

**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 | * Data Protection act is a UK law that control how personal information is used by organisation, business by the government. * It is important because it safeguard individual information from misused by others. * A real-world example of the Data Protection Act in action can be seen in how companies handle customer data breaches. For instance, in 2018, British Airways experienced a data breach that compromised the personal information of approximately 500,000 customers, including names, addresses, and payment card details. * The Data Protection Act ensures data is handled responsibly by requiring consent, securing data, minimizing what’s collected, respecting individual rights, and holding organizations accountable. It promotes transparency, security, and compliance in all data operations. * Breaching the Data Protection Act can result in severe fines, legal consequences, and reputational damage. It may also lead to loss of customer trust and potential lawsuits from affected individuals. |
| GDPR | GDPR stands for **General Data Protection Regulation**. It's a regulation in the European Union designed to protect individuals' personal data and privacy. |
| Freedom of Information Act | The Freedom of Information Act grants the public the right to access information held by government bodies, promoting transparency and accountability. However, certain exemptions apply, such as for national security or personal privacy. |
| Computer Misuse Act | The **Computer Misuse Act** protects against unauthorized access, hacking, and misuse of computer systems and data. Breaching it can result in legal penalties, such as fines or 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:



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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:**

|  |  |  |
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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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# 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? | To analyse customer churn at the 12-month renewal point using Excel, start by collecting relevant data (e.g., customer ID, renewal price, churn status). Create a pivot table to group data by Renewal Status and calculate churn percentages. Design a dashboard with visualizations like bar charts for churn rates and scatter plots comparing renewal prices with churn. Use slicers for dynamic filtering (e.g., by region or customer segment). Key insights could reveal that a significant percentage of customers leave due to renewal price increases. Highlight findings in your presentation and recommend strategies like offering loyalty discounts, retention incentives, or communicating renewal benefits effectively. Investigate customer feedback and competitor pricing strategies to further improve retention. Tailor your visuals to support these points clearly for the board. |
| What tools would you use for the delivery? | For delivery, I would use **PowerPoint** for presenting insights visually and cohesively, incorporating graphs and visuals from the Excel dashboard. Utilize **Excel** itself to showcase live data or pivot tables if needed. Finally, use **speaking notes or scripts** to guide your narration effectively. |
| What is prospecting and why would you complete this before your delivery? | Prospecting involves identifying and researching potential opportunities, such as new clients or strategies. It ensures your delivery is relevant and addresses the needs of your audience effectively. By analysing trends and gathering insights beforehand, you can present data-driven solutions tailored to stakeholder concerns. This preparation enhances clarity, credibility, and the overall impact of your presentation. |
| Tell me best practices for public speaking and providing updates to senior leaders | * Know Your Audience: Understand senior leaders' priorities, focus on high-level insights and actionable takeaways. * Be Concise and Structured: Organize your updates with a clear beginning, middle, and end, using frameworks like "Problem, Action, Result." * Use Data Wisely: Back your points with relevant, accurate data presented visually (e.g., charts) for clarity. * Practice Thoroughly: Rehearse your delivery to ensure confidence, smooth transitions, and timing accuracy. * Engage with Presence: Maintain eye contact, use purposeful gestures, and adopt a confident yet approachable tone. * Adapt to Feedback: Be ready to pivot your approach based on their reactions or questions during the presentation. |
| What will you show the board in your delivery? | In your delivery to the board, showcase the following key points:   1. **Customer Churn Analysis**: Present churn rates at the 12-month renewal point using charts for clarity. 2. **Root Cause Insights**: Highlight the impact of renewal price increases on customer departures. 3. **Demographic Trends**: Share data on which customer segments are most affected. 4. **Financial Impact**: Quantify churn's cost to the company to emphasize its urgency. 5. **Competitor Benchmarking**: Compare renewal pricing and retention strategies with competitors. 6. **Customer Feedback**: Provide insights from feedback to contextualize the problem. 7. **Retention Opportunities**: Propose solutions like loyalty discounts or improved communication. 8. **Action Plan**: Outline specific strategies with expected outcomes and timelines. 9. **Data Visualization**: Use dashboards to make complex data more digestible. 10. **Call to Action**: Conclude by recommending actions and seeking approval for your strategies. |
| How will you articulate the changes that are needed? | To articulate the changes needed, begin by clearly stating the problem, such as high customer churn due to renewal price increases. Use data and visuals to explain the impact, such as financial losses and affected customer segments.  Provide evidence from customer feedback to highlight pain points and reinforce the urgency for change. Present actionable solutions, such as adjusting renewal prices or offering retention incentives, supported by expected outcomes and timelines.  Maintain a confident, solution-oriented tone, focusing on how these changes align with company goals. Close by seeking feedback or approval, ensuring the board sees these changes as opportunities for growth. |
| Provide a list of online resources and videos that will support your preparation for public speaking | Here are some excellent online resources and videos to help you prepare for public speaking:   1. **Toastmasters International**: Offers courses, virtual meetings, and resources to improve public speaking skills. 2. **TED Masterclass**: A mobile app with lessons and TED Talks to help you craft and deliver impactful speeches. Check out their video for an overview. 3. **Coursera**: Features structured courses on public speaking, including techniques for effective communication. 4. **Virtual Speech**: Provides interactive exercises and simulations to practice public speaking in a realistic environment. 5. **Five Basic Public Speaking Tips**: A video by Toastmasters International with practical advice for beginners. 6. **TEDx Nelson Talk**: DK's video on mastering public speaking with grace, credibility, and resonance. |
| Evaluate tools that provide visualisation.  Tell me what they are.  Tell me what you would choose when delivering your presentation and why | **Evaluation of Tools for Visualization.**  For delivering your presentation, I recommend using **Excel**, paired with PowerPoint for polished visuals. Excel is perfect for creating pivot tables and basic charts that highlight your analysis findings clearly.  It ensures your data is presented in an accessible format for decision-makers while allowing real-time modifications if needed.  Combining Excel dashboards with PowerPoint enhances the delivery, ensuring a professional, cohesive presentation tailored to the board's expectations. This pairing balances simplicity and effectiveness. |

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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.**