Hello! Here are some of my data visualization projects that I put together at the company where I work.

It's a large company in the retail sector, with various product lines. We had a problem where, to consolidate all the necessary information for decision-making, we needed to extract information from various sources, put it in an Excel spreadsheet, and calculate various formulas, which was not practical in our daily workflow, especially for quick visualization.

So, I gained access to the company's BigQuery and combined various databases such as inventory, sales, traffic, appointments, order portfolio, product information and consolidating them through a query.

This way, instead of extracting information from multiple sources, I only needed to run the query, and within a few minutes, I had consolidated information.

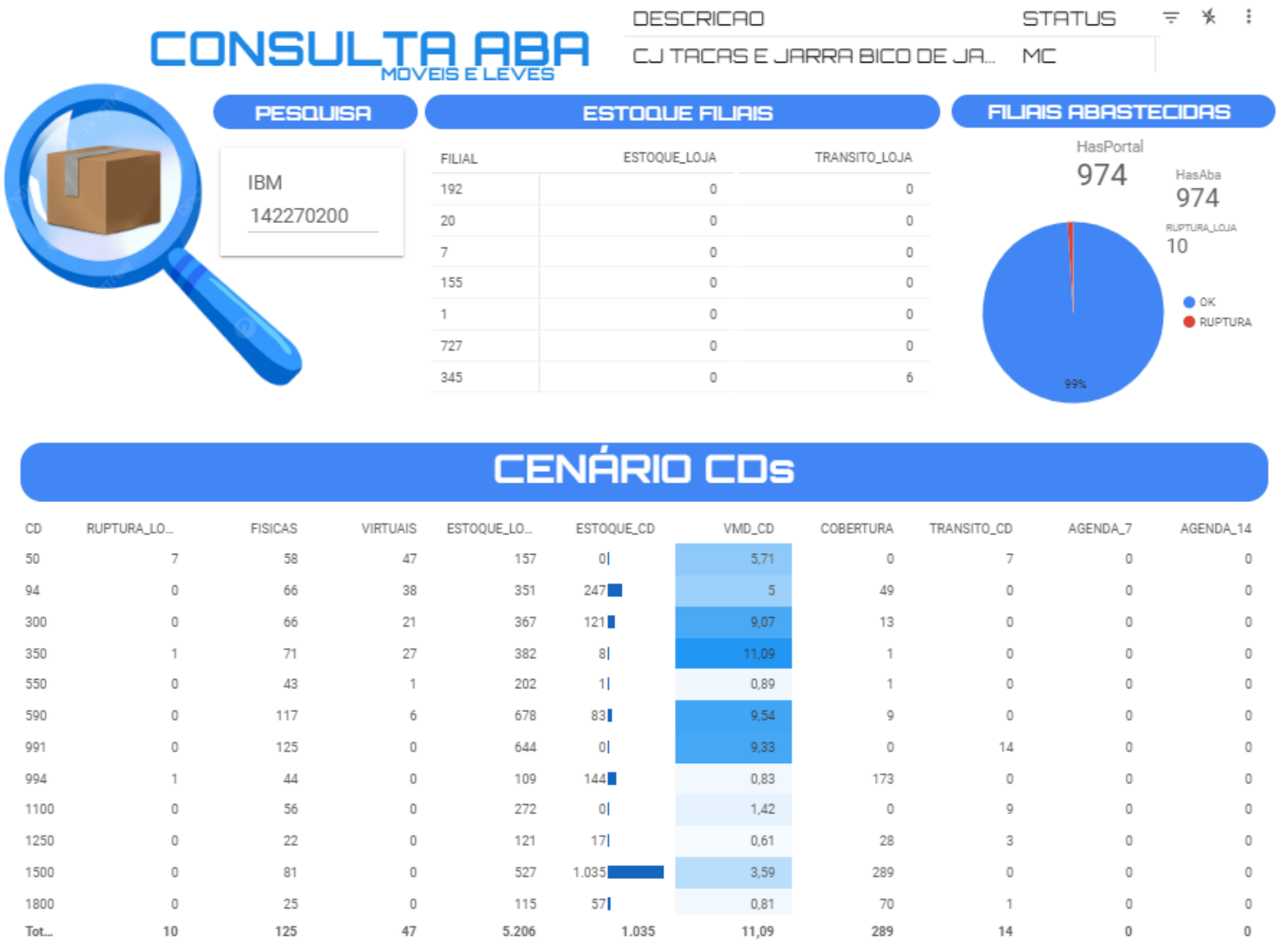
However, it was still necessary to paste the information into an Excel spreadsheet and update the dashboard data. So, I first created an automatic job using Google Colab to send this database by email to everyone on my team, so they could access the consolidated information.

Finally, for a simpler and more interactive visualization, I used Looker Studio's features to create dashboards tailored to the users' needs, and just send the links to the automatic reports to the managers and directors of the department

To preserve the company's confidential data, the data shown in the following screenshots has been multiplied by random numbers and does not reflect actual figures.

Attached are screenshots of the dashboards:

Dashboard 1: This first dashboard provides all the necessary information in the supply scenario by simply entering a product code in the filter. It includes product description and status, traffic, store inventory, distribution center inventory, the number of stores with the product, stores facing stockouts, average sales, coverage, appointments, and order portfolio.



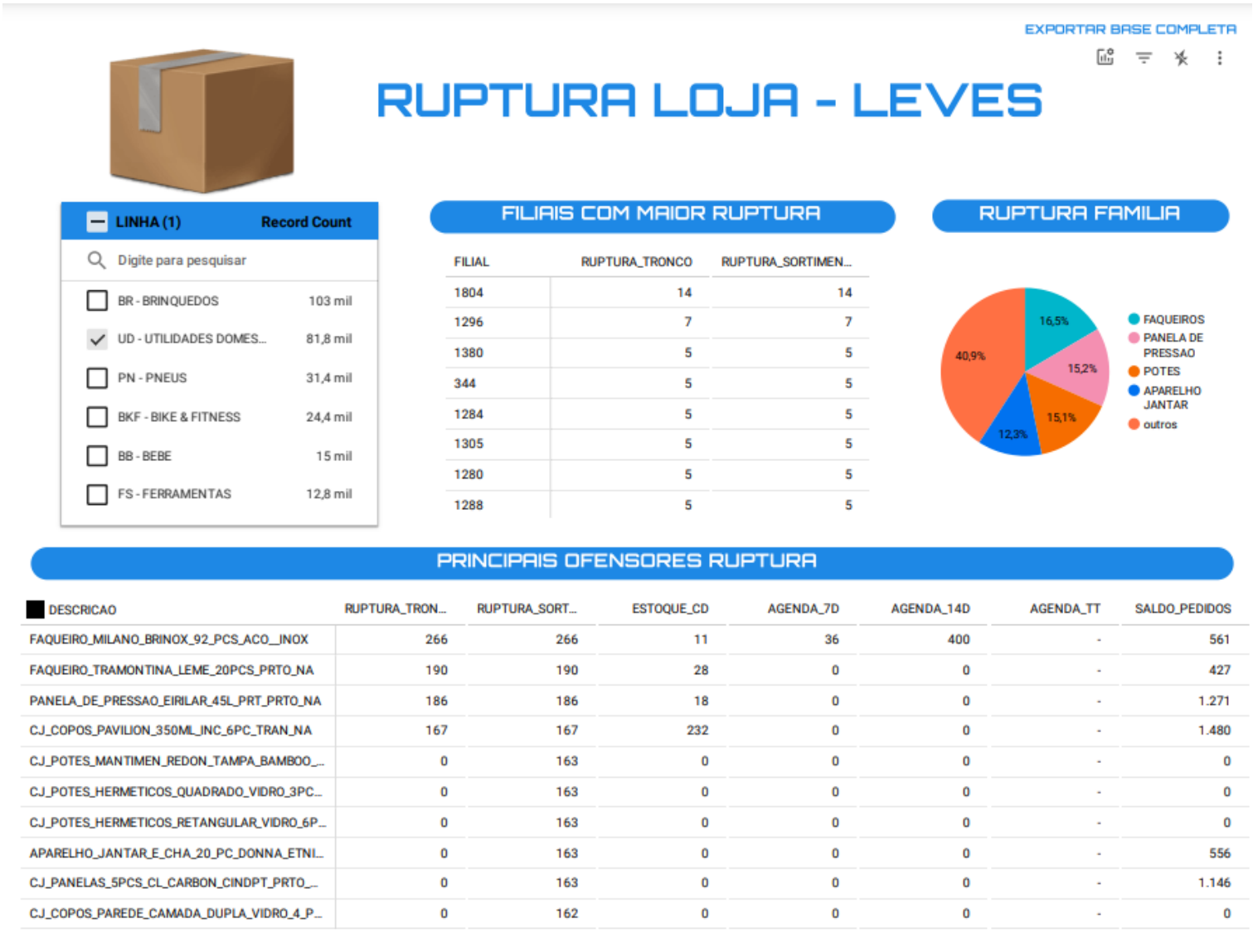
CENÁRIO CDs

CD	RUPTURA_LO...	FISICAS	VIRTUAIS	ESTOQUE_LO...	ESTOQUE_CD	VMD_CD	COBERTURA	TRANSITO_CD	AGENDA_7	AGENDA_14
50	7	58	47	157	0	5,71	0	7	0	0
94	0	66	38	351	247	5	49	0	0	0
300	0	66	21	367	121	9,07	13	0	0	0
350	1	71	27	382	8	11,09	1	0	0	0
550	0	43	1	202	1	0,89	1	0	0	0
590	0	117	6	678	83	9,54	9	0	0	0
991	0	125	0	644	0	9,33	0	14	0	0
994	1	44	0	109	144	0,83	173	0	0	0
1100	0	56	0	272	0	1,42	0	9	0	0
1250	0	22	0	121	17	0,61	28	3	0	0
1500	0	81	0	527	1.035	3,59	289	0	0	0
1800	0	25	0	115	57	0,81	70	1	0	0
Tot...	**10**	**125**	**47**	**5.206**	**1.035**	**11,09**	**289**	**14**	**0**	**0**

Dashboard 2: This one is quite similar to the first one but displays filtered data for all products that will be promoted in the future. These are items that require special attention.

CD	RUPTURA_LOJA	VMD_CD	ESTOQUE_LOJ...	ESTOQUE_CD	QTD_TRANSIT...	AGENDA_7	AGENDA_14	AGENDA_TT	CARTEIRA
50	1	13,03	564	1.176	0	0	0	0	0
94	0	9,61	623	107	0	0	0	0	0
300	0	11,66	647	1.585	0	0	0	0	0
350	0	10,2	635	788	0	0	0	0	0
550	0	2,88	310	541	0	0	0	0	0
590	1	27,54	970	1.775	0	0	0	0	0
991	0	38,39	999	2.282	1	0	0	0	732
994	0	11,09	424	957	0	0	0	0	0
1100	0	6,9	478	858	0	0	0	0	0
1250	0	3,4	137	129	0	0	0	0	0
1500	0	17,28	620	708	0	0	0	0	276
1800	0	3,14	191	175	0	0	0	0	0
2500	0	13,43	377	1.692	4	0	0	0	0

Dashboard 3: This can be filtered by product line and displays the stockout situation (items without inventory) across the company. It shows branches with more stockout items, the percentage of stockouts by category, and the main contributors to this indicator. This visualization is highly useful for taking actions to improve the indicator.



Dashboard 4: This dashboard provides a view of the PEX (Point of Exposure), which are the items that should be displayed in the sales floor. It also shows a PEX + demand view, indicating the value and quantity representation, what is available in stores, and what is needed to achieve 100% of the intended availability.

EXPORTAR BASE COMPLETA

VISAO PEX LEVES

LINHA	Record Count
Digite para pesquisar	
UD - UTILIDADES DOMES...	81,3 mil

QUANTIDADE SKUs SORTIMENTO

IBM
848

% RUPTURA PEX CD

CD	RUPTURA_PEX
50	13,98%
94	10,76%
300	11,12%
350	9,75%
550	2,98%
590	13,16%
991	5,83%
994	2,06%
1100	5,01%
1250	1,03%
1500	3,83%
1800	1,37%
2500	4,09%
2650	3,8%
2900	3,77%
5200	7,43%

% RUPTURA LOJA

FAMILIA	OK	RUPTURA
CARRO	13,45%	2,78%
BONECAS	3,85%	3,45%
JOGOS E QUEBR...	3,76%	3,02%
VEICULOS E PIST...	2,19%	3,09%
ARO 26	3,34%	1,8%
Total geral	**73,61%**	**26,39%**

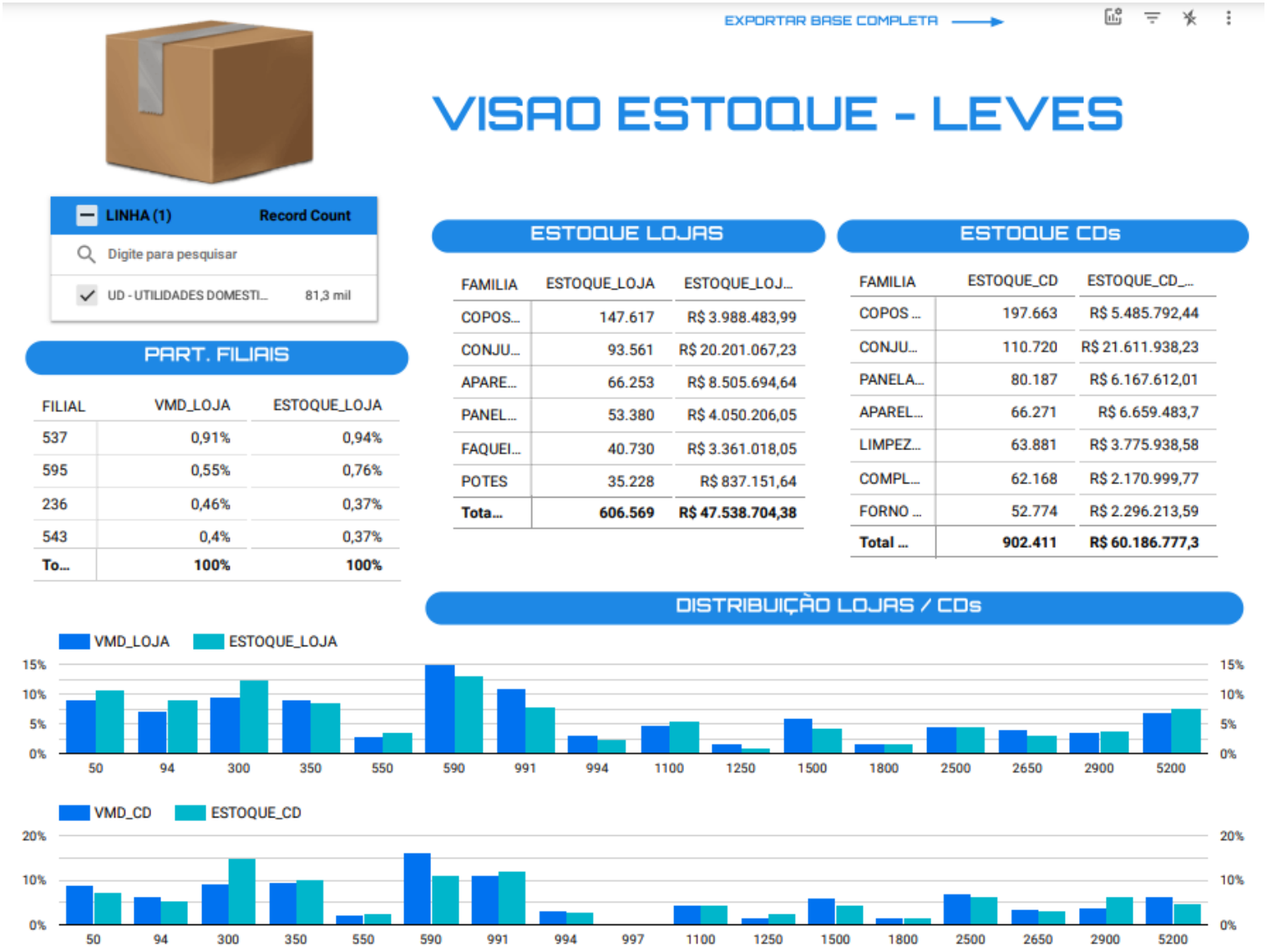
AGENDAMENTOS RUPTURA

FAMILIA	Sem agen...	Agendado
BONECAS	11,63%	1,39%
VEICULOS E PIST...	11,22%	0,45%
JOGOS E QUEBR...	9,15%	2,25%
CARRO	8,99%	1,72%
BLOCOS DE MO...	7,99%	0,64%
Total geral	**86,73%**	**13,27%**

VISAO GERAL

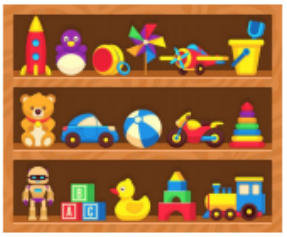
FAMILIA	IBM	FILIAL	PEX	PEX_VLR	DEMANDA_7	DEMANDA_7_VLR
BONECAS	113	145	62.288	R$ 4.657.410,35	811,37	49.559,01
JOGOS E QUEBRA C...	105	145	58.751	R$ 2.496.701,78	380,46	19.185,81
VEICULOS E PISTAS	76	145	56.445	R$ 3.584.787,94	360,05	24.943,78
BLOCOS DE MONTAR	51	145	26.572	R$ 2.545.133,28	158,22	14.715,87
Total geral	**848**	**1.046**	**849.030**	**R$ 104.837.581,81**	**69.461,98**	**9.594.016,37**

Dashboard 5: This presents an overview of the company's inventory, both in stores and distribution centers, and the distribution of inventory according to the demand from each location.



Dashboard 6: Finally, the last dashboard provides a performance view of items present in stores. It shows the sales history for each item in recent months and the variation for each month. These insights help us decide which items should remain in stores or be added.

PERFORMANCE SORTIMENTO LOJAS



LINHA (1)	FILIAL
Digite para pesquisar	
UD - UTILIDADES DOMESTICAS	54,6 mi
PN - PNEUS	16,2 mi
FS - FERRAMENTAS	13,2 mi

FILIAL	FILIAL
Digite para pesquisar	
1199	57,6 mil
1508	57,3 mil
1545	57,2 mil

NIVEL PRODUTO

IBM	DESCRICAO	FILIAL	VAR_M_1	VAR_M_2	VAR_M_3	VENDA_VLR_M_0	VENDA_VLR_M_1	VENDA_VLR_M_2	VENDA_VLR_M_3	VEN
235820500	PNEU 175/7...	1.011	-11,82%	24,6%	-59,97%	R$ 292.881,14	R$ 6.604.260,95	R$ 7.489.325,52	R$ 6.010.554,94	R$ 1
218803500	PNEU 175/6...	923	-60,06%	-33,89%	-92,23%	R$ 14.247,08	R$ 325.807,51	R$ 815.788,22	R$ 1.233.914,56	R$ 1
235820600	PNEU 175/7...	883	-11,57%	9,65%	-87,2%	R$ 69.767,45	R$ 2.707.209,2	R$ 3.061.342,68	R$ 2.791.981,03	R$ 2
237123500	PNEU 175/6...	754	-30,07%	173,23%	796,88%	R$ 134.821,77	R$ 2.183.287,99	R$ 3.121.915,97	R$ 1.142.599,57	R
233913100	PNEU 175/7...	715	69,38%	-89,83%	1.011,56%	R$ 2.104.959,3	R$ 14.328.425,71	R$ 8.459.538,57	R$ 83.215.151,95	R$
236149700	PNEU XBRI ...	599	6.120,34%	249,45%	-97,51%	R$ 67.795,23	R$ 5.794.995,61	R$ 93.161,98	R$ 26.659,35	R$
236188900	PNEU 185/6...	585	-19,79%	61,76%	0,51%	R$ 21.727,04	R$ 712.135,56	R$ 887.872,21	R$ 548.881,55	R
234480400	PNEU 175/7...	571	9,67%	-27,09%	2.124,93%	R$ 29.182,63	R$ 1.840.367,02	R$ 1.678.086,64	R$ 2.301.574,63	R
234341100	PNEU 175/7...	472	4.170,21%	30,43%	-82,2%	R$ 42.626,38	R$ 1.308.898,36	R$ 30.651,87	R$ 23.500,74	R
235316200	PNEU CARR...	462	-48,72%	-8,88%	2,25%	R$ 28.517,62	R$ 457.428,39	R$ 892.027,53	R$ 979.012,21	R
236569500	PNEU CARR...	458	-13,68%	35,2%	-30,2%	R$ 24.663,96	R$ 432.378,07	R$ 500.925,77	R$ 370.497,36	R
222360000	PNEU 175/6...	438	34,97%	-96,37%	1.300,31%	R$ 2.504,82	R$ 72.726,11	R$ 53.883,49	R$ 1.482.947,92	R
235315900	PNEU CARR...	419	3,56%	-17,09%	-48,41%	R$ 0	R$ 46.527,23	R$ 44.929,85	R$ 54.191,85	R
235315800	PNEU CARR...	365	-38,03%	-66,35%	-15,05%	R$ 0	R$ 44.623,43	R$ 72.013,73	R$ 214.003,21	R
230435700	PNEU CARR...	213	11.769,66%	-49,77%	-25,69%	R$ 6.677,3	R$ 942.849,79	R$ 7.943,36	R$ 15.814,37	
230435000	PNEU CARR...	167	-46,85%	33,63%	-69,71%	R$ 239,97	R$ 8.530,67	R$ 16.049,42	R$ 12.009,93	
Total geral		**1.036**	**38,3%**	**-72,91%**	**56,26%**	**R$ 2.852.188,81**	**R$ 37.936.150,55**	**R$ 27.431.184,02**	**R$**	**R$ 6**