

Project Development

Phase Sprint - 1

Team ID	PNT2022TMID30807
Project Name	Project - Retail Store Stock Inventory Analytics

SPRINT-1

- Data Collection
- Data Preparation

Data Collection:

1. Download the Dataset

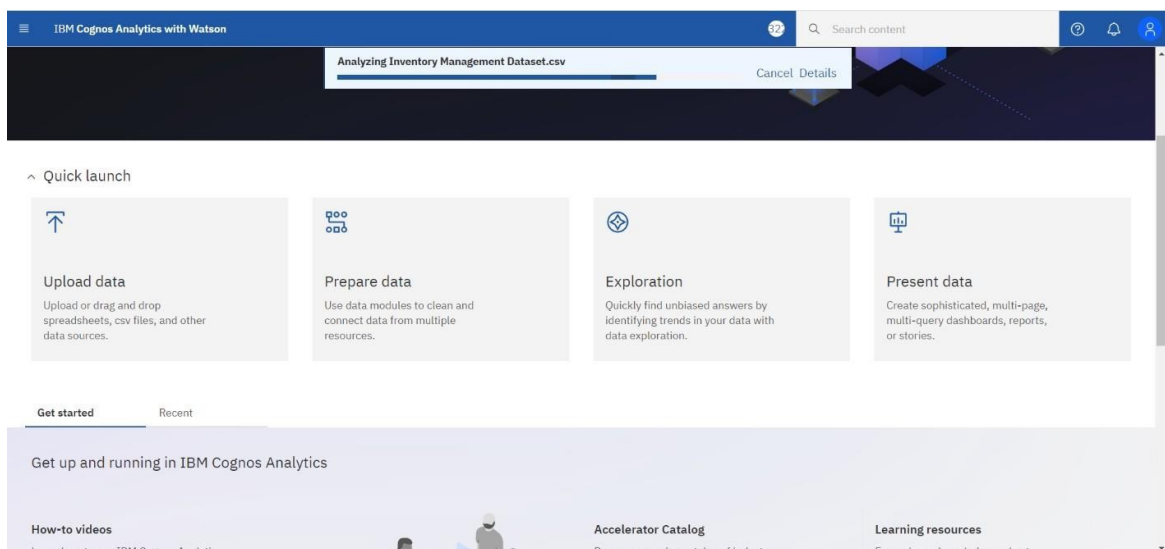
Dataset link -

<https://drive.google.com/file/d/1awFIKJ9LldnNHwGLcsqNDbbwshw/view>

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

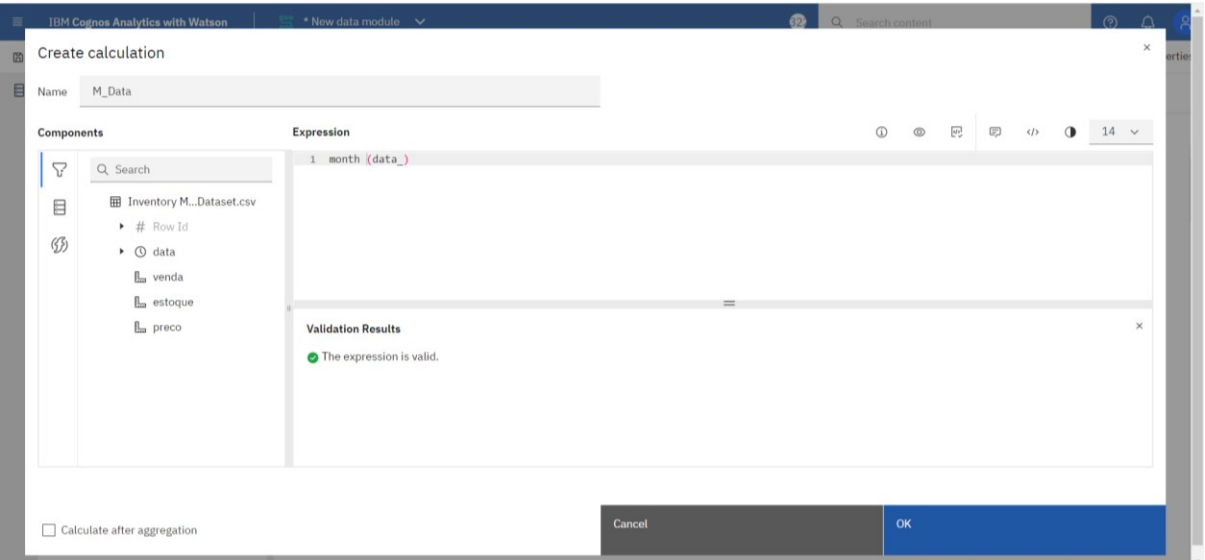
2. Load the Dataset

Tool Used: IBM Cognos



Data Preparation:

Month Data(M_Data):



The screenshot shows the main interface of IBM Cognos Analytics. The 'Data module' is selected, and the 'Grid' view is active. The data is displayed in a table with the following columns: M_Data, Row Id, Year, Sales, Stock, and Price. The table contains 15 rows of data, representing monthly sales and stock levels for the year 2014.

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
1	8	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
1	11	2014-01-11	188	5239	1.09
1	12	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
1	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:

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:

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

Grid Relationships Custom tables

	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
	00000000003	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
	00000000002	1	2014-01-11	188	5239	1.09
	00000000001	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
	00000000001	1	2014-01-15	82	4822	1.09

Month Format Data:

IBM Cognos Analytics with Watson | * New data module

Search content

Properties

Data module

Grid Relationships Custom tables

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

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
	414.090000000000003	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
	204.920000000000002	1	11	1/11/14	188	5239	1
	121.000000000000001	1	12	1/12/14	121	5118	1

Year Format Data:

The screenshot shows the 'Data format' dialog box for the 'Year' column. The 'Format type' is set to 'Date'. The 'Date separator' is '/', the 'Date style' is 'Short', and the 'Date ordering' is 'Default'. The 'Missing value characters' field is empty. The 'Advanced options' button is visible at the bottom left, and the 'Reset properties' button is at the bottom right. The 'Cancel' and 'OK' buttons are at the bottom.

Column: Year

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

The screenshot shows the 'Grid' view of a data table. The table has 8 columns: Revenue, M_Data, Row Id, Year, sales, Stock, and Price. The 'Year' column is highlighted. The data rows show values for each column, with the 'Year' column displaying dates from 1/1/14 to 1/11/14.

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 'Data format' dialog box for the 'Stock' column. 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', and the 'Missing value characters' field is empty. The 'Advanced options' button is visible at the bottom left, and the 'Reset properties' button is at the bottom right. The 'Cancel' and 'OK' buttons are at the bottom.

Column: Stock

Format type: Number

① Number of decimal places: 0

① Negative sign symbol: Default

① Use thousands separator: No

① Negative sign position: Default

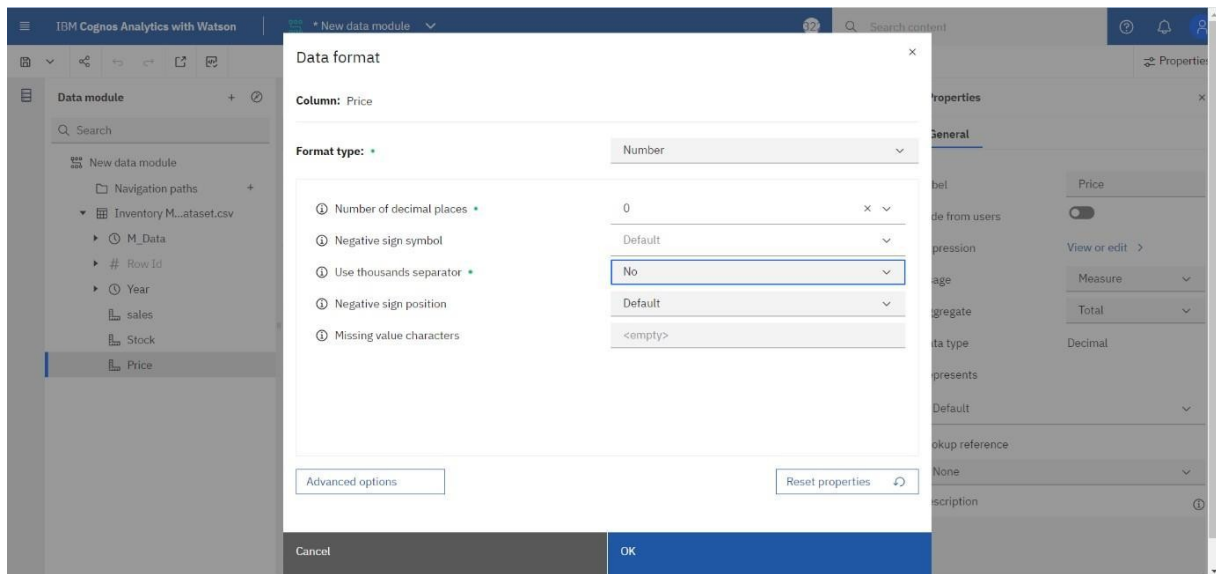
① Missing value characters: <empty>

Advanced options

Reset properties

Cancel OK

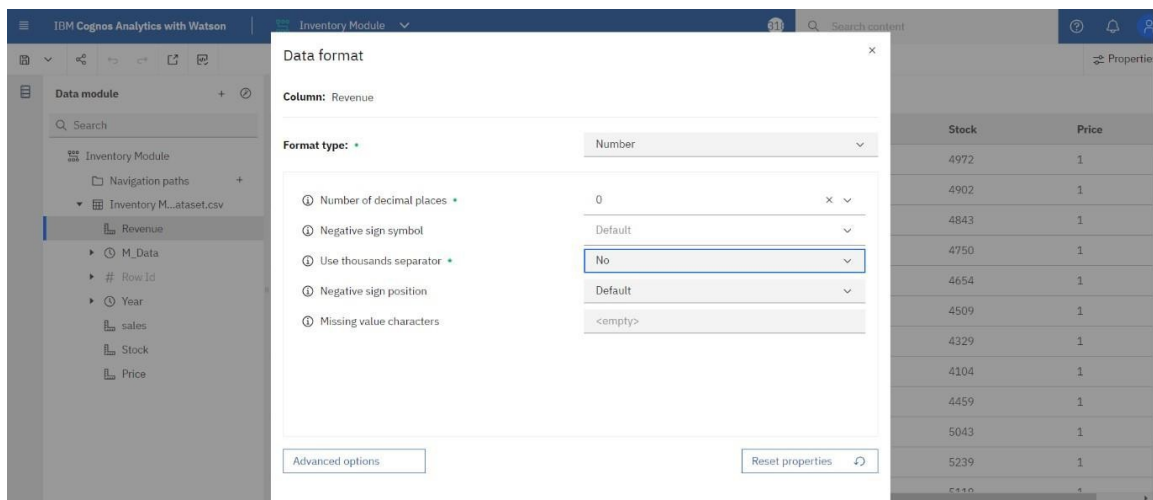
Price Format Data:



The screenshot shows the 'Grid' view of a data table. The table has 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	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	121	5110	1

Revenue Format Data:



IBM Cognos Analytics with Watson							
Inventory Module							
Search content							
Properties							
Data module							
Grid Relationships Custom tables							
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							
Grid Relationships Custom tables							
Revenue	M_Data	Row Id	Year	sales	Properties		
0	1	1	1/1/14	0	General		
90	1	2	1/2/14	70	Navigation paths		
76	1	3	1/3/14	59	Label	Year	
120	1	4	1/4/14	93	Hide from users	<input type="checkbox"/>	
124	1	5	1/5/14	96	Expression	View or edit >	
187	1	6	1/6/14	145	Usage	Attribute	
231	1	7	1/7/14	179	Aggregate	Count Distinct	
414	1	8	1/8/14	321	Data type	Date	
136	1	9	1/9/14	125	Represents		
96	1	10	1/10/14	88	Time		
205	1	11	1/11/14	188	Year		
132	1	12	1/12/14	121	Lookup reference		
146	1	13	1/13/14	134	None		
87	1	14	1/14/14	80			
89	1	15	1/15/14	82			

Sales Properties:

IBM Cognos Analytics with Watson							
Inventory Module							
Search content							
Properties							
Data module							
Grid Relationships Custom tables							
M_Data	Row Id	Year	sales	Properties			
1	1	1/1/14	0	General			
1	2	1/2/14	70	Label	sales		
1	3	1/3/14	59	Hide from users	<input type="checkbox"/>		
1	4	1/4/14	93	Expression	View or edit >		
1	5	1/5/14	96	Usage	Measure		
1	6	1/6/14	145	Aggregate	Total		
1	7	1/7/14	179	Data type	Integer		
1	8	1/8/14	321	Represents			
1	9	1/9/14	125	Default			
1	10	1/10/14	88	Lookup reference			
1	11	1/11/14	188	None			
1	12	1/12/14	121	Description			
1	13	1/13/14	134				
1	14	1/14/14	80				
1	15	1/15/14	82				

Stock Properties:

IBM Cognos Analytics with Watson | Inventory Module

Search content

Properties

Data module

Search

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

Search

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

Search

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. The top navigation bar includes the title 'IBM Cognos Analytics with Watson', a dropdown menu for 'Inventory Module', and a search bar. The left sidebar shows the 'Data module' tree 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 selected, and the 'Properties' panel on the right is open, showing the 'General' tab. The properties include: Label (M_Data), Hide from users (toggle), 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