. |
| What will you show the board in your delivery? | * Describe the customer churn at the 12-month mark. * Use charts showing renewal rates, customer feedback, and churn trends. * Highlight potential reasons behind churn (e.g., price sensitivity). * Present action plans like personalised offers or loyalty programs. * Show how the recommendations could reduce churn and improve revenue. |
| How will you articulate the changes that are needed? | * Use data to highlight the problem and its consequences. * Describe proposed actions with specific, measurable goals. * Use projected improvements to demonstrate value. * Be transparent about potential challenges and mitigation plans. |
| Provide a list of online resources and videos that will support your preparation for public speaking | [7 Public Speaking Tips for Beginners](https://www.youtube.com/watch?v=Ns_z4wEtdRM) |
| Evaluate tools that provide visualisation.  Tell me what they are.  Tell me what you would choose when delivering your presentation and why | * **Tableau**: Great for interactive dashboards and complex data visualizations. * **Power BI**: Excellent for business insights and seamless integration with Microsoft tools. * **Excel**: Flexible for custom charts and analysis.   What to choose:  **Tableau/Power BI**: To show interactive dashboards and real-time data insights.  **Excel**: For detailed tables and analysis breakdown. |

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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:

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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.**