

Project Development Phase

Sprint - 1

Team ID	PNT2022TMID17628
Project Name	Project - Retail Store Stock Inventory Analytics

SPRINT-1

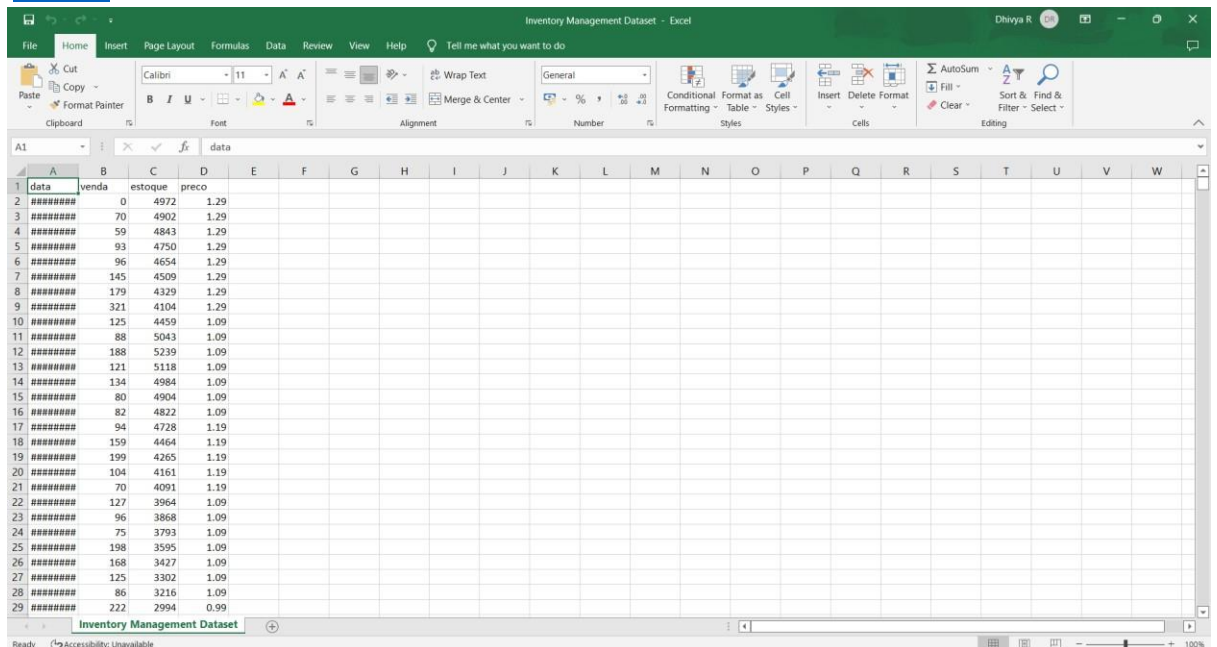
- Data Collection
- Data Preparation

Data Collection:

1. Download the Dataset

Dataset link -

<https://drive.google.com/file/d/1awFIKJ9LildnNHwGLcsgNDbbwshFHR-w/view>

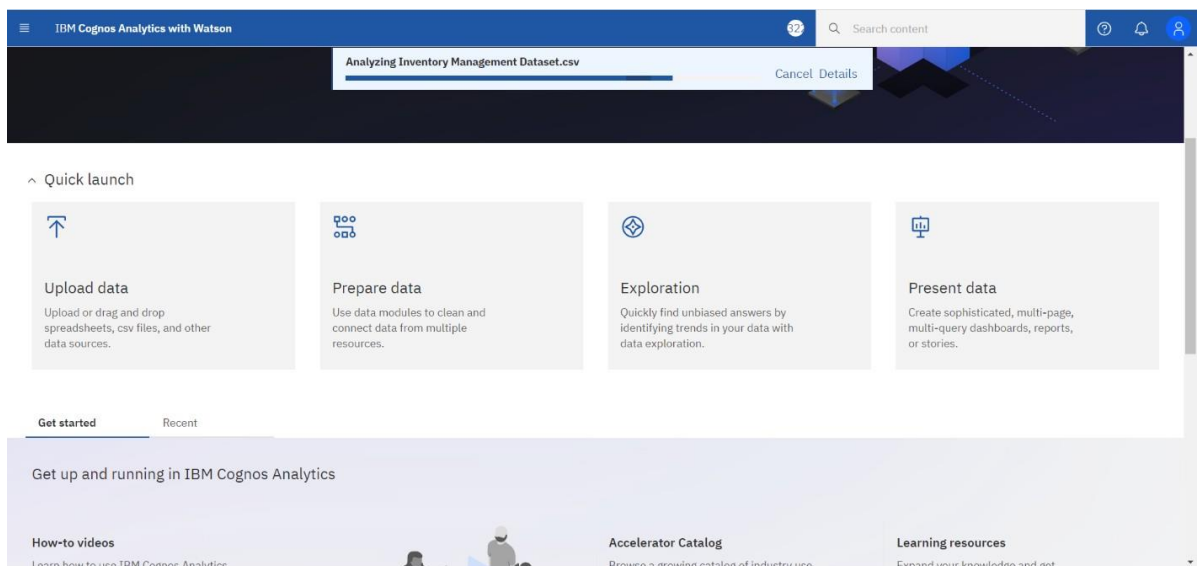


The screenshot shows an Excel spreadsheet titled 'Inventory Management Dataset'. The data is organized into columns: 'data' (containing dates), 'venda' (containing numerical values), 'estoque' (containing numerical values), and 'preco' (containing numerical values). The rows represent individual inventory items, with the first row being a header and subsequent rows containing data. The spreadsheet is displayed in a standard Excel interface with the ribbon visible at the top.

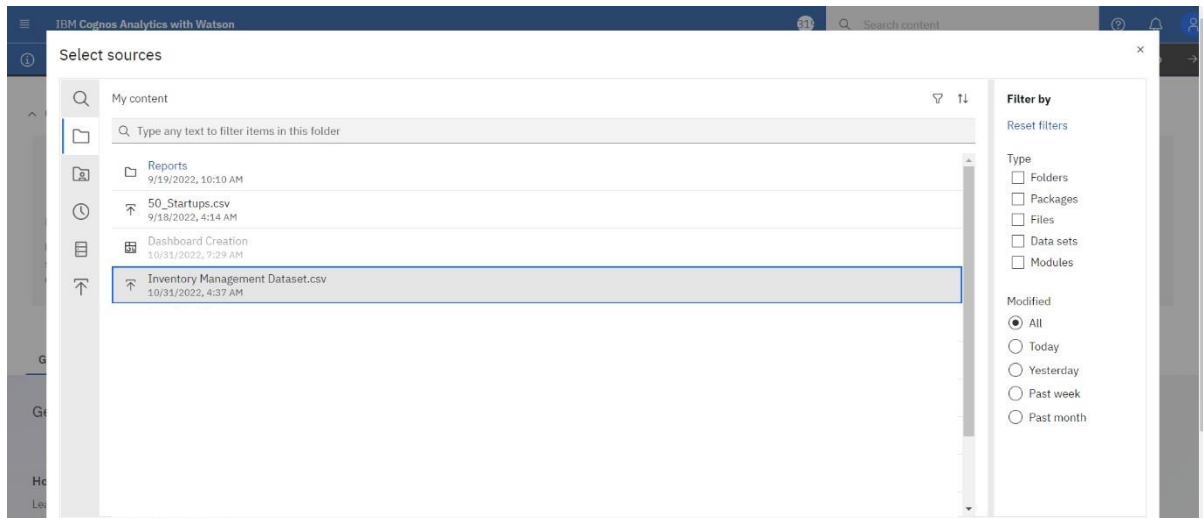
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	data	venda	estoque	preco																			
2	#####	0	4972	1.29																			
3	#####	70	4902	1.29																			
4	#####	59	4843	1.29																			
5	#####	93	4750	1.29																			
6	#####	96	4654	1.29																			
7	#####	145	4509	1.29																			
8	#####	179	4329	1.29																			
9	#####	321	4104	1.29																			
10	#####	125	4459	1.09																			
11	#####	88	5043	1.09																			
12	#####	188	5239	1.09																			
13	#####	121	5118	1.09																			
14	#####	134	4984	1.09																			
15	#####	80	4904	1.09																			
16	#####	82	4822	1.09																			
17	#####	94	4728	1.19																			
18	#####	159	4464	1.19																			
19	#####	199	4265	1.19																			
20	#####	104	4161	1.19																			
21	#####	70	4091	1.19																			
22	#####	127	3964	1.09																			
23	#####	96	3868	1.09																			
24	#####	75	3793	1.09																			
25	#####	198	3595	1.09																			
26	#####	168	3427	1.09																			
27	#####	125	3302	1.09																			
28	#####	86	3216	1.09																			
29	#####	222	2994	0.99																			

2. Load the Dataset

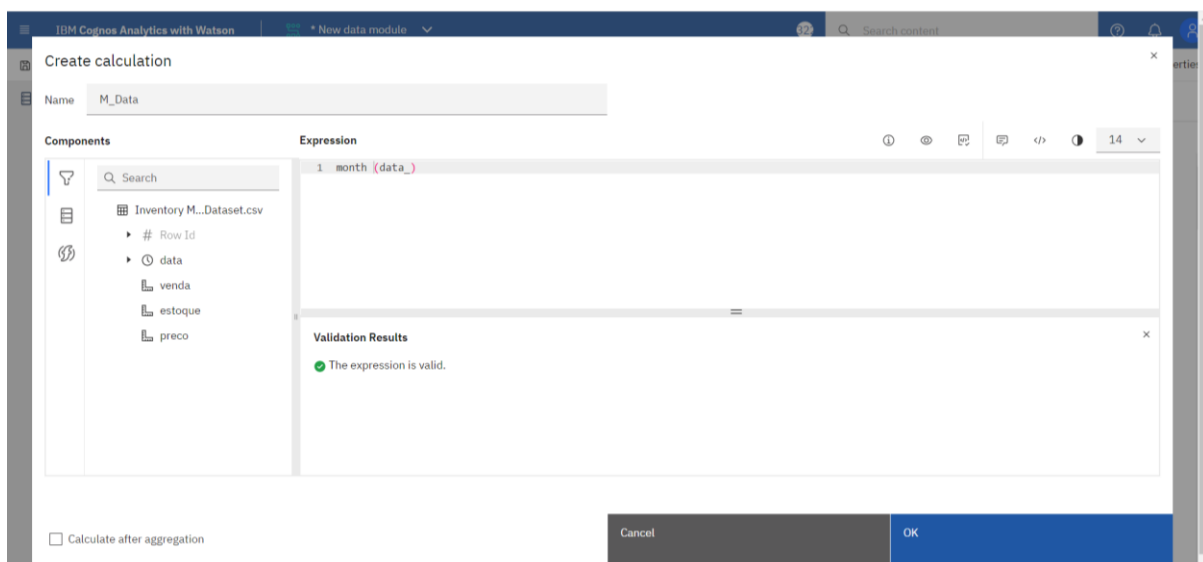
Tool Used: IBM Cognos



Data Preparation:



Month Data(M_Data):



The screenshot shows the 'Grid' view of the 'M_Data' data module. The table displays 15 rows of data with columns for Row Id, Year, Sales, Stock, and Price.

Row Id	Year	Sales	Stock	Price
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

Revenue Data:

Create calculation

Name

Revenue

Components

Search

Inventory M...Dataset.csv

- M_Data
- # Row Id
- Year
- Sales
- Stock
- Price

Expression

1 venda*preco

Validation Results

The expression is valid.

Calculate after aggregation

Cancel

OK

Revenue	M_Data	Row Id	Year	Sales	Stock	Price
0	1	1	2014-01-01	0	4972	1.29
90.3	1	2	2014-01-02	70	4902	1.29
76.11	1	3	2014-01-03	59	4843	1.29
119.97	1	4	2014-01-04	93	4750	1.29
123.84	1	5	2014-01-05	96	4654	1.29
187.05	1	6	2014-01-06	145	4509	1.29
230.91	1	7	2014-01-07	179	4329	1.29
414.09000000000003	1	8	2014-01-08	321	4104	1.29
136.25	1	9	2014-01-09	125	4459	1.09
95.92	1	10	2014-01-10	88	5043	1.09
204.92000000000002	1	11	2014-01-11	188	5239	1.09
131.89000000000001	1	12	2014-01-12	121	5118	1.09
146.06	1	13	2014-01-13	134	4984	1.09
87.2	1	14	2014-01-14	80	4904	1.09
89.38000000000001	1	15	2014-01-15	82	4822	1.09

Year Data:

Revenue	M_Data	Row Id	Year	Sales	Stock	Price
0	1	1	2014-01-01	0	4972	1.29
90.3	1	2	2014-01-02	70	4902	1.29
76.11	1	3	2014-01-03	59	4843	1.29
119.97	1	4	2014-01-04	93	4750	1.29
123.84	1	5	2014-01-05	96	4654	1.29
187.05	1	6	2014-01-06	145	4509	1.29
230.91	1	7	2014-01-07	179	4329	1.29
414.09000000000003	1	8	2014-01-08	321	4104	1.29
136.25	1	9	2014-01-09	125	4459	1.09
95.92	1	10	2014-01-10	88	5043	1.09
204.92000000000002	1	11	2014-01-11	188	5239	1.09
131.89000000000001	1	12	2014-01-12	121	5118	1.09
146.06	1	13	2014-01-13	134	4984	1.09
87.2	1	14	2014-01-14	80	4904	1.09
89.38000000000001	1	15	2014-01-15	82	4822	1.09

Stock Data:

IBM Cognos Analytics with Watson

New data module

11

Search content

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Properties

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Sales Data:

IBM Cognos Analytics with Watson

New data module

11

Search content

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Data module

+

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Search

New data module

Navigation paths

Inventory M...ataset.csv

- Revenue
- # M_Data
- # Row Id
- 🕒 Year
- Sales
- Stock
- Price

Grid

Relationships

Custom tables

11	Revenue	M_Data	Row Id	Year	Sales	Stock	Price
	0	1	1	2014-01-01	0	4972	1.29
	90.3	1	2	2014-01-02	70	4902	1.29
	76.11	1	3	2014-01-03	59	4843	1.29
	119.97	1	4	2014-01-04	93	4750	1.29
	123.84	1	5	2014-01-05	96	4654	1.29
	187.05	1	6	2014-01-06	145	4509	1.29
	230.91	1	7	2014-01-07	179	4329	1.29
	414.09000000000003	1	8	2014-01-08	321	4104	1.29
	136.25	1	9	2014-01-09	125	4459	1.09
	95.92	1	10	2014-01-10	88	5043	1.09
	204.92000000000002	1	11	2014-01-11	188	5239	1.09
	131.89000000000001	1	12	2014-01-12	121	5118	1.09
	146.06	1	13	2014-01-13	134	4984	1.09
	87.2	1	14	2014-01-14	80	4904	1.09
	89.38000000000001	1	15	2014-01-15	82	4822	1.09

Properties

Price Data:

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Search

New data module

Navigation paths

Inventory M...ataset.csv

Revenue

M_Data

Row Id

Year

Sales

Stock

Price

	M_Data	Row Id	Year	Sales	Stock	Price
1	1	1	2014-01-01	0	4972	1.29
1	1	2	2014-01-02	70	4902	1.29
1	1	3	2014-01-03	59	4843	1.29
1	1	4	2014-01-04	93	4750	1.29
1	1	5	2014-01-05	96	4654	1.29
1	1	6	2014-01-06	145	4509	1.29
1	1	7	2014-01-07	179	4329	1.29
00000000003	1	8	2014-01-08	321	4104	1.29
1	1	9	2014-01-09	125	4459	1.09
1	1	10	2014-01-10	88	5043	1.09
00000000002	1	11	2014-01-11	188	5239	1.09
00000000001	1	12	2014-01-12	121	5118	1.09
1	1	13	2014-01-13	134	4984	1.09
1	1	14	2014-01-14	80	4904	1.09
00000000001	1	15	2014-01-15	82	4822	1.09

Month Format Data:

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Search

New data module

Navigation paths

Inventory M...ataset.csv

Revenue

M_Data

Row Id

Year

Sales

Stock

Price

Data format

Column: M_Data

Format type: Date

Date separator: /

Date style: Short

Date ordering: Default

Missing value characters: <empty>

Advanced options

Reset properties

Cancel

OK

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Search

New data module

Navigation paths

Inventory M...ataset.csv

Revenue

M_Data

Row Id

Year

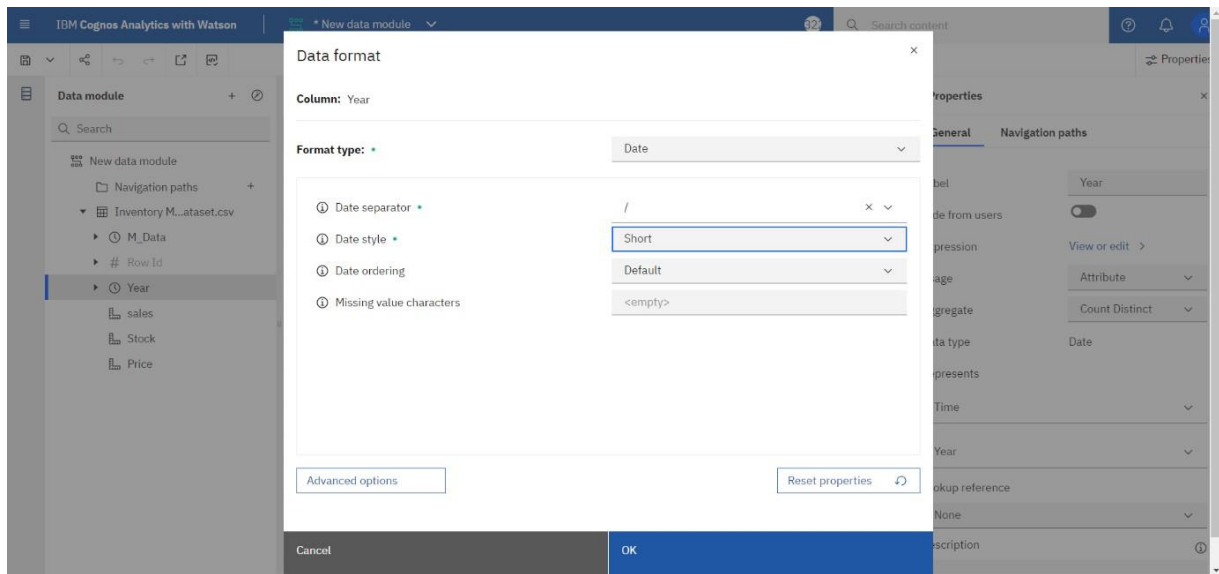
Sales

Stock

Price

Revenue	M_Data	Row Id	Year	sales	Stock	Price
0	1	1	1/1/14	0	4972	1
90.3	1	2	1/2/14	70	4902	1
76.11	1	3	1/3/14	59	4843	1
119.97	1	4	1/4/14	93	4750	1
123.84	1	5	1/5/14	96	4654	1
187.05	1	6	1/6/14	145	4509	1
230.91	1	7	1/7/14	179	4329	1
414.09000000000003	1	8	1/8/14	321	4104	1
136.25	1	9	1/9/14	125	4459	1
95.92	1	10	1/10/14	88	5043	1
204.92000000000002	1	11	1/11/14	188	5239	1
121.00000000000001	1	12	1/12/14	121	5118	1

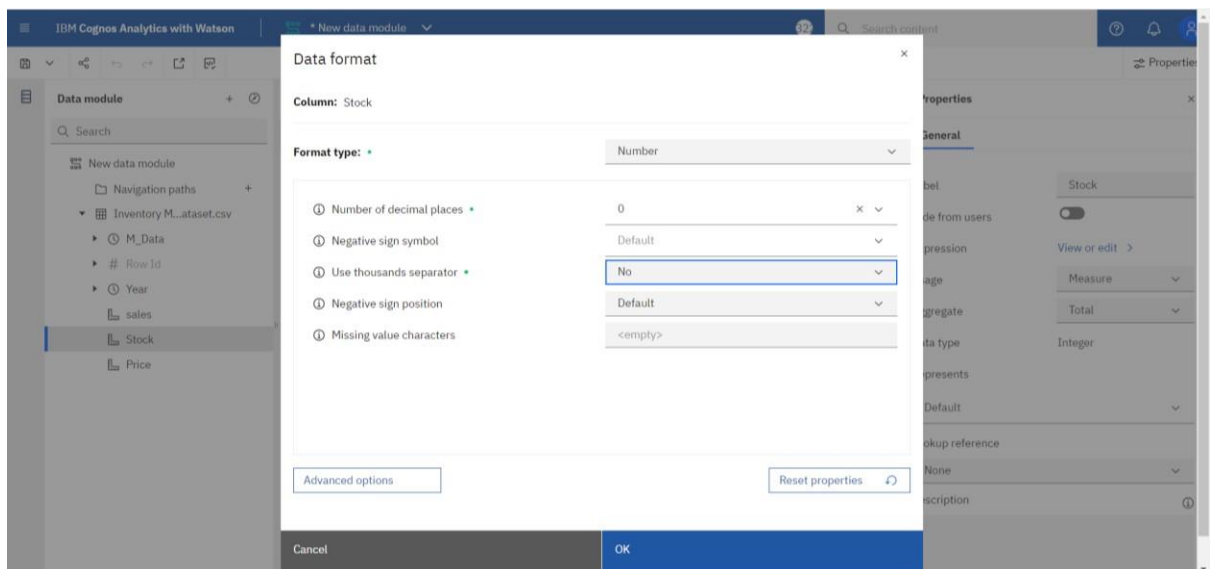
Year Format Data:



The screenshot shows the 'Data module' grid view in IBM Cognos Analytics. The table has the following columns: Revenue, M_Data, Row Id, Year, sales, Stock, and Price. The data is as follows:

Revenue	M_Data	Row Id	Year	sales	Stock	Price
0	1	1	1/1/14	0	4972	1
90.3	1	2	1/2/14	70	4902	1
76.11	1	3	1/3/14	59	4843	1
119.97	1	4	1/4/14	93	4750	1
123.84	1	5	1/5/14	96	4654	1
187.05	1	6	1/6/14	145	4509	1
230.91	1	7	1/7/14	179	4329	1
414.09000000000003	1	8	1/8/14	321	4104	1
136.25	1	9	1/9/14	125	4459	1
95.92	1	10	1/10/14	88	5043	1
204.92000000000002	1	11	1/11/14	188	5239	1
131.00000000000001	1	12	1/12/14	121	5110	1

Stock Format Data:



IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Search

New data module

Navigation paths

Inventory M...ataset.csv

Revenue

M_Data

Row Id

Year

sales

Stock

Price

Revenue	M_Data	Row Id	Year	sales	Stock	Price
0	1	1	1/1/14	0	4972	1
90.3	1	2	1/2/14	70	4902	1
76.11	1	3	1/3/14	59	4843	1
119.97	1	4	1/4/14	93	4750	1
123.84	1	5	1/5/14	96	4654	1
187.05	1	6	1/6/14	145	4509	1
230.91	1	7	1/7/14	179	4329	1
414.09000000000003	1	8	1/8/14	321	4104	1
136.25	1	9	1/9/14	125	4459	1
95.92	1	10	1/10/14	88	5043	1
204.92000000000002	1	11	1/11/14	188	5239	1
131.00000000000001	1	12	1/12/14	131	5110	1

Sales Format Data:

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Search

New data module

Navigation paths

Inventory M...ataset.csv

Revenue

M_Data

Row Id

Year

sales

Stock

Price

Data format

Column: sales

Format type: Number

Number of decimal places: 0

Negative sign symbol: Default

Use thousands separator: No

Negative sign position: Default

Missing value characters: <empty>

Advanced options

Reset properties

Cancel

OK

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Search

New data module

Navigation paths

Inventory M...ataset.csv

Revenue

M_Data

Row Id

Year

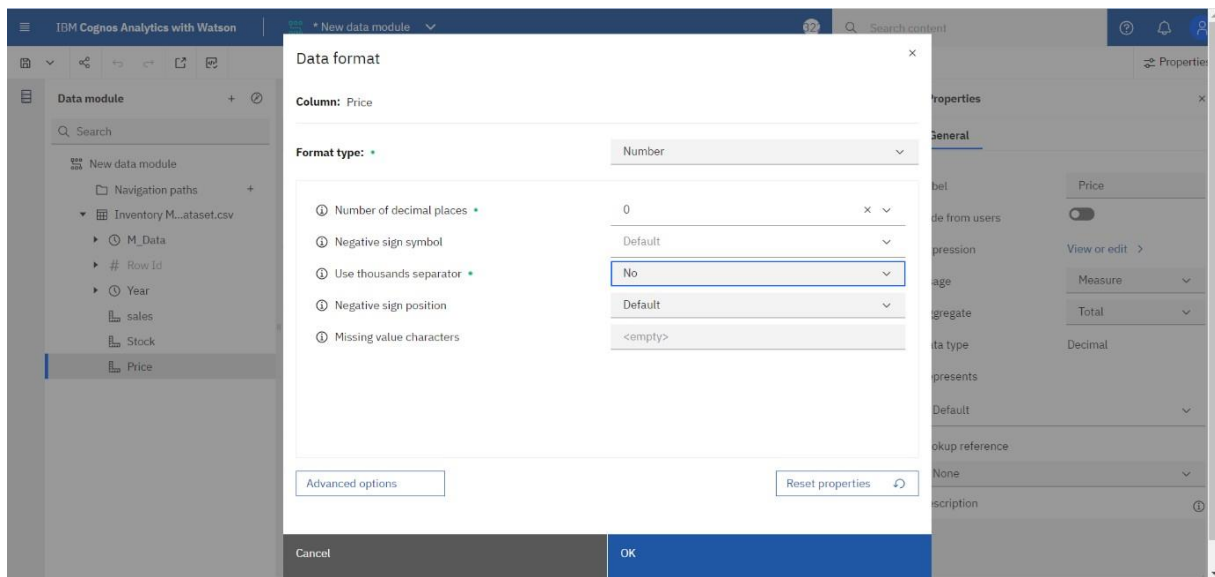
sales

Stock

Price

Revenue	M_Data	Row Id	Year	sales	Stock	Price
0	1	1	1/1/14	0	4972	1
90.3	1	2	1/2/14	70	4902	1
76.11	1	3	1/3/14	59	4843	1
119.97	1	4	1/4/14	93	4750	1
123.84	1	5	1/5/14	96	4654	1
187.05	1	6	1/6/14	145	4509	1
230.91	1	7	1/7/14	179	4329	1
414.09000000000003	1	8	1/8/14	321	4104	1
136.25	1	9	1/9/14	125	4459	1
95.92	1	10	1/10/14	88	5043	1
204.92000000000002	1	11	1/11/14	188	5239	1
131.00000000000001	1	12	1/12/14	131	5110	1

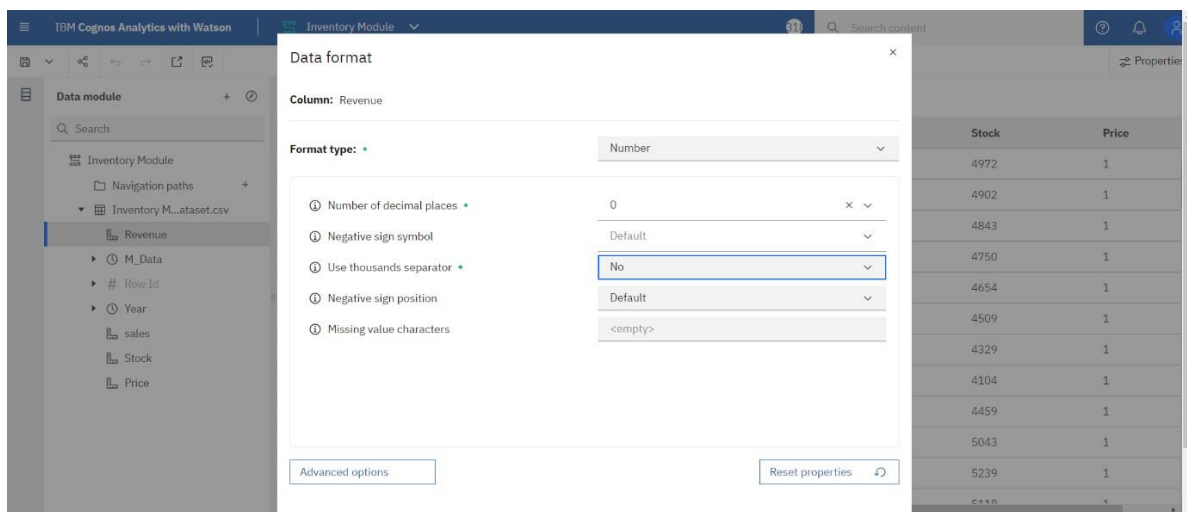
Price Format Data:



The screenshot shows the 'Data module' grid view. The 'Price' column is highlighted. The data is as follows:

	M_Data	Row Id	Year	sales	Stock	Price
	1	1	1/1/14	0	4972	1
	1	2	1/2/14	70	4902	1
	1	3	1/3/14	59	4843	1
	1	4	1/4/14	93	4750	1
	1	5	1/5/14	96	4654	1
	1	6	1/6/14	145	4509	1
	1	7	1/7/14	179	4329	1
00000000003	1	8	1/8/14	321	4104	1
	1	9	1/9/14	125	4459	1
	1	10	1/10/14	88	5043	1
00000000002	1	11	1/11/14	188	5239	1
00000000001	1	12	1/12/14	121	5116	1

Revenue Format Data:



Revenue	M_Data	Row Id	Year	Sales	Stock	Price
0	1	1	1/1/14	0	4972	1
90	1	2	1/2/14	70	4902	1
76	1	3	1/3/14	59	4843	1
120	1	4	1/4/14	93	4750	1
124	1	5	1/5/14	96	4654	1
187	1	6	1/6/14	145	4509	1
231	1	7	1/7/14	179	4329	1
414	1	8	1/8/14	321	4104	1
136	1	9	1/9/14	125	4459	1
96	1	10	1/10/14	88	5043	1
205	1	11	1/11/14	188	5239	1
132	1	12	1/12/14	121	5118	1
146	1	13	1/13/14	134	4984	1
87	1	14	1/14/14	80	4904	1
89	1	15	1/15/14	82	4822	1

Year Properties:

Revenue	M_Data	Row Id	Year	sales
0	1	1	1/1/14	0
90	1	2	1/2/14	70
76	1	3	1/3/14	59
120	1	4	1/4/14	93
124	1	5	1/5/14	96
187	1	6	1/6/14	145
231	1	7	1/7/14	179
414	1	8	1/8/14	321
136	1	9	1/9/14	125
96	1	10	1/10/14	88
205	1	11	1/11/14	188

Properties

General

Label: Year

Hide from users: ☐

Expression: [View or edit](#)

Usage: Attribute

Aggregate: Count Distinct

Data type: Date

Represents: Time

Year:

Lookup reference: None

Sales Properties:

M_Data	Row Id	Year	sales
1	1	1/1/14	0
1	2	1/2/14	70
1	3	1/3/14	59
1	4	1/4/14	93
1	5	1/5/14	96
1	6	1/6/14	145
1	7	1/7/14	179
1	8	1/8/14	321
1	9	1/9/14	125
1	10	1/10/14	88
1	11	1/11/14	188

Properties

General

Label: sales

Hide from users: ☐

Expression: [View or edit](#)

Usage: Measure

Aggregate: Total

Data type: Integer

Represents: Default

Lookup reference: None

Description: [View or edit](#)

Stock Properties:

IBM Cognos Analytics with Watson | Inventory Module

Search content

Properties

Data module

Inventory Module

Navigation paths

Inventory M...ataset.csv

Revenue

M_Data

Row Id

Year

sales

Stock

Price

Grid

Row Id	Year	sales	Stock
1	1/1/14	0	4972
2	1/2/14	70	4902
3	1/3/14	59	4843
4	1/4/14	93	4750
5	1/5/14	96	4654
6	1/6/14	145	4509
7	1/7/14	179	4329
8	1/8/14	321	4104
9	1/9/14	125	4459
10	1/10/14	88	5043
11	1/11/14	188	5239

Properties

General

Label: Stock

Hide from users: ☐

Expression: View or edit >

Usage: Measure

Aggregate: Total

Data type: Integer

Represents: Default

Lookup reference: None

Description:

Price Properties:

IBM Cognos Analytics with Watson | Inventory Module

Search content

Properties

Data module

Inventory Module

Navigation paths

Inventory M...ataset.csv

Revenue

M_Data

Row Id

Year

sales

Stock

Price

Grid

Year	sales	Stock	Price
1/1/14	0	4972	1
1/2/14	70	4902	1
1/3/14	59	4843	1
1/4/14	93	4750	1
1/5/14	96	4654	1
1/6/14	145	4509	1
1/7/14	179	4329	1
1/8/14	321	4104	1
1/9/14	125	4459	1
1/10/14	88	5043	1
1/11/14	188	5239	1

Properties

General

Label: Price

Hide from users: ☐

Expression: View or edit >

Usage: Measure

Aggregate: Total

Data type: Decimal

Represents: Default

Lookup reference: None

Description:

Revenue Properties:

IBM Cognos Analytics with Watson | Inventory Module

Search content

Properties

Data module

Inventory Module

Navigation paths

Inventory M...ataset.csv

Revenue

M_Data

Row Id

Year

sales

Grid

Revenue	M_Data	Row Id	Year	sales
0	1	1	1/1/14	0
90	1	2	1/2/14	70
76	1	3	1/3/14	59
120	1	4	1/4/14	93
124	1	5	1/5/14	96
187	1	6	1/6/14	145
231	1	7	1/7/14	179
414	1	8	1/8/14	321
136	1	9	1/9/14	125
96	1	10	1/10/14	88
205	1	11	1/11/14	188

Properties

General

Label: Revenue

Hide from users: ☐

Expression: View or edit >

Usage: Measure

Calculate after aggregation: ☐

Aggregate: Total

Data type: Decimal

Represents: Default

Lookup reference: None

M_Data Properties:

The screenshot displays the IBM Cognos Analytics interface. On the left, the 'Data module' pane shows a tree structure with 'Inventory Module' expanded, containing 'Navigation paths', 'Inventory M...ataset.csv', 'Revenue', and 'M_Data' (highlighted). The main area shows a table with columns: Revenue, M_Data, Row Id, Year, and sales. The 'Properties' pane on the right is open, showing the 'General' tab for 'M_Data'. The properties include: Label (M_Data), Hide from users (toggle off), Expression (View or edit >), Usage (Attribute), Aggregate (Count Distinct), Data type (Integer), Represents (Time), and Month (dropdown). The table data is as follows:

Revenue	M_Data	Row Id	Year	sales
0	1	1	1/1/14	0
90	1	2	1/2/14	70
76	1	3	1/3/14	59
120	1	4	1/4/14	93
124	1	5	1/5/14	96
187	1	6	1/6/14	145
231	1	7	1/7/14	179
414	1	8	1/8/14	321
136	1	9	1/9/14	125
96	1	10	1/10/14	88
205	1	11	1/11/14	188
422	1	12	1/12/14	121

Prepared Data link:

https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2FInventory%2BModule