

売上データの可視化

Tableに登録されている売上データの可視化に取り組みたい。このデータセットには売場 A、B、C の売上データが含まれているため各売場の売上を比較することも目的とする。

データの形式

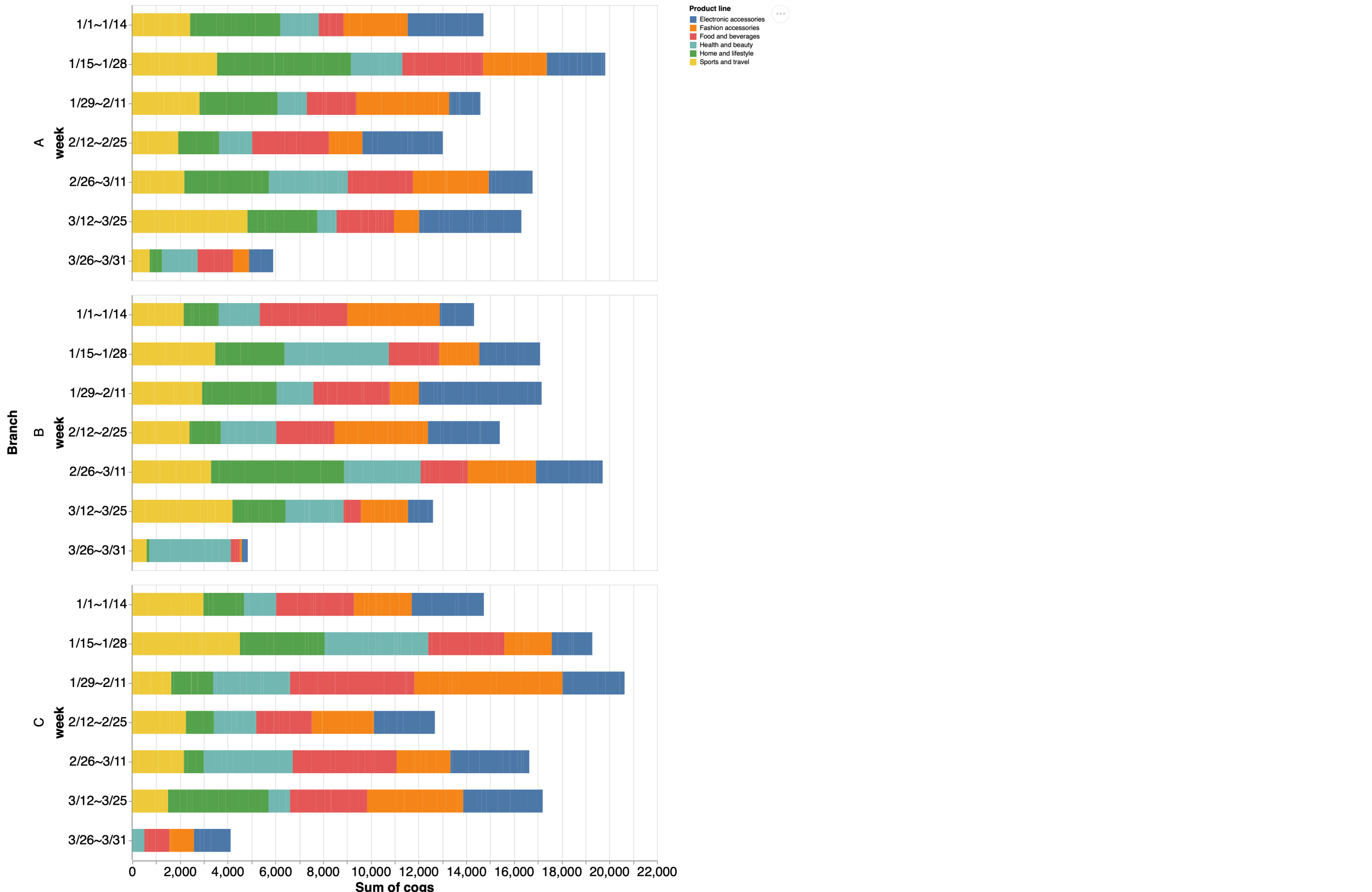
Invoice ID	Branch	City	Customer type	Gender	Product line	Unit price	Quantity	Tax US	Total	Date	Time	Payment	cogs	Gross margin percentage	Gross income	Rating
758-02-8400	A	Yaragon	Normal	Female	Health and Beauty	74.0000	7	26.1415	546.9715	1/5/2019	13:00	Online	522.8300	4.7619	26.1415	9.1000
226-02-3000	C	Naypyitaw	Normal	Female	Electronic accessories	11.2000	5	3.8200	60.2200	3/6/2019	18:29	Cash	76.4000	4.7619	3.8200	9.4000
631-02-1000	A	Yaragon	Normal	Male	Home and Lifestyle	44.3200	7	16.2125	340.3225	3/1/2019	13:23	Online	324.3300	4.7619	16.2125	7.4000
123-02-1570	A	Yaragon	Normal	Male	Health and Beauty	58.2200	8	23.2800	469.8400	1/27/2019	20:33	Online	445.7600	4.7619	23.2800	8.4000
373-02-7000	A	Yaragon	Normal	Male	Sports and Travel	86.3100	7	30.2085	624.2705	2/6/2019	18:37	Online	604.1700	4.7619	30.2085	5.3000
699-02-8020	C	Naypyitaw	Normal	Male	Electronic accessories	81.3900	7	29.0663	617.6355	3/25/2019	18:39	Online	597.7200	4.7619	29.0663	4.1000
359-02-9740	A	Yaragon	Normal	Female	Electronic accessories	48.4000	6	20.6129	403.8720	2/25/2019	14:36	Online	413.8600	4.7619	20.6129	9.8000
193-02-8000	C	Naypyitaw	Normal	Female	Home and Lifestyle	71.5600	10	36.7800	772.3800	2/02/2019	11:08	Online	731.6080	4.7619	36.7800	8
668-02-1000	A	Yaragon	Normal	Female	Health and Beauty	36.2600	2	3.6268	76.3460	1/16/2019	17:15	Online	72.5200	4.7619	3.6268	7.2000
609-02-1500	B	Manavaly	Normal	Female	Food and Beverages	14.8600	3	8.2268	177.7360	2/20/2019	13:27	Online	164.5200	4.7619	8.2268	9.9000

前処理

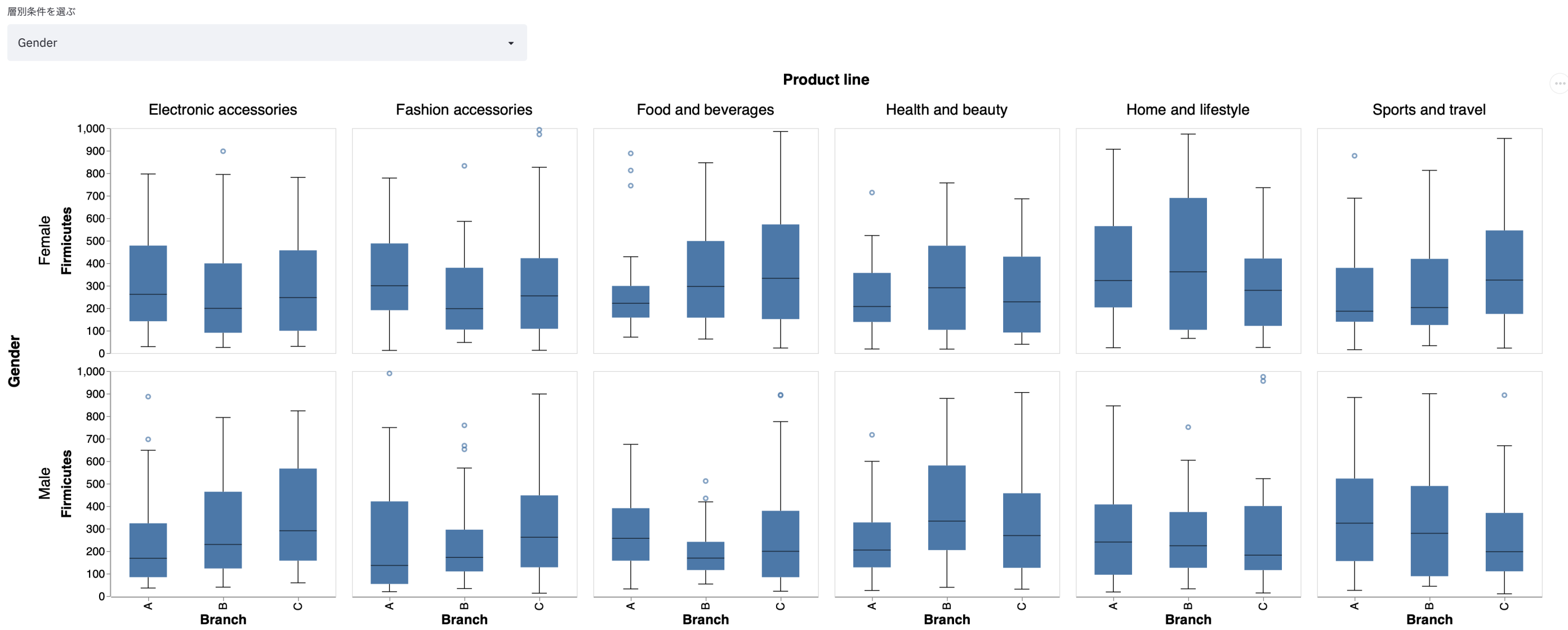
売上の時系列変化を調べられるために購入時期を表す列 week を追加し、売上の周期性を調べるために曜日別 day 時間帯別 time を追加する。

Invoice ID	Branch	City	Customer type	Gender	Product line	Unit price	Quantity	Tax US	Total	Date	Time	Payment	cogs	Gross margin percentage	Gross income	Rating	day	week	time
758-02-8400	A	Yaragon	Normal	Female	Health and Beauty	74.0000	7	26.1415	546.9715	1/5/2019	13:00	Online	522.8300	4.7619	26.1415	9.1000	Sat	1/5-1/14	13:00-13:59
226-02-3000	C	Naypyitaw	Normal	Female	Electronic accessories	11.2000	5	3.8200	60.2200	3/6/2019	18:29	Cash	76.4000	4.7619	3.8200	9.4000	Fri	2/20-2/11	18:00-18:59
631-02-1000	A	Yaragon	Normal	Male	Home and Lifestyle	44.3200	7	16.2125	340.3225	3/1/2019	13:23	Online	324.3300	4.7619	16.2125	7.4000	Sun	2/26-3/11	13:00-13:59
123-02-1570	A	Yaragon	Normal	Male	Health and Beauty	58.2200	8	23.2800	469.8400	1/27/2019	20:33	Online	445.7600	4.7619	23.2800	8.4000	Sun	1/15-1/20	20:00-20:59
373-02-7000	A	Yaragon	Normal	Male	Sports and Travel	86.3100	7	30.2085	624.2705	2/6/2019	18:37	Online	604.1700	4.7619	30.2085	5.3000	Fri	1/29-2/11	18:00-18:59
699-02-8020	C	Naypyitaw	Normal	Male	Electronic accessories	81.3900	7	29.0663	617.6355	3/25/2019	18:39	Online	597.7200	4.7619	29.0663	4.1000	Mon	3/12-3/19	18:00-18:59
359-02-9740	A	Yaragon	Normal	Female	Electronic accessories	48.4000	6	20.6129	403.8720	2/25/2019	14:36	Online	413.8600	4.7619	20.6129	9.8000	Mon	2/12-2/19	14:00-14:59
193-02-8000	C	Naypyitaw	Normal	Female	Home and Lifestyle	71.5600	10	36.7800	772.3800	2/02/2019	11:08	Online	731.6080	4.7619	36.7800	8	Sun	2/12-2/19	11:00-11:59
668-02-1000	A	Yaragon	Normal	Female	Health and Beauty	36.2600	2	3.6268	76.3460	1/16/2019	17:15	Online	72.5200	4.7619	3.6268	7.2000	Thu	1/3-1/14	17:00-17:59
609-02-1500	B	Manavaly	Normal	Female	Food and Beverages	14.8600	3	8.2268	177.7360	2/20/2019	13:27	Online	164.5200	4.7619	8.2268	9.9000	Wed	2/12-2/19	13:00-13:59

支店別売上推移



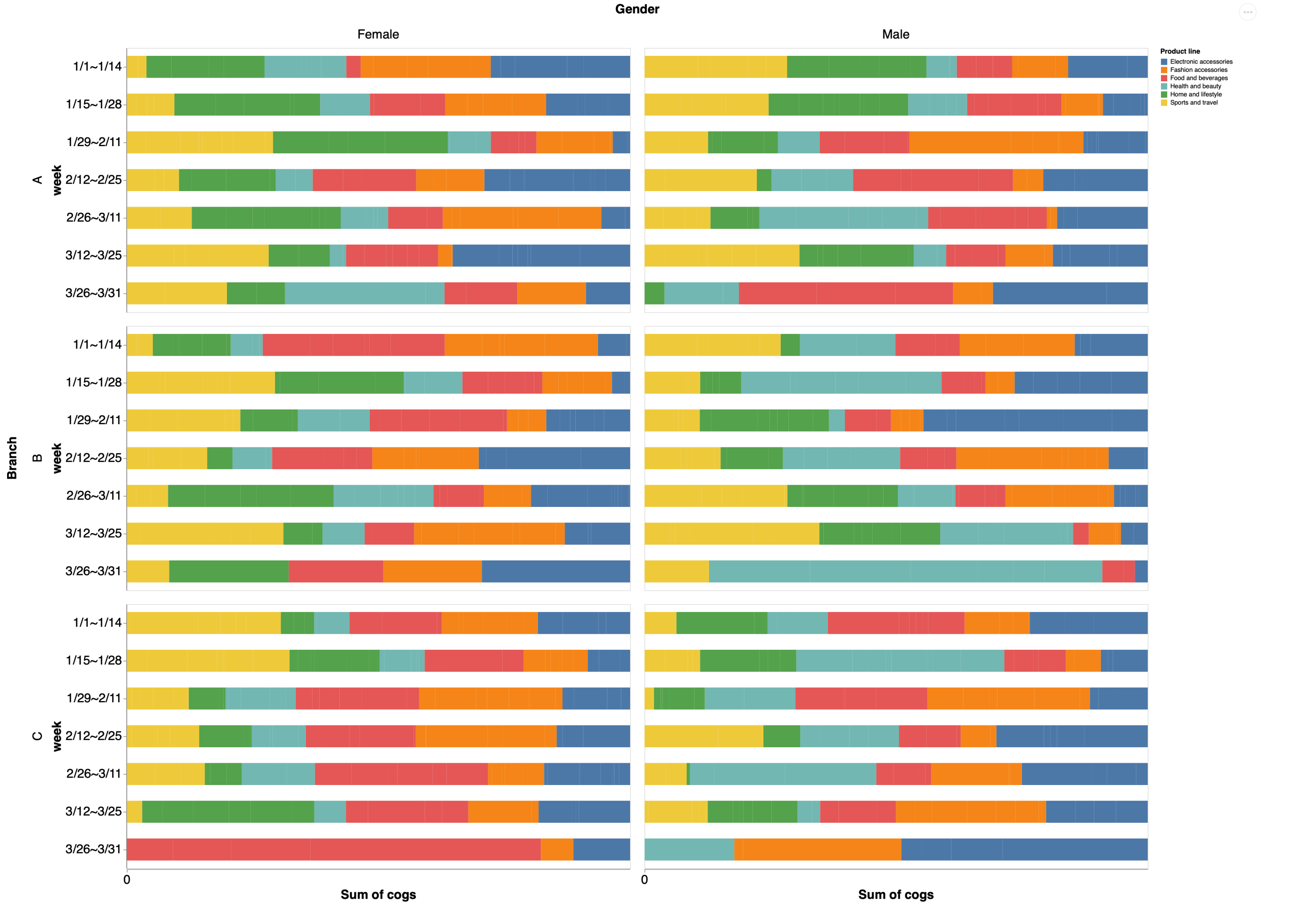
支店間の品目別売上比較



詳細な売上原価の比較



組成の可視化



分布の可視化

