

# Coffee Sales Analysis

## 1) Raw Data:

The raw data consists of orders, customer, and products sheets.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Order ID	Order Date	Customer ID	Product ID	Quantity	Customer Name	Email	Country	Coffee Type	Roast Type	Size	Unit Price	Sales				
2	QEV-37451-860	9/5/2019	17670-51384-MA	R-M-1	2												
3	QEV-37451-860	9/5/2019	17670-51384-MA	E-M-0.5	5												
4	FAA-43335-268	6/17/2021	21125-22134-PX	A-L-1	1												
5	KAC-83089-793	7/15/2021	23806-46781-OU	E-M-1	2												
6	KAC-83089-793	7/15/2021	23806-46781-OU	R-L-2.5	2												
7	CVP-18956-553	8/4/2021	86561-91660-RB	L-D-1	3												
8	IPP-31994-879	1/21/2022	65223-29612-CB	E-D-0.5	3												
9	SNZ-65340-705	5/20/2022	21134-81676-FR	L-L-0.2	1												
10	EZT-46571-659	1/2/2019	03396-68805-ZC	R-M-0.5	3												
11	NWQ-70061-912	9/5/2019	61021-27840-ZN	R-M-0.5	1												
12	BKK-47233-845	3/8/2021	76239-90137-UQ	A-D-1	4												
13	VQR-01002-970	10/28/2020	49315-21985-BB	E-L-2.5	5												
14	SZW-48378-399	7/2/2022	34136-36674-OM	R-M-1	5												
15	ITA-87418-783	5/22/2020	39396-12890-PE	R-D-2.5	2												
16	GNZ-46006-527	4/5/2022	95875-73336-RG	L-D-0.2	3												
17	FYQ-78248-319	6/7/2022	25473-43727-BY	R-M-2.5	5												
18	VAU-44387-624	3/20/2019	99643-51048-IQ	A-M-0.2	6												
19	RDW-33155-159	10/19/2019	62173-15287-CU	A-L-1	6												
20	TDZ-59011-211	6/13/2019	57611-05522-ST	R-D-2.5	4												
21	IDU-25793-399	12/4/2020	76664-37050-DT	A-M-0.2	5												
22	IDU-25793-399	12/4/2020	76664-37050-DT	E-D-0.2	4												
23	NUO-20013-488	12/4/2020	03090-88267-BQ	A-D-0.2	6												
24	UQU-65630-479	1/22/2021	37651-47492-NC	R-M-2.5	4												
25	FEO-11834-332	2/11/2022	95399-57205-HI	A-D-0.2	4												
26	TKY-71558-096	9/15/2021	24010-66714-HW	A-M-1	1												
27	OXY-65322-253	10/24/2020	07591-92789-UA	E-M-0.2	3												

## 2) Data gathering using XLOOKUP and INDEX MATCH:

As the orders tab has fields such as Customer Name, Email, Country etc. which need to be populated, we use XLOOKUP and INDEX MATCH to search this data from customers and product tabs.

XLOOKUP Formula to get Customer Name:

=XLOOKUP(orders!C2,customers!\$A\$1:\$A\$1001,customers!\$B\$1:\$B\$1001,,0)

XLOOKUP Formula to get Email:

=IF(XLOOKUP(C2,customers!\$A\$1:\$A\$1001,customers!\$C\$1:\$C\$1001,,0)=0,"",XLOOKUP(C2,customers!\$A\$1:\$A\$1001,customers!\$C\$1:\$C\$1001,,0))

XLOOKUP Formula to get Country:

=XLOOKUP(C2,customers!\$A\$1:\$A\$1001,customers!\$G\$1:\$G\$1001,,0)

Create INDEX MATCH Formula to fill Coffee Type, Roast Type, Size, Unit Price columns:

=INDEX(products!\$A\$1:\$G\$49,MATCH(orders!\$D2,products!\$A\$1:\$A\$49,0),MATCH(orders!\$I\$1,products!\$A\$1:\$G\$1,0))

To calculate Sales:

Sales = Unite Price \* Quantity

Created column coffee type name to convert the abbreviations to full names of coffee type.

=IF(I2="Rob","Robusta",IF(I2="Exc","Excelsa",IF(I2="Ara","Arabica",IF(I2="Lib","Liberica",""))))

Create column roast type name :

=IF(J2="M","Medium",IF(J2="L","Light",IF(J2="D","Dark","")))

	F	G	H	I	J	K	L	M	N	O	P	Q
Entity	Customer Name	Email	Country	Coffee Type	Roast Type	Size	Unit Price	Sales	Coffee Type Names	Roaste Type Name		
2	Aloisia Allner	aallner0@lulu.com	United States	Rob	M	1	9.95	19.9	Robusta	Medium		
5	Aloisia Allner	aallner0@lulu.com	United States	Exc	M	0.5	8.25	41.25	Excelsa	Medium		
1	Jami Redholes	jredholes2@tmall.com	United States	Ara	L	1	12.95	12.95	Arabica	Light		
2	Christoffer O' Shea		Ireland	Exc	M	1	13.75	27.5	Excelsa	Medium		
2	Christoffer O' Shea		Ireland	Rob	L	2.5	27.485	54.97	Robusta	Light		
3	Beryle Cottier		United States	Lib	D	1	12.95	38.85	Liberica	Dark		
3	Shaylynn Lobe	slobe6@nifty.com	United States	Exc	D	0.5	7.29	21.87	Excelsa	Dark		
1	Melvin Wharfe		Ireland	Lib	L	0.2	4.755	4.755	Liberica	Light		
3	Guthrey Petracci	gpetracci8@livejournal.com	United States	Rob	M	0.5	5.97	17.91	Robusta	Medium		
1	Rodger Raven	rraven9@ed.gov	United States	Rob	M	0.5	5.97	5.97	Robusta	Medium		
4	Ferrell Ferber	fferbera@businesswire.com	United States	Ara	D	1	9.95	39.8	Arabica	Dark		
5	Duky Phizackerly	dphizackerlyb@utexas.edu	United States	Exc	L	2.5	34.155	170.775	Excelsa	Light		
5	Rosaleen Scholar	rscholarc@nyu.edu	United States	Rob	M	1	9.95	49.75	Robusta	Medium		
2	Terence Vanyutin	tvanyutind@wix.com	United States	Rob	D	2.5	20.585	41.17	Robusta	Dark		
3	Patrice Trobe	ptrobe@wunderground.com	United States	Lib	D	0.2	3.885	11.655	Liberica	Dark		
5	Llywellyn Oscroft	loscroftf@ebay.co.uk	United States	Rob	M	2.5	22.885	114.425	Robusta	Medium		
6	Minni Alabaster	malabasterg@hexun.com	United States	Ara	M	0.2	3.375	20.25	Arabica	Medium		
6	Rhianon Broxup	rbroxuph@jimdo.com	United States	Ara	L	1	12.95	77.7	Arabica	Light		
4	Pall Redford	predfordi@ow.ly	Ireland	Rob	D	2.5	20.585	82.34	Robusta	Dark		
5	Aurea Corradino	acorradinoj@harvard.edu	United States	Ara	M	0.2	3.375	16.875	Arabica	Medium		
4	Aurea Corradino	acorradinoj@harvard.edu	United States	Exc	D	0.2	3.645	14.58	Excelsa	Dark		
6	Avrit Davidowsky	adavidowskyl@netvibes.com	United States	Ara	D	0.2	2.985	17.91	Arabica	Dark		
4	Annel Antuk	aantukm@kickstarter.com	United States	Rob	M	2.5	22.885	91.54	Robusta	Medium		
4	Iorgo Kleinert	ikleinertn@timesonline.co.uk	United States	Ara	D	0.2	2.985	11.94	Arabica	Dark		
1	Chrisy Blofeld	cblofeldo@amazon.co.uk	United States	Ara	M	1	11.25	11.25	Arabica	Medium		
3	Culley Farris		United States	Exc	M	0.2	4.125	12.375	Excelsa	Medium		

Format the Order Date format with month abbreviations:

A	B	C	D	E	F	G	H	I	J	K	L	M
Order ID	Order Date	Customer ID	Product ID	Quantity	Customer Name	Email	Country	Coffee Type	Roast Type	Size	Unit Price	Sales
QEV-37451-860	05-Sep-2019	17670-51384-MA	R-M-1	2	Aloisia Allner	aallner0@lulu.com	United States	Rob	M	1	9.95	
QEV-37451-860	05-Sep-2019	17670-51384-MA	E-M-0.5	5	Aloisia Allner	aallner0@lulu.com	United States	Exc	M	0.5	8.25	4
FAA-43335-268	17-Jun-2021	21125-22134-PX	A-L-1	1	Jami Redholes	jredholes2@tmall.com	United States	Ara	L	1	12.95	1
KAC-83089-793	15-Jul-2021	23806-46781-OU	E-M-1	2	Christoffer O' Shea		Ireland	Exc	M	1	13.75	
KAC-83089-793	15-Jul-2021	23806-46781-OU	R-L-2.5	2	Christoffer O' Shea		Ireland	Rob	L	2.5	27.485	5
CVP-18956-553	04-Aug-2021	86561-91660-RB	L-D-1	3	Beryle Cottier		United States	Lib	D	1	12.95	3
IPP-31994-879	21-Jan-2022	65223-29612-CB	E-D-0.5	3	Shaylynn Lobe	slobe6@nifty.com	United States	Exc	D	0.5	7.29	2
SNZ-65340-705	20-May-2022	21134-81676-FR	L-L-0.2	1	Melvin Wharfe		Ireland	Lib	L	0.2	4.755	4
EZT-46571-659	02-Jan-2019	03396-68805-ZC	R-M-0.5	3	Guthrey Petracci	gpetracci8@livejournal.com	United States	Rob	M	0.5	5.97	1
NWQ-70061-912	05-Sep-2019	61021-27840-ZN	R-M-0.5	1	Rodger Raven	rraven9@ed.gov	United States	Rob	M	0.5	5.97	
BKK-47233-845	08-Mar-2021	76239-90137-UQ	A-D-1	4	Ferrell Ferber	fferbera@businesswire.com	United States	Ara	D	1	9.95	
VQR-01002-970	28-Oct-2020	49315-21985-BB	E-L-2.5	5	Duky Phizackerly	dphizackerlyb@utexas.edu	United States	Exc	L	2.5	34.155	170
SZW-48378-399	02-Jul-2022	34136-36674-OM	R-M-1	5	Rosaleen Scholar	rscholarc@nyu.edu	United States	Rob	M	1	9.95	4
ITA-87418-783	22-May-2020	39396-12890-PE	R-D-2.5	2	Terence Vanyutin	tvanyutind@wix.com	United States	Rob	D	2.5	20.585	4
GNZ-46006-527	05-Apr-2022	95875-73336-RG	L-D-0.2	3	Patrice Trobe	ptrobe@wunderground.com	United States	Lib	D	0.2	3.885	11
FYQ-78248-319	07-Jun-2022	25473-43727-BY	R-M-2.5	5	Llywellyn Oscroft	loscroftf@ebay.co.uk	United States	Rob	M	2.5	22.885	114
VAU-44387-624	20-Mar-2019	99643-51048-IQ	A-M-0.2	6	Minni Alabaster	malabasterg@hexun.com	United States	Ara	M	0.2	3.375	2
RDW-33155-159	19-Oct-2019	62173-15287-CU	A-L-1	6	Rhianon Broxup	rbroxuph@jimdo.com	United States	Ara	L	1	12.95	
TDZ-59011-211	13-Jun-2019	57611-05522-ST	R-D-2.5	4	Pall Redford	predfordi@ow.ly	Ireland	Rob	D	2.5	20.585	8
IDU-25793-399	04-Dec-2020	76664-37050-DT	A-M-0.2	5	Aurea Corradino	acorradinoj@harvard.edu	United States	Ara	M	0.2	3.375	16
IDU-25793-399	04-Dec-2020	76664-37050-DT	E-D-0.2	4	Aurea Corradino	acorradinoj@harvard.edu	United States	Exc	D	0.2	3.645	1
NUO-20013-488	04-Dec-2020	03090-88267-BQ	A-D-0.2	6	Avrit Davidowsky	adavidowskyl@netvibes.com	United States	Ara	D	0.2	2.985	1
UQU-65630-479	22-Jan-2021	76351-47492-NC	R-M-2.5	4	Annel Antuk	aantukm@kickstarter.com	United States	Rob	M	2.5	22.885	9
FEQ-11834-332	11-Feb-2022	95399-57205-HI	A-D-0.2	4	Iorgo Kleinert	ikleinertn@timesonline.co.uk	United States	Ara	D	0.2	2.985	1
TKY-71558-096	15-Sep-2021	24010-66714-HW	A-M-1	1	Chrisy Blofeld	cblofeldo@amazon.co.uk	United States	Ara	M	1	11.25	1
OXY-65322-253	24-Oct-2020	07591-92789-UA	E-M-0.2	3	Culley Farris		United States	Exc	M	0.2	4.125	12

Formatted Size column to show metric and converted unite price and sales into currency:

E	F	G	H	I	J	K	L	M	N	O	P	Q
1	ntity	Customer Name	Email	Country	Coffee Type	Roast Type	Size	Unit Price	Sales	Coffee Type Names	Roaste Type Name	
2	2	Aloisia Allner	aallner0@lulu.com	United States	Rob	M	1.0 kg	\$9.95	\$19.90	Robusta	Medium	
3	5	Aloisia Allner	aallner0@lulu.com	United States	Exc	M	0.5 kg	\$8.25	\$41.25	Excelsa	Medium	
4	1	Jami Redholes	jredholes2@tmail.com	United States	Ara	L	1.0 kg	\$12.95	\$12.95	Arabica	Light	
5	2	Christoffer O' Shea		Ireland	Exc	M	1.0 kg	\$13.75	\$27.50	Excelsa	Medium	
6	2	Christoffer O' Shea		Ireland	Rob	L	2.5 kg	\$27.49	\$54.97	Robusta	Light	
7	3	Beryle Cottier		United States	Lib	D	1.0 kg	\$12.95	\$38.85	Liberica	Dark	
8	3	Shaylynn Lobe	slobe6@nifty.com	United States	Exc	D	0.5 kg	\$7.29	\$21.87	Excelsa	Dark	
9	1	Melvin Wharfe		Ireland	Lib	L	0.2 kg	\$4.76	\$4.76	Liberica	Light	
10	3	Guthrey Petracci	gpetracci8@livejournal.com	United States	Rob	M	0.5 kg	\$5.97	\$17.91	Robusta	Medium	
11	1	Rodger Raven	rraven9@ed.gov	United States	Rob	M	0.5 kg	\$5.97	\$5.97	Robusta	Medium	
12	4	Ferrell Ferber	fferbera@businesswire.com	United States	Ara	D	1.0 kg	\$9.95	\$39.80	Arabica	Dark	
13	5	Duky Phizackerly	dphizackerlyb@utexas.edu	United States	Exc	L	2.5 kg	\$34.16	\$170.78	Excelsa	Light	
14	5	Rosaleen Scholar	rscholarc@nyu.edu	United States	Rob	M	1.0 kg	\$9.95	\$49.75	Robusta	Medium	
15	2	Terence Vanyutin	tvanyutind@wix.com	United States	Rob	D	2.5 kg	\$20.59	\$41.17	Robusta	Dark	
16	3	Patrice Trobe	ptrobee@wunderground.com	United States	Lib	D	0.2 kg	\$3.89	\$11.66	Liberica	Dark	
17	5	Llywellyn Oscroft	loscroftf@ebay.co.uk	United States	Rob	M	2.5 kg	\$22.89	\$114.43	Robusta	Medium	
18	6	Minni Alabaster	malabasterg@hexun.com	United States	Ara	M	0.2 kg	\$3.38	\$20.25	Arabica	Medium	
19	6	Rhianon Broxup	rbroxuph@jimdo.com	United States	Ara	L	1.0 kg	\$12.95	\$77.70	Arabica	Light	
20	4	Pall Redford	predfordi@ow.ly	Ireland	Rob	D	2.5 kg	\$20.59	\$82.34	Robusta	Dark	
21	5	Aurea Corradino	acorradinoj@harvard.edu	United States	Ara	M	0.2 kg	\$3.38	\$16.88	Arabica	Medium	
22	4	Aurea Corradino	acorradinoj@harvard.edu	United States	Exc	D	0.2 kg	\$3.65	\$14.58	Excelsa	Dark	
23	6	Avrit Davidowsky	adavidowskyk@netvibes.com	United States	Ara	D	0.2 kg	\$2.99	\$17.91	Arabica	Dark	
24	4	Annabel Antuk	aantukm@kickstarter.com	United States	Rob	M	2.5 kg	\$22.89	\$91.54	Robusta	Medium	
25	4	Iorgo Kleinert	ikleinertn@timesonline.co.uk	United States	Ara	D	0.2 kg	\$2.99	\$11.94	Arabica	Dark	
26	1	Chris Blofeld	cblofeldo@amazon.co.uk	United States	Ara	M	1.0 kg	\$11.25	\$11.25	Arabica	Medium	
27	3	Culley Farris		United States	Exc	M	0.2 kg	\$4.13	\$12.38	Excelsa	Medium	

Converted orders sheet into table:

	A	B	C	D	E	F	G	H	I	J	K	L
1	Order ID	Order Date	Customer ID	Product ID	Quantity	Customer Name	Email	Country	Coffee Type	Roast Type	Size	Unit Price
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3	QEV-37451-860	05-Sep-2019	17670-51384-MA	E-M-0.5	5	Aloisia Allner	aallner0@lulu.com	United States	Exc	M	0.5 kg	
4	FAA-43335-268	17-Jun-2021	21125-22134-PX	A-L-1	1	Jami Redholes	jredholes2@tmail.com	United States	Ara	L	1.0 kg	
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8	IPP-31994-879	21-Jan-2022	65223-29612-CB	E-D-0.5	3	Shaylynn Lobe	slobe6@nifty.com	United States	Exc	D	0.5 kg	
9	SNZ-65340-705	20-May-2022	21134-81676-FR	L-L-0.2	1	Melvin Wharfe		Ireland	Lib	L	0.2 kg	
10	EZT-46571-659	02-Jan-2019	03396-68805-ZC	R-M-0.5	3	Guthrey Petracci	gpetracci8@livejournal.com	United States	Rob	M	0.5 kg	
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13	VQR-01002-970	28-Oct-2020	49315-21985-BB	E-L-2.5	5	Duky Phizackerly	dphizackerlyb@utexas.edu	United States	Exc	L	2.5 kg	
14	SZW-48378-399	02-Jul-2022	34136-36674-OM	R-M-1	5	Rosaleen Scholar	rscholarc@nyu.edu	United States	Rob	M	1.0 kg	
15	ITA-87418-783	22-May-2020	39396-12890-PE	R-D-2.5	2	Terence Vanyutin	tvanyutind@wix.com	United States	Rob	D	2.5 kg	
16	GNZ-46006-527	05-Apr-2022	95875-73336-RG	L-D-0.2	3	Patrice Trobe	ptrobee@wunderground.com	United States	Lib	D	0.2 kg	
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19	RDW-33155-159	19-Oct-2019	62173-15287-CU	A-L-1	6	Rhianon Broxup	rbroxuph@jimdo.com	United States	Ara	L	1.0 kg	
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21	IDU-25793-399	04-Dec-2020	76664-37050-DT	A-M-0.2	5	Aurea Corradino	acorradinoj@harvard.edu	United States	Ara	M	0.2 kg	
22	IDU-25793-399	04-Dec-2020	76664-37050-DT	E-D-0.2	4	Aurea Corradino	acorradinoj@harvard.edu	United States	Exc	D	0.2 kg	
23	NUO-20013-488	04-Dec-2020	03090-88267-BQ	A-D-0.2	6	Avrit Davidowsky	adavidowskyk@netvibes.com	United States	Ara	D	0.2 kg	
24	UQU-65630-479	22-Jan-2021	37651-47492-NC	R-M-2.5	4	Annabel Antuk	aantukm@kickstarter.com	United States	Rob	M	2.5 kg	
25	FE0-11834-332	11-Feb-2022	95399-57205-HI	A-D-0.2	4	Iorgo Kleinert	ikleinertn@timesonline.co.uk	United States	Ara	D	0.2 kg	
26	TKY-71558-096	15-Sep-2021	24010-66714-HW	A-M-1	1	Chris Blofeld	cblofeldo@amazon.co.uk	United States	Ara	M	1.0 kg	
27	OXY-65322-253	24-Oct-2020	07591-92789-UA	E-M-0.2	3	Culley Farris		United States	Exc	M	0.2 kg	

orders

customers

products

+

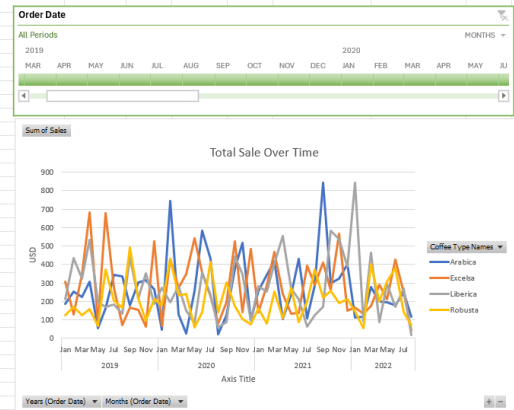
Accessibility: Investigate

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## Data Analysis:

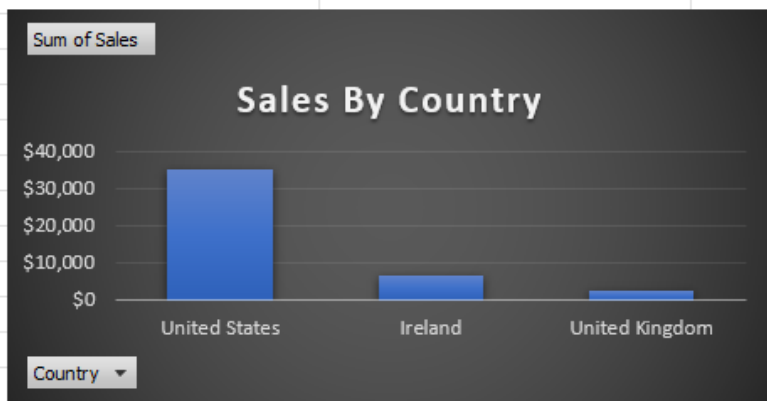
### 1) Total Sales Pivot Table

Years (Order Date)	Months (Order Date)	Arabica	Excelsa	Liberica	Robusta	Grand Total
2019	Jan	187	306	213	123	829
	Feb	252	129	434	172	987
	Mar	225	349	321	126	1,021
	Apr	307	681	534	159	1,681
	May	54	83	194	68	399
	Jun	163	678	171	372	1,385
	Jul	345	274	184	201	1,004
	Aug	335	71	134	166	706
	Sep	179	166	439	493	1,277
	Oct	302	154	216	214	885
	Nov	313	63	351	96	823
	Dec	266	527	187	211	1,190
2019 Total		2,927	3,481	3,378	2,401	12,187
2020	Jan	47	66	275	179	567
	Feb	745	429	194	430	1,798
	Mar	130	271	281	232	915
	Apr	27	347	148	240	762
	May	255	542	83	59	939
	Jun	585	357	355	141	1,438
	Jul	431	227	236	415	1,309
	Aug	23	78	61	140	300
	Sep	126	195	89	303	713
	Oct	376	523	441	174	1,515
	Nov	515	143	347	104	1,109
	Dec	96	485	94	77	752
2020 Total		3,356	3,663	2,604	2,493	12,118
2021	Jan	258	140	280	160	838
	Feb	342	284	252	81	959
	Mar	418	468	405	253	1,545
	Apr	102	242	555	106	1,006
	May	235	133	267	273	908
	Jun	430	136	210	88	865
	Jul	109	394	61	199	763
	Aug	288	289	126	374	1,076
	Sep	841	410	171	221	1,644
	Oct	299	260	585	256	1,400
	Nov	323	566	538	189	1,616
	Dec	399	148	388	212	1,148
2021 Total		4,046	3,470	3,837	2,414	13,766
2022	Jan	113	166	844	147	1,269
	Feb	115	134	91	54	394
	Mar	278	175	463	400	1,315
	Apr	198	290	89	200	776
	May	193	212	292	304	1,002
	Jun	180	426	170	379	1,155
	Jul	247	247	271	142	907
	Aug	116	41	16	71	244
2022 Total		1,440	1,692	2,235	1,697	7,063
Grand Total		11,768	12,306	12,054	9,005	45,134



### 2) Sales by Country

Country	Sum of Sales
United States	\$35,639
Ireland	\$6,697
United Kingdom	\$2,799
Grand Total	\$45,134



### 3)Top 5 Customers

