

**Data Technician**

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| Name: Alaa Mostafa |
| Course Date: 16/12/24 |
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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 UK law that protects people’s privacy by setting out how personal data can be collected, handled and stored. It ensures that everyone’s data is used properly and fairly. an example of this is the sharing of medical records between a care home and the local GP, in which there is a sign up for a formal data sharing agreement. If you breach the data protection act, you can face consequences such as a fine, prosecution or compensation. |
| GDPR | The GDPR is an EU law that sets rules for how organizations must use personal data. It aims to give individuals greater control over their personal data and to standardize data protection laws across EU member states. You can follow the GDPR by maintaining documentation to show how you ensure compliance and protect personal data. If you breach the GDPR, the ICO can either issue fines up to £17.5 million, issue warnings or suspend data transfer to other countries. |
| Freedom of Information Act | The UK freedom of information act gives the public the right to request information from the public authorities, promoting transparency, with exemptions for sensitive data like national security and personal privacy. An example of this is the exposing expenses of MPs. If the freedom of information act is breached, the ICO can take enforcement action. |
| Computer Misuse Act | The Computer Misuse act is a UK law that criminalizes unauthorised access to computer systems, including hacking, data theft, and spreading malware, to protect systems and data from misuse. It is Illegal to access data when the material will be used to commit further illegal activity. Breaches of this act can result in fines, imprisonment or criminal restrictions. |

# 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 | 2)  3)  4)  5)  6) |

# 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 |  |

# 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? | The Adult Market is where Germany has the most customers. |
| What country has sales in all markets? | Australia and the UK has sales in all markets. |
| What are the most profitable markets by country, age group, and gender? | Country: Australia  Age Group: Adults (35-64)  Gender: Female |
| Any other findings? |  |

# 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? | I would prepare for the delivery by ensuring I have conducted accurate and efficient analysis, which is tailored to what is expected of me from the board of directors. Additionally, it is important that I practice my delivery of the analysis, so that I can deliver an effective presentation without being nervous or making big mistakes. |
| What tools would you use for the delivery? | I would use data visualisation to deliver my analysis of the fact that customers are leaving the company at the 12-month point. There are many tools to choose from, but I believe I would use a Bar chart to show how long customers are with the company. I would also include other visualisations such as dashboards to highlight my analysis and use it to break down to the audience so that they can see visually what is happening. |
| What is prospecting and why would you complete this before your delivery? | I aim to create a successful presentation to the board of directors, showing my analysis and the solutions to the problems that I have identified. I aim to do this using data visualisation tools to back up my analysis using data and explaining to the audience what I have found. |
| Tell me best practices for public speaking and providing updates to senior leaders | 1. Practice and Prepare- go over notes, be comfortable with the materials and practice presenting, get friends and family to present to and ask for feedback.  2) Tailor your communication to the audience and engage them, maintain eye contact and avoid looking at your notes unless it is necessary.  3. Grab the attention of your audience- use humour, anecdotes or speech to keep your audience interested and engaged. |
| What will you show the board in your delivery? | I will show the board in my delivery what I have found regarding the customer data of the company and also provide the solutions to the problems. |
| How will you articulate the changes that are needed? | I believe it is important to articulate the analysis I have into simpler terms, making it easy for the audience to understand. For example, I would use analogies that everyone can understand to explain what I have presented. |
| Provide a list of online resources and videos that will support your preparation for public speaking | . Microsoft Excel- Data Visualisation  . YouTube |
| Evaluate tools that provide visualisation.  Tell me what they are.  Tell me what you would choose when delivering your presentation and why | Microsoft Excel is a tool that provides visualisation, with a variety of options such as pie charts, column charts, pivot tables and more. This is a suitable way to present data and build analysis using the data visualisation.  k |

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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.**