

**Data Technician**

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| 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 of 2018 is the United Kingdom’s primary legislation for how data is processed and protected. The DPA is important because it allows individuals sensitive data such as their address place of work etc. to be protected by any business government or organization. An example of how the data protection act could be followed by an organization is by encrypting part of a person’s bank number meaning if there was a breach the data is protected. It impacts working with data because organizations and businesses have to be careful when storing data having to follow rules on how long they store data etc. Breaching the data protection act is a serious offense with sanctions ranging from warnings to fines with some companies being fined up to 4% of revenue. |
| GDPR | The GDPR or general data protection act is a piece of European Union Legislation passed in 2018 it is designed to protect the personal data of people residing in the European Union and the European Economic Area. It is important because it allows the internet users of the EU and the EEA specific rights about how and when their data is stored and processed. An example of how the GDPR can be followed is by an organization prioritizing transparency by allowing customer requests to see how their data is stored with the organization. It impacts working with data because the customer has the right to correct the data they have stored or even delete it and organizations have to implement measures such as data protection impact assessments. The sanction for not following the GDPR depends on the severity it can range from warnings to fines of up to 4% of company turnover. |
| Freedom of Information Act | The freedom of information act is UK legislation adopted in 2005 regarding the ability for citizens to have access to information stored by public authorities. It is important because it promotes transparency with regards to the data stored encouraging trust between the government and the citizens. It can be followed by honouring requests by people to access information stored about themselves by providing the information on record the act is followed. The freedom of information act affects data by requiring the organizations to have strong data management practices to be able to comply with any requests. The punishment regarding the data protection consists of differing fines depending on the severity the maximum fine though is 4% of an organization’s revenue. |
| Computer Misuse Act | The computer misuse act of 1990 is UK legislation regarding the illegal access to data and computer systems criminalizing the act. The computer misuse act is important because it protects data held by an organization giving people comfort that their data is protected from malicious individuals by law. The computer misuse act can be followed by ensuring that you are not accessing data you shouldn’t be, an example of this is if someone gives you their password one time you should not then use the password to access their accounts without permission. The computer misuse act introduces liability for organizations, this means they need to take strong security measures to ensure that data is being properly protected. The sanction for violating the computer misuse act include fines of up to £5000 and in some cases imprisonment. |

# 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:



|  |  |
| --- | --- |
| Print screen 1 | 2 and 3        4 and 5  Carol is the highest by average and carol ted and khan are tied for highest score.    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 | Original Dataset    Averages for age height BMI weight oand calories burned    The max for calories burned age and body fat percentage.  Conditional Formatting for calories burned from highest to lowest. |

# 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? | Germany has the most customers in the adult market. |
| What country has sales in all markets? | Australia has the most sales in all markets but is joint with United states in total sales even though the united states has no sales in the youth market. |
| What are the most profitable markets by country, age group, and gender? | The most profitable market by country age and gender is the united states adult and female |
| Any other findings? | Despite the fact that the united states does not possess any of the youth market it still ties Australia in terms of overall profitability. |

# 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:**

|  |  |  |
| --- | --- | --- |
| **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 | 1.    2. |

# 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 | Line Chart    Stacked Column Chart    Bar Chart |

# Day 4: Task 1

You have been asked to deliver your analysis findings to the board of directors, with 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 ran through the presentation beforehand to thoroughly rehearse it. I would also make sure I had small notes to remember information that I may have a hard time remembering off the top of my head. I’d also mute my phone to ensure the delivery isn’t interrupted by a noise it would be distracting. |
| What tools would you use for the delivery? | I would use tools such as PowerPoint for my delivery. In the PowerPoint I’d have charts and infographics to help the stakeholders visualise the point I am trying to make and help keep them engaged with my presentation. |
| What is prospecting and why would you complete this before your delivery? | Prospecting is the process of finding new and potential customers. This would need to be completed before the delivery because just being aware of the fact that they are losing customers isn’t enough they need to know how to obtain new customers and prevent old ones from leaving. |
| Tell me best practices for public speaking and providing updates to senior leaders | The best practices for public speaking are speaking clearly and concisely rambling too long can cause the audience to lose focus. Presenting your information through visuals is also key it helps contextualise the point you’re trying to make. Recording yourself is also helpful it allows you to put yourself in the shoes of the audience. The senior leaders are usually busy individuals getting to the point is key and defining it in a way that helps them make an informed decision. |
| What will you show the board in your delivery? | I will show the board that they are having trouble renewing their customers during the annual renewal phase. I’ll recommend ways they could potentially acquire new customers I’ll tell them what I believe is affecting the current customers renewal. |
| How will you articulate the changes that are needed? | I’ll clearly and concisely articulate to the shareholders what I believe needs to be done I will also seek feedback to create an environment where the shareholders can inform me of their perspective allowing me to go back and further analyse the problem to create an even better solution. I will also aim to simplify the problem as much as possible without being condescending to the audience. |
| Provide a list of online resources and videos that will support your preparation for public speaking | <https://www.youtube.com/watch?v=UQt-8tCvMPQ&ab_channel=MasterTalk>  <https://www.youtube.com/watch?v=CWq7V4UDegU&ab_channel=Purple>  <https://www.pragmaticinstitute.com/resources/articles/data/comprehensive-guide-how-to-communicate-data-insights-to-business-stakeholders/> |
| Evaluate tools that provide visualisation.  Tell me what they are.  Tell me what you would choose when delivering your presentation and why | One tool that provides data visualization is a line graph. This provides a visual representation of the data in a way that is easy for anyone to digest. Instead of throwing numbers at the person you are presenting at you can show them the trend easily with a line graph for example if there are customers leaving the service the line graph would display the trend of customer retention. I would choose this data visualisation method when presenting because I believe it is effective at showing trends over time and the delivery is about customer trends of renewal within a 12-month period Another data visualisation tool that I would use is a table this can be in excel the table shows the numbers you are trying to explain with your delivery in a neat and organized way. For example, there can be two tables one with customers from the previous financial year and one with customers from the current financial year this can display the customer losses for the stakeholders. I would choose this data visualisation for that reason tables showing the net loss of customers would be an effective way to show the shareholders the severity of the issue. |

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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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| I made physical notes. |

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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.**