

Data Technician

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Day 1: Task 1

Please research and complete the below boxes on common 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

Data Protection Act

The **Data Protection Act (DPA)** is legislation that governs how personal data is collected, processed, stored, and shared. It aims to protect individuals' privacy and personal information from misuse and ensures that organizations handle data responsibly.



| | |
|----------------------------|---|
| | <p>Its importance lies in safeguarding individuals' rights and maintaining trust in organizations that handle personal data. Proper data protection helps prevent identity theft, data breaches, and unauthorized access to sensitive information.</p> <p>A real-world example of following the DPA is ensuring that when collecting customer information, a business obtains explicit consent from customers and informs them about how their data will be used and stored.</p> <p>The DPA impacts working with data by imposing regulations on how data is managed, requiring organizations to implement appropriate security measures, conduct impact assessments, and ensure that data is processed fairly and transparently.</p> <p>If the DPA is breached, organizations can face severe penalties including fines, legal action, and damage to their reputation. Individuals whose data is compromised may also suffer from identity theft or privacy violations.</p> |
| GDPR | <p>The General Data Protection Regulation (GDPR) is a comprehensive data protection law in the European Union that governs how personal data of individuals in the EU can be collected, stored, processed, and shared.</p> <p>It is important because it enhances individuals' control over their personal data and imposes strict obligations on organizations to protect that data.</p> <p>A real-world example of following GDPR is a company obtaining explicit consent from users before sending marketing emails, clearly informing them about the purpose of data collection and their rights regarding their data.</p> <p>GDPR impacts working with data by requiring organizations to implement robust data protection measures, conduct regular audits, and ensure that data is processed lawfully, transparently, and securely.</p> <p>If the GDPR is breached, organizations can face substantial fines (up to 4% of global annual revenue) and legal actions, as well as damage to their reputation and loss of customer trust.</p> |
| Freedom of Information Act | <p>The Freedom of Information Act (FOIA) is a law that allows individuals to request access to records held by public authorities to promote transparency and accountability in government.</p> <p>It is important because it empowers citizens to obtain information about government operations, fostering an informed public and enhancing democratic governance.</p> |

| | |
|----------------------------|---|
| | <p>A real-world example of following the FOIA is when a journalist submits a request to a government agency for documents related to public spending or specific policy decisions, thereby encouraging accountability.</p> <p>The FOIA impacts working with data by requiring public authorities to maintain accurate records and respond to information requests in a timely manner, which can influence how they manage and document information.</p> <p>If the FOIA is breached, public authorities could face legal challenges, potential fines, and damage to their credibility, as well as hindered public trust and transparency.</p> |
| Computer Misuse Act | <p>The Computer Misuse Act is legislation enacted in the United Kingdom in 1990 to combat cybercrime. It aims to protect computer systems and data from unauthorized access, hacking, and malicious activities. The Act criminalizes activities such as hacking into systems, unauthorized access to data, and causing damage to computer systems.</p> <p>The Act is important because it helps safeguard sensitive information, maintain privacy, and ensure the integrity and security of computer systems. It establishes legal boundaries for acceptable use of technology, discourages cybercriminal activities, and provides a framework for prosecuting offenders.</p> <p>Real-world example: Suppose you're working on a company's database. To follow the Computer Misuse Act, you should only access the data you're authorized to see. For example, if you're an employee with permission to view customer records, you should not attempt to access or modify data outside your role or without explicit permission. Always follow company policies and obtain proper authorization before accessing sensitive information.</p> <p>Impact working with data: The Act emphasizes the importance of handling data responsibly and ethically. It requires individuals to have proper authorization for access and modifications to data. This impacts data management by promoting security measures, such as strong passwords and access controls, and discouraging unauthorized data manipulation or theft.</p> <p>Breaching the Computer Misuse Act can lead to severe legal consequences, including criminal charges, fines, and imprisonment. It can also damage your reputation, result in job loss, and cause financial harm to organizations through data breaches or damages caused by malicious activities.</p> |

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 – H** 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 '**P10**'
4. Using the 'AVERAGE' function, show me the average commission in cell '**P11**'

Print screen 1

| Transaction ID | Date | Customer ID | Gender | Age | Age group | Product Category | Quantity | Price per Unit | Total Sales | Commission 2023 |
|----------------|------------|-------------|--------|-----|-------------|------------------|----------|----------------|-------------|-----------------|
| 2 | 27/02/2023 | CUST002 | Female | 26 | Young Adult | Clothing | 2 | £ 500.00 | £ 1,000.00 | £ 15.00 |
| 3 | 13/01/2023 | CUST003 | Male | 50 | Senior | Electronics | 1 | £ 30.00 | £ 30.00 | £ 0.45 |
| 4 | 21/05/2023 | CUST004 | Male | 37 | Adult | Clothing | 1 | £ 500.00 | £ 500.00 | £ 7.50 |
| 5 | 6/5/2023 | CUST005 | Male | 30 | Adult | Beauty | 2 | £ 50.00 | £ 100.00 | £ 1.50 |
| 6 | 25/04/2023 | CUST006 | Female | 45 | Adult | Beauty | 1 | £ 30.00 | £ 30.00 | £ 0.45 |
| 7 | 13/03/2023 | CUST007 | Male | 46 | Adult | Clothing | 2 | £ 25.00 | £ 50.00 | £ 0.75 |
| 8 | 22/02/2023 | CUST008 | Male | 30 | Adult | Electronics | 4 | £ 25.00 | £ 100.00 | £ 1.50 |
| 9 | 13/12/2023 | CUST009 | Male | 63 | Senior | Electronics | 2 | £ 300.00 | £ 600.00 | £ 9.00 |
| 10 | 7/10/2023 | CUST010 | Female | 52 | Senior | Clothing | 4 | £ 50.00 | £ 200.00 | £ 3.00 |
| 11 | 14/02/2023 | CUST011 | Male | 23 | Young Adult | Clothing | 2 | £ 50.00 | £ 100.00 | £ 1.50 |
| 12 | 30/10/2023 | CUST012 | Male | 35 | Adult | Beauty | 3 | £ 25.00 | £ 75.00 | £ 1.13 |
| 13 | 5/8/2023 | CUST013 | Male | 22 | Young Adult | Electronics | 3 | £ 500.00 | £ 1,500.00 | £ 22.50 |
| 14 | 17/01/2023 | CUST014 | Male | 64 | Senior | Clothing | 4 | £ 30.00 | £ 120.00 | £ 1.80 |
| 15 | 16/01/2023 | CUST015 | Female | 42 | Adult | Electronics | 4 | £ 500.00 | £ 2,000.00 | £ 30.00 |
| 16 | 17/02/2023 | CUST016 | Male | 19 | Young Adult | Clothing | 3 | £ 500.00 | £ 1,500.00 | £ 22.50 |
| 17 | 22/04/2023 | CUST017 | Female | 27 | Young Adult | Clothing | 4 | £ 25.00 | £ 100.00 | £ 1.50 |
| 18 | 30/04/2023 | CUST018 | Female | 47 | Adult | Electronics | 2 | £ 25.00 | £ 50.00 | £ 0.75 |

Print screen 2

| Transaction ID | Date | Customer ID | Gender | Age | Age group | Product Category | Quantity | Price per Unit | Total Sales | Commission 2023 |
|----------------|---------------|-------------|--------|-----|-------------|------------------|----------|----------------|-------------|-----------------|
| 19 | 16/09/2023 | CUST019 | Female | 62 | Senior | Clothing | 2 | £ 25.00 | £ 50.00 | £ 0.75 |
| 20 | 5/11/2023 | CUST020 | Male | 22 | Young Adult | Clothing | 3 | £ 300.00 | £ 900.00 | £ 13.50 |
| 21 | 14/01/2023 | CUST021 | Female | 50 | Senior | Beauty | 1 | £ 500.00 | £ 500.00 | £ 7.50 |
| 22 | 15/10/2023 | CUST022 | Male | 18 | Young Adult | Clothing | 2 | £ 50.00 | £ 100.00 | £ 1.50 |
| 23 | 12/4/2023 | CUST023 | Female | 35 | Adult | Clothing | 4 | £ 30.00 | £ 120.00 | £ 1.80 |
| 24 | 29/11/2023 | CUST024 | Female | 49 | Adult | Clothing | 1 | £ 300.00 | £ 300.00 | £ 4.50 |
| 25 | 26/12/2023 | CUST025 | Female | 64 | Senior | Beauty | 1 | £ 50.00 | £ 50.00 | £ 0.75 |
| 26 | 7/10/2023 | CUST026 | Female | 28 | Young Adult | Electronics | 2 | £ 500.00 | £ 1,000.00 | £ 15.00 |
| 27 | 3/8/2023 | CUST027 | Female | 38 | Adult | Beauty | 2 | £ 25.00 | £ 50.00 | £ 0.75 |
| 28 | 23/04/2023 | CUST028 | Female | 43 | Adult | Beauty | 1 | £ 500.00 | £ 500.00 | £ 7.50 |
| 29 | 18/08/2023 | CUST029 | Female | 42 | Adult | Electronics | 1 | £ 30.00 | £ 30.00 | £ 0.45 |
| 30 | 30/29/10/2023 | CUST030 | Female | 39 | Adult | Beauty | 3 | £ 300.00 | £ 900.00 | £ 13.50 |
| 31 | 23/05/2023 | CUST031 | Male | 44 | Adult | Electronics | 4 | £ 300.00 | £ 1,200.00 | £ 18.00 |
| 32 | 4/1/2023 | CUST032 | Male | 30 | Adult | Beauty | 3 | £ 30.00 | £ 90.00 | £ 1.35 |
| 33 | 23/03/2023 | CUST033 | Female | 50 | Senior | Electronics | 2 | £ 50.00 | £ 100.00 | £ 1.50 |
| 34 | 24/12/2023 | CUST034 | Female | 51 | Senior | Clothing | 3 | £ 50.00 | £ 150.00 | £ 2.25 |
| 35 | 5/8/2023 | CUST035 | Female | 58 | Senior | Beauty | 3 | £ 300.00 | £ 900.00 | £ 13.50 |

Print screen 3

| Transaction ID | Date | Customer ID | Gender | Age | Age group | Product Category | Quantity | Price per Unit | Total Sales | Commission 2023 |
|----------------|------|-------------|--------|-----|-----------|------------------|----------|----------------|-------------|-----------------|
| 3 | 00 | £ | 15.00 | | | | | | | |
| 4 | 00 | £ | 0.45 | | | | | | | |
| 5 | 00 | £ | 7.50 | | | | | | | |
| 6 | 00 | £ | 1.50 | | | | | | | |
| 7 | 00 | £ | 0.45 | | | | | | | |
| 8 | 00 | £ | 0.75 | | | | | | | |
| 9 | 00 | £ | 1.50 | | | | | | | |
| 10 | 00 | £ | 9.00 | | | | | | | |
| 11 | 00 | £ | 3.00 | | | | | | | |
| 12 | 00 | £ | 1.50 | | | | | | | |
| 13 | 00 | £ | 1.13 | | | | | | | |
| 14 | 00 | £ | 22.50 | | | | | | | |
| 15 | 00 | £ | 1.80 | | | | | | | |

Print screen 4

| | Commission 2023 | L | M | N | O | P |
|-------|-----------------|---|--------------------|----------------------|--------|---|
| 3.00 | £ 15.00 | | | | | |
| 4.00 | £ 0.45 | | | | Rate % | |
| 5.00 | £ 7.50 | | | Commission Rate 2023 | 1.5% | |
| 6.00 | £ 1.50 | | | Commission Rate 2024 | 2% | |
| 7.00 | £ 0.45 | | | | | |
| 8.00 | £ 0.75 | | | | | |
| 9.00 | £ 1.50 | | Total Commission | | | |
| 10.00 | £ 9.00 | | £ 6,840.00 | | | |
| 11.00 | £ 3.00 | | Average Commission | | | |
| 12.00 | £ 1.50 | | £ 6.84 | | | |
| 13.00 | £ 1.13 | | | | | |
| 14.00 | £ 22.50 | | Total Sales | | | |
| 15.00 | £ 1.80 | | £ 456,000.00 | | | |

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:

| Student name | English | Mathematic | Science | Average | Highest score |
|--|---------|------------|---------|---------|---------------|
| Carol | 75 | 85 | 85 | | |
| Ted | 80 | 75 | 90 | | |
| Khan | 85 | 75 | 80 | | |
| Harry | 80 | 70 | 80 | | |
| Sarah | 80 | 70 | 80 | | |
| John | 65 | 80 | 70 | | |
| Linda | 90 | 50 | 70 | | |
| Edward | 55 | 80 | 60 | | |
| Mary | 55 | 70 | 65 | | |
| Thomas | 55 | 30 | 65 | | |
| Task | | | | | |
| 1) Apply filter and sorting to show the best students in each subject. | | | | | |
| 2) Calculate the average for all students and fill into Column E. (Use formula) | | | | | |
| 3) Using the =MAX fuction, tell me what the students highest score was in column F. | | | | | |
| 4) Apply filter and sorting to show the best student in this classroom by average. | | | | | |
| 5) Apply filter and sorting to show the best student in this classroom by highest score. | | | | | |
| 6) Use conditional formatting to clearly identify the highest and lowest average scores | | | | | |

Print screen 1



| | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|----|--------------|---------|-------------|---------|-----------|---------------|---|---|---|---|---|---|---|---|
| 1 | Student name | English | Mathematics | Science | Average | Highest score | | | | | | | | |
| 2 | Ted | 80 | 75 | 90 | 81.666667 | 90 | | | | | | | | |
| 3 | Linda | 90 | 50 | 70 | 70 | 90 | | | | | | | | |
| 4 | Carol | 75 | 85 | 85 | 81.66667 | 85 | | | | | | | | |
| 5 | Khan | 85 | 75 | 80 | 80 | 85 | | | | | | | | |
| 6 | Harry | 80 | 70 | 80 | 76.666667 | 80 | | | | | | | | |
| 7 | Sarah | 80 | 70 | 80 | 76.666667 | 80 | | | | | | | | |
| 8 | John | 65 | 80 | 70 | 71.666667 | 80 | | | | | | | | |
| 9 | Edward | 55 | 80 | 60 | 65 | 80 | | | | | | | | |
| 10 | Mary | 55 | 70 | 65 | 63.333333 | 70 | | | | | | | | |
| 11 | Thomas | 55 | 30 | 65 | 50 | 65 | | | | | | | | |
| 12 | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | |

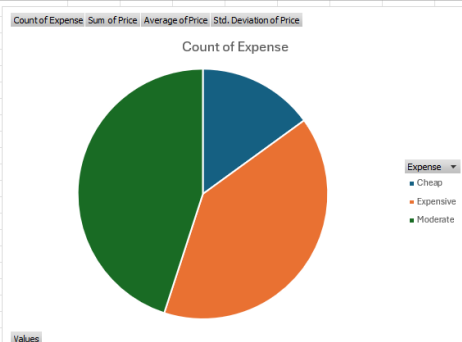
Best Student By average score 81.6600 Ted
Best Student by Highest score 90 Ted & Linda

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!

Print screen 1

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|----|--------------------|------------------|--------------|------------------|-------------------------|---|---|---|---|---|---|---|---|---|
| 1 | Book title | Price | Inventory | Column4 | Expense | | | | | | | | | |
| 2 | A Light in the ... | £ 51.77 | In stock | Add to basket | Expensive | | | | | | | | | |
| 3 | Tipping the Vel... | £ 53.74 | In stock | Add to basket | Expensive | | | | | | | | | |
| 4 | Soumission | £ 50.10 | In stock | Add to basket | Expensive | | | | | | | | | |
| 5 | Sharp Objects | £ 47.82 | In stock | Add to basket | Moderate | | | | | | | | | |
| 6 | Sapiens: A Brie | £ 54.23 | In stock | Add to basket | Expensive | | | | | | | | | |
| 7 | The Requiem R | £ 22.65 | In stock | Add to basket | Moderate | | | | | | | | | |
| 8 | The Dirty Little | £ 33.34 | In stock | Add to basket | Moderate | | | | | | | | | |
| 9 | The Coming Wc | £ 17.93 | In stock | Add to basket | Cheap | | | | | | | | | |
| 10 | The Boys in the | £ 22.60 | In stock | Add to basket | Moderate | | | | | | | | | |
| 11 | The Black Mari | £ 52.15 | In stock | Add to basket | Expensive | | | | | | | | | |
| 12 | Starving Hearts | £ 13.99 | In stock | Add to basket | Cheap | | | | | | | | | |
| 13 | Shakespeare's | £ 20.66 | In stock | Add to basket | Moderate | | | | | | | | | |
| 14 | Set Me Free | £ 17.46 | In stock | Add to basket | Cheap | | | | | | | | | |
| 15 | Scott Pilgrim's | £ 52.29 | In stock | Add to basket | Expensive | | | | | | | | | |
| 16 | Rip it Up and ... | £ 35.02 | In stock | Add to basket | Moderate | | | | | | | | | |
| 17 | Our Band Coult | £ 57.25 | In stock | Add to basket | Expensive | | | | | | | | | |
| 18 | Olio | £ 23.88 | In stock | Add to basket | Moderate | | | | | | | | | |
| 19 | Mesaerion: The | £ 37.59 | In stock | Add to basket | Moderate | | | | | | | | | |
| 20 | Libertarianism | £ 51.33 | In stock | Add to basket | Expensive | | | | | | | | | |
| 21 | It's Only the Hir | £ 45.17 | In stock | Add to basket | Moderate | | | | | | | | | |
| 22 | GRAND TOTAL | £ 760.97 | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | |
| 24 | Row Labels | Count of Expense | Sum of Price | Average of Price | Std. Deviation of Price | | | | | | | | | |
| 25 | Cheap | 3 | £ 49.38 | £ 16.46 | £ 1.76 | | | | | | | | | |
| 26 | Expensive | 8 | £ 422.86 | £ 52.86 | £ 2.06 | | | | | | | | | |
| 27 | Moderate | 9 | £ 288.73 | £ 32.08 | £ 9.64 | | | | | | | | | |
| 28 | Grand Total | 20 | £ 760.97 | £ 38.05 | £ 14.75 | | | | | | | | | |



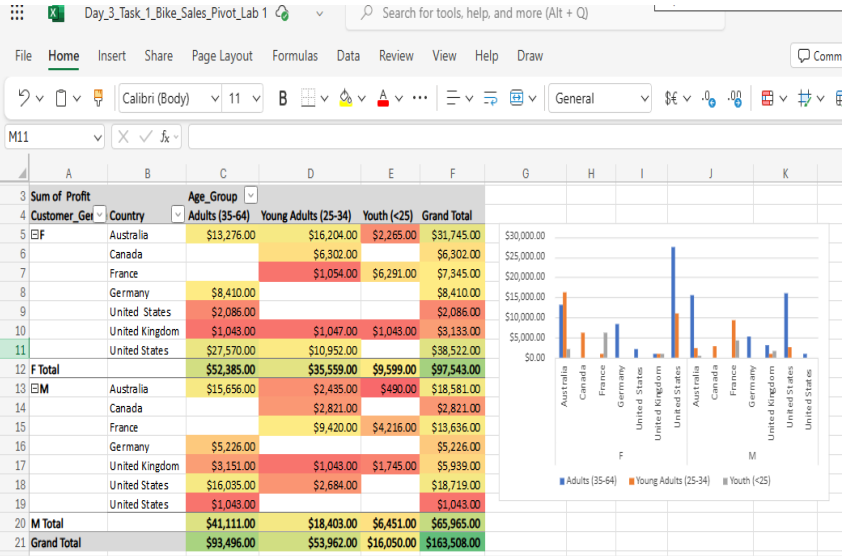
Day 3: Task 1

Please download the dataset 'Day_3_Task_1_Bike_Sales_Pivot_Lab.xlsx' from [here](#).

The lab instructions can be found [here](#). 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:

Print screen 1



| | Country | Adults (35-64) | Young Adults (25-34) | Youth (<25) | Grand Total |
|---------------|----------------|----------------|----------------------|-------------|--------------|
| Sum of Profit | Australia | \$13,276.00 | \$16,204.00 | \$2,265.00 | \$31,745.00 |
| | Canada | \$6,302.00 | \$6,302.00 | \$6,302.00 | \$18,906.00 |
| | France | \$1,054.00 | \$6,291.00 | \$7,345.00 | \$14,690.00 |
| | Germany | \$8,410.00 | | | \$8,410.00 |
| | United States | \$2,086.00 | | | \$2,086.00 |
| | United Kingdom | \$1,043.00 | \$1,047.00 | \$1,043.00 | \$3,133.00 |
| | United States | \$27,570.00 | \$10,952.00 | | \$38,522.00 |
| F Total | | \$52,385.00 | \$35,559.00 | \$9,599.00 | \$97,543.00 |
| M Total | Australia | \$15,656.00 | \$2,435.00 | \$490.00 | \$18,581.00 |
| | Canada | | \$2,821.00 | | \$2,821.00 |
| | France | \$9,420.00 | \$4,216.00 | | \$13,636.00 |
| | Germany | \$5,226.00 | | | \$5,226.00 |
| | United Kingdom | \$3,151.00 | \$1,043.00 | \$1,745.00 | \$5,939.00 |
| | United States | \$16,035.00 | \$2,684.00 | | \$18,719.00 |
| | United States | \$1,043.00 | | | \$1,043.00 |
| M Total | | \$41,111.00 | \$18,403.00 | \$6,451.00 | \$65,965.00 |
| Grand Total | | \$93,496.00 | \$53,962.00 | \$16,050.00 | \$163,508.00 |

In which markets does Germany have customers?

Adults (35-64)

What country has sales in all markets?

United Kingdom

What are the most profitable markets by country, age group, and gender?

Most Profitable Country = United States
 Most Profitable Age group = Adults (35-64)
 Most Profitable 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:

| 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

Print screen 1



| Row Labels | Sum of Sales Volume |
|---------------------------|---------------------|
| Cornwall | 1100 |
| Laptops | 700 |
| Printers | 400 |
| Durham | 550 |
| Laptops | 250 |
| Printers | 300 |
| Essex | 1100 |
| Printers | 800 |
| Smartphones | 300 |
| Greater Manchester | 1000 |
| Laptops | 400 |
| Smartphones | 600 |
| Lancashire | 750 |
| Laptops | 600 |
| Smartphones | 150 |
| Yorkshire | 700 |
| Laptops | 500 |
| Smartphones | 200 |
| Grand Total | 5200 |

| County | Product | Sales Volume | Sales Volume Catgeory |
|--------------------|-------------|--------------|-----------------------|
| Yorkshire | Laptops | 500 | Medium |
| Yorkshire | Smartphones | 200 | Low |
| Cornwall | Laptops | 700 | High |
| Cornwall | Printers | 400 | Medium |
| Lancashire | Smartphones | 150 | Low |
| Lancashire | Laptops | 600 | Medium |
| Essex | Printers | 800 | High |
| Essex | Smartphones | 300 | Medium |
| Durham | Laptops | 250 | Low |
| Durham | Printers | 300 | Medium |
| Greater Manchester | Smartphones | 600 | Medium |
| Greater Manchester | Laptops | 400 | Medium |



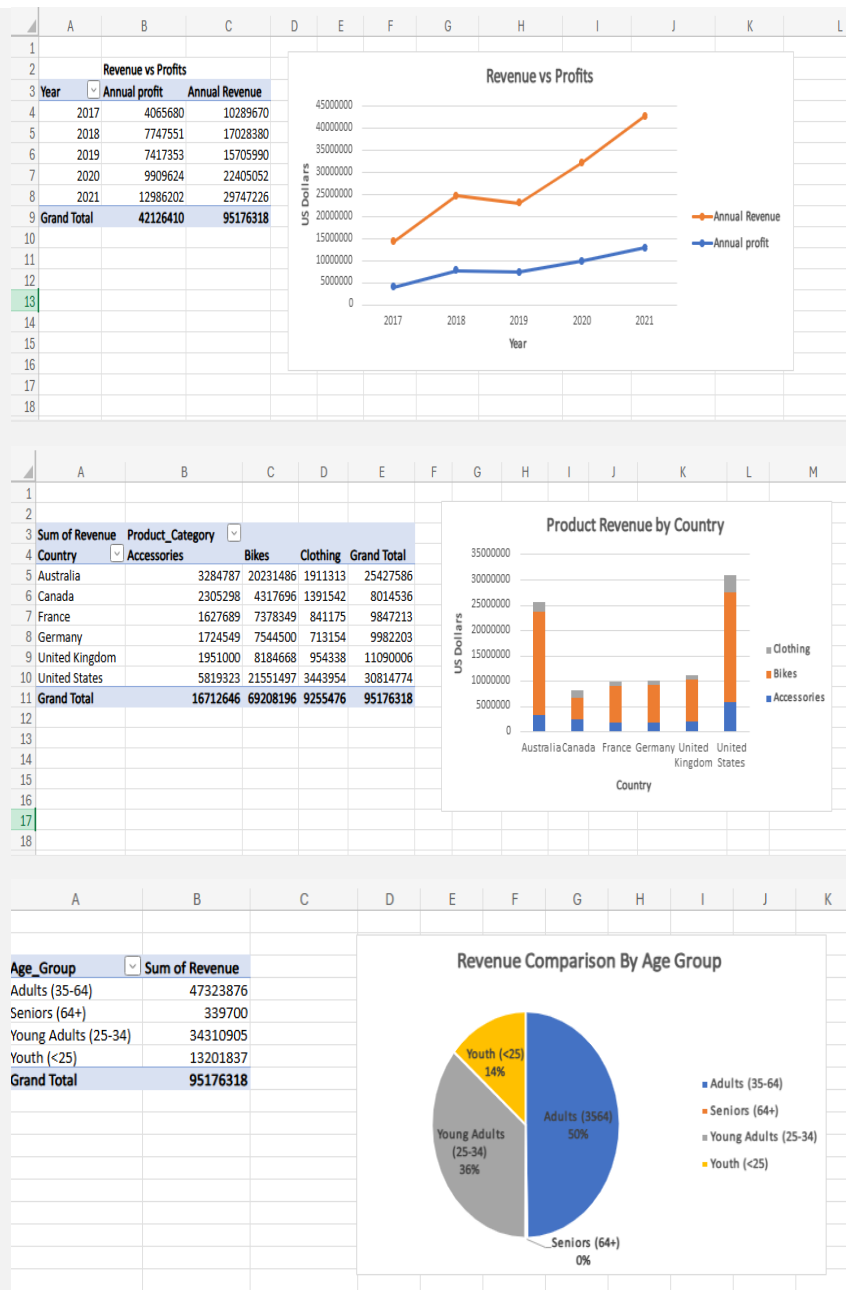
Day 3: Task 3

Please download the dataset 'Day_3_Task_3_Bike_Sales_Visualisations_Lab.xlsx' from [here](#).

The lab instructions can be found [here](#). 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:

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:

How would you prepare for the delivery?

1. Understand the Deliverables

- **Clarify Objectives:** Revisit the scope of the project or delivery to ensure all requirements are met.
- **Define Deliverables:** Clearly outline what is being delivered (e.g., a report, product, or presentation).
- **Stakeholder Expectations:** Confirm the expectations and outcomes with stakeholders.

2. Organize Resources and Materials

- **Prepare Documentation:**
 - Ensure all reports, presentations, or deliverables are complete, accurate, and well-organized.
 - Proofread content to eliminate errors.
- **Test Functionality (if applicable):**
 - For software or technical products, perform final testing (e.g., User Acceptance Testing) to ensure it meets the desired quality and functionality.
- **Backup Resources:**
 - Have hard copies, digital backups, or alternative solutions ready in case of unexpected issues.

3. Plan the Delivery Process

- **Choose the Delivery Method:**
 - Physical: Arrange for shipping or in-person delivery.
 - Digital: Share via email, cloud platforms (e.g., Google Drive, SharePoint), or collaboration tools.
- **Set a Timeline:**
 - Define when and how the delivery will take place.
 - Communicate deadlines to all relevant parties.
- **Rehearse (if applicable):**
 - For presentations or product demonstrations, practice to build confidence and ensure smooth execution.



4. Communicate with Stakeholders

- **Pre-Delivery Notification:**
 - Inform stakeholders about the delivery schedule and what to expect.
- **Gather Feedback in Advance:**
 - Engage stakeholders early to identify any last-minute changes or adjustments.

5. Verify Quality

- **Perform a Final Check:**
 - Ensure all deliverables meet quality standards.
 - Use a checklist to confirm that all requirements are fulfilled.
- **Compliance and Standards:**
 - Verify that deliverables comply with legal, regulatory, or organizational standards.

6. Prepare for Handover

- **Documentation:**
 - Provide user manuals, guidelines, or instructions if required.
 - Ensure stakeholders have all the necessary information to use or understand the deliverables.
- **Training and Support:**
 - Offer training sessions or support for stakeholders, if needed (e.g., user training for software).

7. Risk Management

- **Identify Risks:**
 - Anticipate potential issues during delivery (e.g., delays, technical errors).
- **Develop Contingency Plans:**
 - Prepare solutions for identified risks to reduce disruptions.

8. Execute the Delivery

- **Timely Execution:**
 - Deliver on the agreed-upon date and time.
- **Ensure Transparency:**
 - Provide updates during the delivery process to maintain stakeholder confidence.
- **Documentation of Delivery:**
 - Obtain confirmation or acknowledgment from the stakeholders that the delivery was received.



What tools would you use for the delivery?

9. Post-Delivery Follow-Up

- **Feedback Collection:**
 - Ask for feedback to identify areas for improvement.
- **Support:**
 - Offer post-delivery support to address any issues or concerns.
- **Document Learnings:**
 - Record lessons learned for future deliveries.

By following this structured approach, you can ensure that the delivery process is efficient, meets stakeholder expectations, and leaves a positive impression.

For delivery analysis, you'd typically use a combination of tools depending on the data available, the type of analysis needed, and your organization's tech stack. Here are some common and effective tools:

1. Data Collection & Storage

- SQL (MySQL, PostgreSQL, MS SQL Server): For querying delivery data from databases.
- Excel / Google Sheets: For smaller datasets or quick exploratory analysis.

2. Data Cleaning & Transformation

- Python (Pandas, NumPy): Ideal for processing and transforming large datasets.
- Power Query (in Excel/Power BI): Useful for ETL tasks without heavy coding.
- Azure Data Factory: If working in a Microsoft Azure environment for automated pipelines.

3. Data Analysis & Visualization



What is prospecting and why would you complete this before your delivery?

- Power BI: Great for creating dashboards and reports with delivery KPIs (e.g., on-time rate, average delivery time).

- Tableau: Another powerful BI tool for interactive dashboards.

- Excel: Still very useful for pivot tables, charts, and simple modelling.

4. Geographic/Route Analysis

- ArcGIS / QGIS: For spatial data analysis (e.g., delivery zones, route optimization).

- Google Maps API: For distance, traffic, and location-based analysis.

5. Advanced Analytics

- Python (Scikit-learn): For predictive modelling (e.g., estimating delivery delays).

- R: For statistical analysis, if you're doing more academic or detailed data science.

6. Project & Workflow Tools

- Jupyter Notebooks: For sharing Python analysis in a readable format.

- Azure Synapse Analytics / Databricks: For big data processing in enterprise settings.

What is Prospecting in Delivery?

In delivery operations, prospecting can involve:

- Verifying customer details (address, contact info)

- Checking delivery routes for efficiency or traffic issues

- Identifying any special requirements (e.g., security gates, restricted delivery times, drop-off instructions)

- Confirming the availability of the recipient

Why Complete Prospecting Before Delivery?

1. **Avoid Delays**

Ensures you're not wasting time due to bad addresses, wrong contacts, or unclear instructions.

2. **Improve Efficiency**



Helps plan the most efficient route and delivery schedule, saving fuel and time.

3. **Enhance Customer Satisfaction**

Being prepared shows professionalism and ensures the customer gets their delivery on time and as expected.

4. **Reduce Delivery Failures**

Prevents common issues like missing the recipient or delivering to the wrong place.

5. **Prioritize High-Value or Time-Sensitive Deliveries**

Allows you to manage deliveries that need special attention ahead of time.

If you're using tools like a delivery management system (DMS), CRM, or route optimization software, prospecting might be partly automated, but it's still a key pre-delivery step in quality service and logistics.

1. **Know Your Audience** • Senior leaders want clarity and impact, not technical jargon. • Focus on business value, outcomes, and what matters most to them.
2. **Be Clear and Concise** • Keep your update brief and to the point. • Use the "executive summary" format: Start with the key message, then support it with details if asked.
3. **Use Data to Tell a Story** • Don't just show charts—explain what they mean. • Highlight trends, insights, and decisions that can be made from the data.
4. **Prepare and Rehearse** • Practice your key talking points. • Have answers ready for potential follow-up questions (especially about risks, timelines, or results).
5. **Be Structured** Use a clear format, such as: • Objective: What you set out to do. • Action Taken: What you did. • Result: What the outcome was. • Next Steps: What you recommend or plan to do next.
6. **Visuals Matter** • Use clean, simple visuals (charts, slides). • Avoid clutter—highlight key data points or trends.
7. **Stay Calm and Confident** • Speak slowly and clearly. • If you don't know an answer, be honest and offer to follow up with the right info.



Tell me best practices for public speaking and providing updates to senior leaders

8. **Time Management** • Respect their time: keep it short. • Use a timer in rehearsals to stay on track.
9. **Invite Feedback or Questions** • End with “I’m happy to take any questions” or “Would you like more detail on any point?”
10. **Follow Up in Writing** • Send a short summary email after the meeting with key points, decisions, and next steps.

What will you show the board in your delivery?

To effectively articulate the changes needed, I would start by clearly explaining the current issue, supported by relevant data or observations. For example, if delivery delays are increasing in a specific zone due to route overlap, I’d highlight how this impacts cost and customer satisfaction. I’d then propose a specific, actionable change—such as adjusting delivery schedules or rerouting certain packages—and explain the expected benefits, like improved efficiency and cost savings. It’s important to communicate the change in a way that aligns with business goals, while also acknowledging any potential challenges and how they will be addressed to ensure a smooth transition.

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

To prepare effectively for public speaking, especially in professional settings, there are several valuable online resources and videos available. Courses like Introduction to Public Speaking on Coursera and curated public speaking programs on Class Central offer structured learning paths. YouTube channels such as Alex Lyon's Communication Coach provide free, practical video tutorials covering everything from managing anxiety to delivering technical updates. For interactive practice, tools like Yoodli use AI to analyse and improve your delivery, while Cambridge University offers a free VR platform to simulate public speaking environments. Additionally, websites like Toastmasters.org offer expert tips and opportunities to join supportive speaking communities. Books like TED Talks by Chris Anderson and The Art of Public Speaking by Dale Carnegie also provide timeless guidance. Using a mix of these tools can help you gain confidence, refine your message, and deliver updates with clarity and impact.

Evaluate tools that provide visualisation.

Tell me what they are.

Tell me what you would choose when delivering your presentation and why

There are several tools available for data visualization, each with its own strengths.

Microsoft Power BI is a powerful tool that allows users to create interactive dashboards and real-time visual reports, making it ideal for presenting dynamic business data, especially in organizations that already use Microsoft products.

Tableau is another leading platform known for its advanced visual customization and ability to handle complex datasets, making it suitable for more detailed and analytical presentations.

For simpler tasks, **Excel** remains a widely used tool due to its accessibility and ease of use for creating basic charts and pivot tables.

Google Data Studio (now Looker Studio) is useful for creating collaborative, web-based dashboards that integrate well with Google products.

Canva, while not a data tool, is great for designing clean, visually engaging presentation slides.

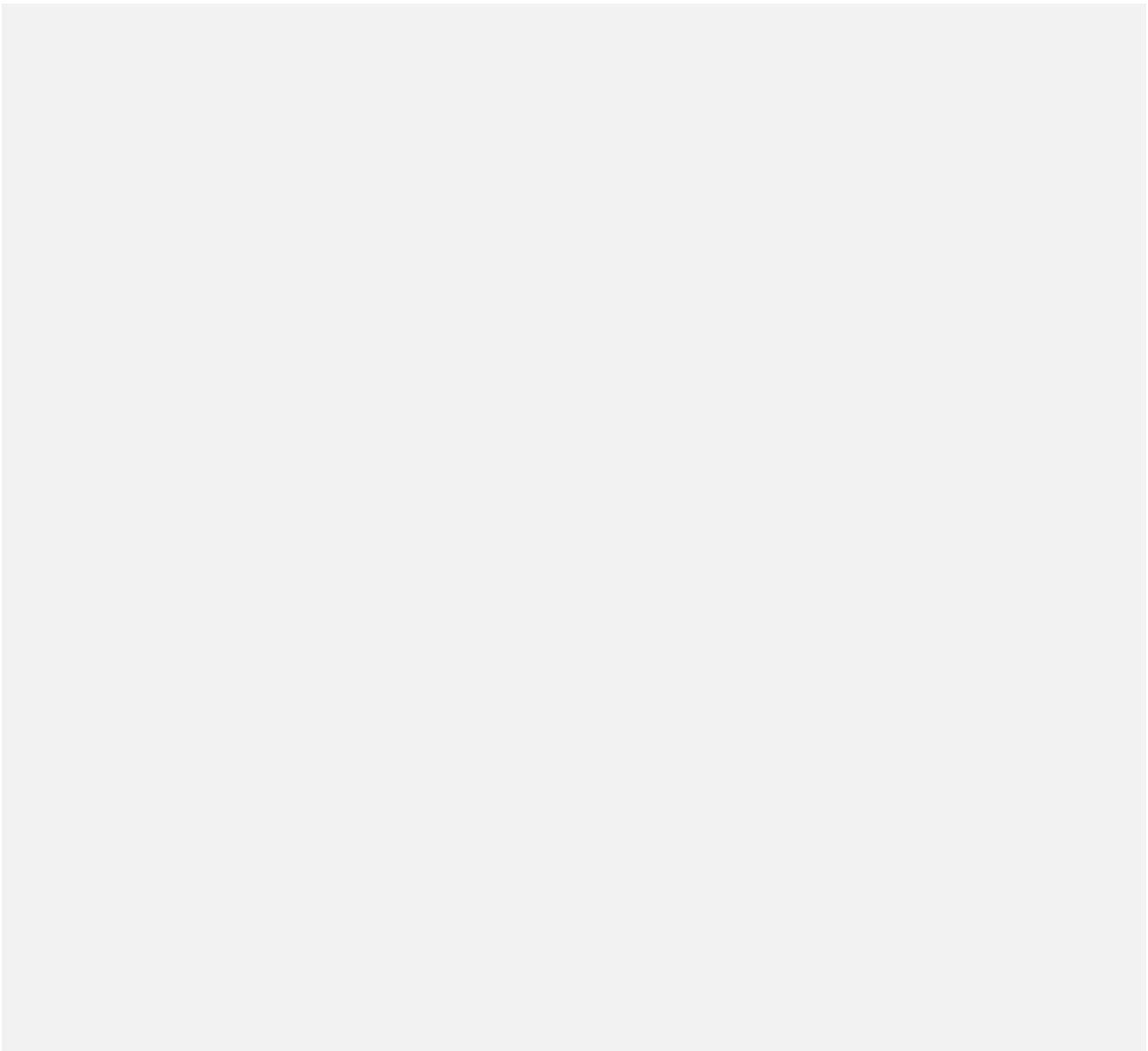
When **delivering a presentation** to senior leaders, I would choose Power BI because it offers professional, interactive visuals that

clearly highlight key insights, supports live filtering during discussions, and integrates well with other tools I might use for data preparation. This makes it ideal for communicating data-driven recommendations clearly and effectively.

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:





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.

