

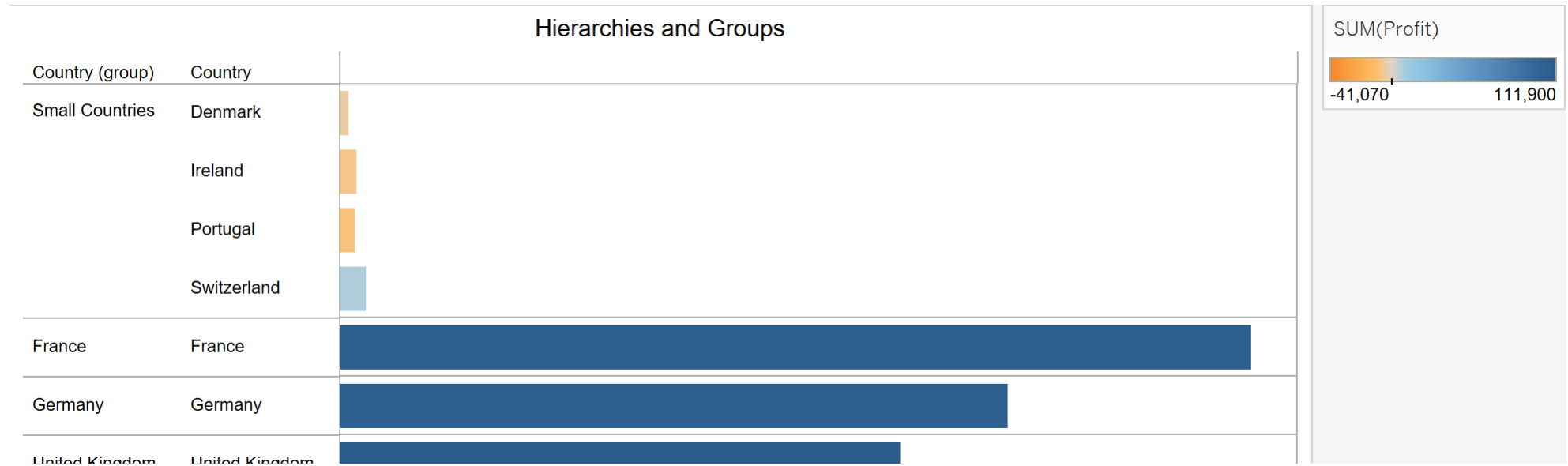
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# Tableau for Data Visualization

Emanuele Farotti – Exercises

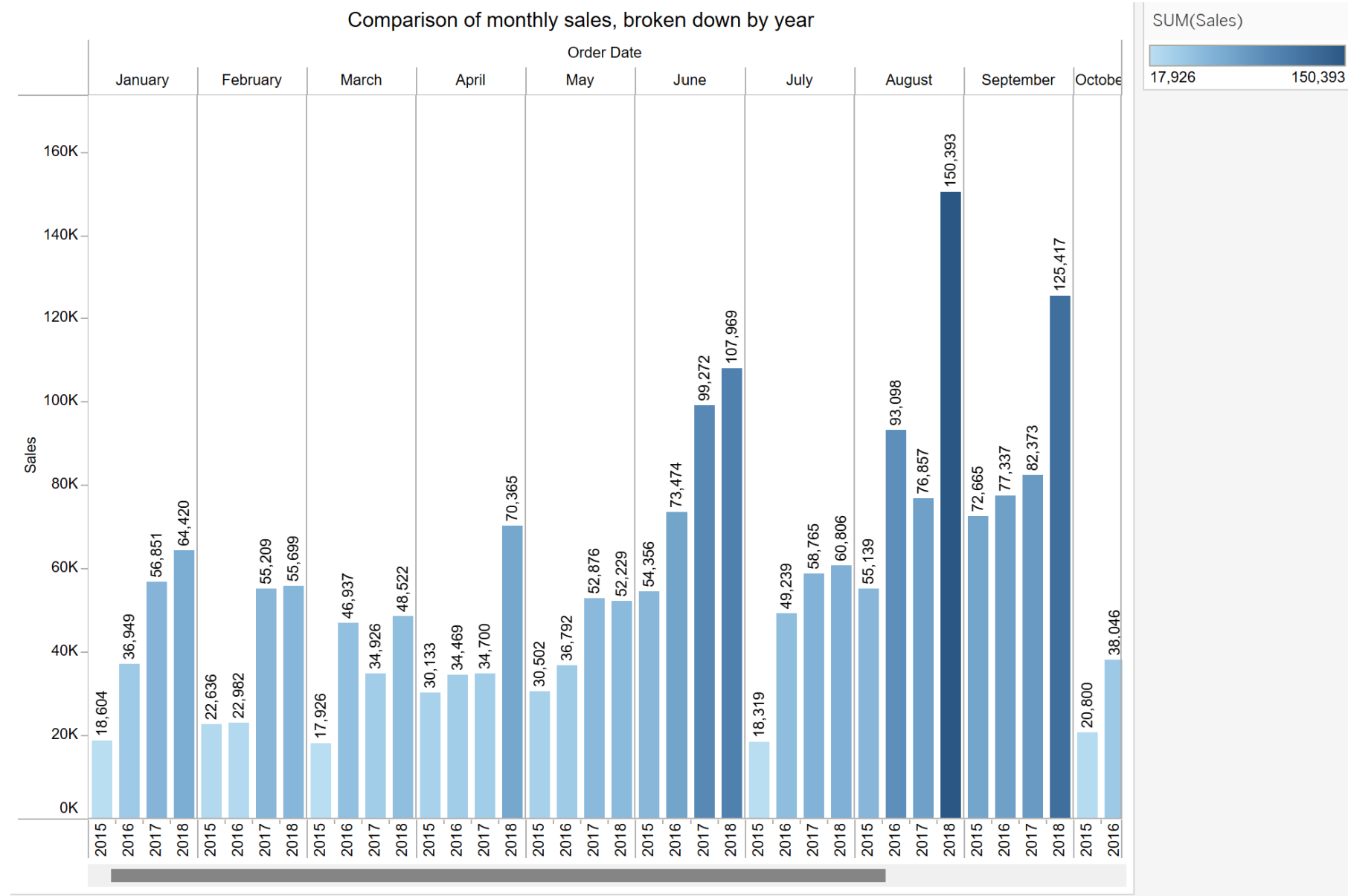
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# Exercise 1



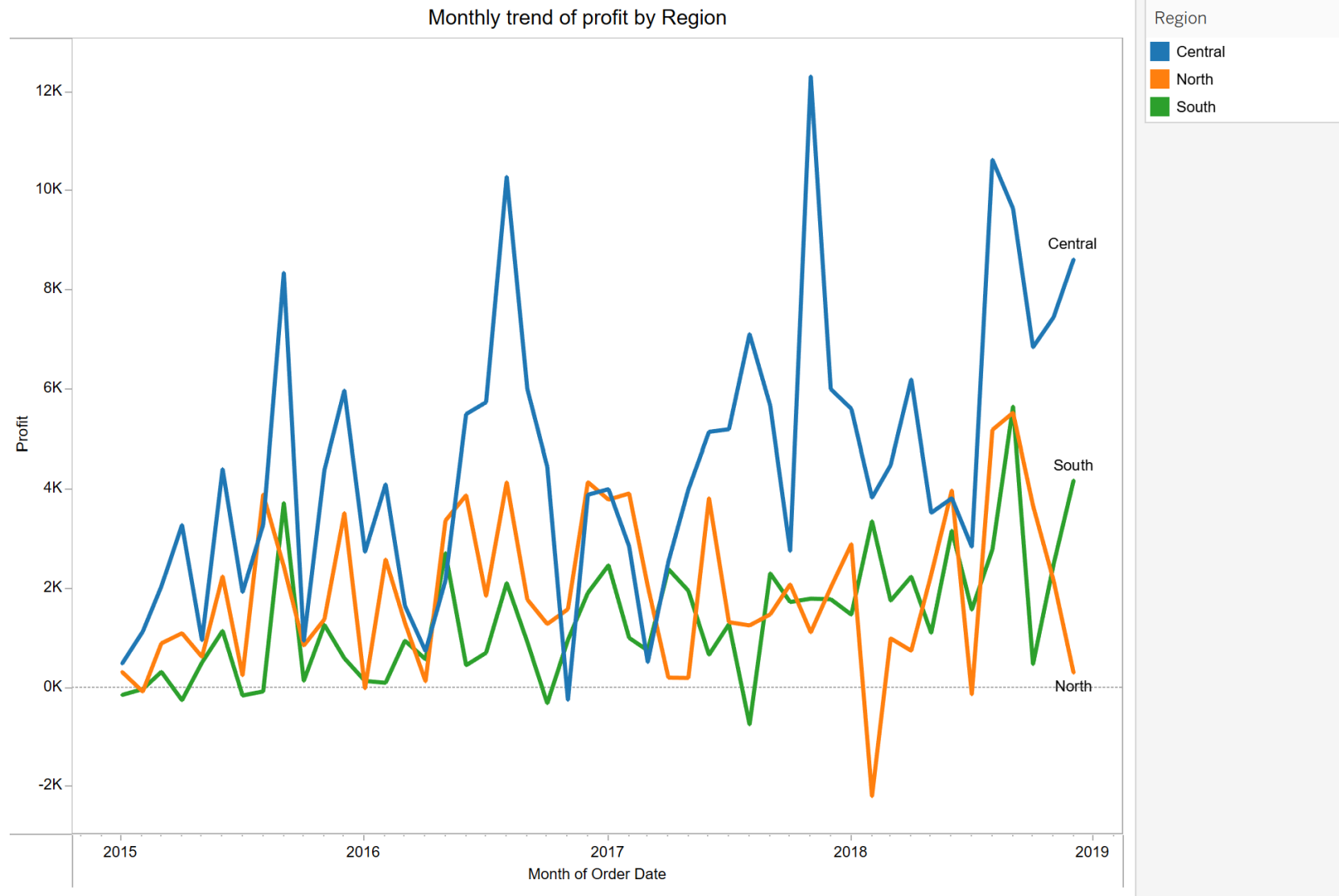
1. Build a bar chart that shows **Sales** for each **Country** and color it for the **Total Profit**
2. Group the following countries Switzerland, Ireland, Portugal e Denmark in a single member called **Small countries**.
3. Create a **hierarchy** made of the new group (father) and the original dimension Country
4. Order the newly created group to have **Small countries as first in the list**, while the **original country** column is based on **Sales**.

# EXERCISE 2



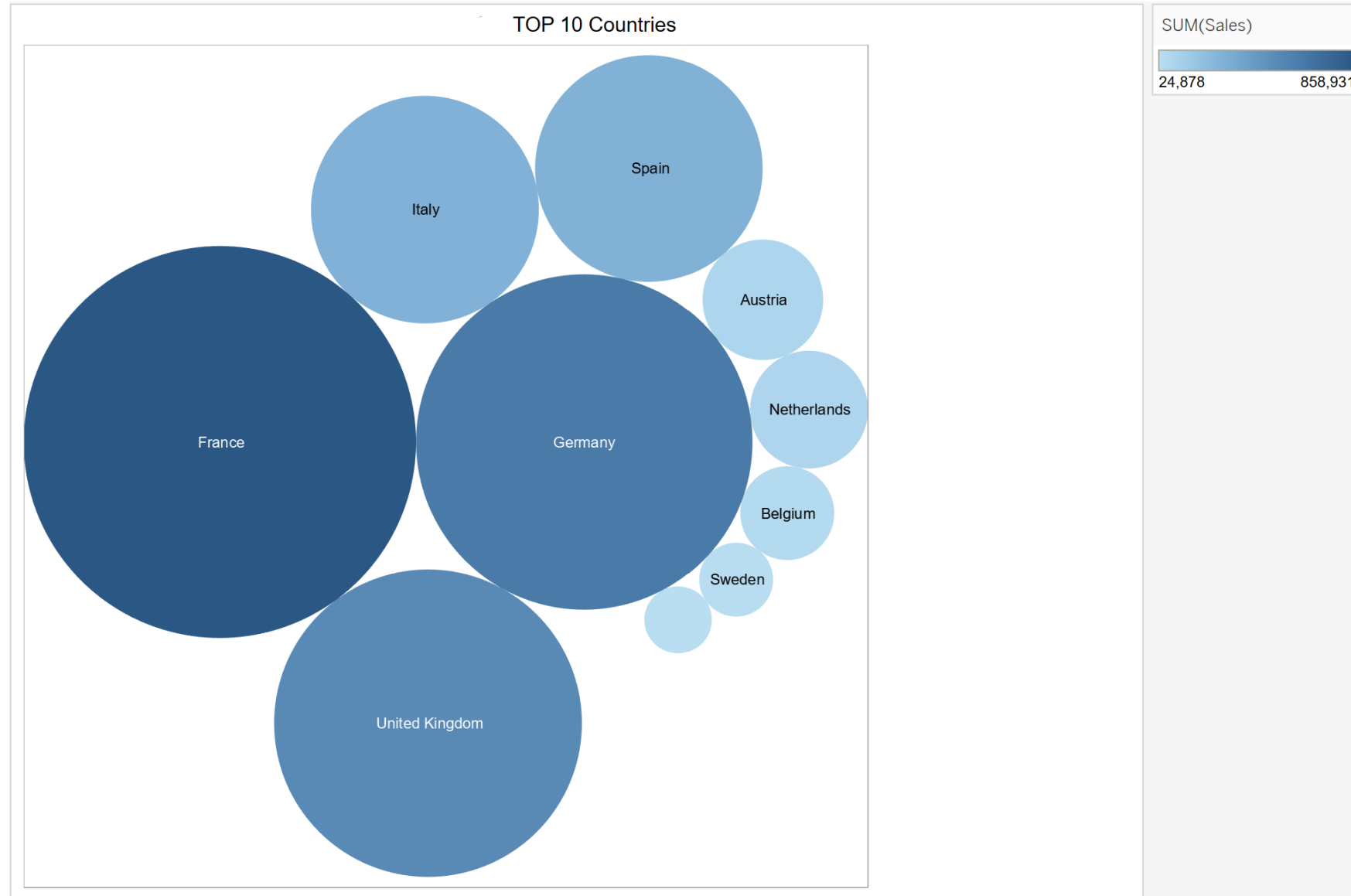
Comparison of monthly sales split by Year

# EXERCISE 3



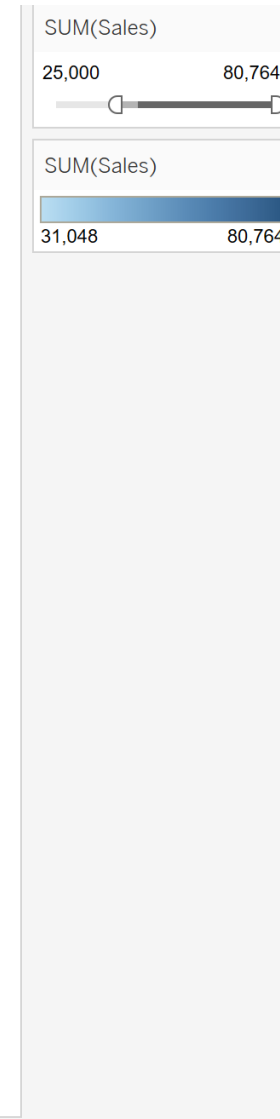
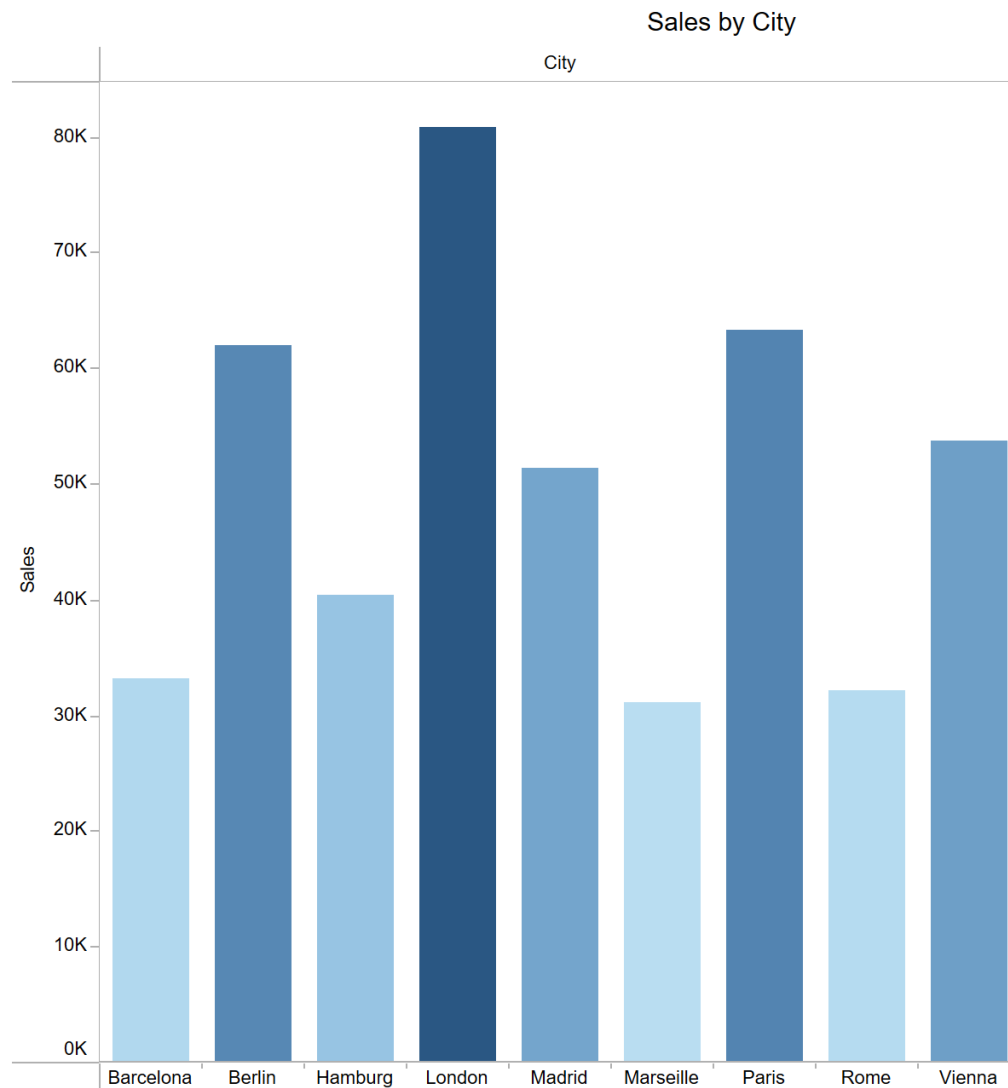
Monthly Profit  
trend split by  
Region

# Exercices 4



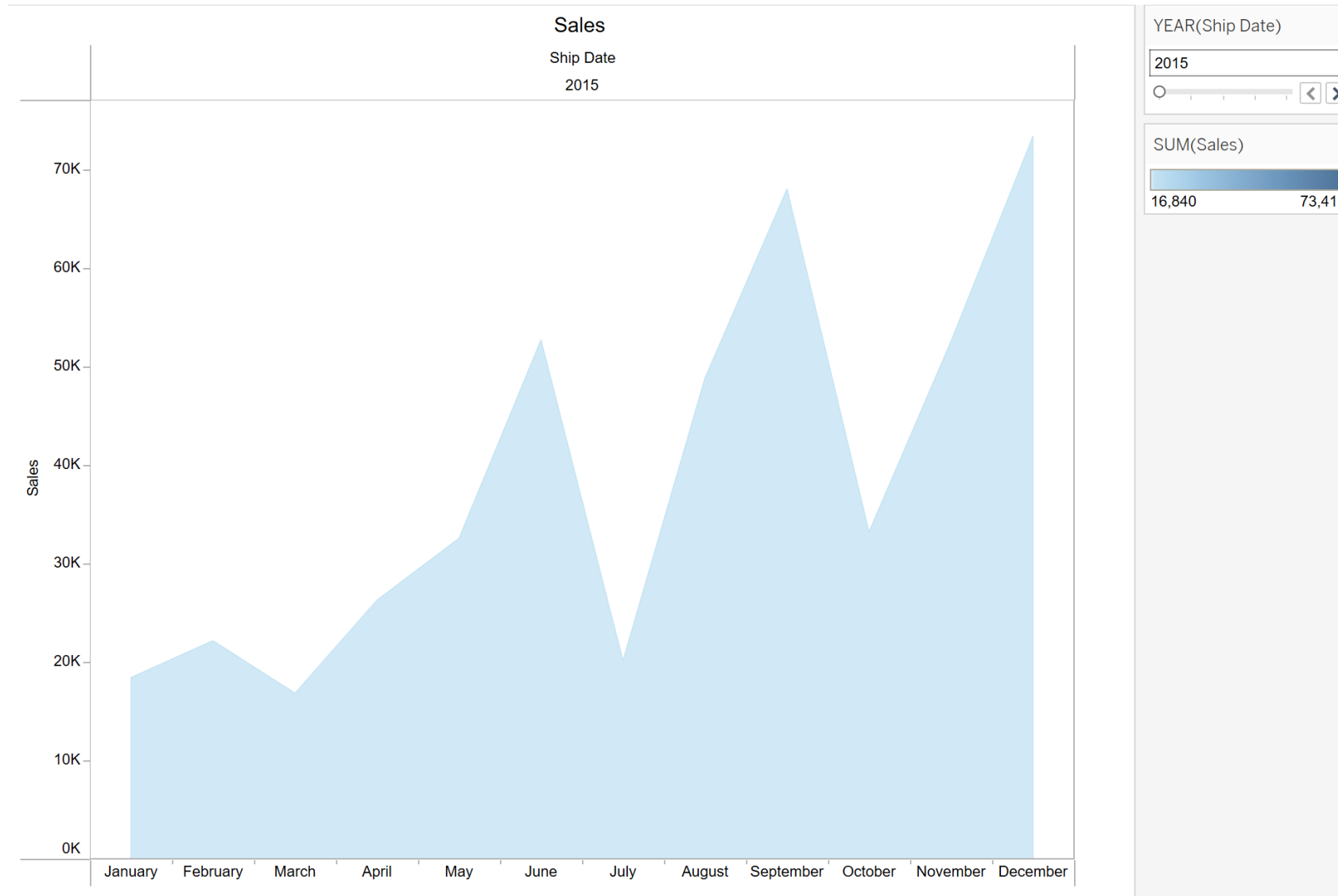
TOP 10 Countries for Sales  
sort descending by Sales

# Exercise 5



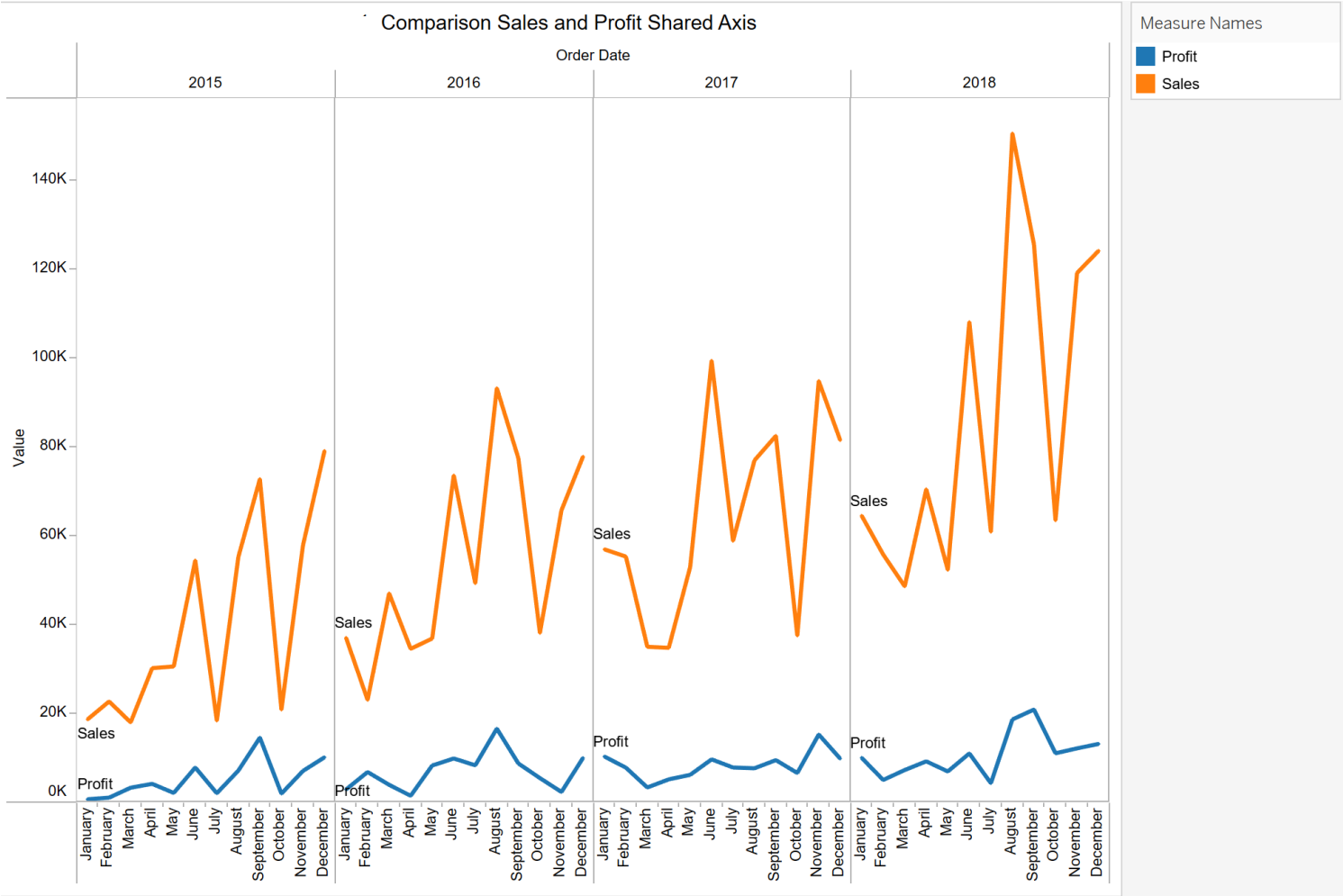
Sum of Sales by  
City with slider  
selector

# Exercise 6



Sales trend by **Delivery date** with slider year selector

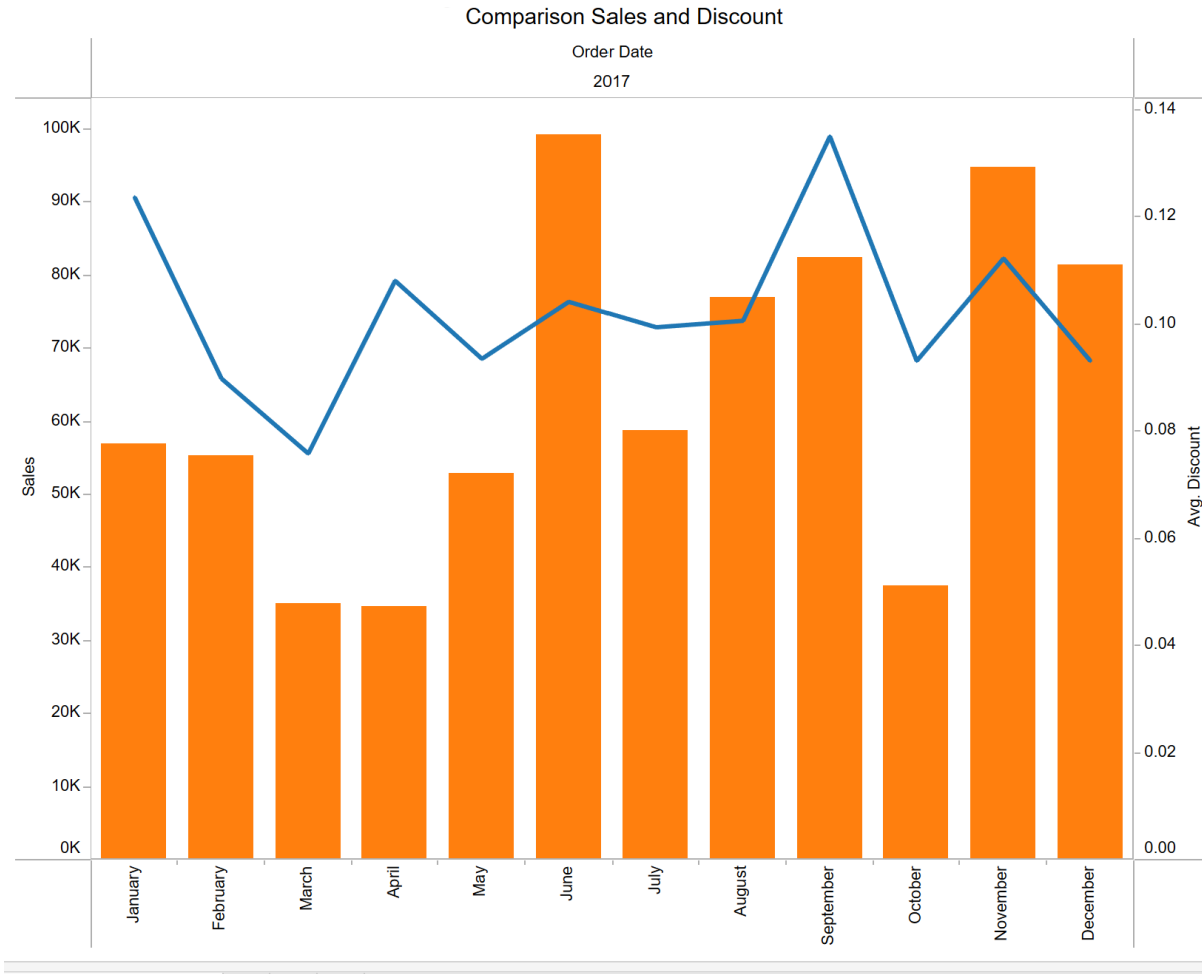
# EXERCISE 7



Comparison **Sales** and **Profit** split by  
Year and Month with label showing  
the name of the measures at the  
Start of each Line



# EXERCISE 8



Compare **Sales** vs **Discount** by Month for Year 2017 displaying Sales as a Bar and Discount as a Line

# EXERCISE 9

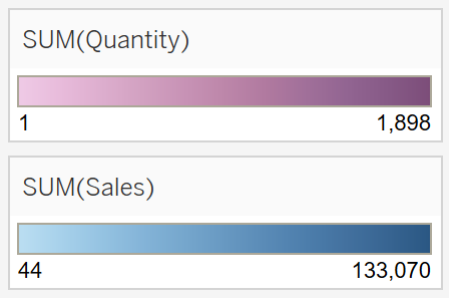
		Simple CrossTab																
Category	Sub-Category	Ship Mode / Region																
		First Class				Same Day				Second Class				Standard Class				Grand Total
		Central	North	South	Total	Central	North	South	Total	Central	North	South	Total	Central	North	South	Total	
Furniture	Bookcases	30,604	15,670	14,016	60,290	13,185	4,543	7,942	25,670	36,507	9,409	15,255	61,171	116,052	52,735	47,608	216,395	363,526
	Chairs	17,854	4,380	1,791	24,025	9,431	3,085	926	13,442	31,794	11,003	3,798	46,595	107,080	20,719	17,121	144,920	228,981
	Furnishings	3,613	1,228	1,264	6,106	3,074	671	1,998	5,743	8,927	2,511	2,415	13,853	32,855	5,093	17,566	55,513	81,215
	Tables	11,930	5,220	597	17,747	176	508		685	21,255	13,673	4,057	38,985	26,022	11,456	10,487	47,965	105,381
	Total	64,001	26,498	17,668	108,168	25,866	8,807	10,866	45,539	98,483	36,596	25,524	160,604	282,008	90,002	92,782	464,792	779,103
Office Supplies	Appliances	17,992	8,677	16,731	43,400	11,754	4,447	3,248	19,449	33,853	21,658	15,680	71,191	76,942	23,053	41,405	141,400	275,439
	Art	14,357	5,239	5,081	24,677	7,936	1,619	1,432	10,987	17,102	5,665	7,805	30,572	56,488	18,093	19,271	93,853	160,088
	Binders	10,073	3,444	2,255	15,772	2,572	1,616	703	4,890	10,668	5,400	4,137	20,205	38,052	8,580	12,263	58,896	99,763
	Envelopes	2,022	1,568	1,887	5,477	1,378	631	349	2,358	4,572	1,678	2,151	8,401	13,428	6,583	3,877	23,888	40,124
	Fasteners	2,159	753	495	3,407	420	129	191	739	2,938	727	411	4,077	7,016	2,749	2,343	12,108	20,330
	Labels	998	544	605	2,147	498	140	44	682	1,970	526	623	3,120	5,686	1,906	2,103	9,695	15,645
	Paper	4,880	1,064	2,099	8,043	1,807	119	1,162	3,088	3,930	1,239	1,878	7,048	13,311	4,554	6,407	24,272	42,451
	Storage	27,310	8,412	12,428	48,150	11,241	1,222	2,622	15,085	32,800	14,651	15,903	63,353	130,865	46,133	36,097	213,096	339,684
	Supplies	4,380	1,560	1,652	7,592	1,016	336	357	1,709	7,635	2,879	2,532	13,047	17,613	6,441	6,381	30,435	52,783
	Total	84,171	31,261	43,233	158,665	38,622	10,259	10,108	58,988	115,468	54,423	51,121	221,012	359,401	118,094	130,147	607,642	1,046,307
Technology	Accessories	13,760	3,500	5,878	23,138	4,900	811	1,686	7,398	14,287	5,257	5,162	24,706	63,125	19,560	25,146	107,832	163,073
	Copiers	23,913	6,554	12,192	42,660	9,176	8,134	3,145	20,455	42,250	22,338	16,947	81,535	133,070	39,910	47,498	220,478	365,129
	Machines	22,455	5,321	6,071	33,847	6,657	287	1,153	8,097	23,503	14,760	4,128	42,391	82,975	36,011	19,843	138,829	223,165
	Phones	31,988	3,526	10,868	46,381	15,669	6,908	1,513	24,090	42,347	14,934	13,964	71,245	122,455	61,822	35,319	219,596	361,312
	Total	92,117	18,900	35,009	146,026	36,401	16,141	7,498	60,040	122,387	57,289	40,201	219,877	401,626	157,304	127,806	686,736	1,112,679
Grand Total		240,289	76,659	95,910	412,859	100,889	35,207	28,471	164,567	336,339	148,308	116,846	601,494	1,043,035	365,400	350,734	1,759,169	2,938,089

Display a Crosstab showing the **SUM(Sales)** split by Category and Sub-category and Ship Mode and Region. Make sure to add all Subtotal and Grand Totals

# EXERCISE 10

		Highlight																			
		Ship Mode / Region																			
Category	Sub-Category	Central		First Class North		South		Central		Same Day North		South		Central		North		South		Central	
		Quantity	Sales	Quantity	Sales	Quantity	Sales	Quantity	Sales	Quantity	Sales	Quantity	Sales	Quantity	Sales	Quantity	Sales	Quantity	Sales	Quantity	Sales
Furniture	Bookcases	148	30,604	67	15,670	60	14,016	69	13,185	31	4,543	22	7,942	195	36,507	54	9,409	72	15,255	595	#####
	Chairs	153	17,854	36	4,380	43	1,791	55	9,431	21	3,085	12	926	203	31,794	95	11,003	62	3,798	796	#####
	Furnishings	83	3,613	58	1,228	28	1,264	51	3,074	35	671	35	1,998	201	8,927	83	2,511	50	2,415	624	32,855
	Tables	41	11,930	7	5,220	5	597	1	176	2	508			62	21,255	39	13,673	14	4,057	98	26,022
Office Supplies	Appliances	99	17,992	40	8,677	64	16,731	56	11,754	14	4,447	6	3,248	160	33,853	65	21,658	44	15,680	351	76,942
	Art	501	14,357	173	5,239	172	5,081	234	7,936	61	1,619	40	1,432	584	17,102	211	5,665	235	7,805	1,898	56,488
	Binders	504	10,073	175	3,444	120	2,255	140	2,572	60	1,616	50	703	530	10,668	232	5,400	201	4,137	1,871	38,052
	Envelopes	97	2,022	79	1,568	74	1,887	54	1,378	14	631	11	349	200	4,572	74	1,678	59	2,151	519	13,428
	Fasteners	152	2,159	75	753	42	495	35	420	14	129	13	191	240	2,938	62	727	31	411	526	7,016
	Labels	107	998	58	544	65	605	53	498	27	140	5	44	225	1,970	56	526	63	623	629	5,686
	Paper	188	4,880	45	1,064	61	2,099	58	1,807	10	119	44	1,162	155	3,930	56	1,239	67	1,878	530	13,311
	Storage	374	27,310	118	8,412	177	12,428	143	11,241	36	1,222	37	2,622	461	32,800	218	14,651	255	15,903	1,763	#####
	Supplies	137	4,380	48	1,560	54	1,652	40	1,016	10	336	13	357	261	7,635	102	2,879	71	2,532	605	17,613
Technology	Accessories	149	13,760	38	3,500	43	5,878	44	4,900	7	811	9	1,686	172	14,287	73	5,257	72	5,162	669	63,125
	Copiers	135	23,913	41	6,554	63	12,192	42	9,176	31	8,134	12	3,145	194	42,250	84	22,338	64	16,947	636	#####
	Machines	131	22,455	25	5,321	46	6,071	37	6,657	3	287	10	1,153	176	23,503	100	14,760	34	4,128	609	82,975
	Phones	205	31,988	38	3,526	76	10,868	66	15,669	17	6,908	14	1,513	239	42,347	94	14,934	71	13,964	752	#####

Display a Crosstab showing **Sales** and **Quantity** split by Category and Sub-category and Ship Mode and Region. Make sure the two measures are applying to different colour

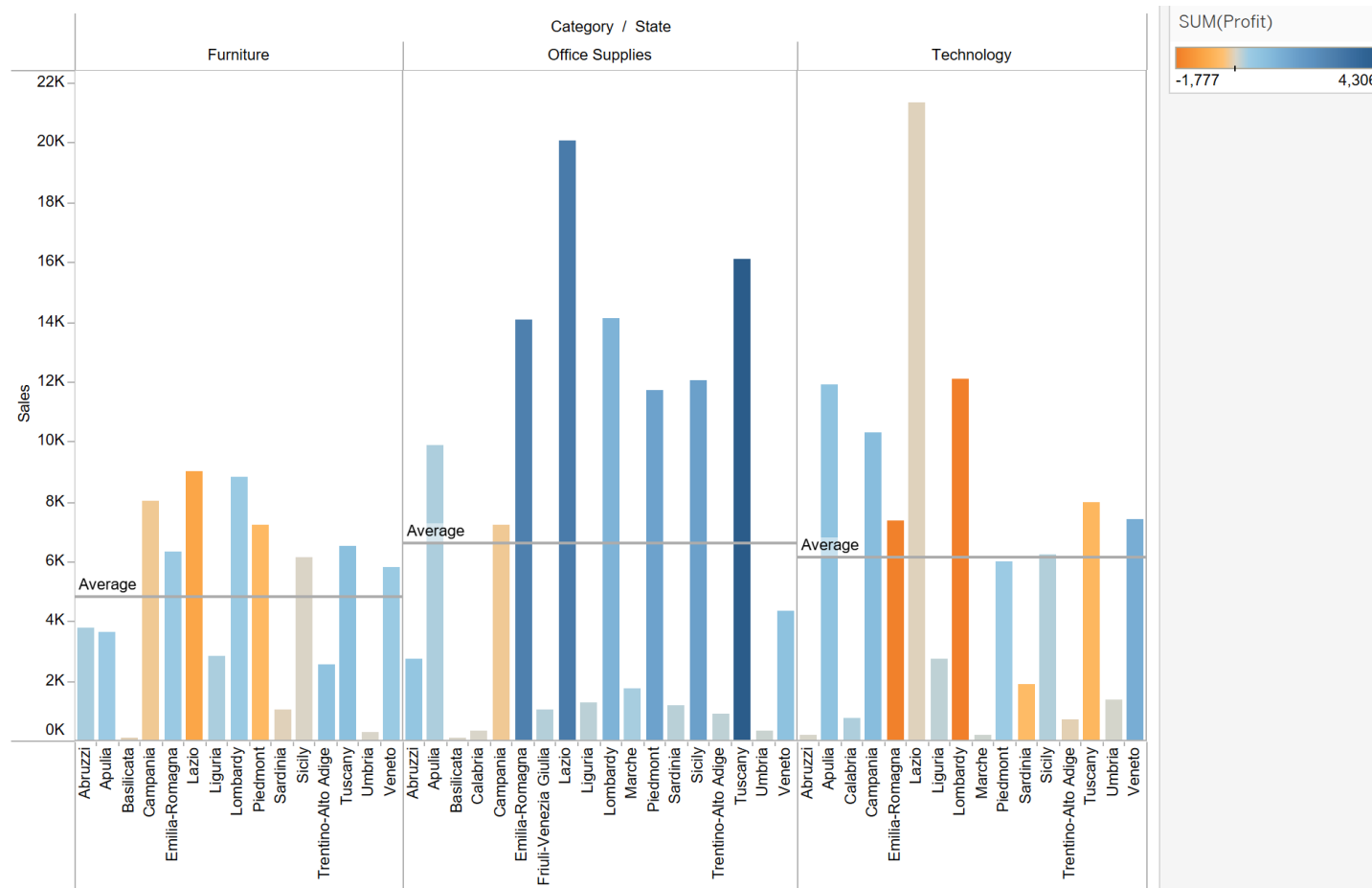


# EXERCISE 11



Create a **Scatter Plot** that compares Profit and Sales at the level Order ID with marks color by Category, shaped by Segment, and size by AVG(Discount). Make sure to place all the remaining dimensions in tooltips and add an Annotation as you can see in the picture annotate the outmost top-right corner.

# EXERCISE 12



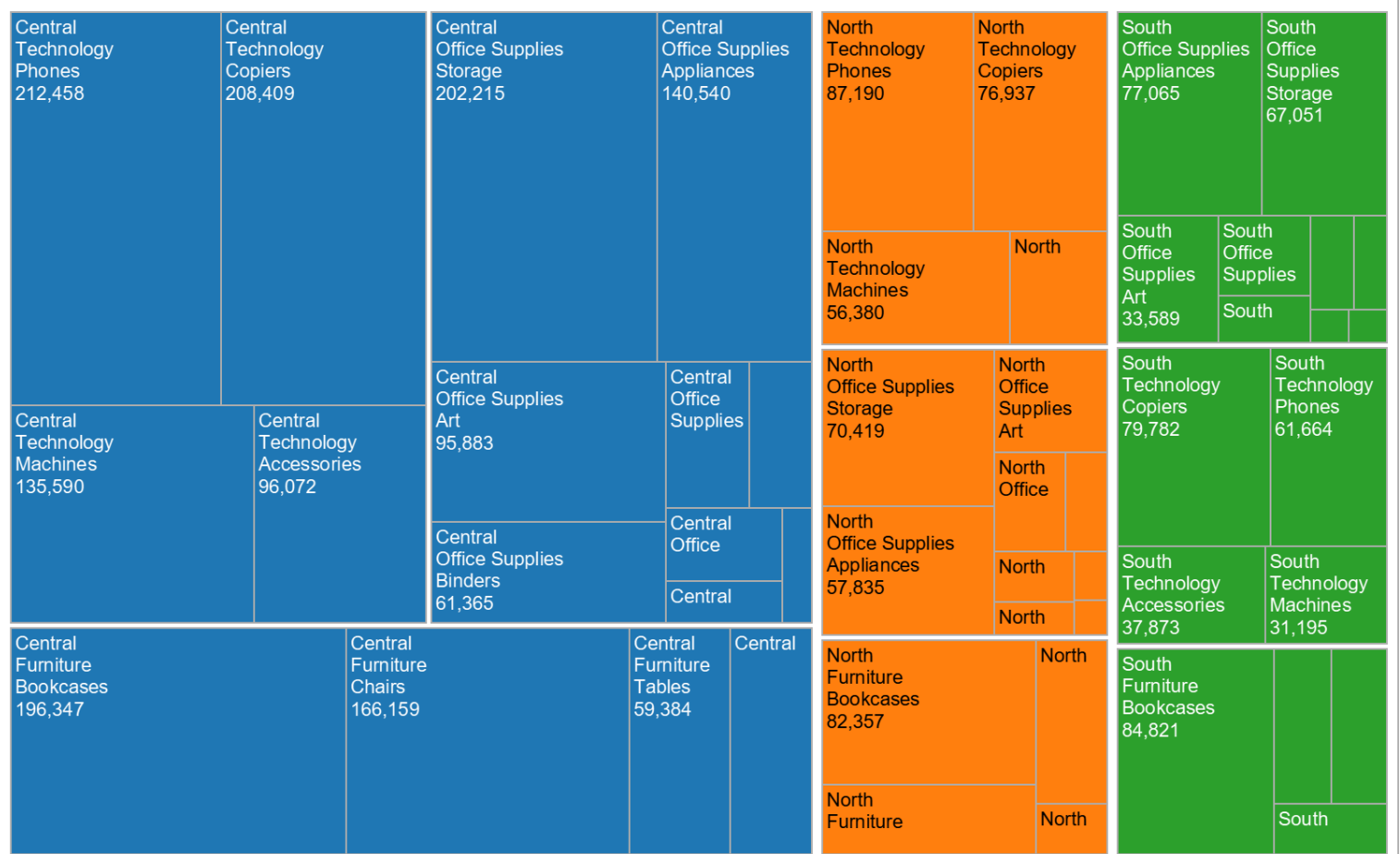
Show a bar chart of Sales split by Category and State and color by Profit. Add a reference line for each Category showing the **AVG of Sales**.

Data show only data for **Italy**



# EXERCISE 13

TreeMap



Region

- Central
- North
- South

Highlight Sub-Category

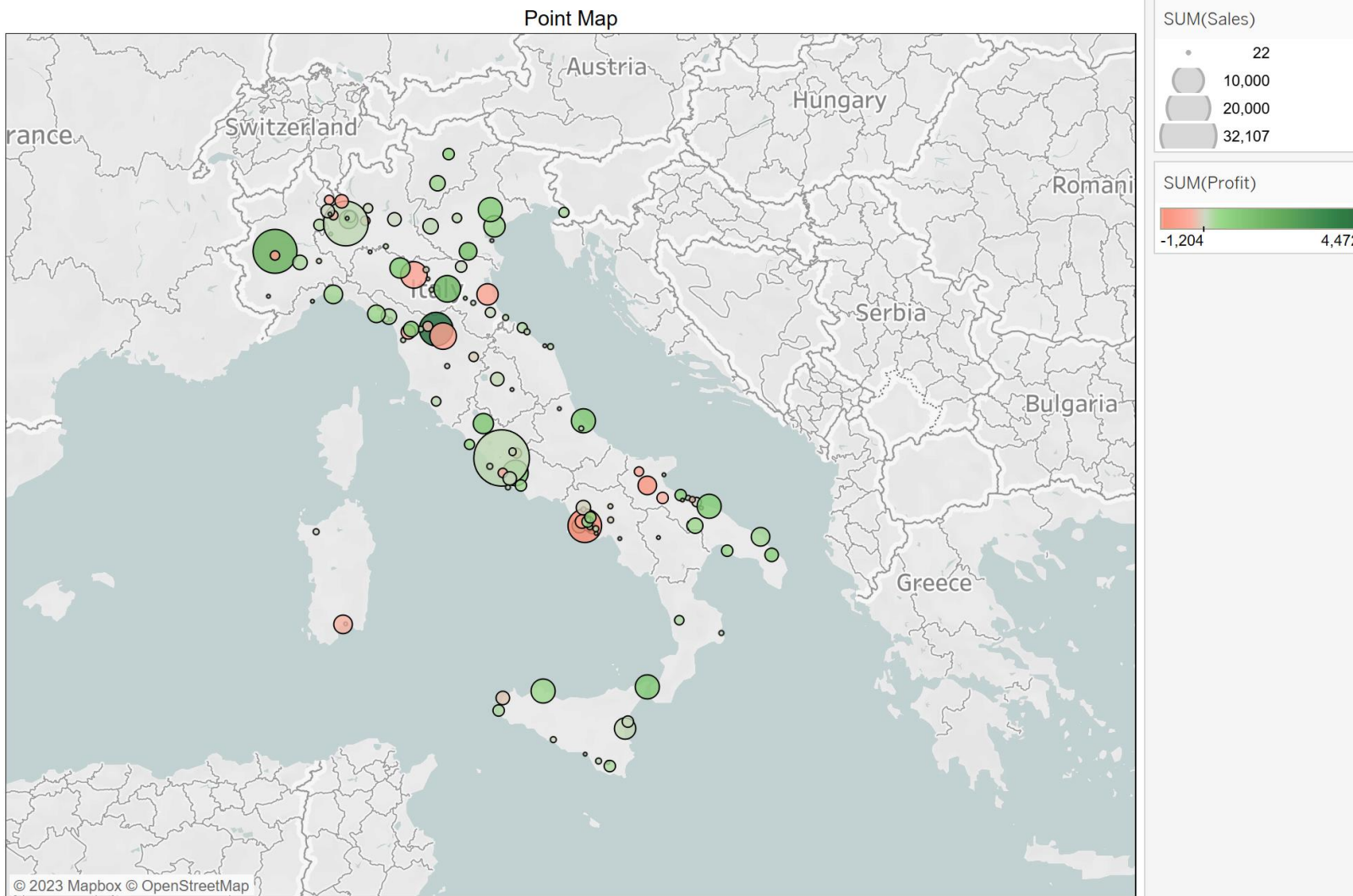
Highlight Sub-Category

Show a tree map showing **Sales** split by **Region/Category** and **Sub-Category**  
Activate the **Highlighter** functionality on **Sub-Category**.





# EXERCISE 14

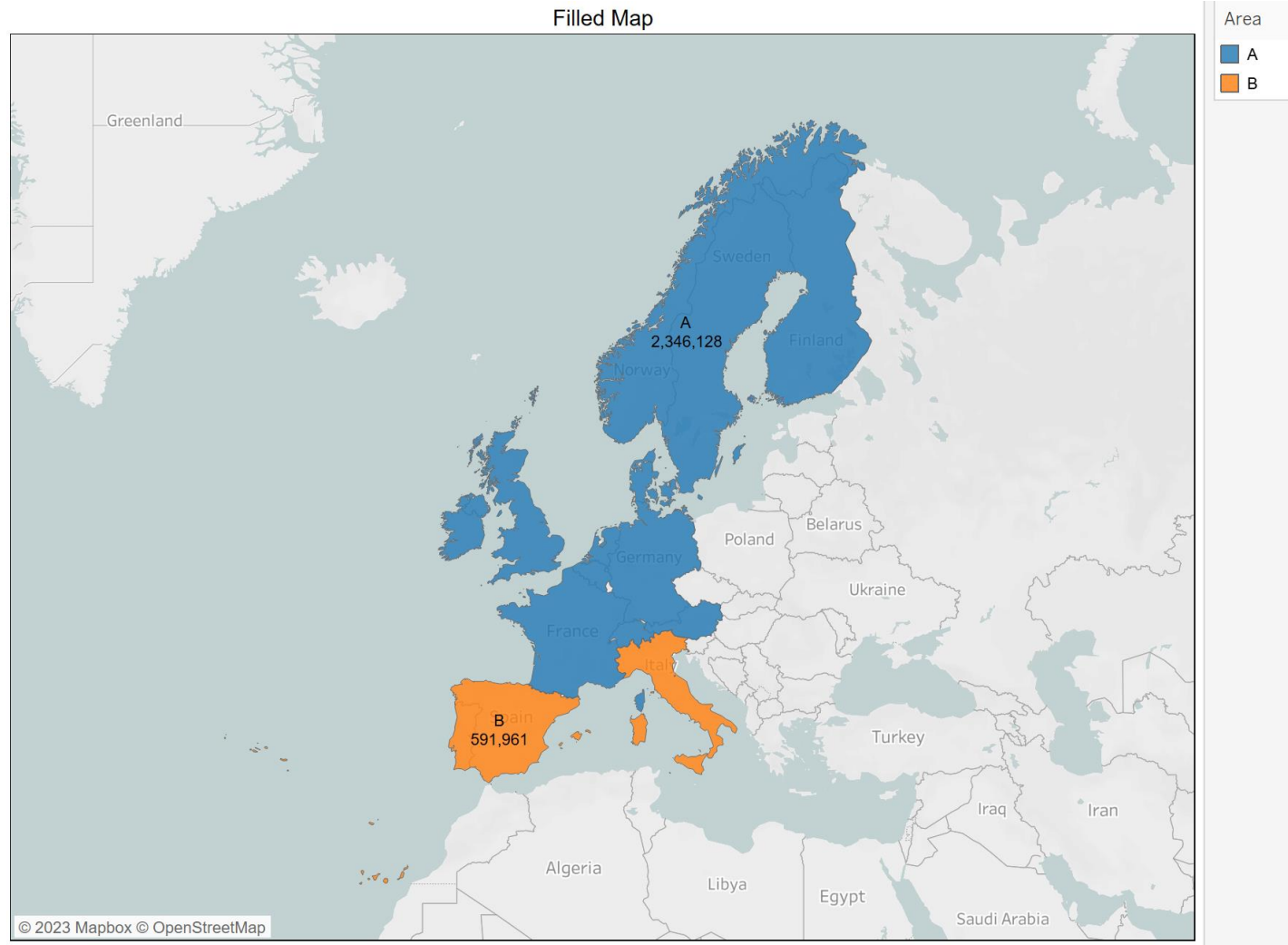


Create a point map of Italy at the City level showing **Sales as Size** and **Profit as Colour**

**Tips:** Choose the type of Map from the Menu **Map > Map Layers**, add a border and reduce opacity by 50%



# EXERCISE 15



Build a filled map where the tile represent two **“Area”**:

- A:
- B:

Convert to a geographical role form Country.

Make sure to display as a label both Area and Sales.