

**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 | * DPA is a law regulating and managing how companies and organisations collect, store and analyse data by the UK government influenced by GDPR. * It is important to prevent using data or personal data in the wrong way without individuals' permission. * NHS restrict access to patient records so only grants users to access the patient's information. Also, all personal data is encrypted to prevent hackers from breaching the data. * It forces companies and organisations to handle personal data carefully with ethics in processing, storing and analysing data for their purpose of use. * Companies or organisations will be fined about 4% of their highest sales profit. Also, companies will lose trust to their clients. |
| GDPR | * It is a personal data protection law started by EU. GDPR strongly regulates and manage way companies or public organisations to handle the personal data of their clients or users. * It gives right individuals to handle their own data safely and preventing personal data from wrongly used by organisations without permission. * According to GDPR, data collected from the EU must stay in the European region. Meta moved data to the US server once and it ended up breaking GDPR, fined 12mil Euros. * It will make all organisations and companies operating in the EU region strictly follow the regulations and act under these policies. * It clearly states that organisations have to report and react immediately after data breach happens. Organisations need to report the damage detail to DPA and personal data holders within 72 hours. |
| Freedom of Information Act | * FOIA is a law that government to open data to people when is requested by citizens. * FOIA is important to give right to know to people in nation and prevent government to overwhelming the authority over people and privacy data without permission. * NSA was collecting client data from big companies like Google, Facebook and Microsoft etc to observe data of people without permission using system called PRISM. It was opened to the word by FOIA and this lead Europe to make GDPR for own protection. * This will open more chances for people to access public data which will increase more practices in data analysis for different industries such as climate change or finance data. * If FOIA is breached, will give unknowing inspection and data collecting activity by government. Privacy data will not be respected and many of corruption acts will be hidden. |
| Computer Misuse Act | * CMA is to make any illegal acts using computers could be punished as making them illegal by law such has hacking, data breach or spreading PC virus. * If there is no CMA, there wont be a standard or law to punish cyber crimes. * If I access to NHS database and extract doctor’s schedule and patient’s privacy information, this could be punished under CMA. * Will make sure to someone who breach or corrupt the data on purpose to be punished correctly. * Acting against CMA could result to prison and large amount of fine. |

# 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 |  |

# 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? |  |
| What are the most profitable markets by country, age group, and gender? |  |
| 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:**

|  |  |  |
| --- | --- | --- |
| **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, 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? |  |
| What tools would you use for the delivery? |  |
| What is prospecting and why would you complete this before your delivery? |  |
| Tell me best practices for public speaking and providing updates to senior leaders |  |
| What will you show the board in your delivery? |  |
| How will you articulate the changes that are needed? |  |
| Provide a list of online resources and videos that will support your preparation for public speaking |  |
| Evaluate tools that provide visualisation.  Tell me what they are.  Tell me what you would choose when delivering your presentation and why |  |

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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.**