

Data Technician

Name:

Course Date:

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Day 1: Task 1

Please complete the below boxes on common laws and regulations that must be followed when working with customer 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

It is a legislation- a set of rules. It protects personal data and complements GDPR. Its' rules include: Lawfulness, fairness and transparency – which describes how the data must be used; Purpose of Limitation – which entices organisations to display the



	<p>purpose of collecting a set of data; Data minimization – which enforces organisations to collect only the data required; Integrity and confidentiality – which enforces data to be stored securely; Accountability – which enforces accountability on organisations for how they handle data they collected.</p> <p>A real-life example could be how you can request your medical data from your doctor or requesting a company to delete your records from their database.</p> <p>An impact of this legislation could be how companies treat data, for example: they cannot sell the data they have collected without the user's permission.</p> <p>Penalties include fines up to £17.5M or 4% of the organisation's annual turnover, depending on which one is higher.</p>
GDPR	<p>GDPR is the DPA for the EU. It defines the rights of individuals in the digital age; Sets out rules for how organisations can collect, store and use personal data, as well as imposing sanctions on organisations that can breach the rules.</p> <p>An example of GDPR is how a landlord cannot share past tenants' details to anyone unless they have that person's permission.</p> <p>Penalties include fines up to £17.5M or 4% of the organisation's annual turnover, depending on which one is higher.</p>
Freedom of Information Act	<p>Allows people to access information held by public authorities, unless it is withheld with an appropriate reason</p> <p>It is important because it makes public authorities be attentive on how and what data they store.</p> <p>Penalties include fines for not following this legislation</p>
Computer Misuse Act	<p>Protects the security and integrity of computer systems and data.</p> <p>Keeps encryption up to date on workstations and access points.</p> <p>Up to 10 years in prison and unlimited fine.</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

	A	B	C	D	E	F	G	H
1	Transaction ID	Date	Customer ID	Gender	Age	Product Category	Quantity	Price per Unit
2	14	17/01/2023	CUST014	Male		64 Clothing	4	30
3	25	26/12/2023	CUST025	Female		64 Beauty	1	50
4	80	10/12/2023	CUST080	Female		64 Clothing	2	30
5	122	03/10/2023	CUST122	Male		64 Electronics	4	30
6	161	22/03/2023	CUST161	Male		64 Beauty	2	500
7	163	02/01/2023	CUST163	Female		64 Clothing	3	50
8	173	08/11/2023	CUST173	Male		64 Electronics	4	30
9	187	07/06/2023	CUST187	Female		64 Clothing	2	50
10	191	18/10/2023	CUST191	Male		64 Beauty	1	25
11	218	22/09/2023	CUST218	Male		64 Beauty	3	30
12	220	03/03/2023	CUST220	Male		64 Beauty	1	500
13	223	02/02/2023	CUST223	Female		64 Clothing	1	25
14	282	25/08/2023	CUST282	Female		64 Electronics	4	50
15	363	03/06/2023	CUST363	Male		64 Beauty	1	25
16	376	16/05/2023	CUST376	Female		64 Beauty	1	30
17	399	01/03/2023	CUST399	Female		64 Beauty	2	30
18	408	15/04/2023	CUST408	Female		64 Beauty	1	500
19	429	28/12/2023	CUST429	Male		64 Electronics	2	25
20	440	26/10/2023	CUST440	Male		64 Clothing	2	300
21	473	25/02/2023	CUST473	Male		64 Beauty	1	50
22	532	19/06/2023	CUST532	Female		64 Clothing	4	30
23	561	27/05/2023	CUST561	Female		64 Clothing	4	500
24	566	02/12/2023	CUST566	Female		64 Clothing	1	30
25	596	07/02/2023	CUST596	Female		64 Electronics	1	300
26	692	07/09/2023	CUST692	Female		64 Clothing	2	50
27	698	19/07/2023	CUST698	Female		64 Electronics	1	300
28	735	04/10/2023	CUST735	Female		64 Clothing	4	500
29	758	12/05/2023	CUST758	Male		64 Clothing	4	25
30	830	22/06/2023	CUST830	Female		64 Clothing	3	50
31	882	06/06/2023	CUST882	Female		64 Electronics	2	25
32	897	26/09/2023	CUST897	Female		64 Electronics	2	50
33	9	13/12/2023	CUST009	Male		63 Electronics	2	300
34	57	18/11/2023	CUST057	Female		63 Beauty	1	30
35	153	16/12/2023	CUST153	Male		63 Electronics	2	500
36	189	30/01/2023	CUST189	Male		63 Beauty	1	50
37	431	15/10/2023	CUST431	Male		63 Electronics	4	300
38	462	01/04/2023	CUST462	Male		63 Electronics	4	300
39	466	20/06/2023	CUST466	Male		63 Electronics	4	25
40	547	07/03/2023	CUST547	Male		63 Clothing	4	500
41	574	31/08/2023	CUST574	Female		63 Electronics	2	25
42	620	08/05/2023	CUST620	Male		63 Electronics	3	25
43	635	17/08/2023	CUST635	Female		63 Electronics	3	300
44	676	19/07/2023	CUST676	Male		63 Electronics	3	500
45	824	05/05/2023	CUST824	Male		63 Clothing	4	30
46	848	13/02/2023	CUST848	Female		63 Clothing	3	25
47	860	09/01/2023	CUST860	Male		63 Clothing	4	50
48	872	11/10/2023	CUST872	Female		63 Beauty	3	25
49	988	28/05/2023	CUST988	Female		63 Clothing	3	25
50	19	16/09/2023	CUST019	Female		62 Clothing	2	25
51	59	05/07/2023	CUST059	Male		62 Clothing	1	50
52	157	24/06/2023	CUST157	Male		62 Electronics	4	500



Print screen 2

Transaction ID	Date	Customer ID	Gender	Age	Product Category	Quantity	Price per Unit
14	17/01/2023	CUST014	Male		64 Clothing	4	30
25	26/12/2023	CUST025	Female		64 Beauty	1	50
80	10/12/2023	CUST080	Female		64 Clothing	2	30
122	03/10/2023	CUST122	Male		64 Electronics	4	30
161	22/03/2023	CUST161	Male		64 Beauty	2	500
163	02/01/2023	CUST163	Female		64 Clothing	3	50
173	08/11/2023	CUST173	Male		64 Electronics	4	30
187	07/06/2023	CUST187	Female		64 Clothing	2	50
191	18/10/2023	CUST191	Male		64 Beauty	1	25
218	22/09/2023	CUST218	Male		64 Beauty	3	30
220	03/03/2023	CUST220	Male		64 Beauty	1	500
223	02/02/2023	CUST223	Female		64 Clothing	1	25
282	25/08/2023	CUST282	Female		64 Electronics	4	50
363	03/06/2023	CUST363	Male		64 Beauty	1	25
376	16/05/2023	CUST376	Female		64 Beauty	1	30
399	01/03/2023	CUST399	Female		64 Beauty	2	30
408	15/04/2023	CUST408	Female		64 Beauty	1	500
429	28/12/2023	CUST429	Male		64 Electronics	2	25
440	26/10/2023	CUST440	Male		64 Clothing	2	300
473	25/02/2023	CUST473	Male		64 Beauty	1	50
532	19/06/2023	CUST532	Female		64 Clothing	4	30
561	27/05/2023	CUST561	Female		64 Clothing	4	500
566	02/12/2023	CUST566	Female		64 Clothing	1	30
596	07/02/2023	CUST596	Female		64 Electronics	1	300
692	07/09/2023	CUST692	Female		64 Clothing	2	50
698	19/07/2023	CUST698	Female		64 Electronics	1	300
735	04/10/2023	CUST735	Female		64 Clothing	4	500
758	12/05/2023	CUST758	Male		64 Clothing	4	25
830	22/06/2023	CUST830	Female		64 Clothing	3	50
882	06/06/2023	CUST882	Female		64 Electronics	2	25
897	26/09/2023	CUST897	Female		64 Electronics	2	50
9	13/12/2023	CUST009	Male		63 Electronics	2	300
57	18/11/2023	CUST057	Female		63 Beauty	1	30
153	16/12/2023	CUST153	Male		63 Electronics	2	500
189	30/01/2023	CUST189	Male		63 Beauty	1	50
431	15/10/2023	CUST431	Male		63 Electronics	4	300
462	01/04/2023	CUST462	Male		63 Electronics	4	300
466	20/06/2023	CUST466	Male		63 Electronics	4	25
547	07/03/2023	CUST547	Male		63 Clothing	4	500
574	31/08/2023	CUST574	Female		63 Electronics	2	25
620	08/05/2023	CUST620	Male		63 Electronics	3	25
635	17/08/2023	CUST635	Female		63 Electronics	3	300
676	19/07/2023	CUST676	Male		63 Electronics	3	500
824	05/05/2023	CUST824	Male		63 Clothing	4	30
848	13/02/2023	CUST848	Female		63 Clothing	3	25
860	09/01/2023	CUST860	Male		63 Clothing	4	50
872	11/10/2023	CUST872	Female		63 Beauty	3	25
988	28/05/2023	CUST988	Female		63 Clothing	3	25
19	16/09/2023	CUST019	Female		62 Clothing	2	25
59	05/07/2023	CUST059	Male		62 Clothing	1	50
157	24/06/2023	CUST157	Male		62 Electronics	4	500

Print screen 3

Transaction ID	Date	Customer ID	Gender	Age	Product Category	Quantity	Price per Unit	Total sales	Commission 2023
14	17/01/2023	CUST014	Male		64 Clothing	4	30	£120.00	£18.00
25	26/12/2023	CUST025	Female		64 Beauty	1	50	£50.00	£7.50
80	10/12/2023	CUST080	Female		64 Clothing	2	30	£60.00	£9.00
122	03/10/2023	CUST122	Male		64 Electronics	4	30	£120.00	£18.00
161	22/03/2023	CUST161	Male		64 Beauty	2	500	£1,000.00	£150.00
163	02/01/2023	CUST163	Female		64 Clothing	3	50	£150.00	£22.50
173	08/11/2023	CUST173	Male		64 Electronics	4	30	£120.00	£18.00
187	07/06/2023	CUST187	Female		64 Clothing	2	50	£100.00	£15.00
191	18/10/2023	CUST191	Male		64 Beauty	1	25	£25.00	£3.75
218	22/09/2023	CUST218	Male		64 Beauty	3	30	£90.00	£13.50
220	03/03/2023	CUST220	Male		64 Beauty	1	500	£500.00	£75.00
223	02/02/2023	CUST223	Female		64 Clothing	1	25	£25.00	£3.75
282	25/08/2023	CUST282	Female		64 Electronics	4	50	£200.00	£30.00
363	03/06/2023	CUST363	Male		64 Beauty	1	25	£25.00	£3.75
376	16/05/2023	CUST376	Female		64 Beauty	1	30	£30.00	£4.50
399	01/03/2023	CUST399	Female		64 Beauty	2	30	£60.00	£9.00
408	15/04/2023	CUST408	Female		64 Beauty	1	500	£500.00	£75.00
429	28/12/2023	CUST429	Male		64 Electronics	2	25	£50.00	£7.50
440	26/10/2023	CUST440	Male		64 Clothing	2	300	£600.00	£90.00
473	25/02/2023	CUST473	Male		64 Beauty	1	50	£50.00	£7.50
532	19/06/2023	CUST532	Female		64 Clothing	4	30	£120.00	£18.00
561	27/05/2023	CUST561	Female		64 Clothing	4	500	£2,000.00	£300.00
566	02/12/2023	CUST566	Female		64 Clothing	1	30	£30.00	£4.50
596	07/02/2023	CUST596	Female		64 Electronics	1	300	£300.00	£45.00
692	07/09/2023	CUST692	Female		64 Clothing	2	50	£100.00	£15.00
698	19/07/2023	CUST698	Female		64 Electronics	1	300	£300.00	£45.00
735	04/10/2023	CUST735	Female		64 Clothing	4	500	£2,000.00	£300.00
758	12/05/2023	CUST758	Male		64 Clothing	4	25	£100.00	£15.00
830	22/06/2023	CUST830	Female		64 Clothing	3	50	£150.00	£22.50
882	06/06/2023	CUST882	Female		64 Electronics	2	25	£50.00	£7.50
897	26/09/2023	CUST897	Female		64 Electronics	2	50	£100.00	£15.00
9	13/12/2023	CUST009	Male		63 Electronics	2	300	£600.00	£90.00
57	18/11/2023	CUST057	Female		63 Beauty	1	30	£30.00	£4.50
153	16/12/2023	CUST153	Male		63 Electronics	2	500	£1,000.00	£150.00
189	30/01/2023	CUST189	Male		63 Beauty	1	50	£50.00	£7.50
431	15/10/2023	CUST431	Male		63 Electronics	4	300	£1,200.00	£180.00
462	01/04/2023	CUST462	Male		63 Electronics	4	300	£1,200.00	£180.00
466	20/06/2023	CUST466	Male		63 Electronics	4	25	£100.00	£15.00
547	07/03/2023	CUST547	Male		63 Clothing	4	500	£2,000.00	£300.00
574	31/08/2023	CUST574	Female		63 Electronics	2	25	£50.00	£7.50
620	08/05/2023	CUST620	Male		63 Electronics	3	25	£75.00	£11.25
635	17/08/2023	CUST635	Female		63 Electronics	3	300	£900.00	£135.00
676	19/07/2023	CUST676	Male		63 Electronics	3	500	£1,500.00	£225.00
824	05/05/2023	CUST824	Male		63 Clothing	4	30	£120.00	£18.00
848	13/02/2023	CUST848	Female		63 Clothing	3	25	£75.00	£11.25
860	09/01/2023	CUST860	Male		63 Clothing	4	50	£200.00	£30.00
872	11/10/2023	CUST872	Female		63 Beauty	3	25	£75.00	£11.25
988	28/05/2023	CUST988	Female		63 Clothing	3	25	£75.00	£11.25
19	16/09/2023	CUST019	Female		62 Clothing	2	25	£50.00	£7.50
59	05/07/2023	CUST059	Male		62 Clothing	1	50	£50.00	£7.50
157	24/06/2023	CUST157	Male		62 Electronics	4	500	£2,000.00	£300.00



Print screen 4

--> AVERAGE (22, 31001)									
Transaction ID	Date	Customer ID	Gender	Age	Product Category	Quantity	Price per Unit	Total sales	Commission
14	17/01/2023	CUST014	Male	64	Clothing	4	30	£120.00	£18.00
15	26/12/2023	CUST025	Female	64	Beauty	1	50	£50.00	£7.50
80	10/12/2023	CUST080	Female	64	Clothing	2	30	£60.00	£9.00
122	03/10/2023	CUST122	Male	64	Electronics	4	30	£120.00	£18.00
161	22/09/2023	CUST161	Male	64	Beauty	2	500	£1,000.00	£150.00
163	02/01/2023	CUST163	Female	64	Clothing	3	50	£150.00	£22.50
173	08/11/2023	CUST173	Male	64	Electronics	4	30	£120.00	£18.00
187	07/06/2023	CUST187	Female	64	Clothing	2	50	£100.00	£15.00
191	18/10/2023	CUST191	Male	64	Beauty	1	25	£25.00	£3.75
218	22/09/2023	CUST218	Male	64	Beauty	3	50	£150.00	£22.50
220	03/03/2023	CUST220	Male	64	Beauty	1	500	£500.00	£75.00
223	02/02/2023	CUST223	Female	64	Clothing	1	25	£25.00	£3.75
282	25/08/2023	CUST282	Female	64	Electronics	4	50	£200.00	£30.00
283	03/06/2023	CUST283	Male	64	Beauty	1	25	£25.00	£3.75
376	16/05/2023	CUST376	Female	64	Beauty	1	30	£30.00	£4.50
399	01/01/2023	CUST399	Female	64	Beauty	2	30	£60.00	£9.00
408	15/04/2023	CUST408	Female	64	Beauty	1	500	£500.00	£75.00
429	28/12/2023	CUST429	Male	64	Electronics	2	25	£50.00	£7.50
440	26/02/2023	CUST440	Male	64	Clothing	2	300	£600.00	£90.00
475	25/02/2023	CUST475	Male	64	Beauty	1	50	£50.00	£7.50
532	19/06/2023	CUST532	Female	64	Clothing	4	30	£120.00	£18.00
561	17/05/2023	CUST561	Female	64	Clothing	4	500	£2,000.00	£300.00
566	02/12/2023	CUST566	Female	64	Clothing	1	30	£30.00	£4.50
596	07/02/2023	CUST596	Female	64	Electronics	1	300	£300.00	£45.00
692	07/09/2023	CUST692	Female	64	Clothing	2	50	£100.00	£15.00
698	19/07/2023	CUST698	Female	64	Electronics	1	300	£300.00	£45.00
735	04/10/2023	CUST735	Female	64	Clothing	4	500	£2,000.00	£300.00
758	12/05/2023	CUST758	Male	64	Clothing	4	25	£100.00	£15.00
830	22/06/2023	CUST830	Female	64	Clothing	3	50	£150.00	£22.50
882	06/06/2023	CUST882	Female	64	Electronics	2	25	£50.00	£7.50
897	26/09/2023	CUST897	Female	64	Electronics	2	50	£100.00	£15.00
9	13/12/2023	CUST009	Male	63	Electronics	2	300	£600.00	£90.00
57	18/11/2023	CUST057	Female	63	Beauty	1	30	£30.00	£4.50
153	16/12/2023	CUST153	Male	63	Electronics	2	500	£1,000.00	£150.00
389	30/01/2023	CUST189	Male	63	Beauty	1	50	£50.00	£7.50
431	15/10/2023	CUST431	Male	63	Electronics	4	300	£1,200.00	£180.00
462	01/04/2023	CUST462	Male	63	Electronics	4	300	£1,200.00	£180.00
466	20/06/2023	CUST466	Male	63	Electronics	4	25	£100.00	£15.00
547	07/03/2023	CUST547	Male	63	Clothing	4	500	£2,000.00	£300.00
574	11/08/2023	CUST574	Female	63	Electronics	2	25	£50.00	£7.50
620	08/05/2023	CUST620	Male	63	Electronics	3	25	£75.00	£11.25
625	17/08/2023	CUST625	Female	63	Electronics	3	300	£900.00	£135.00
676	19/07/2023	CUST676	Male	63	Electronics	3	500	£1,500.00	£225.00
824	05/05/2023	CUST824	Male	63	Clothing	4	30	£120.00	£18.00
848	13/02/2023	CUST848	Female	63	Clothing	3	25	£75.00	£11.25
860	09/01/2023	CUST860	Male	63	Clothing	4	50	£200.00	£30.00
872	11/10/2023	CUST872	Female	63	Beauty	3	25	£75.00	£11.25
988	28/05/2023	CUST988	Female	63	Clothing	3	25	£75.00	£11.25
39	16/09/2023	CUST039	Female	62	Clothing	2	25	£50.00	£7.50
39	05/07/2023	CUST039	Male	62	Clothing	1	50	£50.00	£7.50
157	24/06/2023	CUST157	Male	62	Electronics	4	500	£2,000.00	£300.00

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 function, 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
1	Student name	English	Mathematics	Science	Average	Highest score	Additional Support
2	Ted	80	75	90	81.66666667	90	No
3	Linda	90	50	70	70	90	Yes
4	Carol	75	85	85	81.66666667	85	No
5	Khan	85	75	80	80	85	No
6	Harry	80	70	80	76.66666667	80	No
7	Sarah	80	70	80	76.66666667	80	No
8	John	65	80	70	71.66666667	80	Yes
9	Edward	55	80	60	65	80	Yes
10	Mary	55	70	65	63.33333333	70	Yes
11	Thomas	55	30	65	50	65	Yes
12							

	A	B	C	D	E	F	G
1	Student name	English	Mathematics	Science	Average	Highest score	Additional Support
2	Linda	90	50	70	70	90	Yes
3	Khan	85	75	80	80	85	No
4	Ted	80	75	90	81.66666667	90	No
5	Harry	80	70	80	76.66666667	80	No
6	Sarah	80	70	80	76.66666667	80	No
7	Carol	75	85	85	81.66666667	85	No
8	John	65	80	70	71.66666667	80	Yes
9	Edward	55	80	60	65	80	Yes
10	Mary	55	70	65	63.33333333	70	Yes
11	Thomas	55	30	65	50	65	Yes
12							

	A	B	C	D	E	F	G
1	Student name	English	Mathematics	Science	Average	Highest score	Additional Support
2	Carol	75	85	85	81.66666667	85	No
3	John	65	80	70	71.66666667	80	Yes
4	Edward	55	80	60	65	80	Yes
5	Khan	85	75	80	80	85	No
6	Ted	80	75	90	81.66666667	90	No
7	Harry	80	70	80	76.66666667	80	No
8	Sarah	80	70	80	76.66666667	80	No
9	Mary	55	70	65	63.33333333	70	Yes
10	Linda	90	50	70	70	90	Yes
11	Thomas	55	30	65	50	65	Yes
12							

	A	B	C	D	E	F	G
1	Student name	English	Mathematics	Science	Average	Highest score	Additional Support
2	Ted	80	75	90	81.66666667	90	No
3	Carol	75	85	85	81.66666667	85	No
4	Khan	85	75	80	80	85	No
5	Harry	80	70	80	76.66666667	80	No
6	Sarah	80	70	80	76.66666667	80	No
7	John	65	80	70	71.66666667	80	Yes
8	Linda	90	50	70	70	90	Yes
9	Mary	55	70	65	63.33333333	70	Yes
10	Thomas	55	30	65	50	65	Yes
11	Edward	55	80	60	65	80	Yes
12							

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

ID	Date	Customer ID	Gender	Age	Product Category	Quantity	Price per Unit	Total sales	Commission 2022
1	24/11/2023	CUST001	Male	34	Beauty	3	50	£150.00	£22.50
2	27/02/2023	CUST002	Female	26	Clothing	2	500	£1,000.00	£150.00
3	13/01/2023	CUST003	Male	50	Electronics	1	30	£30.00	£4.50
4	21/05/2023	CUST004	Male	37	Clothing	1	500	£500.00	£75.00
5	06/05/2023	CUST005	Male	30	Beauty	2	50	£100.00	£15.00
6	25/04/2023	CUST006	Female	45	Beauty	1	30	£30.00	£4.50
7	13/03/2023	CUST007	Male	46	Clothing	2	25	£50.00	£7.50
8	22/02/2023	CUST008	Male	30	Electronics	4	25	£100.00	£15.00
9	13/12/2023	CUST009	Male	63	Electronics	2	300	£600.00	£90.00
10	07/10/2023	CUST010	Female	52	Clothing	4	50	£200.00	£30.00
11	14/02/2023	CUST011	Male	23	Clothing	2	50	£100.00	£15.00
12	30/10/2023	CUST012	Male	35	Beauty	3	25	£75.00	£11.25
13	05/08/2023	CUST013	Male	22	Electronics	3	500	£1,500.00	£225.00
14	17/01/2023	CUST014	Male	64	Clothing	4	30	£120.00	£18.00
15	16/01/2023	CUST015	Female	42	Electronics	4	500	£2,000.00	£300.00
16	17/02/2023	CUST016	Male	19	Clothing	3	500	£1,500.00	£225.00
Total Sales									£456,000.00
Average Commission									£68.40
Product Categories									Beauty Clothing Electronics

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.

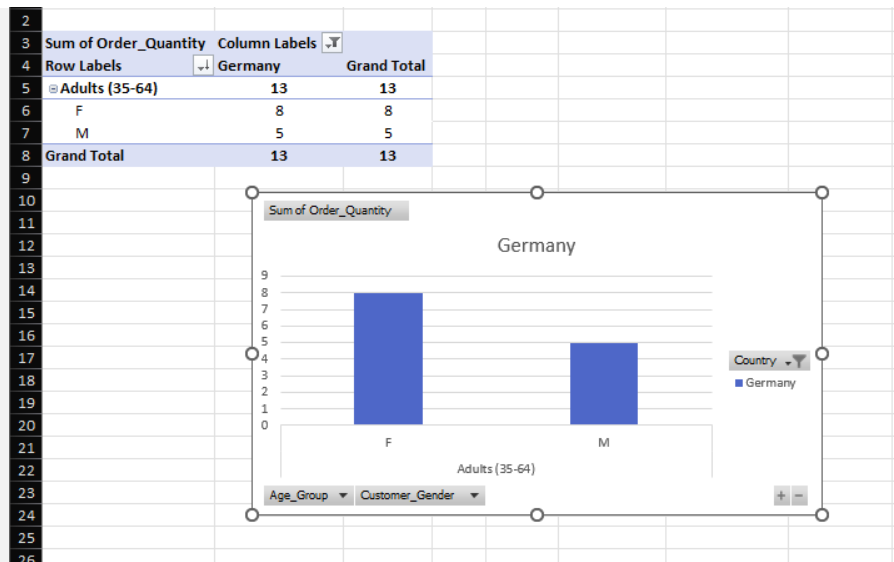
Please paste your final pivot table below and complete the reflection questions:

Print screen 1

	A	B	C	D	E	F	G	H	I	J
1										
2										
3	Sum of Order_Quantity	Column Labels								
4	Row Labels	Australia	Canada	France	Germany	United States	United Kingdom	United States	United States	Grand Total
5	■ Youth (<25)	11	0	10	0	0	6	0	0	27
6	■ Young Adults (25-34)	20	11	10	0	0	4	16	0	61
7	■ Adults (35-64)	32	0	0	13	2	4	47	1	99
8	Grand Total	63	11	20	13	2	14	63	1	187
9										
10										
11										
12										
13										
14										
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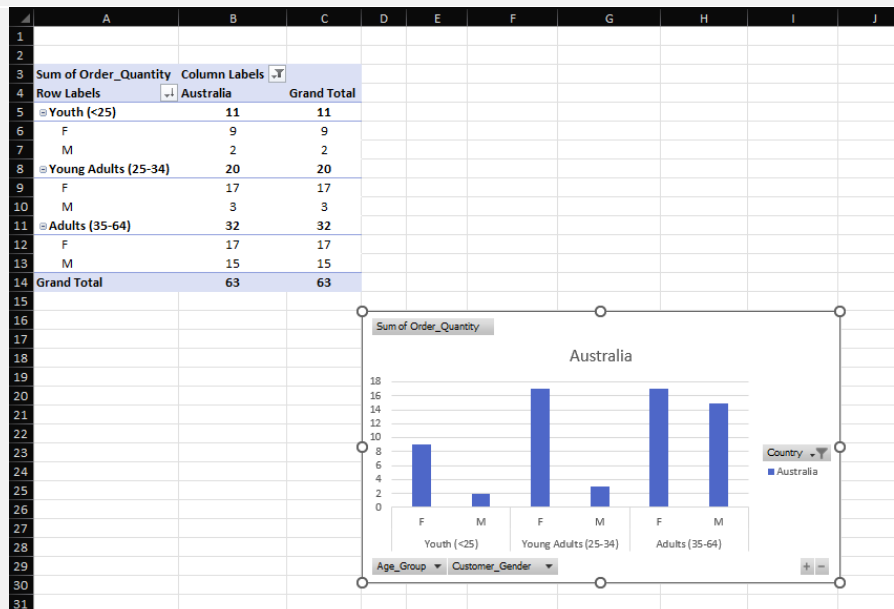


In which markets does Germany have customers?



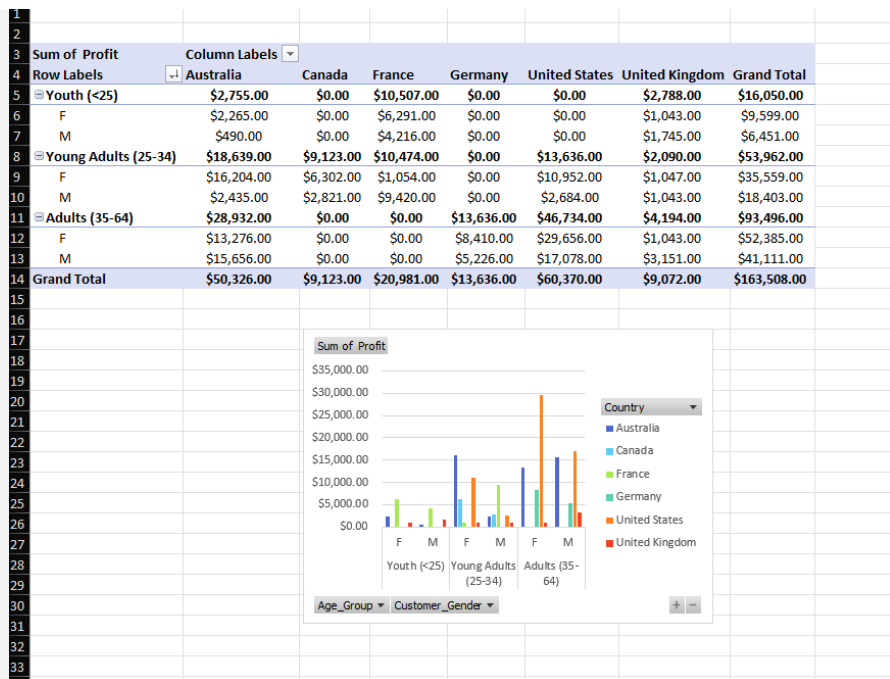
Germany has customers in the 35-64 age range

What country has sales in all markets?



It is Australia, there is a big market in the adult-range and Females in the age range of 25-34

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



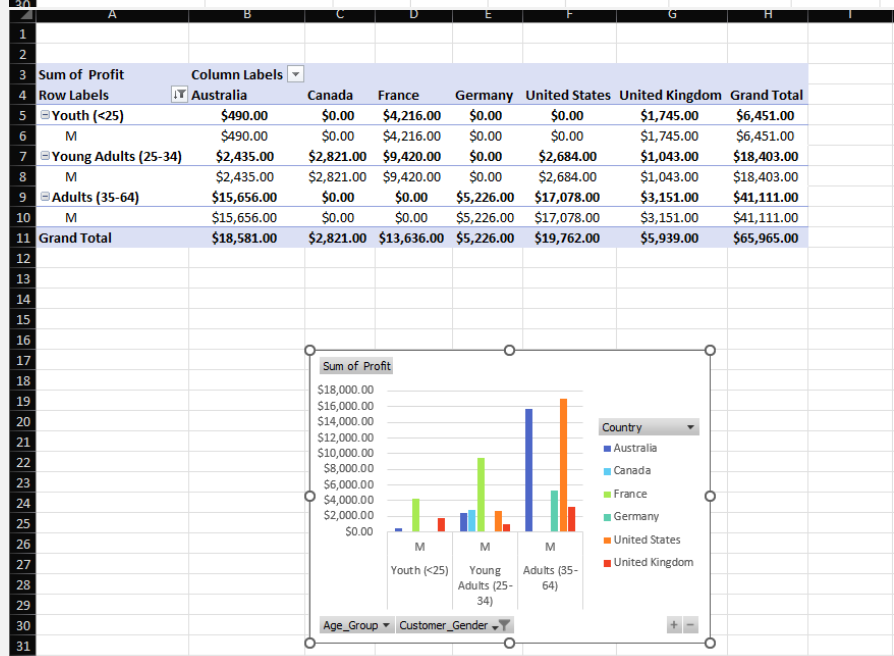
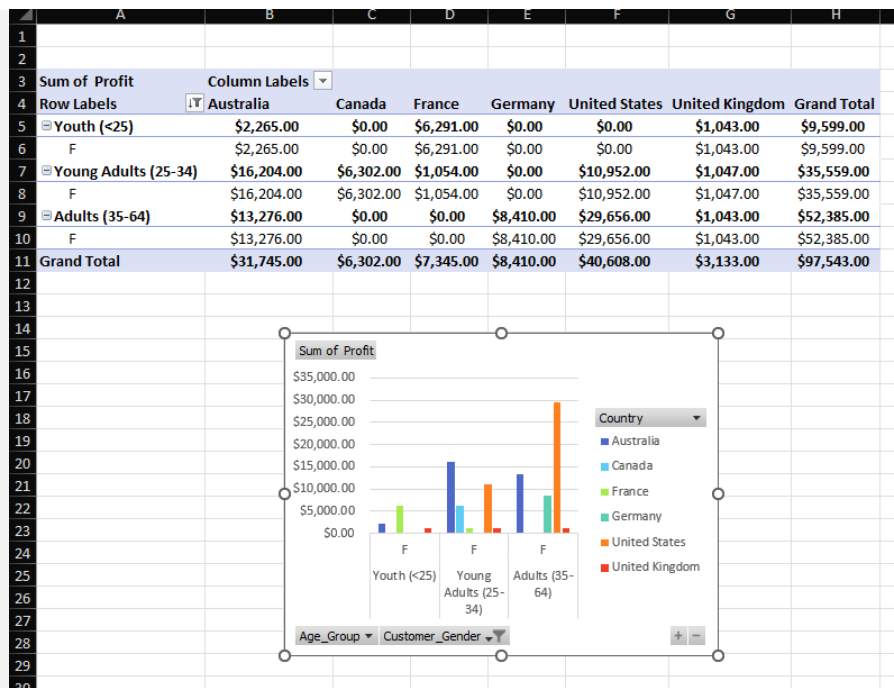
This chart represents the profits throughout countries, subdivided by gender and age-group.

United States
\$0.00
\$0.00
\$0.00
\$13,636.00
\$10,952.00
\$2,684.00
\$46,734.00
\$29,656.00
\$17,078.00
\$60,370.00

The data shows that the United States are the most profitable country.

Grand Total
\$16,050.00
\$9,599.00
\$6,451.00
\$53,962.00
\$35,559.00
\$18,403.00
\$93,496.00
\$52,385.00
\$41,111.00
\$163,508.00

The data also shows that the most profitable age-group is the "Adults" group.



Here's a comparison between genders, we can see that "Female" do generate almost 50% more profit than "Male".

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

	A	B	C	D	E	F	G
1							
2							
3	Count of Sales Volume		Column Labels				
4	Row Labels	Laptops	Laptops	Printers	Smartphones	Smartphones	Grand Total
5	Cornwall	0	1	1	0	0	2
6	Durham	0	1	1	0	0	2
7	Essex	0	0	0	0	1	1
8	Essex	0	0	1	0	0	1
9	Greater Manchester	1	0	0	1	0	2
10	Lancashire	0	1	0	0	1	2
11	Yorkshire	0	1	0	0	1	2
12	Grand Total	1	4	3	1	3	12

	A	B	C	D	E
1	County	Product	Sales Volume	Sales Level	
2	Yorkshire	Laptops	500	Medium	
3	Yorkshire	Smartphones	200	Low	
4	Cornwall	Laptops	700	High	
5	Cornwall	Printers	400	Medium	
6	Lancashire	Smartphones	150	Low	
7	Lancashire	Laptops	600	High	
8	Essex	Printers	800	High	
9	Essex	Smartphones	300	High	
10	Durham	Laptops	250	High	
11	Durham	Printers	300	Medium	
12	Greater Manchester	Smartphones	600	High	
13	Greater Manchester	Laptops	400	Medium	
14					

Day 3: Task 3

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

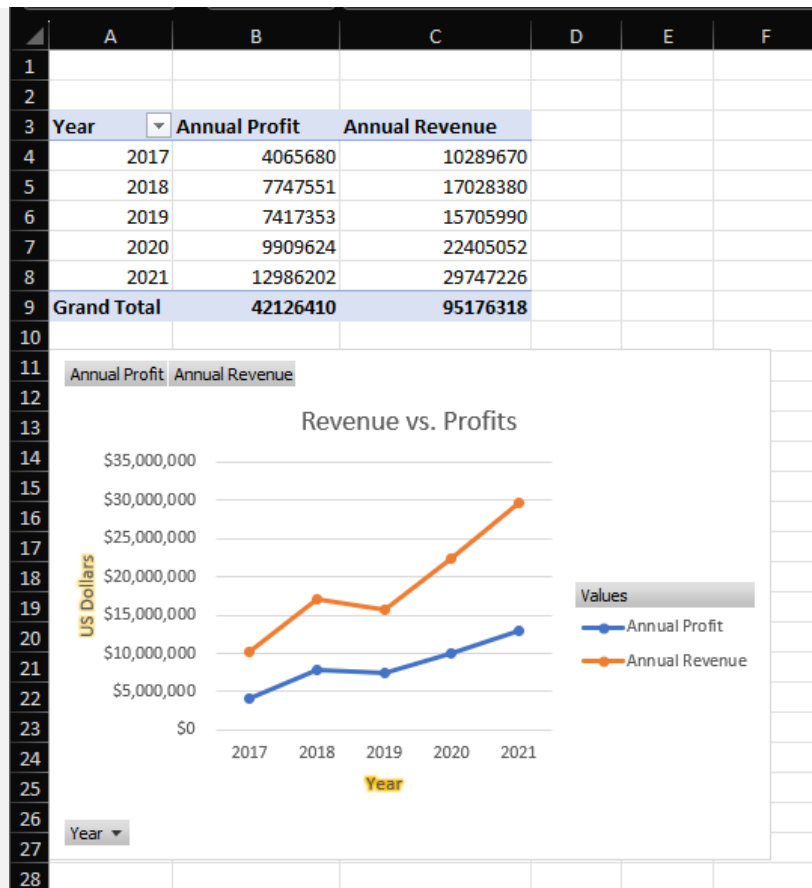
The lab instructions can be found [here](#). Do not worry if you do not complete the lab, just working with data and playing with the charts will be good experience.

Please paste your results below:

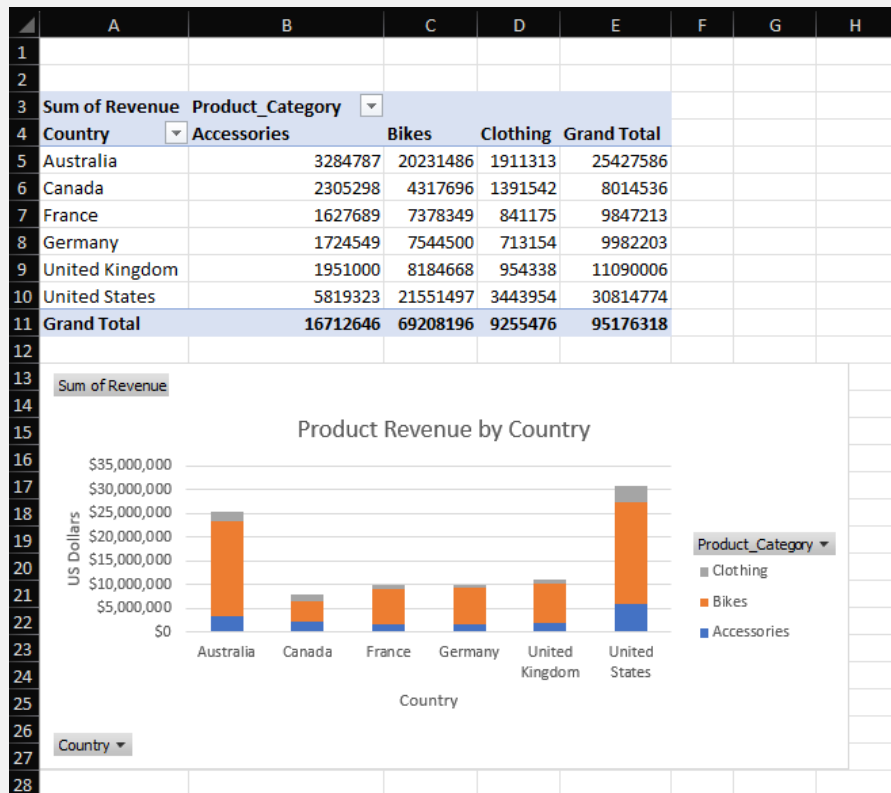
Print screen 1

Task 3 Part 1:



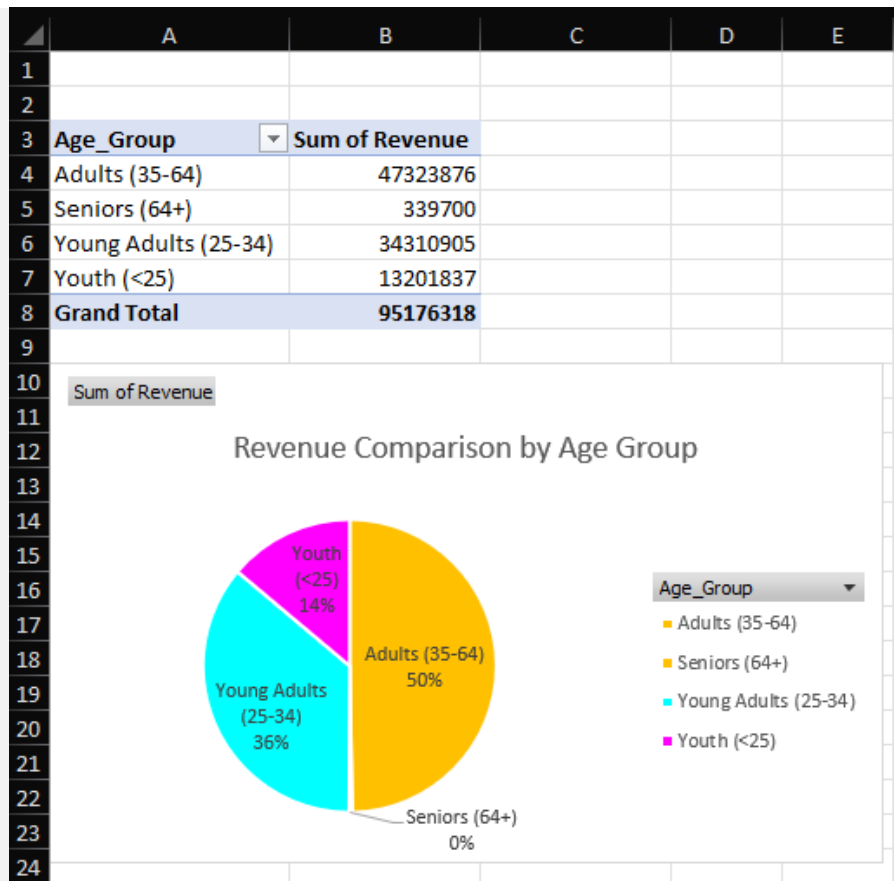


Task 3 Part 2:



Task 3 Part 3:





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?

I would create a presentation, giving evidence and explaining on why and how clients are to leave the company. I would do so by also giving out concrete and detailed data in form of charts and, if applicable, precedents. I would also prepare on presenting solutions and show how affective these could be by showing concrete proof or precedents, if applicable.

What tools would you use for the delivery?	A simple, but effective PowerPoint. As well as detailed Excel sheets and graphs. Keeping my notes close to me, as well as giving myself a glass of water to pause and give myself time to think about questions and/or pace my presentation.
What is prospecting and why would you complete this before your delivery?	A prospecting table is comprised of a list of objectives, with information and/or commercial actions needed to achieve these objectives. A prospecting table centralises all the information and contact details of people that might be considered as prospects. In this case, I would prepare a table of prospecting customers, or if applicable any clients that we can keep from leaving. I would then identify what is required to keep/acquire these clients and set those requirements as my objectives.
Tell me best practices for public speaking and providing updates to senior leaders	First off, Identifying senior leaders. Once identified I can adapt my presentation to where it is understandable, by benefitting from anecdotal data- speaking about experiences I have had, or they might have had during their careers-. I would also include interaction, for example polls, Q&A sessions and try to make my presentation more interactive. I would end my presentation with Q&As and follow-up data(images and/or articles) about the presentation to allow them to understand and give them a chance to review the presentation better in a later time.
What will you show the board in your delivery?	I will show data in form of charts, market comparisons and graphs/pictures from and precedents.
How will you articulate the changes that are needed?	I will first off show the data forecasted by Excel and/or other programs, after showing data about the current market. I will then proceed to show what is more likely to happen: what clients will leave. I will then show plans on how to retain these clients and plans on increasing our number of clients in the form of charts, research about these clients and showing any visual proof of any precedents if applicable.
Provide a list of online resources and videos that will support your preparation for public speaking	https://www.ted.com/playlists/574/how_to_make_a_great_presentation - how to give a presentation https://www.savemyexams.com/igcse/business/edexcel/19/revision-notes/4-marketing/the-market/responding-to-changing-market-conditions/ - what topics or points to touch on, to show market changes. https://www.forbes.com/sites/rodgerdeanduncan/2025/01/14/speaking-makes-you-sweat-tips-to-boost-your-confidence-and-competence/ - example of an article showing how to boost confidence for public speaking/presenting.

Evaluate tools that provide visualisation.

Tell me what they are.

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

Excel's Pivot Tables, PowerBI, Tableau.

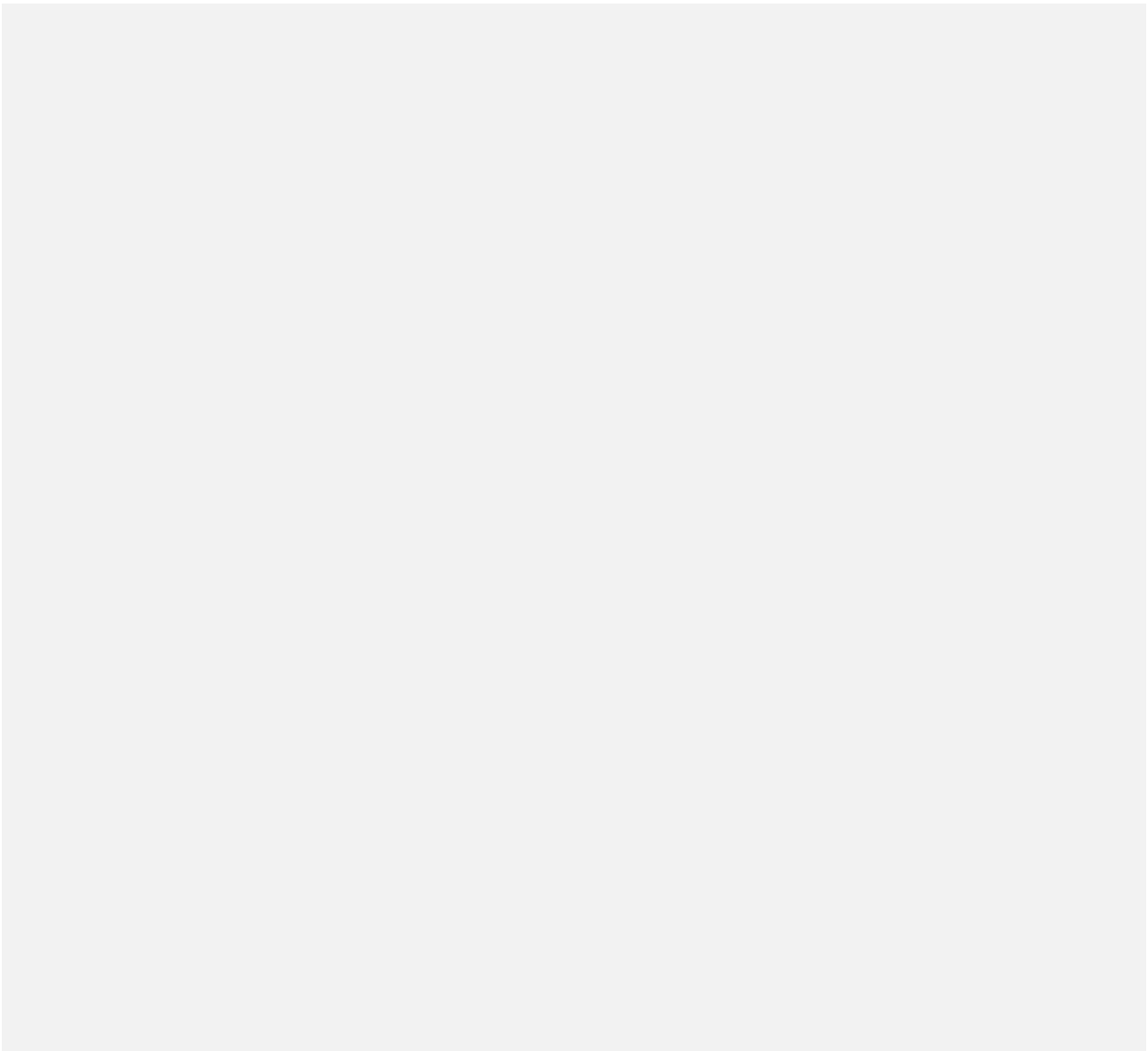
Pivot Tables in Excel are data tables that make visualisation of data much easier as it creates charts that are interchangeable via interface. PowerBI is a data visualisation tool. It is a collection of apps, connectors and software services: it pulls data from excel, as well as SQL databases and websites alike. It also generates graphs and tables. Tableau is a data visualisation software that features AI/ML(artificial intelligence and machine learning), which help with automated insights, predictions and data analysis, without knowing much of coding.

I would choose Excel, since it has Pivot Tables and allows me to generate charts. Since I predict the amount of data will not be very large, I can also use comparison tools to compare market trends and create things like the prospects table.

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.

