

Project Development Phase

Sprint - 1

Team ID	PNT2022TMID27973
Project Name	Project - Retail Store Stock Inventory Analytics

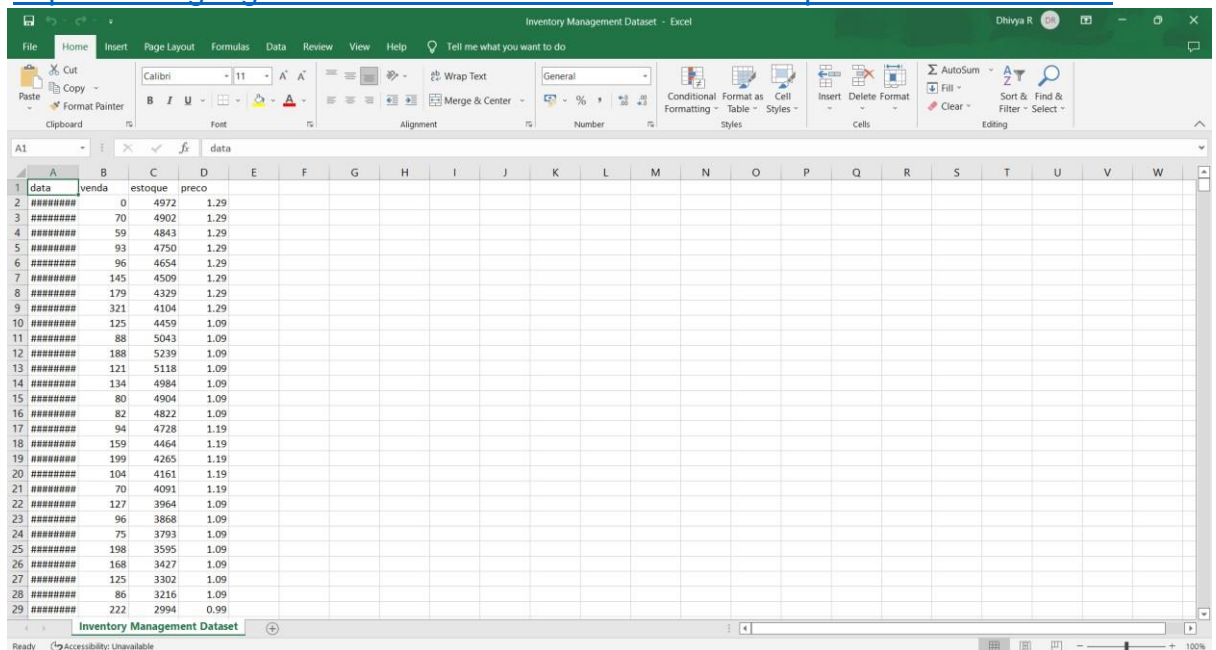
SPRINT-1

- Data Collection
- Data Preparation **Data Collection:**

1. Download the Dataset

Dataset link -

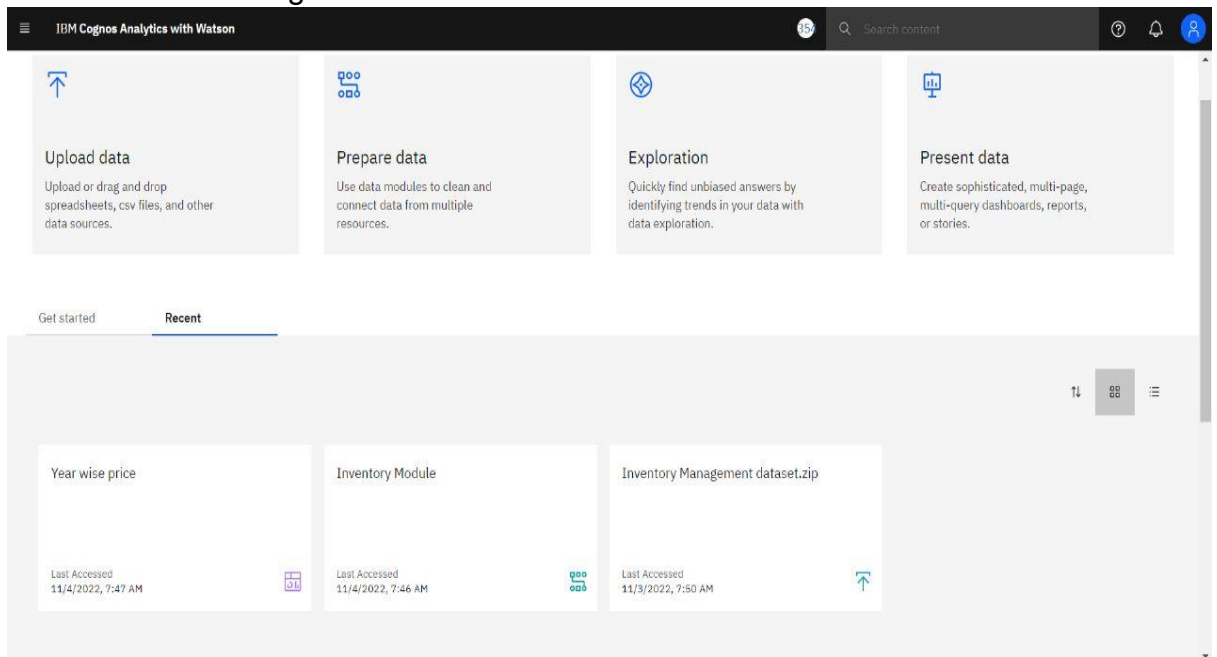
<https://drive.google.com/file/d/1awFIKJ9LildnNHwGLcsqNDbbwshFHRw/view>



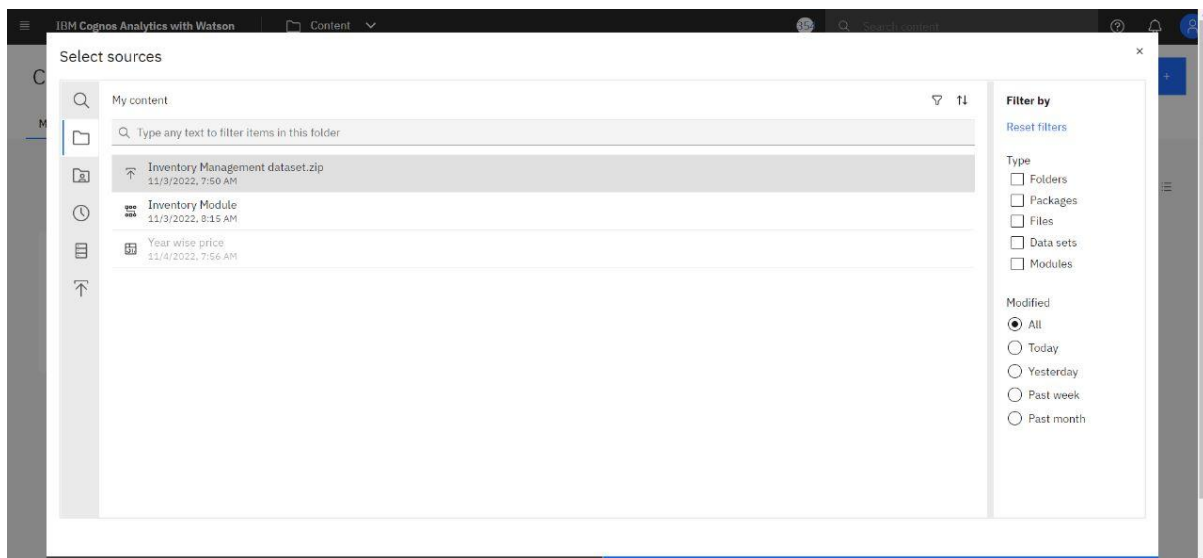
data	venda	estoque	preco
0	4972	1.29	
70	4902	1.29	
59	4843	1.29	
93	4750	1.29	
96	4654	1.29	
145	4509	1.29	
179	4329	1.29	
321	4104	1.29	
125	4459	1.09	
88	5043	1.09	
188	5239	1.09	
121	5118	1.09	
134	4984	1.09	
80	4904	1.09	
82	4822	1.09	
94	4728	1.19	
159	4464	1.19	
199	4265	1.19	
104	4161	1.19	
70	4091	1.19	
127	3964	1.09	
96	3868	1.09	
75	3793	1.09	
198	3595	1.09	
168	3427	1.09	
125	3302	1.09	
86	3216	1.09	
222	2994	0.99	

2. Load the Dataset

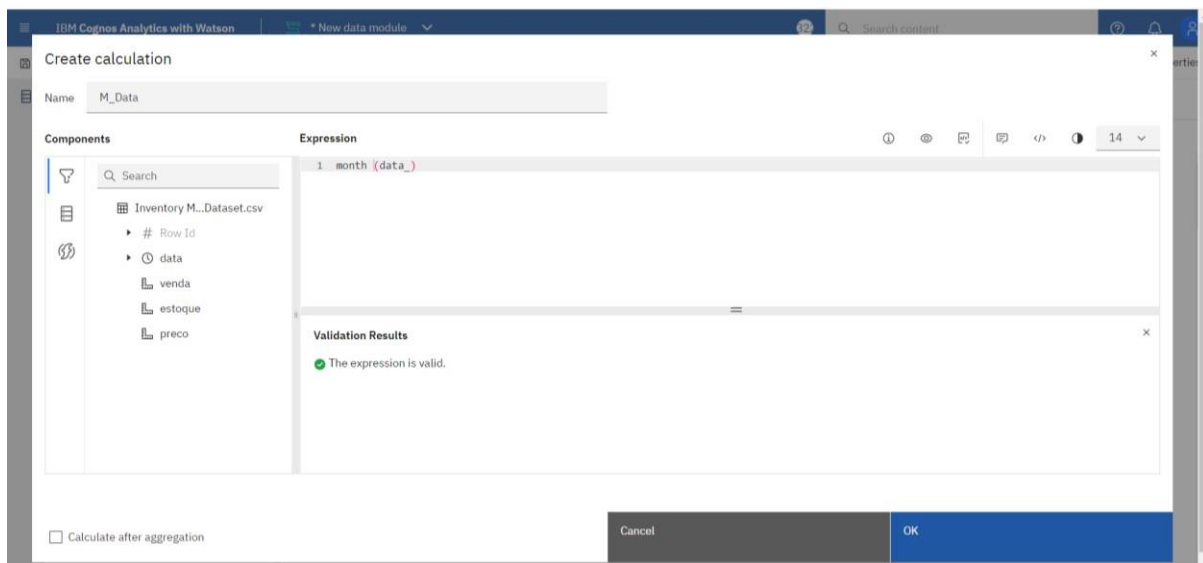
Tool Used: IBM Cognos



Data Preparation:



Month Data(M_Data):



The screenshot shows the 'Data module' grid view in IBM Cognos Analytics. The table displays 15 rows of data for the 'M_Data' module. The columns are: Row Id, Year, Sales, Stock, and Price. The data represents monthly values for 2014.

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

1 venda*preco

Validation Results

The expression is valid.

☐ Calculate after aggregation

CancelOK

IBM Cognos Analytics with WatsonNew data moduleSearch contentProperties

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	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:

The screenshot shows the IBM Cognos Analytics interface. The top navigation bar includes the IBM Cognos Analytics with Watson logo, a dropdown menu for 'New data module', a search bar, and user profile icons. The left sidebar shows a 'Data module' tree with 'Inventory M...ataset.csv' expanded, listing 'Revenue', 'M_Data', 'Row Id', 'Year', 'Sales', 'Stock', and 'Price'. The main area displays a table with columns: Revenue, M_Data, Row Id, Year, Sales, Stock, and Price. The 'Year' column is highlighted in the table header.

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. The top navigation bar includes the IBM Cognos Analytics with Watson logo, a dropdown menu for 'New data module', a search bar, and user profile icons. The left sidebar shows a 'Data module' tree with 'Inventory M...ataset.csv' expanded, listing 'Revenue', 'M_Data', 'Row Id', 'Year', 'Sales', 'Stock', and 'Price'. The main area displays a table with columns: Revenue, M_Data, Row Id, Year, Sales, Stock, and Price. The 'Stock' column is highlighted in the table header.

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. The top navigation bar includes the logo, the text 'IBM Cognos Analytics with Watson', a dropdown menu for '* New data module', a search bar with 'Search content', and user profile icons. The left sidebar shows a 'Data module' tree with 'Inventory M...ataset.csv' expanded, listing 'Revenue', 'M_Data', 'Row Id', 'Year', 'Sales', 'Stock', and 'Price'. The main area displays a table with columns: Revenue, M_Data, Row Id, Year, Sales, Stock, and Price. The table contains 15 rows of data.

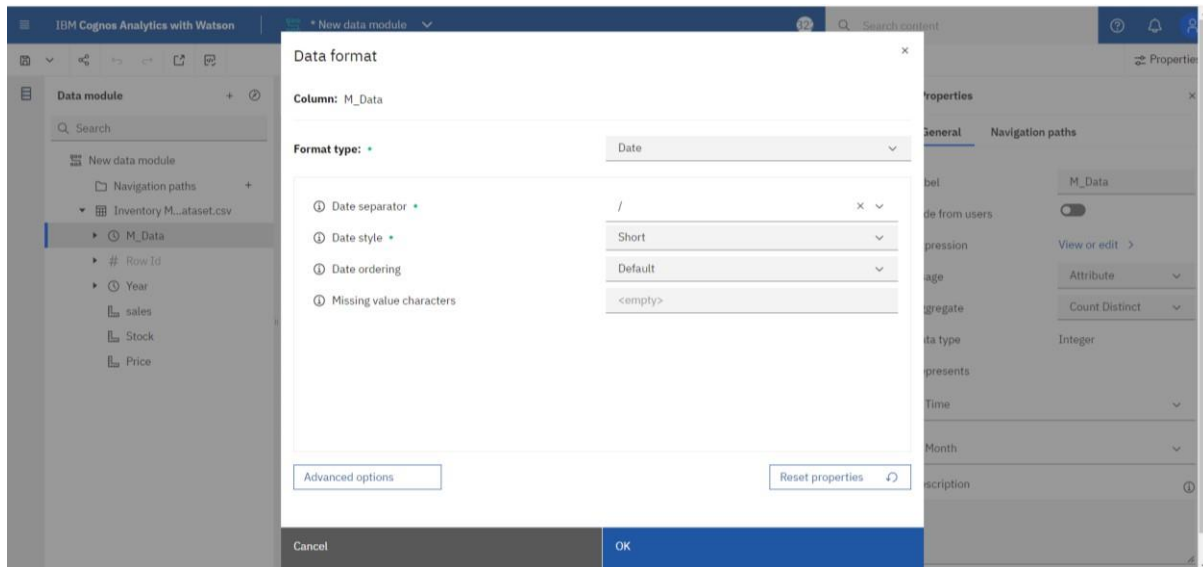
Revenue	M_Data	Row Id	Year	Sales	Stock	Price
0	1	1	2014-01-01	0	4972	1.29
90.3	1	2	2014-01-02	70	4902	1.29
76.11	1	3	2014-01-03	59	4843	1.29
119.97	1	4	2014-01-04	93	4750	1.29
123.84	1	5	2014-01-05	96	4654	1.29
187.05	1	6	2014-01-06	145	4509	1.29
230.91	1	7	2014-01-07	179	4329	1.29
414.09000000000003	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

Price Data:

The screenshot shows the IBM Cognos Analytics interface. The top navigation bar is identical to the previous one. The left sidebar shows the 'Data module' tree with 'Price' selected. The main area displays a table with columns: M_Data, Row Id, Year, Sales, Stock, and Price. The table contains 15 rows of data.

M_Data	Row Id	Year	Sales	Stock	Price
1	1	2014-01-01	0	4972	1.29
1	2	2014-01-02	70	4902	1.29
1	3	2014-01-03	59	4843	1.29
1	4	2014-01-04	93	4750	1.29
1	5	2014-01-05	96	4654	1.29
1	6	2014-01-06	145	4509	1.29
1	7	2014-01-07	179	4329	1.29
0000000003	1	2014-01-08	321	4104	1.29
1	9	2014-01-09	125	4459	1.09
1	10	2014-01-10	88	5043	1.09
0000000002	1	2014-01-11	188	5239	1.09
0000000001	1	2014-01-12	121	5118	1.09
1	13	2014-01-13	134	4984	1.09
1	14	2014-01-14	80	4904	1.09
0000000001	1	2014-01-15	82	4822	1.09

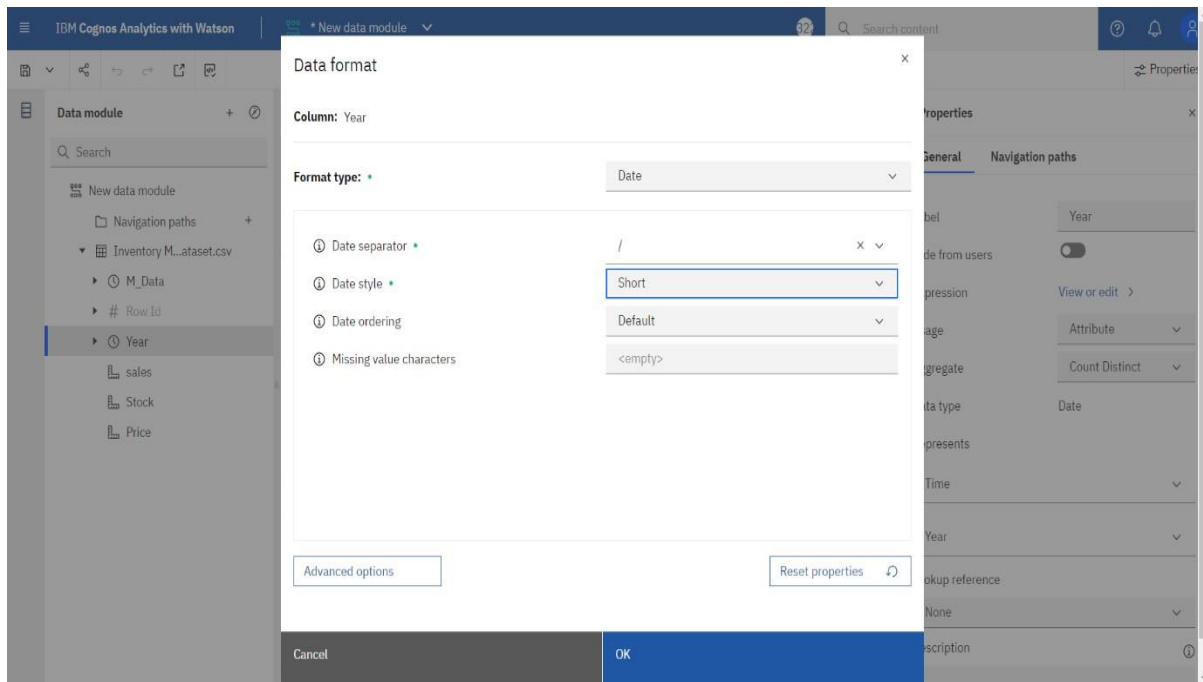
Month Format Data:



The screenshot shows the main interface of IBM Cognos Analytics. The 'Data module' is 'Inventory M...ataset.csv'. The 'M_Data' column is selected. The table displays data for 'Revenue', 'M_Data', 'Row Id', 'Year', 'sales', 'Stock', and '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	5440	1

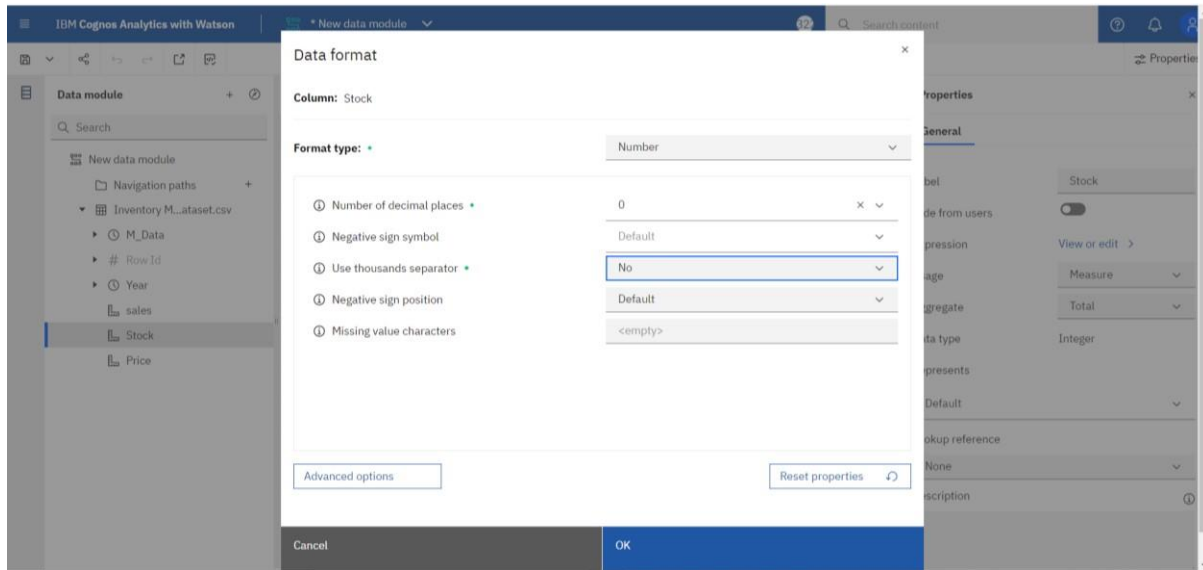
Year Format Data:



The screenshot shows the data grid in IBM Cognos Analytics. The 'Year' column is highlighted, and the data is displayed as dates in the format MM/DD/YY. The table has 11 rows of data.

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

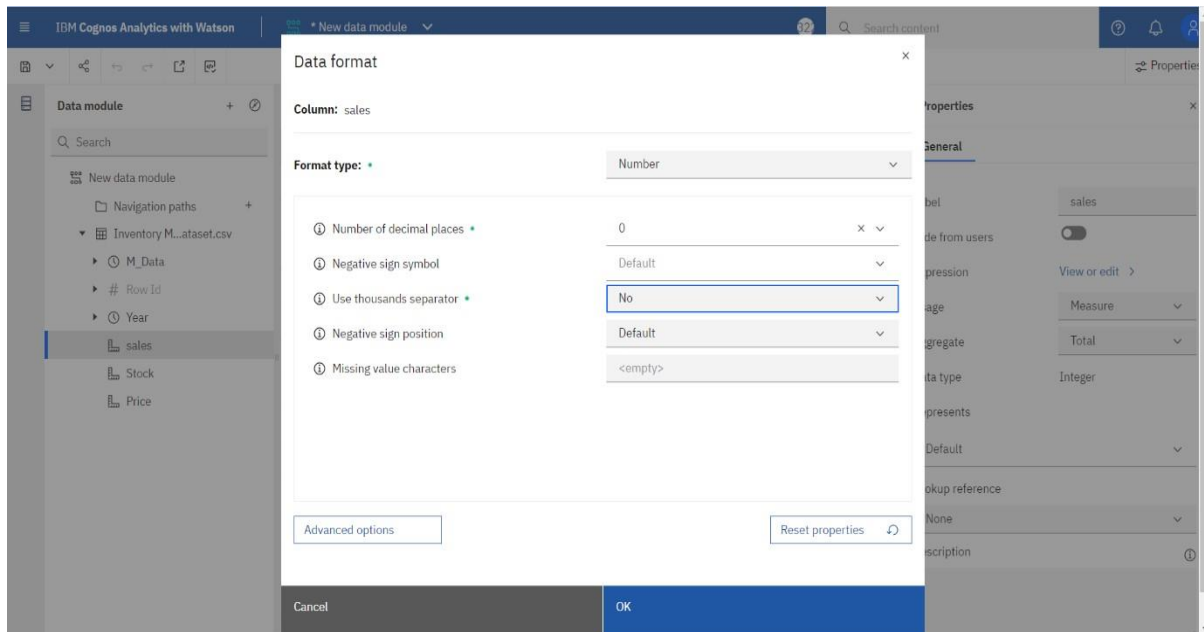
Stock Format Data:



The screenshot shows the main interface of IBM Cognos Analytics. The 'Data module' is 'Inventory M...ataset.csv'. The 'Grid' view is selected. The table has 8 columns: Revenue, M_Data, Row Id, Year, sales, Stock, and Price. The 'Stock' column is highlighted. The table contains 12 rows of data.

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

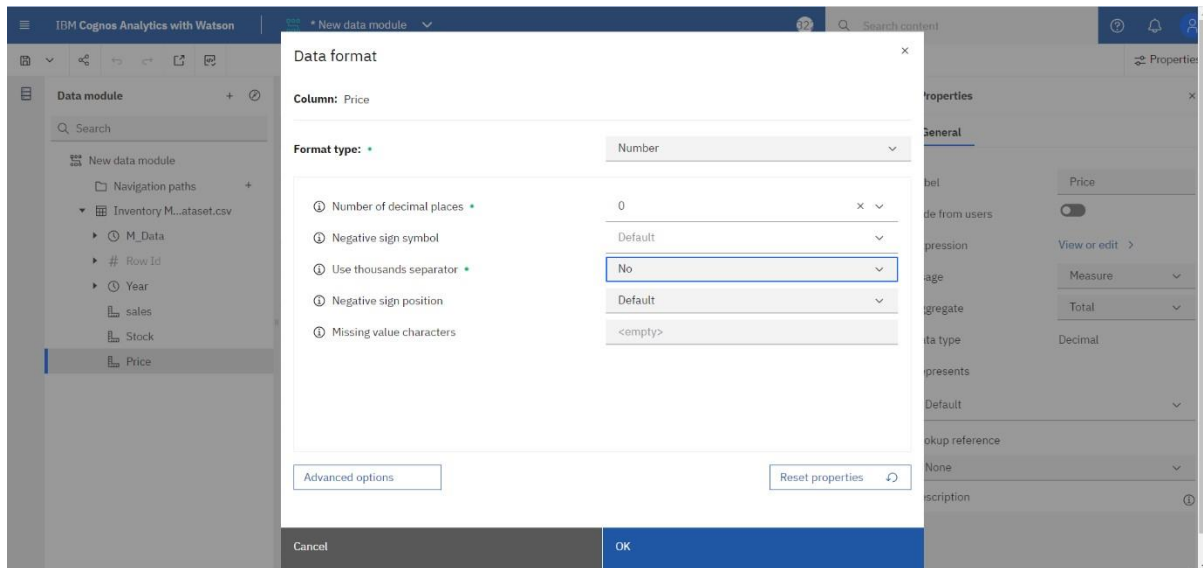
Sales Format Data:



The screenshot shows the main interface of IBM Cognos Analytics. The 'Data module' is 'Inventory M...ataset.csv'. The 'Grid' view is selected. The table has 8 columns: Revenue, M_Data, Row Id, Year, sales, Stock, and Price. The 'sales' column is highlighted. The table contains 11 rows of data.

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
414.0900000000003	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
204.9200000000002	1	11	1/11/14	188	5239	1
131.0000000000001	1	12	1/12/14	121	5110	1

Price Format Data:



The screenshot shows the 'Grid' view of a data table. The table has the following columns: M_Data, Row Id, Year, sales, Stock, and Price. 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	1/8/14	321	4104	1
1	9	1/9/14	125	4459	1
1	10	1/10/14	88	5043	1
00000000002	1	1/11/14	188	5239	1
00000000001	1	1/12/14	121	5110	1

Revenue Format Data:

The screenshot shows the 'Data format' dialog box in IBM Cognos Analytics. The 'Column' is 'Revenue'. The 'Format type' is set to 'Number'. The 'Number of decimal places' is 0. The 'Negative sign symbol' is 'Default'. The 'Use thousands separator' is 'No'. The 'Negative sign position' is 'Default'. The 'Missing value characters' are '<empty>'. The 'Advanced options' button is visible at the bottom left, and the 'Reset properties' button is at the bottom right. In the background, a table with columns 'Stock' and 'Price' is visible, showing values like 4972, 4902, 4843, etc.

Stock	Price
4972	1
4902	1
4843	1
4750	1
4654	1
4509	1
4329	1
4104	1
4459	1
5043	1
5239	1
5118	1

The screenshot shows the 'Grid' view of the data in IBM Cognos Analytics. The table has columns: Revenue, M_Data, Row Id, Year, Sales, Stock, and Price. The data is sorted by Row Id in ascending order. The 'Revenue' column contains values ranging from 0 to 89. The 'M_Data' column contains values ranging from 1 to 15. The 'Year' column contains dates from 1/1/14 to 1/15/14. The 'Sales' column contains values ranging from 0 to 145. The 'Stock' column contains values ranging from 4750 to 5118. The 'Price' column contains values ranging from 1 to 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:

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 Relationships Custom tables

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 Navigation paths

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:

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 Relationships Custom tables

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

Stock Properties:

The screenshot shows the IBM Cognos Analytics interface with the 'Inventory Module' selected. The 'Data module' pane on the left lists 'Stock' as a measure. The main grid displays data for 'Stock' with columns: Row Id, Year, sales, and Stock. The 'Properties' panel on the right shows the 'General' tab for the 'Stock' measure.

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 Panel (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:

The screenshot shows the IBM Cognos Analytics interface with the 'Inventory Module' selected. The 'Data module' pane on the left lists 'Price' as a measure. The main grid displays data for 'Price' with columns: Year, sales, Stock, and Price. The 'Properties' panel on the right shows the 'General' tab for the 'Price' measure.

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 Panel (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:

The screenshot displays the IBM Cognos Analytics interface. On the left, the 'Data module' pane shows the 'Inventory Module' with a tree structure including 'Revenue'. The central 'Grid' pane shows a table with columns: Revenue, M_Data, Row Id, Year, and sales. The 'Revenue' column is highlighted. On the right, the 'Properties' pane is open for the 'Revenue' measure. The 'General' tab is active, showing the following properties:

- Label: Revenue
- Hide from users: ☐
- Expression: View or edit >
- Usage: Measure
- Calculate after aggregation: ☐
- Aggregate: Total
- Data type: Decimal
- Represents: Default
- Lookup reference: None

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

M_Data Properties:

The screenshot displays the IBM Cognos Analytics interface. On the left, the 'Data module' pane shows the 'Inventory Module' with a tree structure including 'M_Data'. The central 'Grid' pane 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 for the 'M_Data' measure. The 'General' tab is active, showing the following properties:

- Label: M_Data
- Hide from users: ☐
- Expression: View or edit >
- Usage: Attribute
- Aggregate: Count Distinct
- Data type: Integer
- Represents: Time
- Month: ☐
- 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