

Project Development Phase

Sprint - 1

Team ID	PNT2022TMID18287
Project Name	Project - Retail Store Stock Inventory Analytics

SPRINT-1

- Data Collection
- Data Preparation

Data Collection:

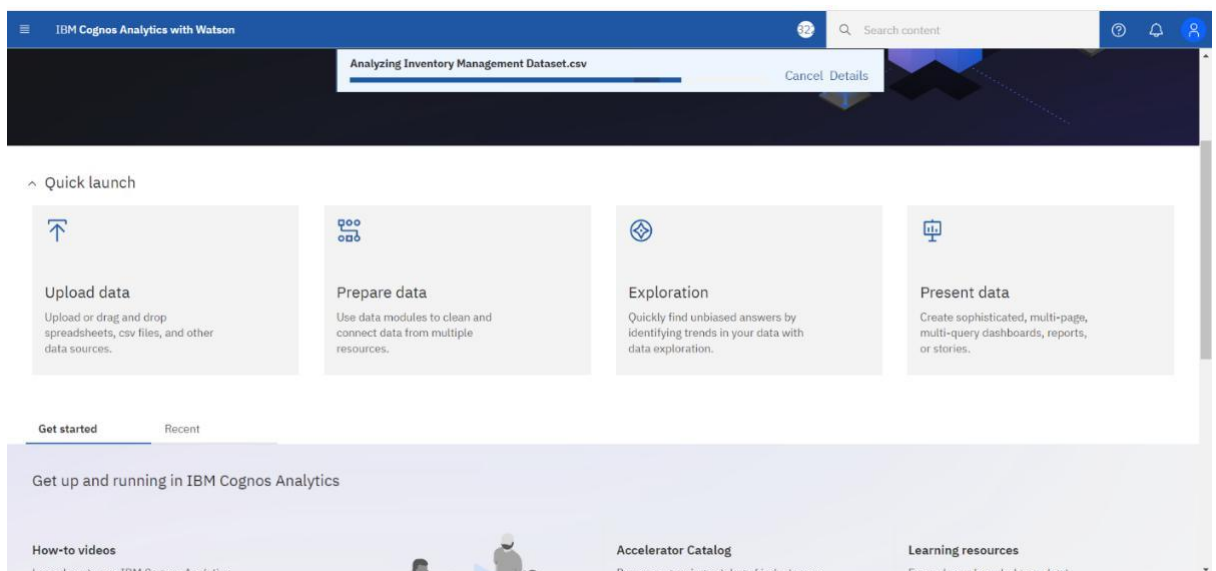
1. Download the Dataset Dataset link -

<https://drive.google.com/file/d/1awFIKJ9LiIdnNHwGLcsqNDbbwshFHR-w/view>

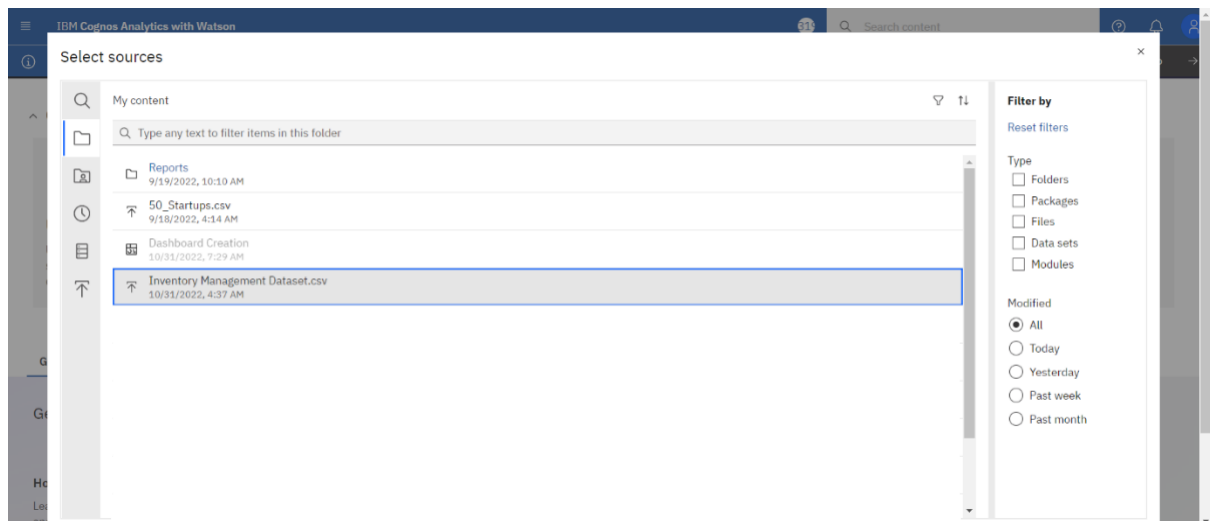
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	data	venda	estoque	preco																		
2	#####	0	4972	1.29																		
3	#####	70	4902	1.29																		
4	#####	59	4843	1.29																		
5	#####	93	4750	1.29																		
6	#####	96	4654	1.29																		
7	#####	145	4509	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

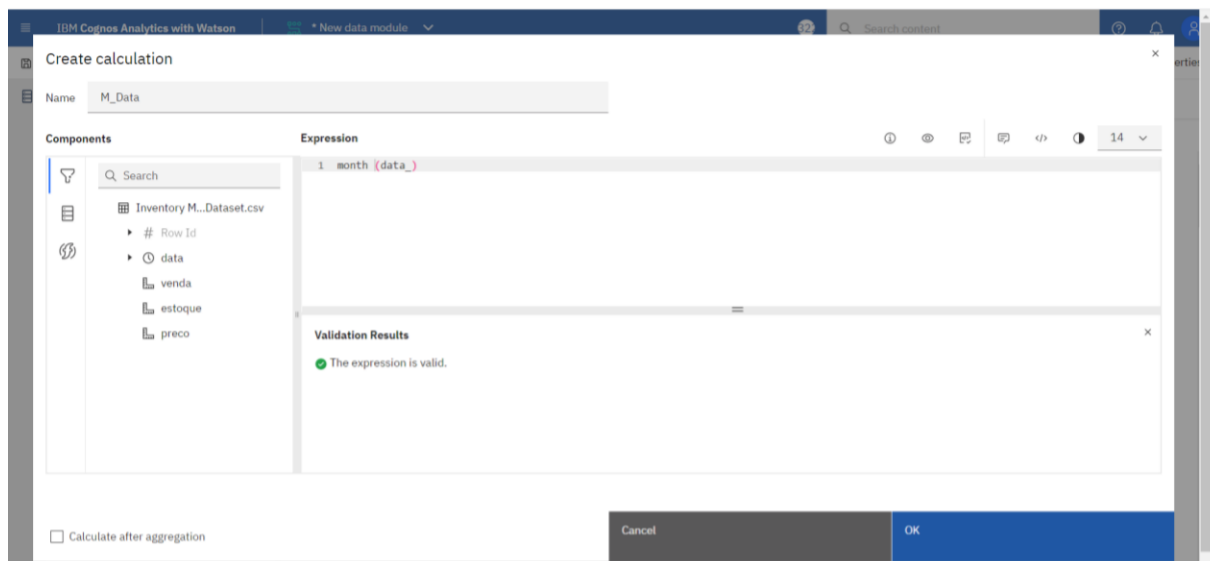
Tool Used: IBM Cognos



Data Preparation:



Month Data(M_Data):



The screenshot shows the main interface of IBM Cognos Analytics. The 'Data module' list on the left includes 'M_Data'. The 'Grid' view displays a table with columns: Row Id, Year, Sales, Stock, and Price. The table contains 15 rows of data.

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

NameRevenue

Components

Search

Inventory M...Dataset.csv

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

Expression

1venda*preco

Validation Results

- The expression is valid.

☐ Calculate after aggregation

CancelOK

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:

The screenshot shows the IBM Cognos Analytics interface with a data module named 'Inventory M...ataset.csv'. The 'Stock' table is selected in the left-hand navigation pane. The main area displays a table with 8 columns: Revenue, M_Data, Row Id, Year, Sales, Stock, and Price. The data represents daily stock prices for 2014, with the 'Stock' column highlighted in grey.

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

Sales Data:

The screenshot shows the IBM Cognos Analytics interface with the same data module. The 'Sales' table is selected in the left-hand navigation pane. The main area displays a table with 8 columns: Revenue, M_Data, Row Id, Year, Sales, Stock, and Price. The data represents daily stock prices for 2014, with the 'Sales' column highlighted in grey.

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

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

Grid Relationships Custom tables

	M_Data	Row Id	Year	Sales	Stock	Price
1	1	1	2014-01-01	0	4972	1.29
1	2	2	2014-01-02	70	4902	1.29
1	3	3	2014-01-03	59	4843	1.29
1	4	4	2014-01-04	93	4750	1.29
1	5	5	2014-01-05	96	4654	1.29
1	6	6	2014-01-06	145	4509	1.29
1	7	7	2014-01-07	179	4329	1.29
00000000003	1	8	2014-01-08	321	4104	1.29
1	9	9	2014-01-09	125	4459	1.09
1	10	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	13	13	2014-01-13	134	4984	1.09
1	14	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

① Date separator: /

① Date style: Short

① Date ordering: Default

① Missing value characters: <empty>

Advanced options

Reset properties

Cancel OK

Properties

General

Navigation paths

Label: M_Data

Hide from users: ☐

Expression: View or edit

Aggregate: Attribute

Data type: Count Distinct

Time: Integer

Month: Integer

Description:

IBM Cognos Analytics with Watson | * New data module

Search content

Properties

Data module

Search

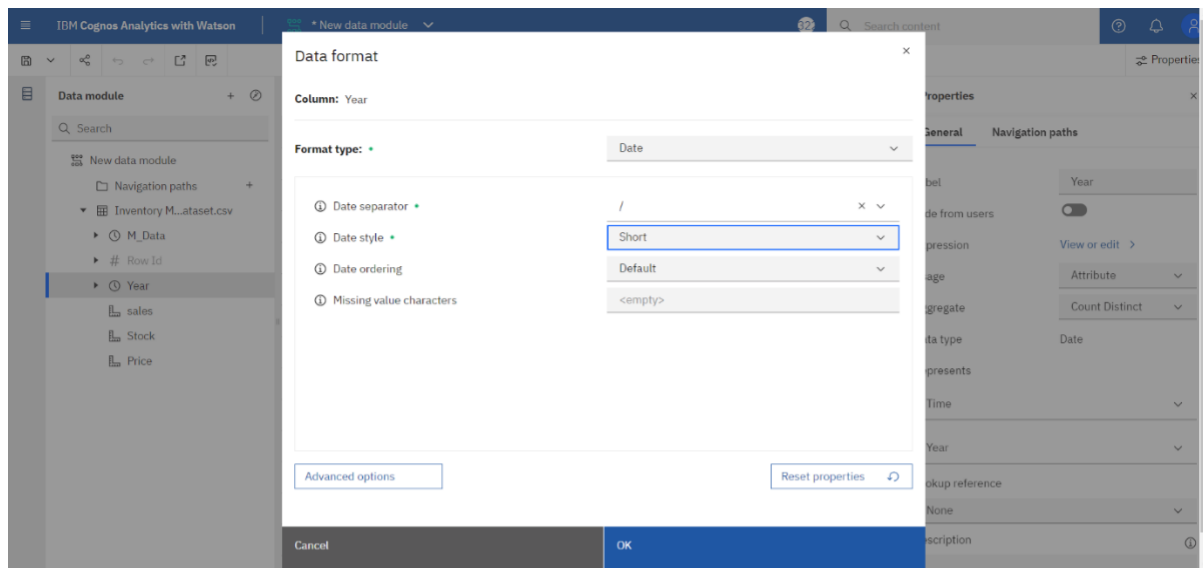
New data module

- Navigation paths
- Inventory M...ataset.csv
 - Revenue
 - # M_Data
 - # Row Id
 - Year
 - Sales
 - Stock
 - Price

Grid Relationships Custom tables

	Revenue	M_Data	Row Id	Year	sales	Stock	Price
0	1	1	1	1/1/14	0	4972	1
90.3	1	2	2	1/2/14	70	4902	1
76.11	1	3	3	1/3/14	59	4843	1
119.97	1	4	4	1/4/14	93	4750	1
123.84	1	5	5	1/5/14	96	4654	1
187.05	1	6	6	1/6/14	145	4509	1
230.91	1	7	7	1/7/14	179	4329	1
414.09000000000003	1	8	8	1/8/14	321	4104	1
136.25	1	9	9	1/9/14	125	4459	1
95.92	1	10	10	1/10/14	88	5043	1
204.92000000000002	1	11	11	1/11/14	188	5239	1
134.00000000000001	1	12	12	1/12/14	121	5118	1

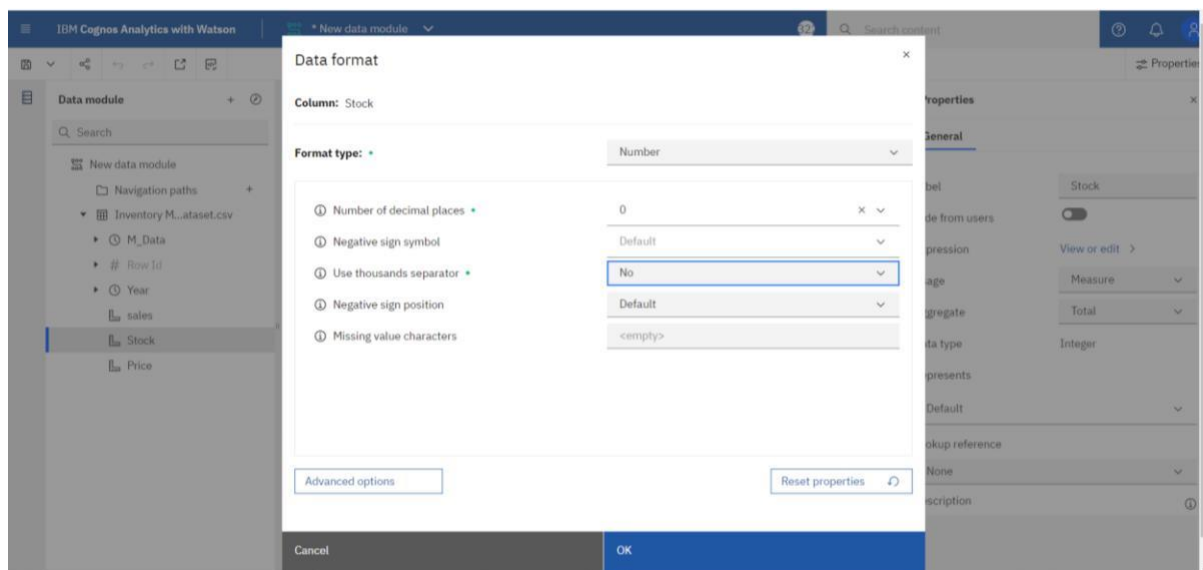
Year Format Data:



The screenshot shows the IBM Cognos Analytics interface with a data grid. The columns are: 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	131	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

Grid Relationships Custom tables

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	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

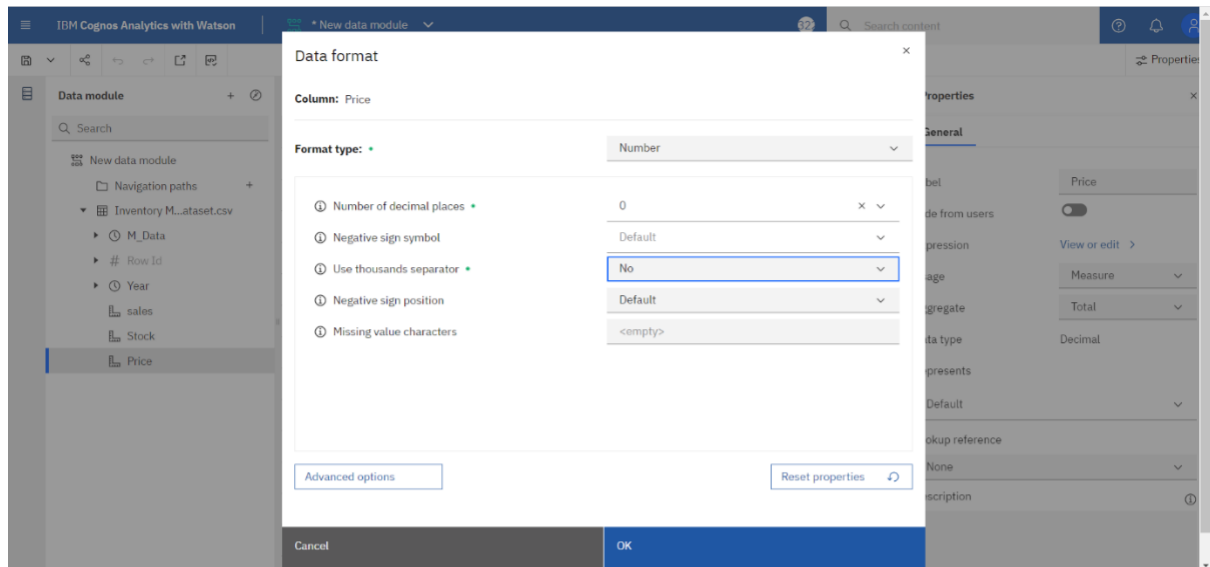
New data module

- Navigation paths
- Inventory M...ataset.csv
 - Revenue
 - M_Data
 - Row Id
 - Year
 - sales
 - Stock
 - Price

Grid Relationships Custom tables

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	131	5110	1

Price Format Data:



The screenshot shows the data grid with the 'Price' column highlighted. The grid displays data for the 'Price' column, with values ranging from 1 to 11. The 'Price' column is highlighted in blue.

	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	8	1/8/14	321	4104	1
	1	9	1/9/14	125	4459	1
	1	10	1/10/14	88	5043	1
	00000000002	11	1/11/14	188	5239	1
	00000000001	12	1/12/14	131	5110	1

Revenue Format Data:

The screenshot shows the 'Data format' dialog box for the 'Revenue' column. The 'Format type' is set to 'Number'. The 'Number of decimal places' is 0, 'Negative sign symbol' is 'Default', 'Use thousands separator' is 'No', 'Negative sign position' is 'Default', and 'Missing value characters' is '<empty>'. The 'Advanced options' button is visible at the bottom left, and the 'Reset properties' button is at the bottom right. The 'OK' button is at the bottom right, and the 'Cancel' button is at the bottom left.

	Stock	Price
	4972	1
	4902	1
	4843	1
	4750	1
	4654	1
	4509	1
	4329	1
	4104	1
	4459	1
	5043	1
	5239	1
	5110	1

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

Year

Label

Hide from users

Expression

Usage

Aggregate

Data type

Represents

Time

Year

Lookup reference

General

Navigation paths

Year

☐

View or edit

Attribute

Count Distinct

Date

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

sales

Label

Hide from users

Expression

Usage

Aggregate

Data type

Represents

Default

Lookup reference

Description

General

sales

☐

View or edit

Measure

Total

Integer

None

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 view 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 'M_Data' column is highlighted. On the right, the 'Properties' pane is open, showing the 'General' tab for the 'M_Data' table. The properties include: Label (M_Data), Hide from users (toggle), Expression (View or edit), Usage (Attribute), Aggregate (Count Distinct), Data type (Integer), Represents (Time), Month, and Description.

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
122	1	12	1/12/14	121