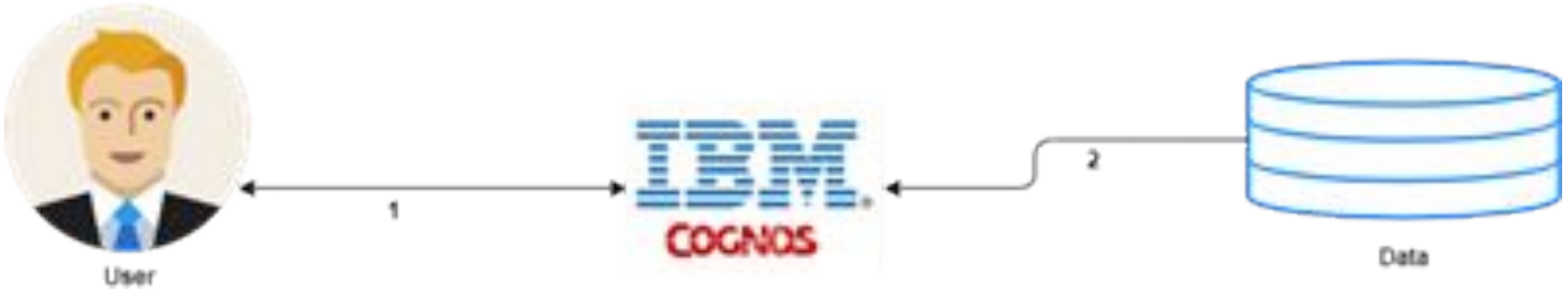
RETAIL STORE STOCK INVENTORY ANALYTICS

Team ID:PNT2022TMID27973

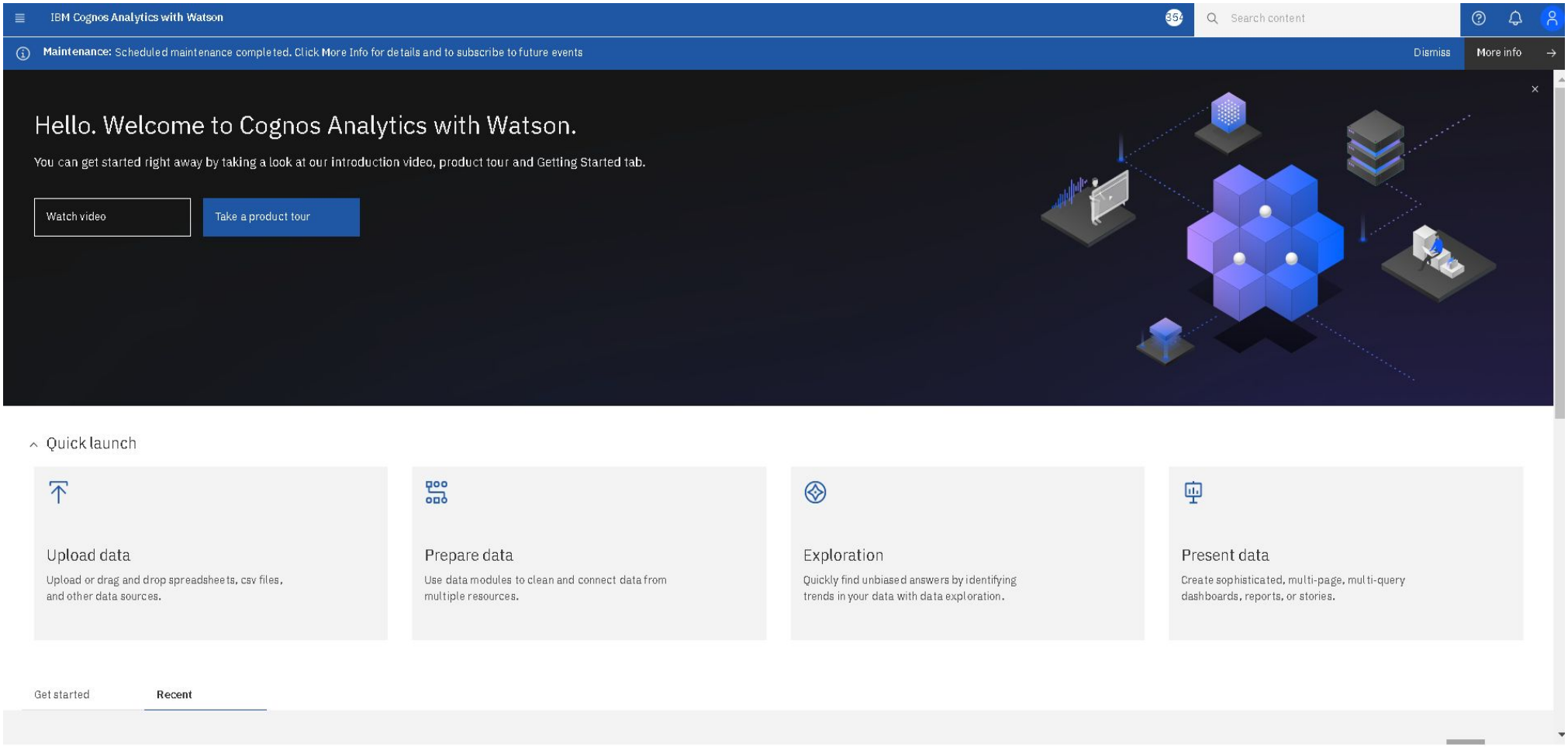
PROJECT DESCRIPTION:

This dataset contains a lot of historical sales data of a Brazilian top retailer. Basic Questions of every retailer: How much inventory should I carry? Too much inventory means working capital costs, operational costs and a complex operation, lack of inventory leads to lost sales, unhappy customers and a damaged brand. This is why short-term forecasting is so important in the retail and consumer goods industry.

Technical Architecture:



DATA COLLECTION AND PREPARATION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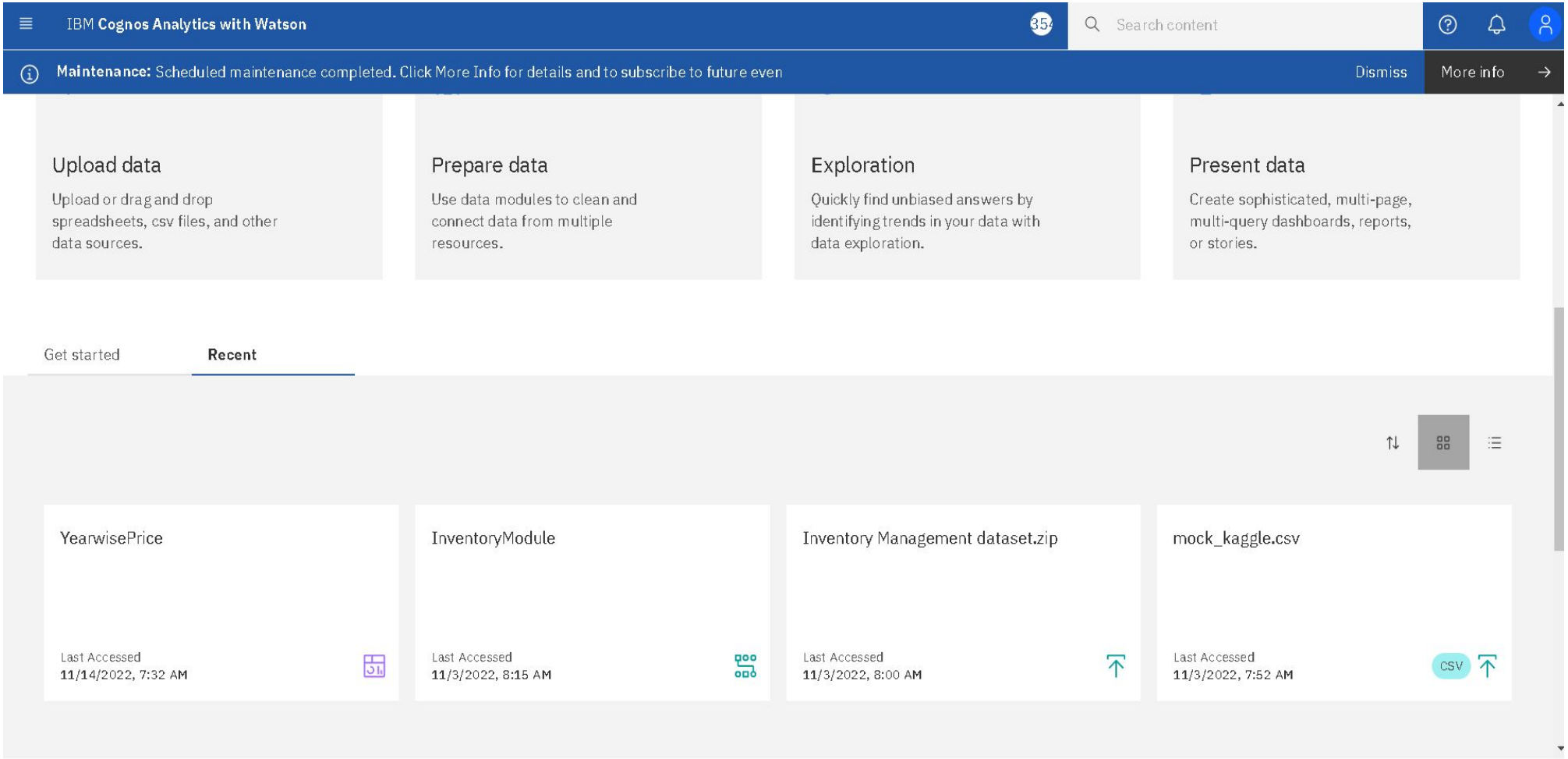
Upload data
Upload or drag and drop spreadsheets, csv files, and other data sources.
Prepare data
Use data modules to clean and connect data from multiple resources.
Exploration
Quickly find unbiased answers by identifying trends in your data with data exploration.
Present data
Create sophisticated, multi-page, multi-query dashboards, reports, or stories.
Get started
Recent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More info
Upload data
Upload or drag and drop spreadsheets, csv files, and other data sources.
Prepare data
Use data modules to clean and connect data from multiple resources.
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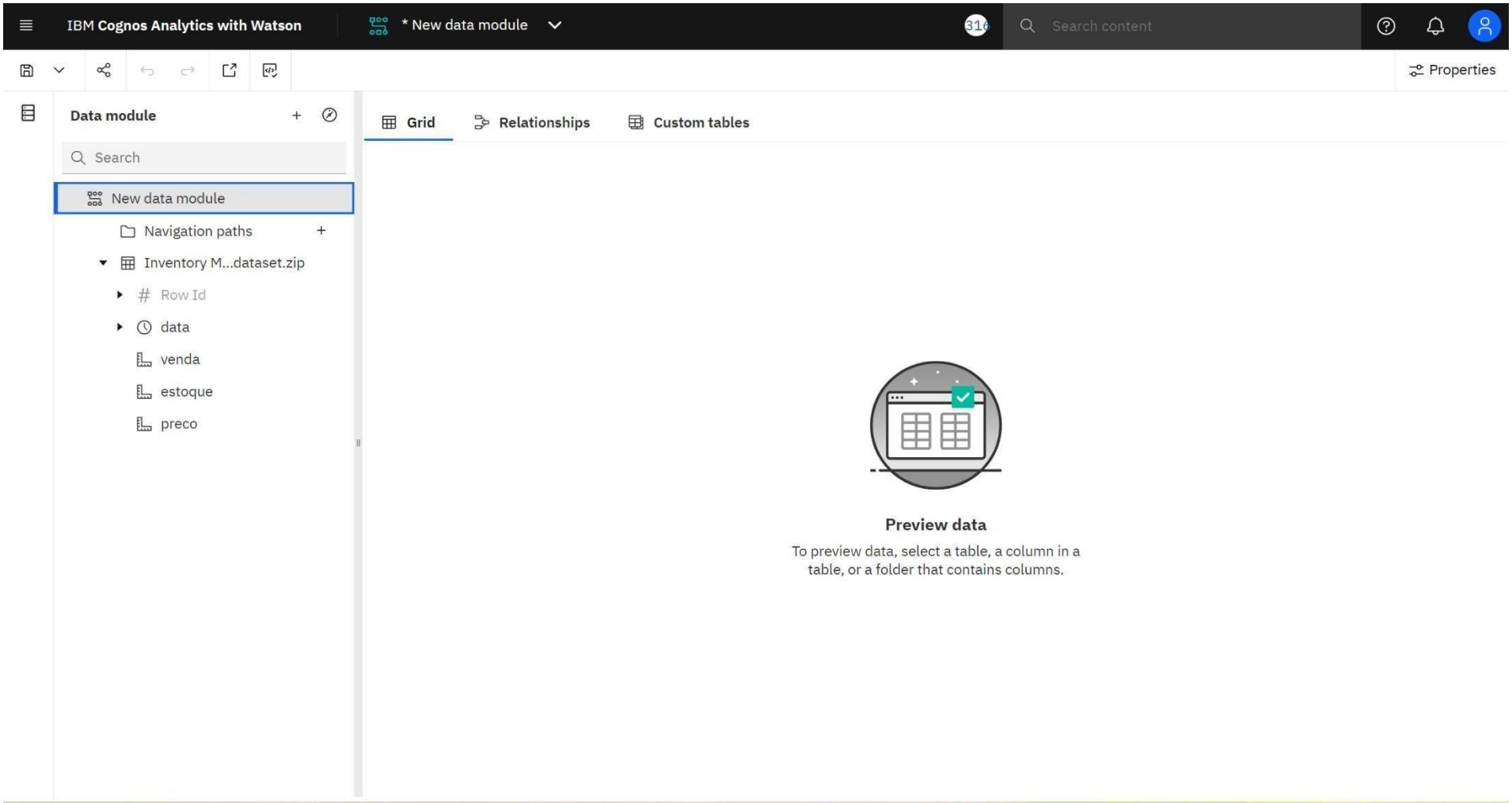
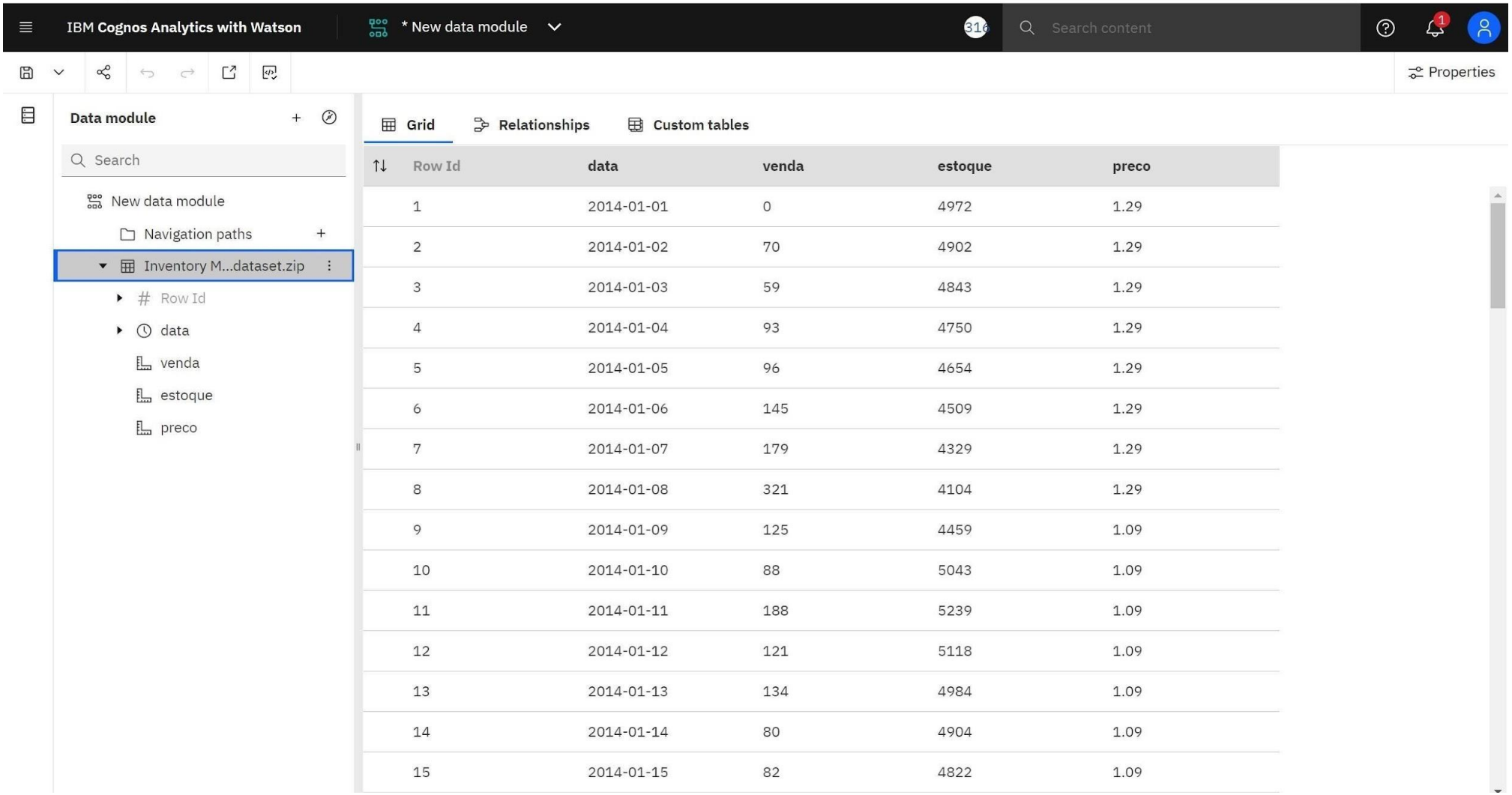
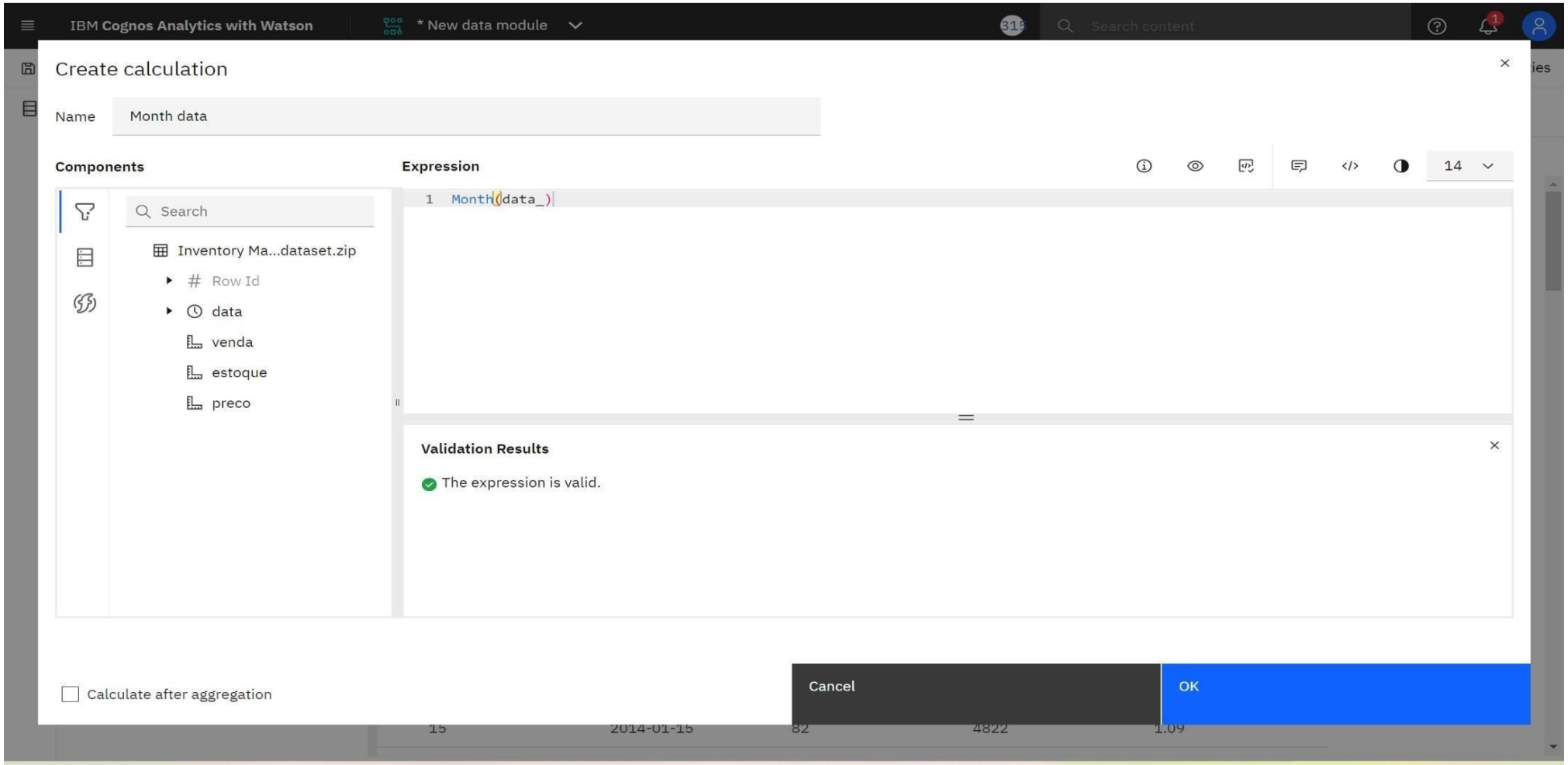
Quickly find unbiased answers by identifying trends in your data with data exploration.
Present data
Create sophisticated, multi-page, multi-query dashboards, reports, or stories.
Get started
Recent
YearwisePrice
Last Accessed
11/14/2022, 7:32 AM
InventoryModule
Last Accessed
11/3/2022, 8:15 AM
Inventory Management dataset.zip
Last Accessed
11/3/2022, 8:00 AM
mock_kaggle.csv
Last Accessed
11/3/2022, 7:52 AM
CSV

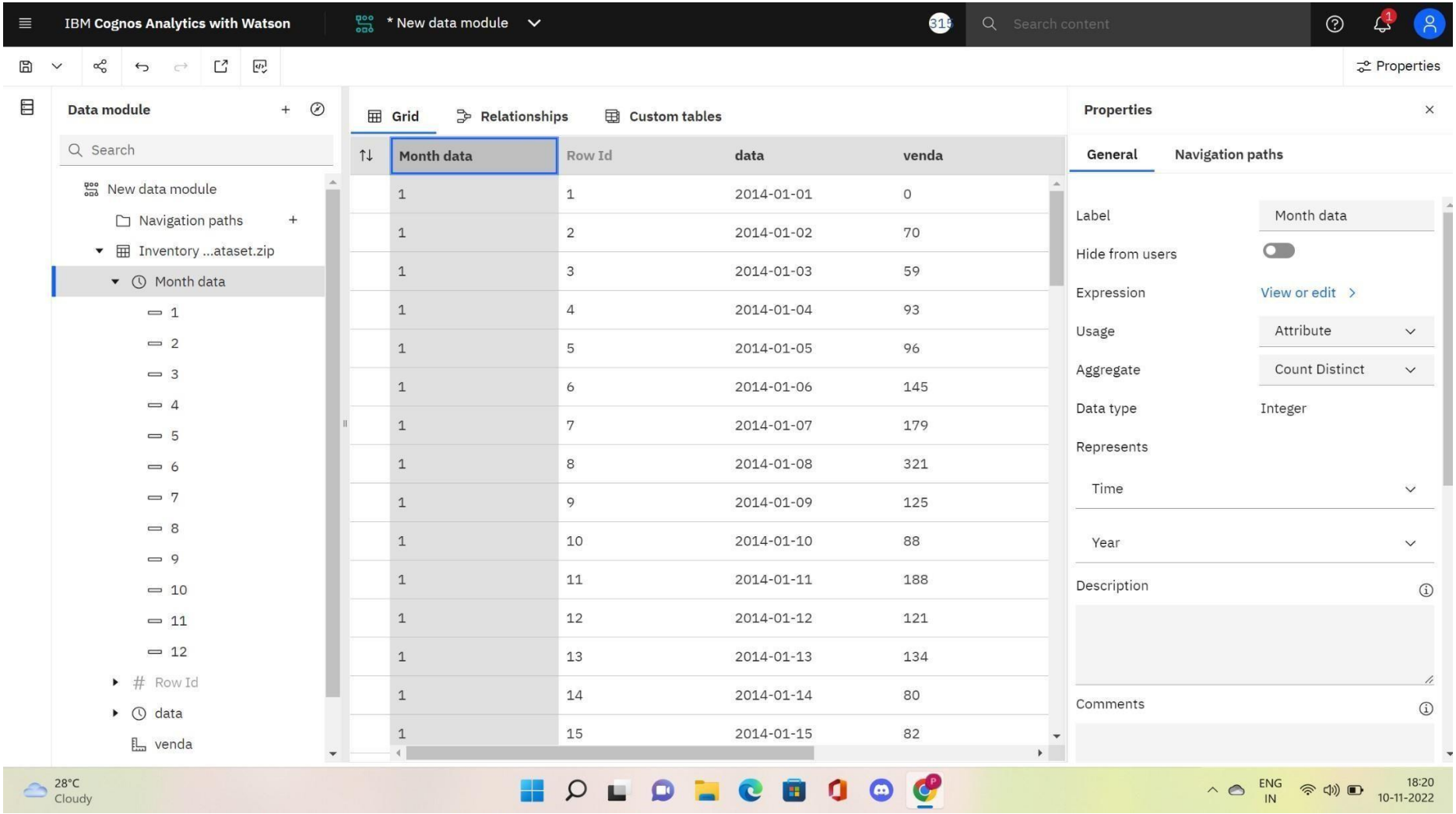

IBM Cognos Analytics with Watson
* New data module
Search content
Properties
Data module
Search
New data module
Navigation paths
Inventory M...dataset.zip
Row Id
data
venda
estoque
preco
Grid
Relationships
Custom tables
Preview data
To preview data, select a table, a column in a table, or a folder that contains columns.



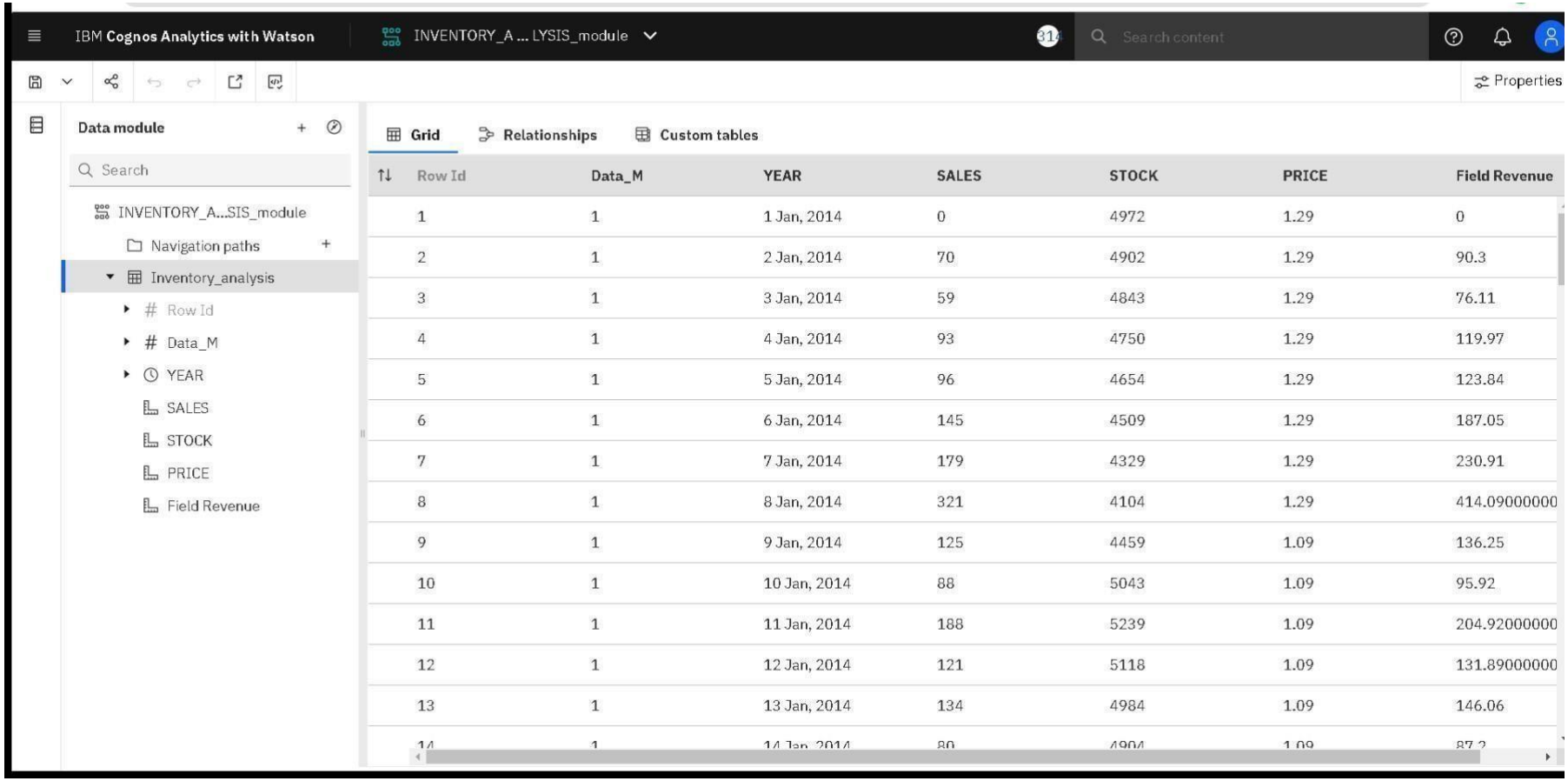
Row Id	data	venda	estoque	preco
1	2014-01-01	0	4972	1.29
2	2014-01-02	70	4902	1.29
3	2014-01-03	59	4843	1.29
4	2014-01-04	93	4750	1.29
5	2014-01-05	96	4654	1.29
6	2014-01-06	145	4509	1.29
7	2014-01-07	179	4329	1.29
8	2014-01-08	321	4104	1.29
9	2014-01-09	125	4459	1.09
10	2014-01-10	88	5043	1.09
11	2014-01-11	188	5239	1.09
12	2014-01-12	121	5118	1.09
13	2014-01-13	134	4984	1.09
14	2014-01-14	80	4904	1.09
15	2014-01-15	82	4822	1.09

PREPARING THE DATASET :



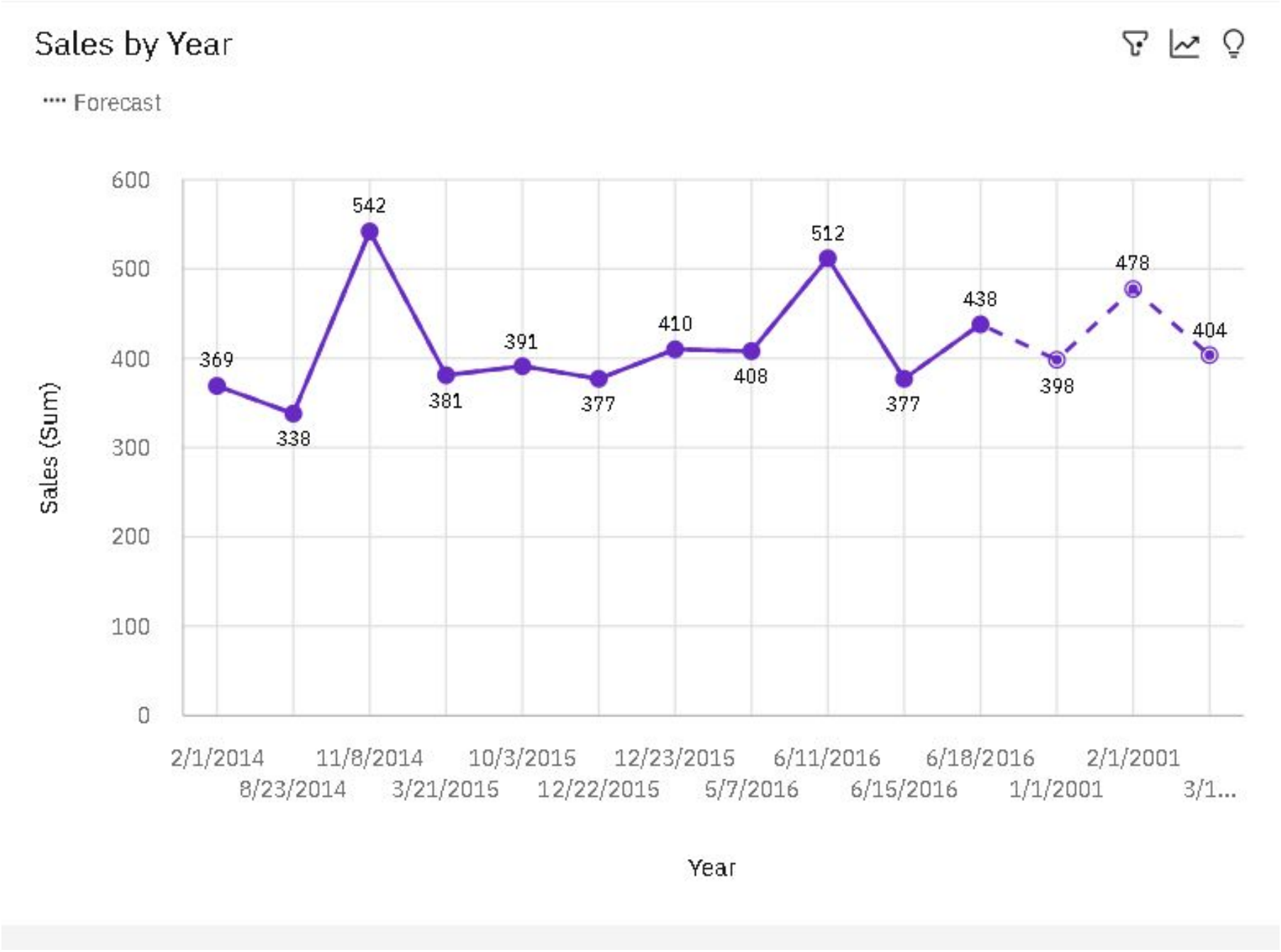

IBM Cognos Analytics with Watson
* New data module
Search content
Properties
Data module
Search
New data module
Navigation paths
Inventory ...ataset.zip
Month data
1
2
3
4
5
6
7
8
9
10
11
12
Row Id
data
venda
Grid
Relationships
Custom tables
Month data
Row Id
data
venda
1 1 2014-01-01 0
1 2 2014-01-02 70
1 3 2014-01-03 59
1 4 2014-01-04 93
1 5 2014-01-05 96
1 6 2014-01-06 145
1 7 2014-01-07 179
1 8 2014-01-08 321
1 9 2014-01-09 125
1 10 2014-01-10 88
1 11 2014-01-11 188
1 12 2014-01-12 121
1 13 2014-01-13 134
1 14 2014-01-14 80
1 15 2014-01-15 82
Properties
General
Navigation paths
Label
Month data
Hide from users
Expression
View or edit
Usage
Attribute
Aggregate
Count Distinct
Data type
Integer
Represents
Time
Year
Description
Comments
28°C
Cloudy
ENG
IN
18:20
10-11-2022

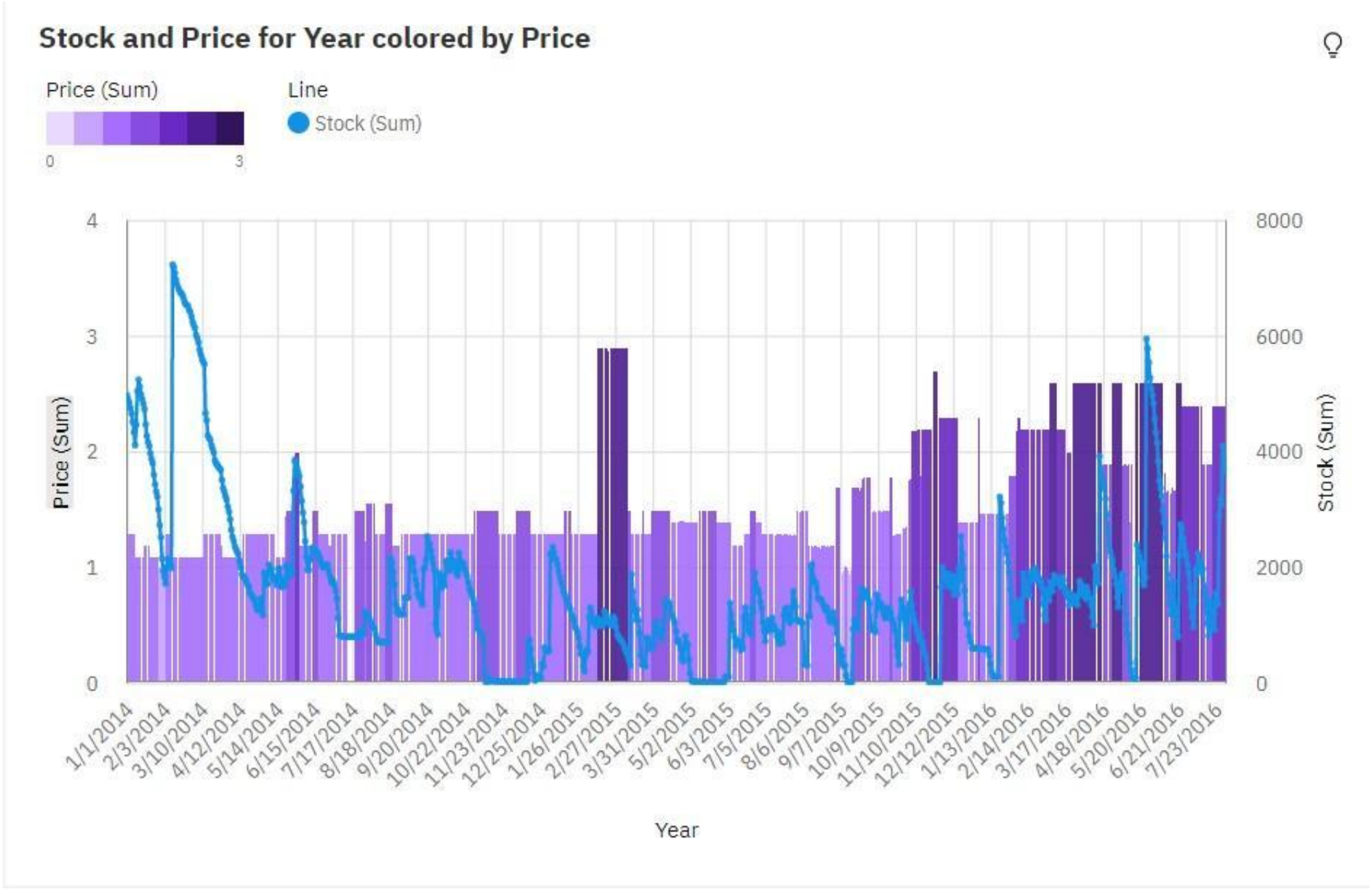
FINAL DATASET:

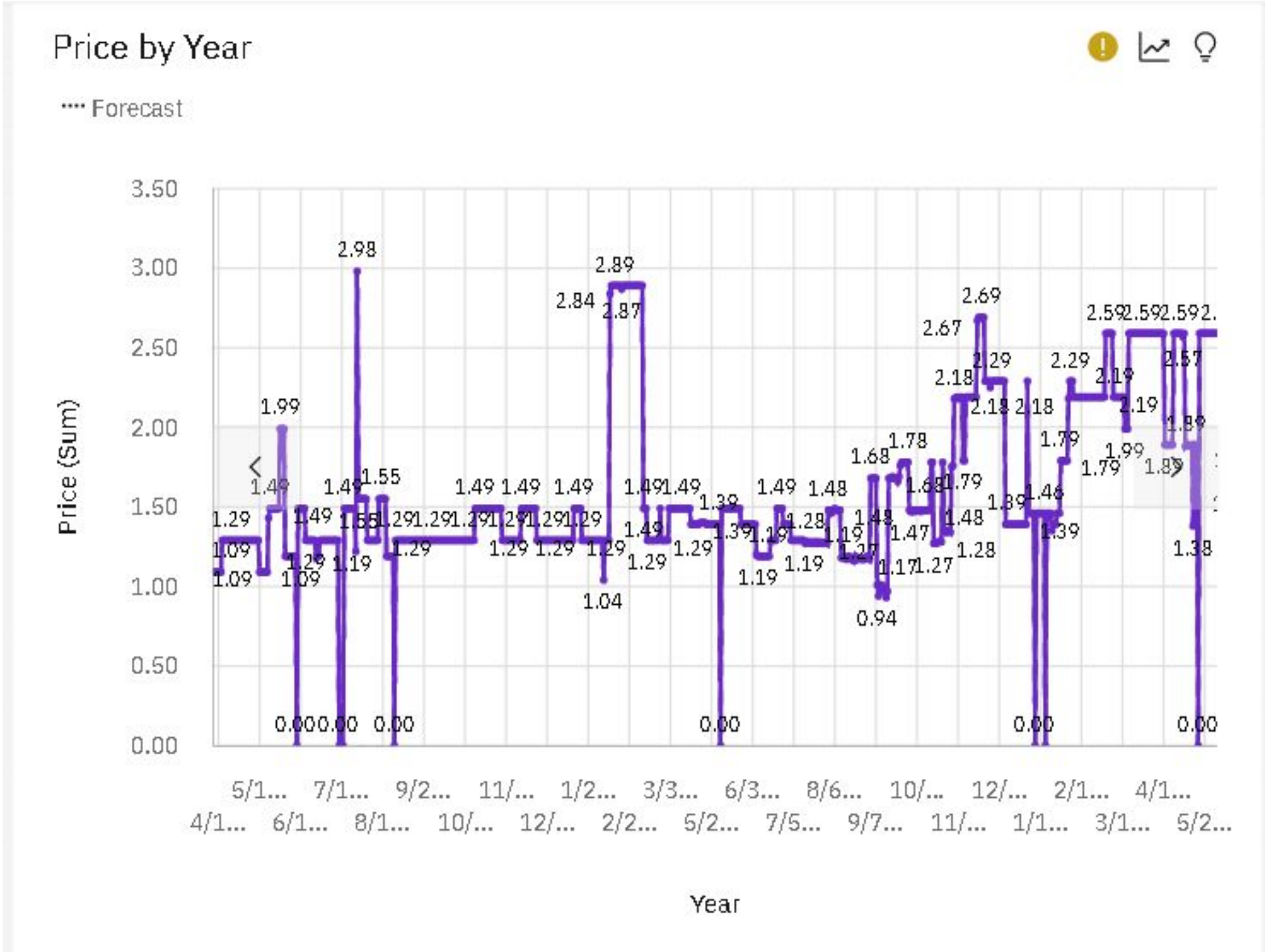


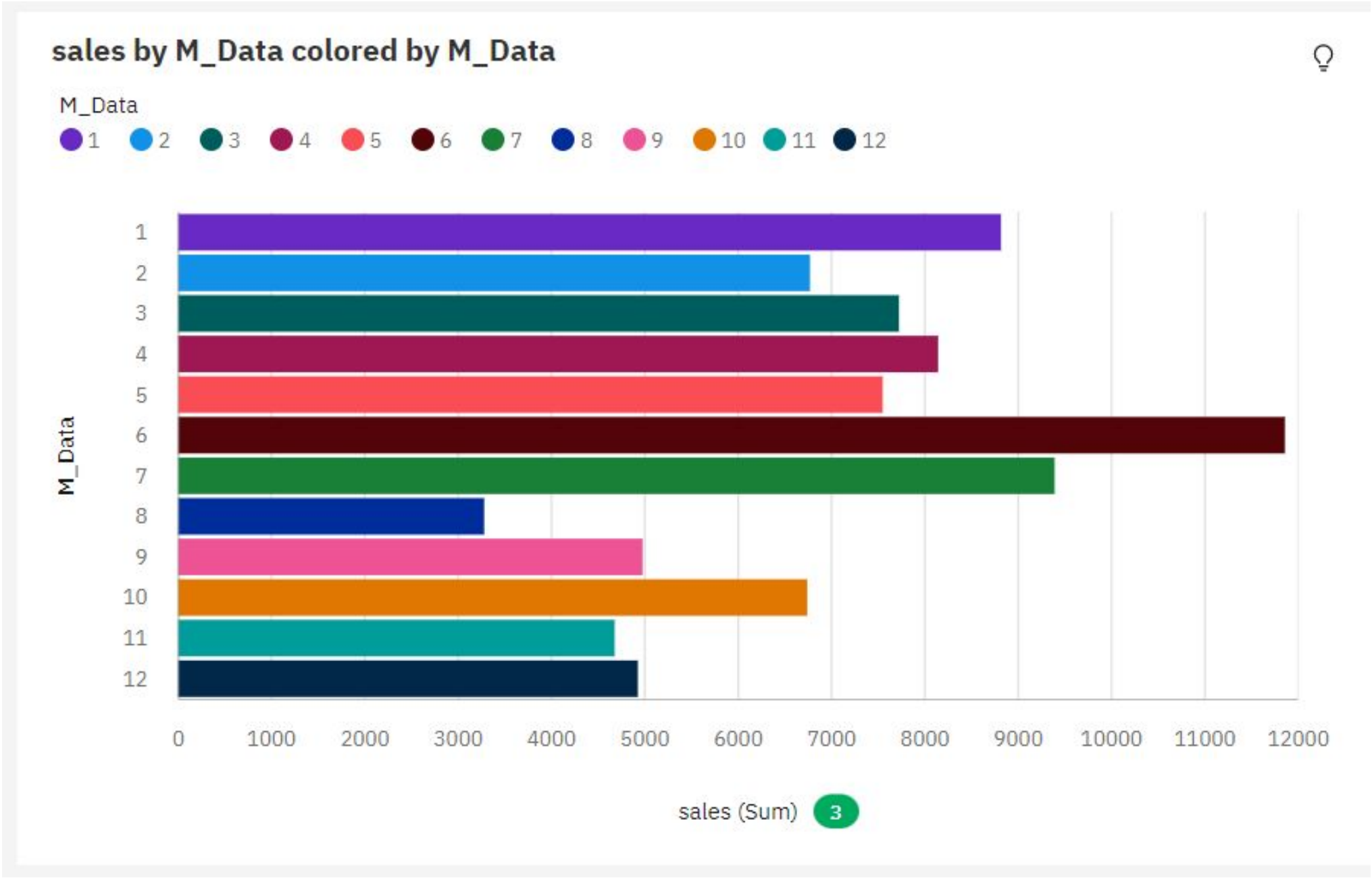
Row Id	Data_M	YEAR	SALES	STOCK	PRICE	Field Revenue
1	1	1 Jan, 2014	0	4972	1.29	0
2	1	2 Jan, 2014	70	4902	1.29	90.3
3	1	3 Jan, 2014	59	4843	1.29	76.11
4	1	4 Jan, 2014	93	4750	1.29	119.97
5	1	5 Jan, 2014	96	4654	1.29	123.84
6	1	6 Jan, 2014	145	4509	1.29	187.05
7	1	7 Jan, 2014	179	4329	1.29	230.91
8	1	8 Jan, 2014	321	4104	1.29	414.09000000
9	1	9 Jan, 2014	125	4459	1.09	136.25
10	1	10 Jan, 2014	88	5043	1.09	95.92
11	1	11 Jan, 2014	188	5239	1.09	204.92000000
12	1	12 Jan, 2014	121	5118	1.09	131.89000000
13	1	13 Jan, 2014	134	4984	1.09	146.06
14	1	14 Jan, 2014	80	4904	1.09	87.2

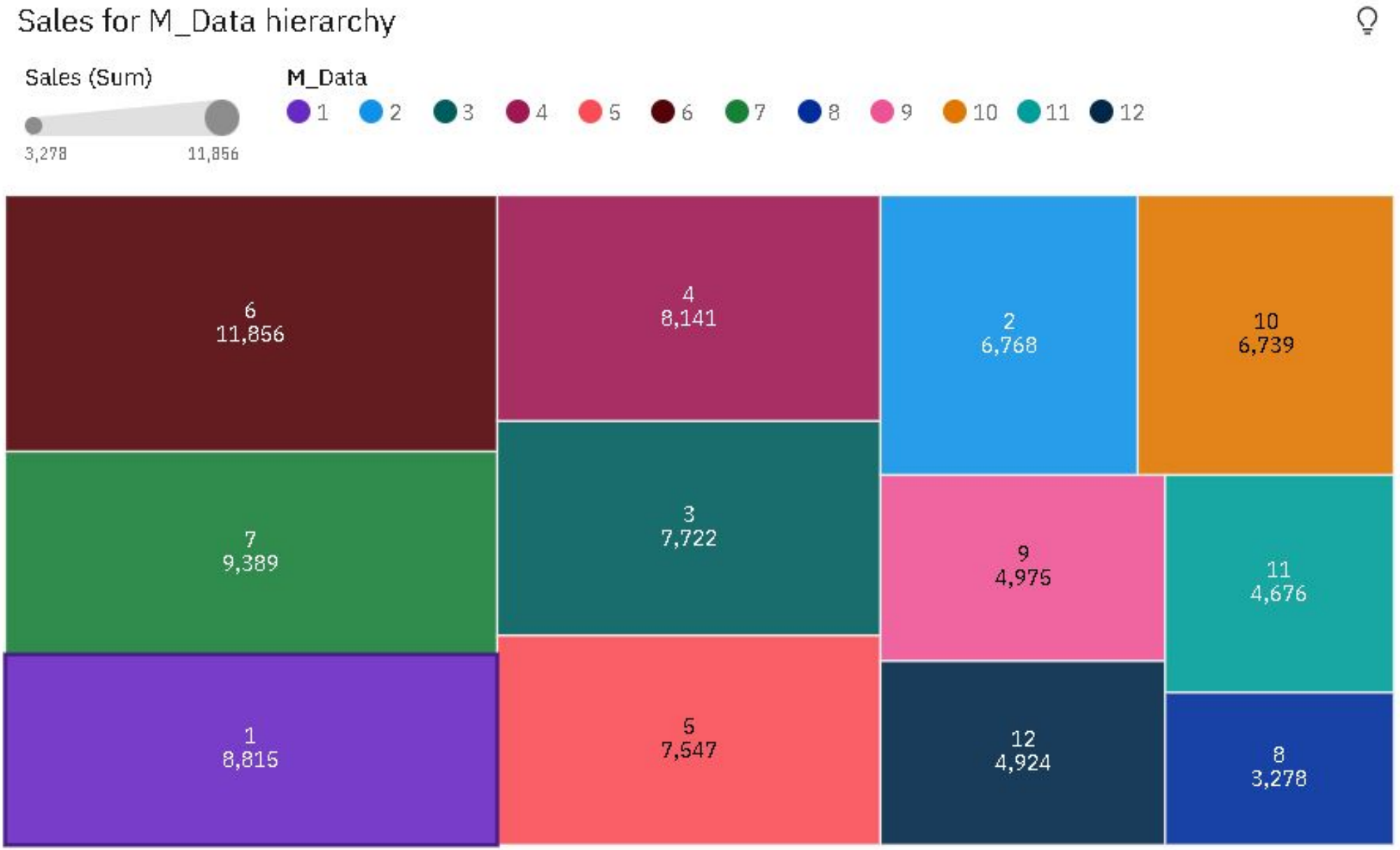
DATA EXPLORATION


Sales by Year
Forecast
600
500
400
300
200
100
0
Sales (Sum)
542
512
478
438
410
404
391
408
398
381
377
377
369
338
2/1/2014
8/23/2014
11/8/2014
3/21/2015
10/3/2015
12/22/2015
12/23/2015
5/7/2016
6/11/2016
6/15/2016
6/18/2016
1/1/2001
2/1/2001
3/1...
Year


Stock and Price for Year colored by Price
Price (Sum)
0
3
Line
Stock (Sum)
4
3
2
1
0
Price (Sum)
8000
6000
4000
2000
0
Stock (Sum)
1/1/2014
2/3/2014
3/10/2014
4/12/2014
5/14/2014
6/15/2014
7/17/2014
8/18/2014
9/20/2014
10/22/2014
11/23/2014
12/25/2014
1/26/2015
2/27/2015
3/31/2015
5/2/2015
6/3/2015
7/5/2015
8/6/2015
9/7/2015
10/9/2015
11/10/2015
12/12/2015
1/13/2016
2/14/2016
3/17/2016
4/18/2016
5/20/2016
6/21/2016
7/23/2016
Year

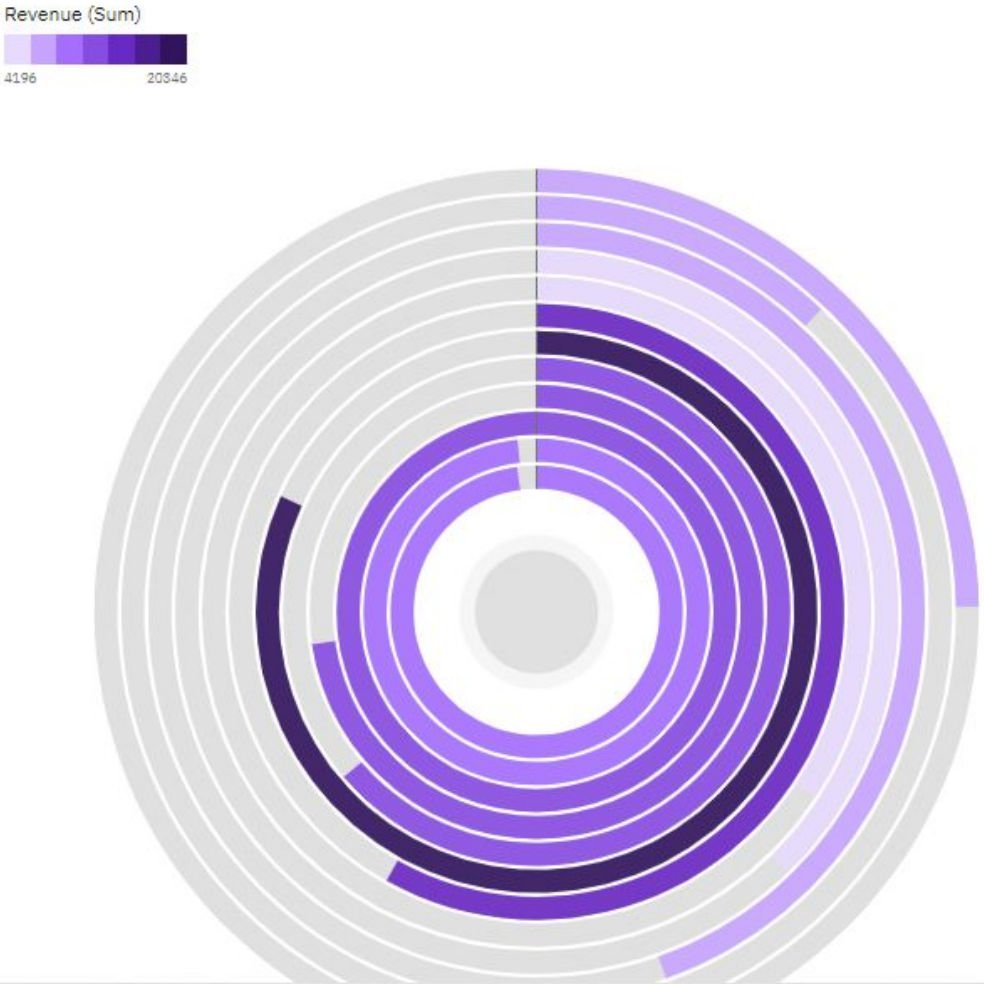

Price by Year
Forecast
Price (Sum)
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Year
5/1...
7/1...
9/2...
11/...
1/2...
3/3...
6/3...
8/6...
10/...
12/...
2/1...
4/1...
4/1...
6/1...
8/1...
10/...
12/...
2/2...
5/2...
7/5...
9/7...
11/...
1/1...
3/1...
5/2...


sales by M_Data colored by M_Data
M_Data
1
2
3
4
5
6
7
8
9
10
11
12
M_Data
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
sales (Sum)
3

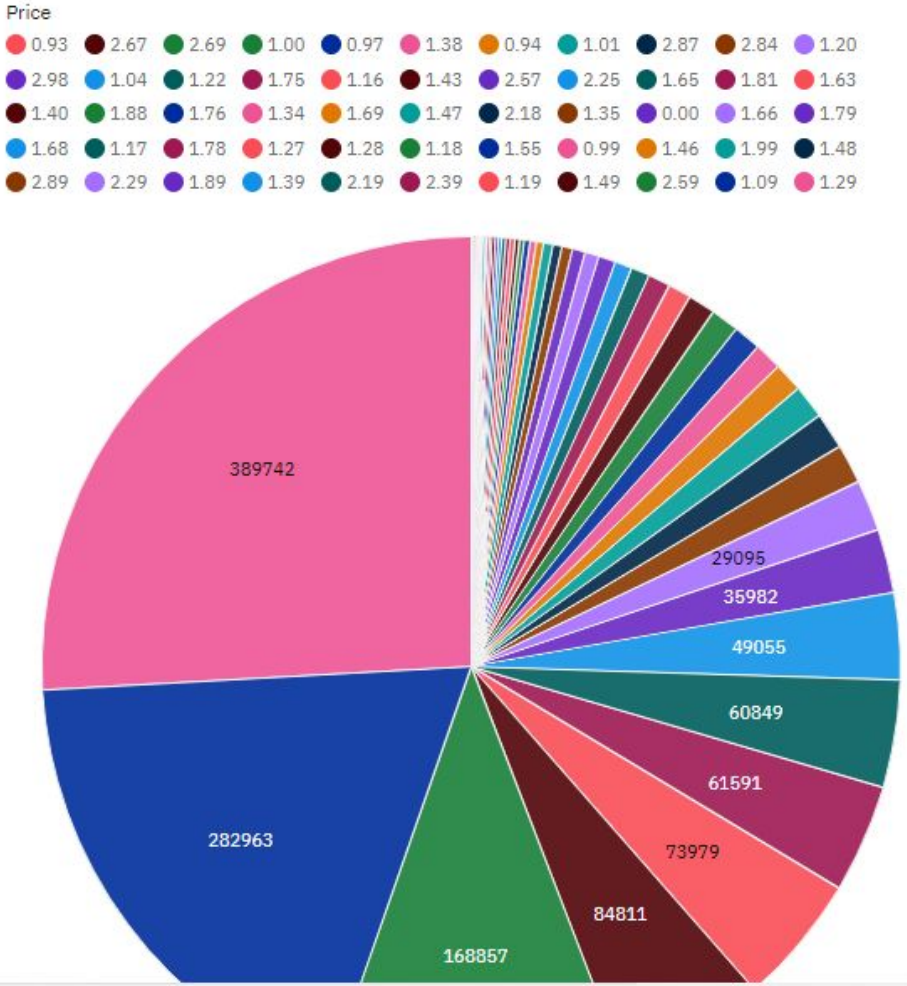

Sales for M_Data hierarchy
Sales (Sum)
3,278
11,856
M_Data
1
2
3
4
5
6
7
8
9
10
11
12
6
11,856
4
8,141
2
6,768
10
6,739
7
9,389
3
7,722
9
4,975
11
4,676
1
8,815
5
7,547
12
4,924
8
3,278

DASHBOARD CREATION

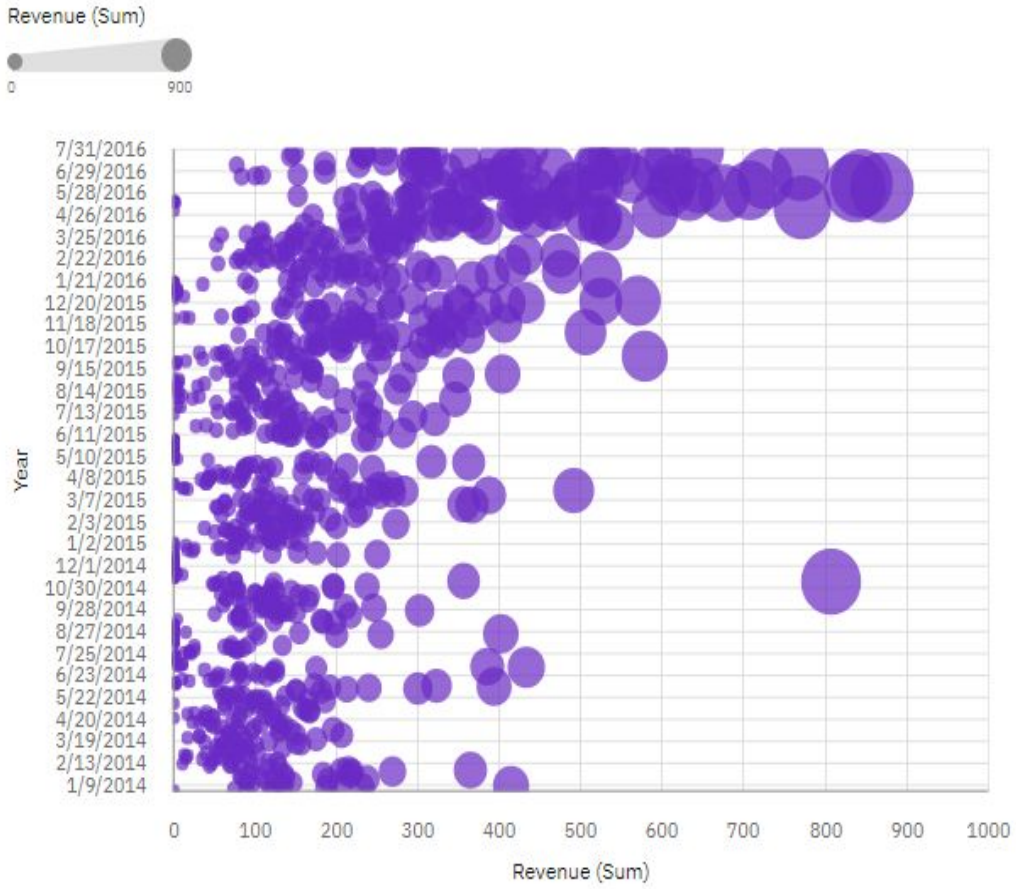
Stock by M_Data colored by Revenue



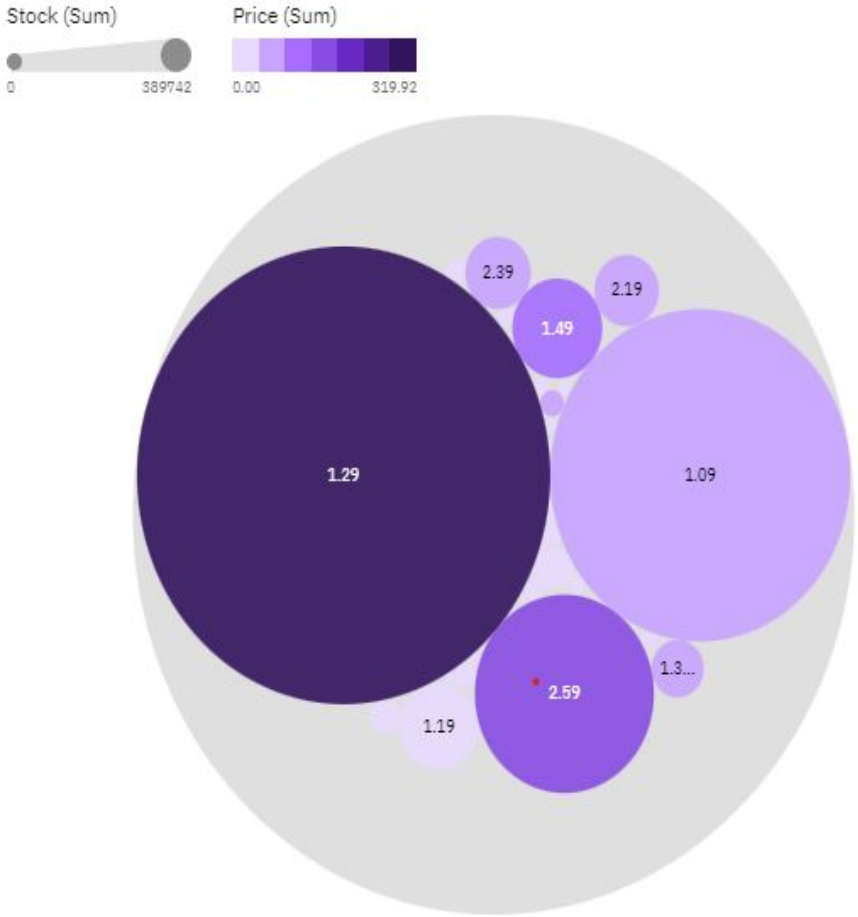
Stock by Price



Revenue by Year sized by Revenue



Price hierarchy colored by Price and sized by Stock

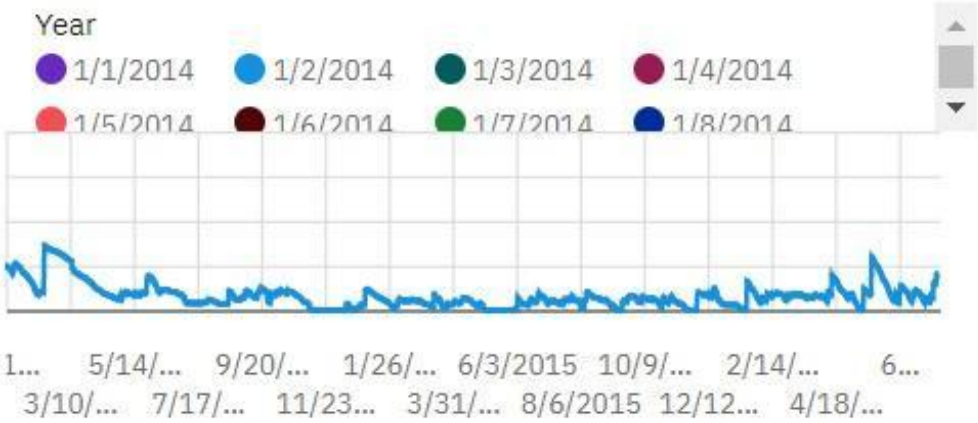


Stock

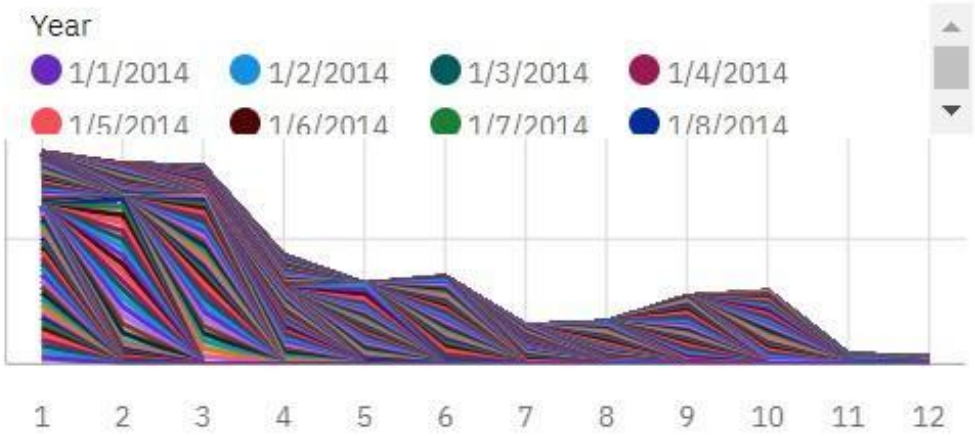
1506938

Stock

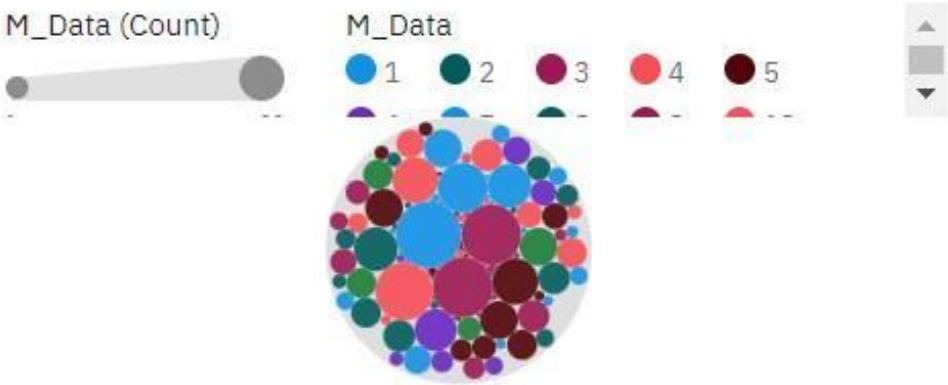
Stock and Price for Year colored by Year



Stock by M_Data colored by Year



Price hierarchy colored by M_Data and sized by M_Data



sales

84830

sales

1506938

Stock

Price

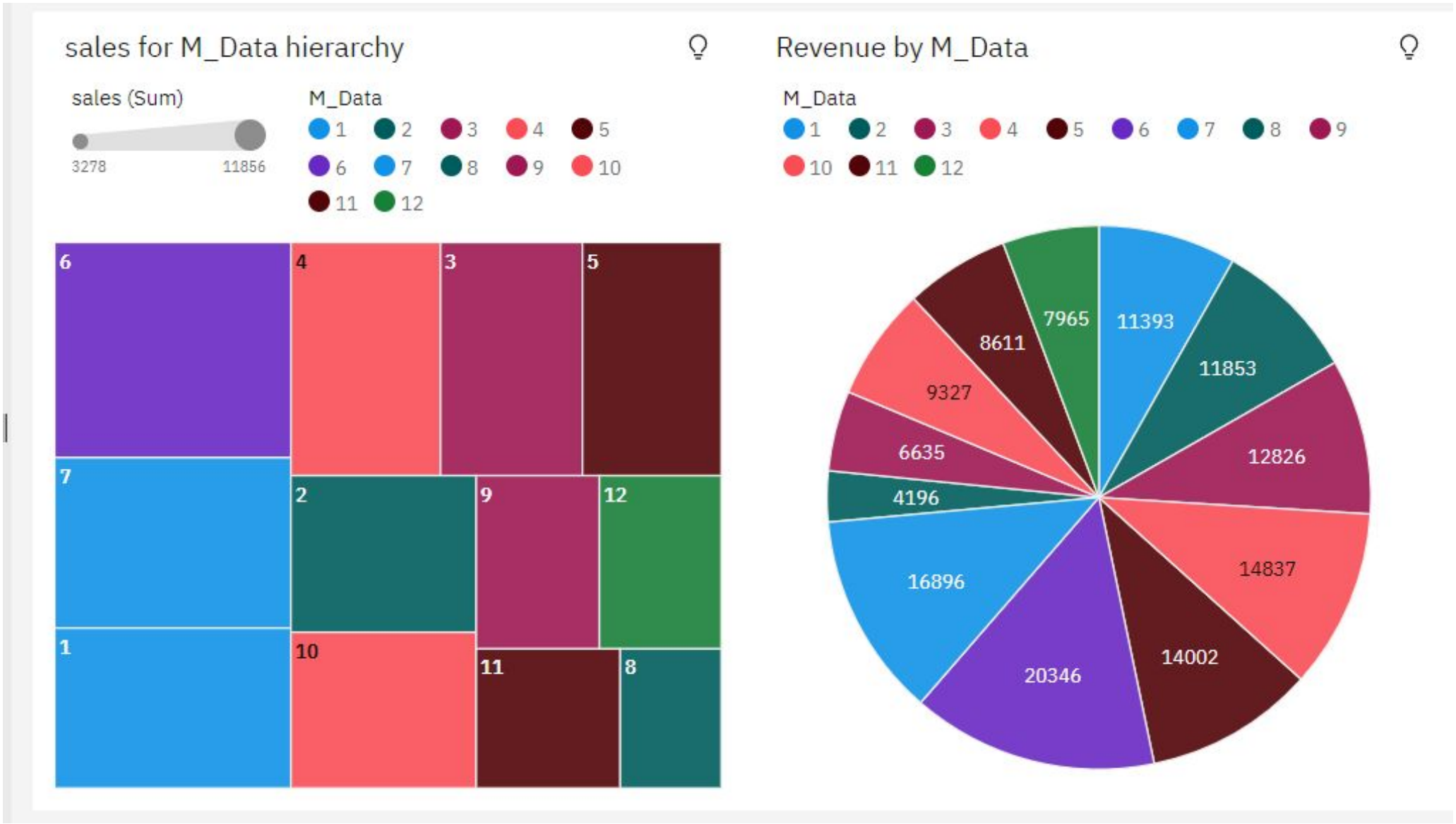
1492

Price

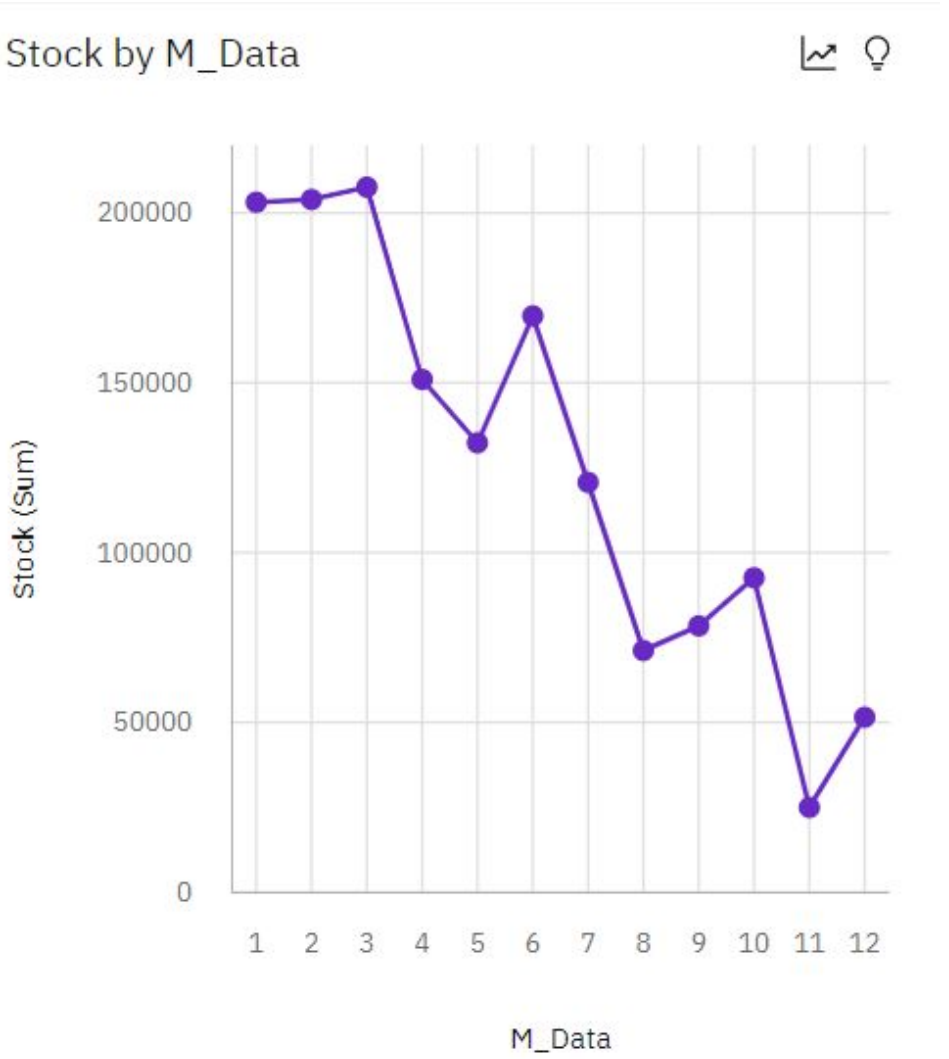
Revenue

138888

Revenue


sales for M_Data hierarchy
sales (Sum)
3278
11856
M_Data
1 2 3 4 5 6 7 8 9 10 11 12
6
4
3
5
7
2
9
12
1
10
11
8
Revenue by M_Data
M_Data
1 2 3 4 5 6 7 8 9 10 11 12
11393
11853
12826
14837
14002
20346
16896
4196
6635
9327
8611
7965

sales by M_Data
12000
10000
8000
6000
4000
2000
0
sales (Sum)
1 2 3 4 5 6 7 8 9 10 11 12
M_Data


Stock by M_Data
200000
150000
100000
50000
0
Stock (Sum)
1 2 3 4 5 6 7 8 9 10 11 12
M_Data

REPORT CREATION

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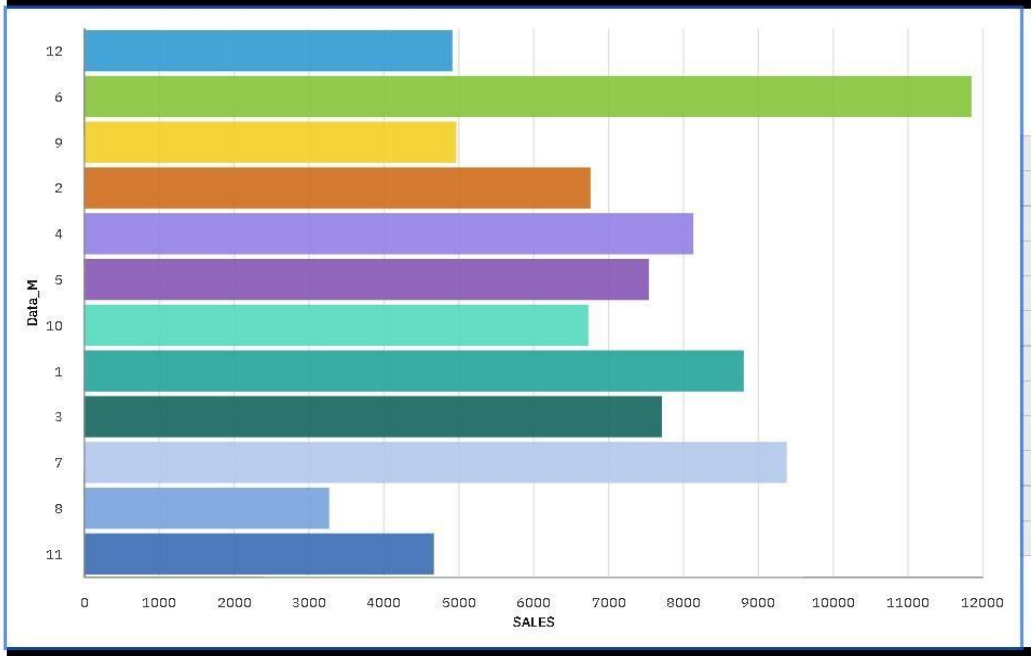
REPORT CREATION

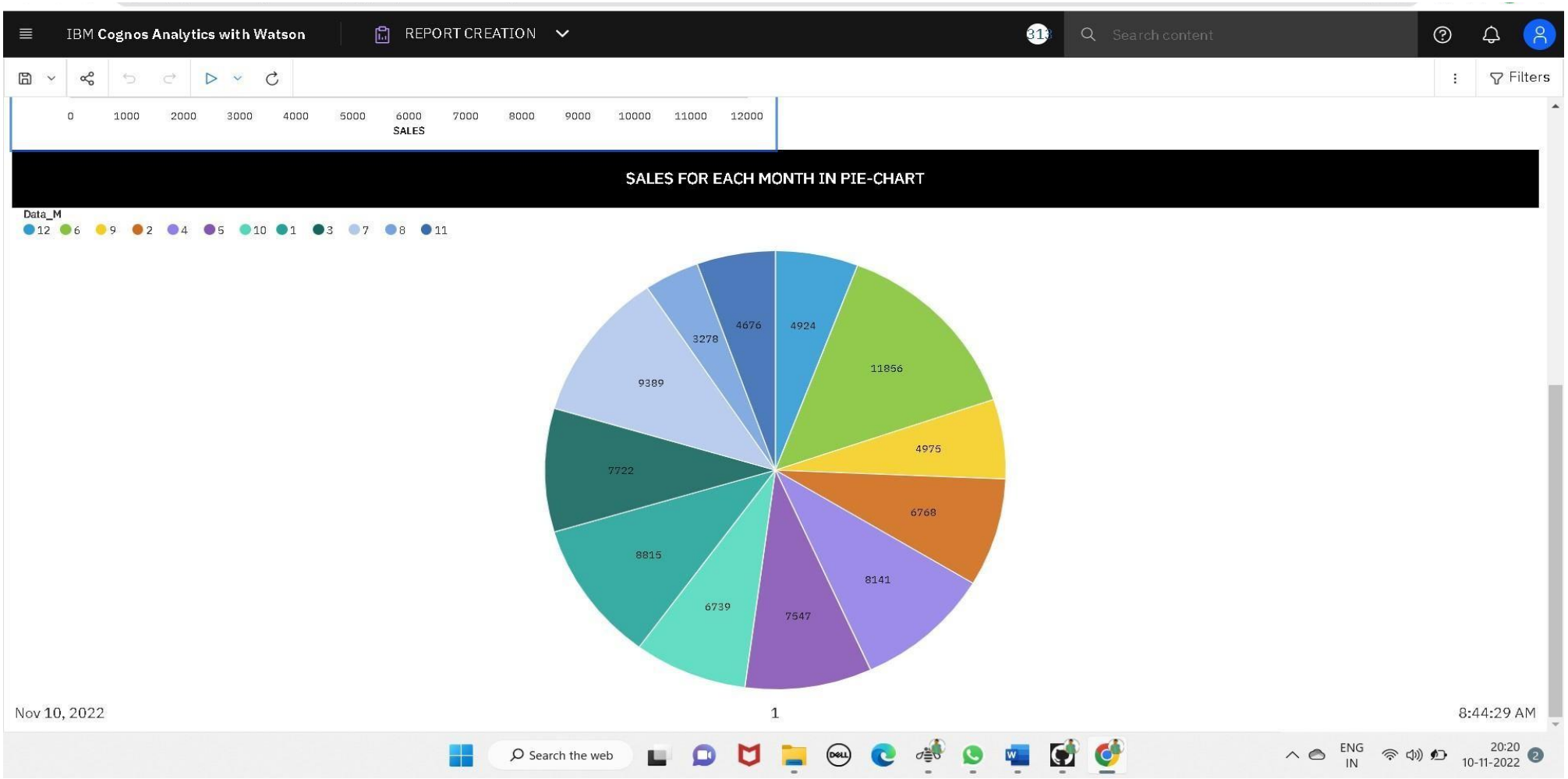
SALES BY MONTH



CROSS TABLE FOR EACH MONTH

	STOCK	SALES	PRICE	Field Revenue
12	51,506	4924	99.84	7,964.74
6	169,699	11856	145.44	20,346.16
9	78,403	4975	82.24	6,634.91
2	203,953	6768	154.74	11,853.04
4	150,978	8141	151.95	14,836.92
5	132,305	7547	155.08	14,001.79
10	92,563	6739	86.03	9,327.39
1	203,158	8815	119.39	11,393.38
3	207,607	7722	163.98	12,826.41
7	120,661	9389	148.28	16,896.24
8	71,162	3278	79.18	4,195.63
11	24,943	4676	106.09	8,611.23

SALES FOR EACH MONTH IN PIE-CHART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REPORT CREATION
Search content
Filters
0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 11000 12000
SALES
SALES FOR EACH MONTH IN PIE-CHART
Data_M
12 6 9 2 4 5 10 1 3 7 8 11
4924
11856
4975
6768
8141
7547
6739
8815
7722
9389
3278
4676
Nov 10, 2022
1
8:44:29 AM
Search the web
ENG
IN
20:20
10-11-2022