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**Data Technician**

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| Course Date: 24/02/25 |
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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 | **What is it?** The Data Protection Act (DPA) is a UK law that governs how personal data should be collected, processed, and stored. The most recent version, the **DPA 2018**, aligns with GDPR regulations.  **Why is it important?** It ensures individuals’ data is used fairly, lawfully, and transparently, protecting their privacy and preventing misuse.  **Real-world example:** A company securely stores customer data and ensures that only authorized personnel can access it. They also allow customers to request access to their data under Subject Access Requests (SARs).  **Impact on working with data:**   * Organizations must handle personal data responsibly. * Employees need to follow strict security measures. * Companies must ensure data is accurate and only kept as long as necessary.   **What could happen if you breached it?**   * Fines from the UK’s Information Commissioner’s Office (ICO). * Legal action from affected individuals. * Reputational damage and loss of customer trust. |
| GDPR | **General Data Protection Regulation (GDPR)**  **What is it?** GDPR is an EU-wide law that sets guidelines for collecting and processing personal data, giving individuals greater control over their data. It applies to any organization handling EU citizens' data, even outside the EU.  **Why is it important?** It strengthens data protection rights, ensuring companies handle personal data responsibly and transparently.  **Real-world example:** A retail company asks customers for consent before sending marketing emails and allows them to easily opt out.  **Impact on working with data:**   * Requires clear consent before collecting personal data. * Organizations must report data breaches within 72 hours. * Individuals have the right to request data deletion (Right to be Forgotten).   **What could happen if you breached it?**   * Severe fines (up to €20 million or 4% of global turnover). * Loss of customer trust and business reputation damage. * Potential lawsuits from affected individuals. |
| Freedom of Information Act | **Freedom of Information Act (FOIA)**  **What is it?** The FOIA (2000) gives the public the right to access information held by public sector organizations in the UK, such as government departments, councils, and NHS trusts.  **Why is it important?** It promotes transparency and accountability in public institutions by allowing citizens to access important data.  **Real-world example:** A journalist submits a Freedom of Information request to the NHS to obtain data on hospital waiting times, which must be provided unless exempt.  **Impact on working with data:**   * Public organizations must have clear data management practices. * Employees need to respond to requests within 20 working days. * Some data (e.g., personal details) must still be protected under the DPA/GDPR.   **What could happen if you breached it?**   * Fines or enforcement actions from the ICO. * Loss of public trust if information is mishandled or hidden. * Legal action if information is deliberately withheld or destroyed. |
| Computer Misuse Act | **Computer Misuse Act (CMA)**  **What is it?** The CMA (1990) is a UK law that makes it illegal to gain unauthorized access to computer systems, distribute malware, or commit cybercrimes.  **Why is it important?** It helps protect individuals and businesses from hacking, data theft, and cyberattacks.  **Real-world example:** A company implements strict access controls and cybersecurity measures to prevent unauthorized employees from accessing sensitive financial records.  **Impact on working with data:**   * Employees must follow security protocols (e.g., using strong passwords, avoiding phishing scams). * Companies need to protect systems against hacking attempts. * IT teams must monitor and respond to cyber threats.   **What could happen if you breached it?**   * Criminal charges, fines, or imprisonment (up to life for serious offenses). * Data breaches, financial loss, and reputational damage. * Cybersecurity risks, such as identity theft or fraud. |

# 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 | A screenshot of a spreadsheet  AI-generated content may be incorrect. |
| Print screen 2 | A screenshot of a computer  AI-generated content may be incorrect. |
| 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 |  |

A screenshot of a spreadsheet

AI-generated content may be incorrect.A screenshot of a computer

AI-generated content may be incorrect.A screenshot of a computer

AI-generated content may be incorrect.A screenshot of a spreadsheet

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# 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 | A screenshot of a spreadsheet  AI-generated content may be incorrect. |
| In which markets does Germany have customers? | FEMALE ADULS (35-64) |
| What country has sales in all markets? | UNITED STATES |
| What are the most profitable markets by country, age group, and gender? | THE 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:**

|  |  |  |
| --- | --- | --- |
| **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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# 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? |  Research the audience (who they are, their expectations, and level of expertise).   Define the key message and objectives of the presentation.   Organize the content logically (introduction, main points, conclusion).   Create engaging visuals and supporting materials.   Rehearse multiple times (practice with a timer and, if possible, in front of others).   Prepare for possible questions and objections.   Check technical equipment in advance (microphone, projector, slides). |
| What tools would you use for the delivery? |  **Presentation software**: PowerPoint, Google Slides, Prezi, Canva.   **Visual aids**: Charts, graphs, infographics (created with Tableau, Excel, or Infogram).   **Engagement tools**: Polling software like Mentimeter, Kahoot, or Slido.   **Delivery tools**: Clicker/remote control, laser pointer, teleprompter apps. |
| What is prospecting and why would you complete this before your delivery? | * Prospecting is the process of researching and identifying potential stakeholders, clients, or key decision-makers before a presentation. * It ensures that the content is relevant and addresses their specific interests, concerns, and priorities. * Helps tailor the message to be more persuasive and impactful. |
| Tell me best practices for public speaking and providing updates to senior leaders |  **Be concise**: Senior leaders prefer clear, direct, and data-driven communication.   **Use storytelling**: Structure the presentation in a way that tells a compelling story.   **Maintain eye contact**: Builds confidence and engagement.   **Use data effectively**: Present key metrics and insights with visualizations.   **Pause for impact**: Allows the audience to process information.   **Anticipate questions**: Be prepared to answer tough questions confidently. |
| What will you show the board in your delivery? | A well-structured presentation with:   * Key findings or insights. * Performance data (KPIs, trends, forecasts). * Actionable recommendations. * Risks and mitigation strategies. * Visual elements (charts, graphs, reports). |
| How will you articulate the changes that are needed? |  Use a problem-solution approach: Clearly define the issue and propose actionable solutions.   Present data-driven justifications for the changes.   Highlight potential benefits (efficiency, cost savings, growth).   Address potential challenges and how to overcome them.   Use a confident and persuasive tone. |
| Provide a list of online resources and videos that will support your preparation for public speaking |  **TED Talks**: Watch top speakers like Simon Sinek ("Start with Why").   **Toastmasters International**: Public speaking training.   **YouTube channels**:   * “Speak with No Fear” by Mike Acker. * “The Art of Communication” by Brian Tracy.    **Coursera / Udemy**: Courses on public speaking.   **Books**:   * Talk Like TED by Carmine Gallo. * The Exceptional Presenter by Timothy Koegel. |
| Evaluate tools that provide visualisation.  Tell me what they are.  Tell me what you would choose when delivering your presentation and why |  **Tableau**: Advanced data visualization for business intelligence.   **Microsoft Excel**: Charts and graphs for data representation.   **Infogram**: Interactive and engaging infographics.   **Canva**: Simple visual design tool for presentations.   **Power BI**: Ideal for real-time business analytics and dashboards.   **PowerPoint or Google Slides** for structured slides with visuals.   **Tableau or Power BI** for data-driven reports.   **Mentimeter** to engage the audience with live polls.   **Canva** for visually appealing slides with infographics.   **Clicker/remote** for smooth slide transitions.   **Confident delivery** by practicing and preparing answers to questions. |

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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.**