

## Project Development Phase

### Sprint - 1

Team ID	PNT2022TMID28419
Project Name	Project - Retail Store Stock Inventory Analytics

#### SPRINT-1

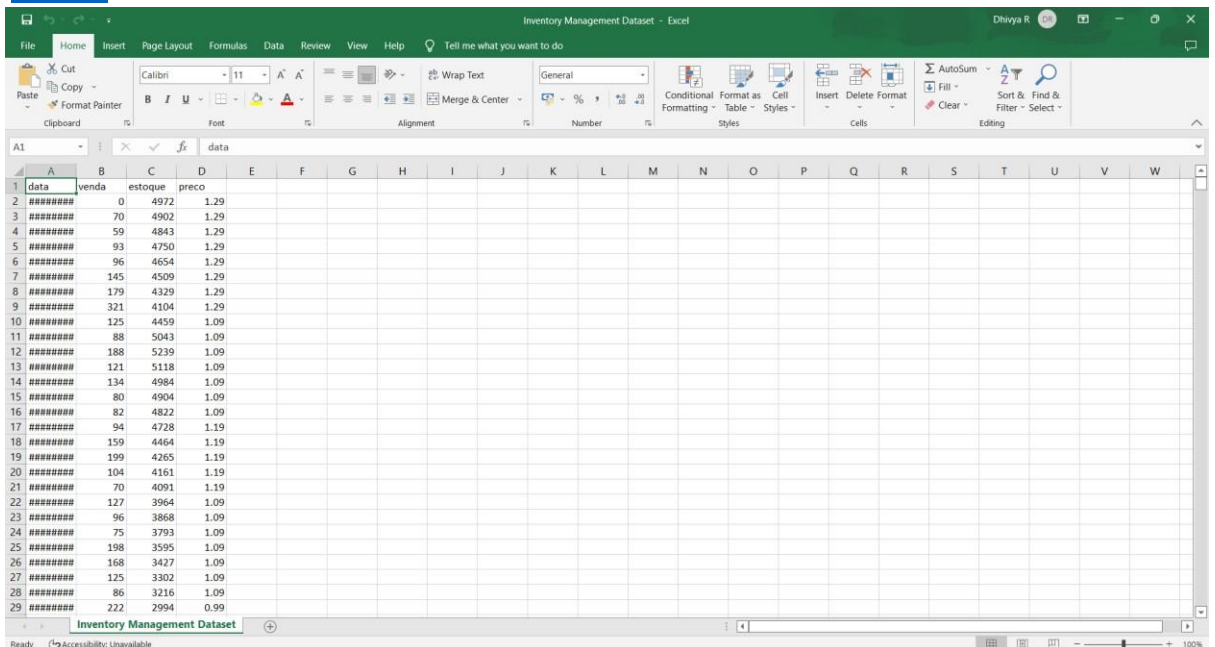
- Data Collection
- Data Preparation

#### Data Collection:

##### 1. Download the Dataset

Dataset link -

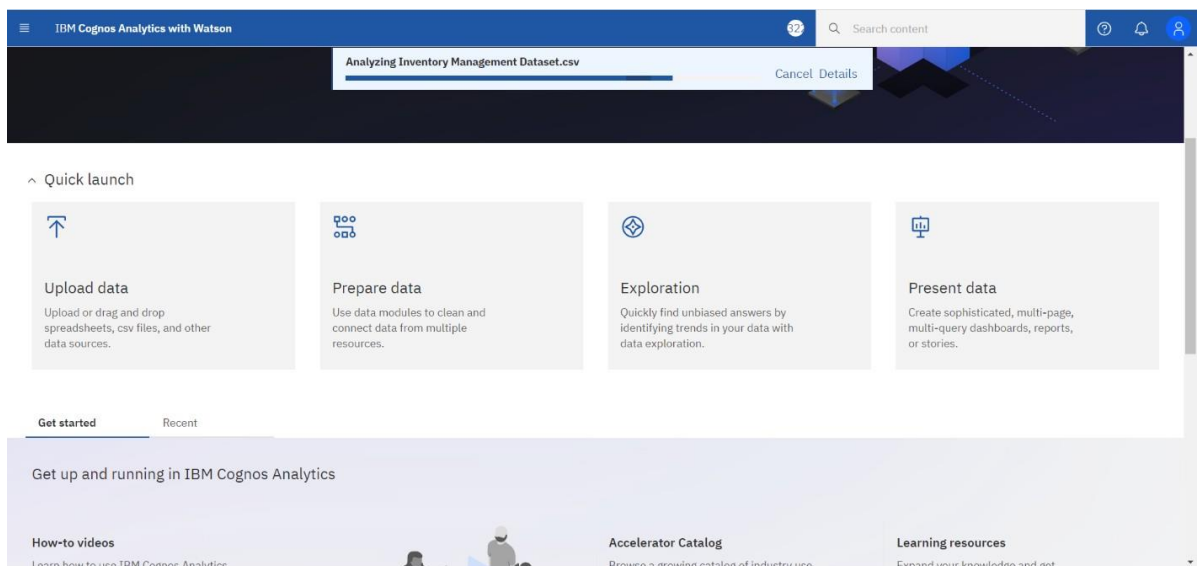
<https://drive.google.com/file/d/1awFIKJ9LildnNHwGLcsqNDbbwshFHR-w/view>



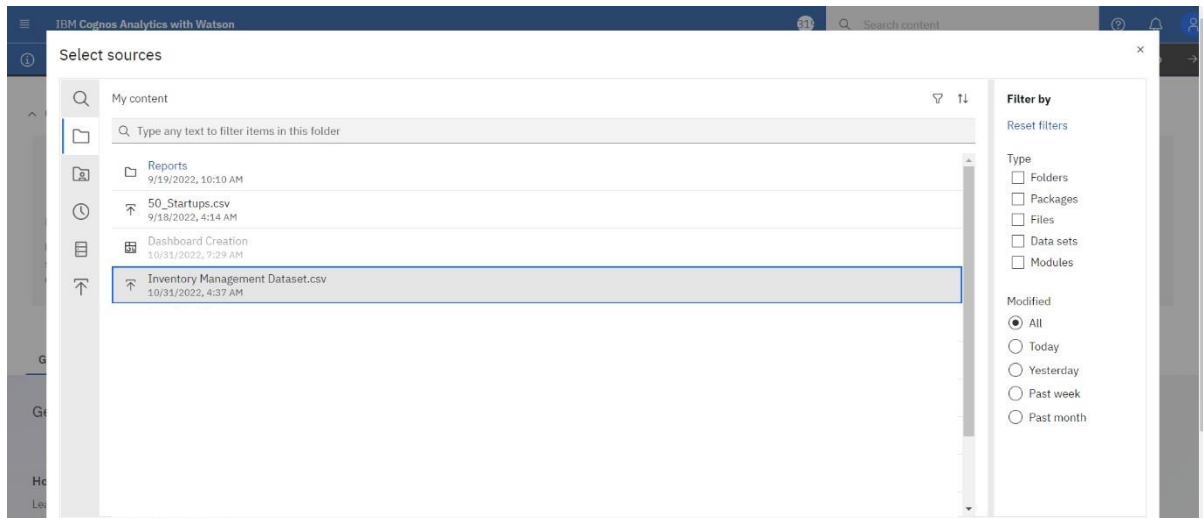
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	data	venda	estoque	preco																			
2	#####	0	4972	1.29																			
3	#####	70	4902	1.29																			
4	#####	59	4843	1.29																			
5	#####	93	4750	1.29																			
6	#####	96	4654	1.29																			
7	#####	145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

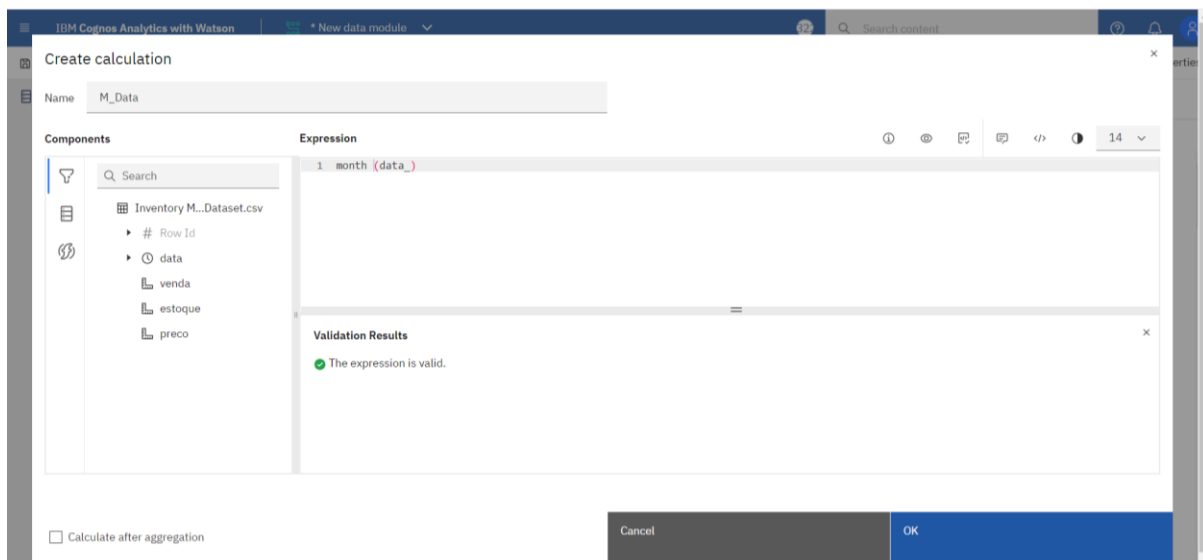
Tool Used: IBM Cognos



## Data Preparation:



## Month Data(M\_Data):



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:

IBM Cognos Analytics with Watson

New data module

11

Search content

?

Properties

## Sales Data:

IBM Cognos Analytics with Watson

New data module

11

Search content

?

🔔

👤

📄

🔍

↶

↷

🔄

📄

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

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

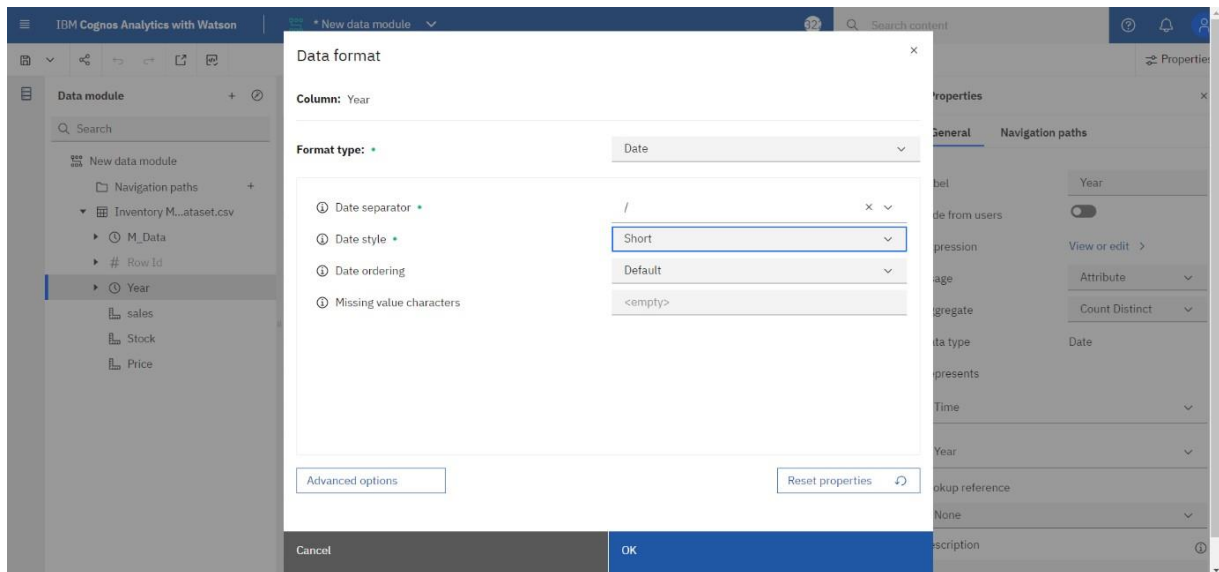
Sales

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
204.920000000000002	1	11	1/11/14	188	5239	1
111.000000000000001	1	12	1/12/14	121	5118	1

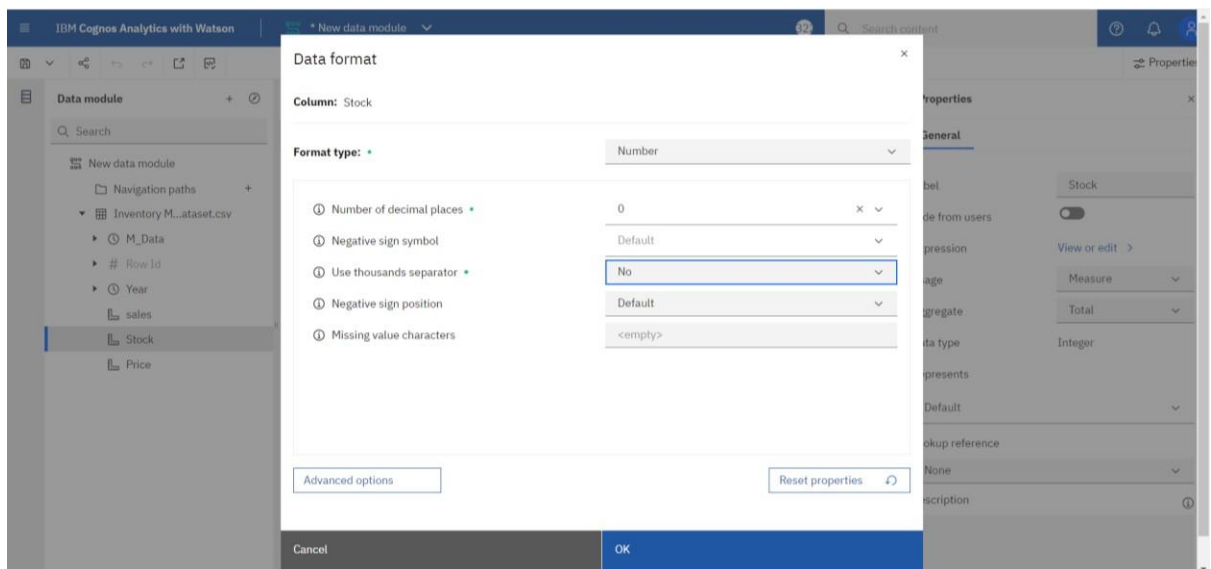
## Year Format Data:



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:

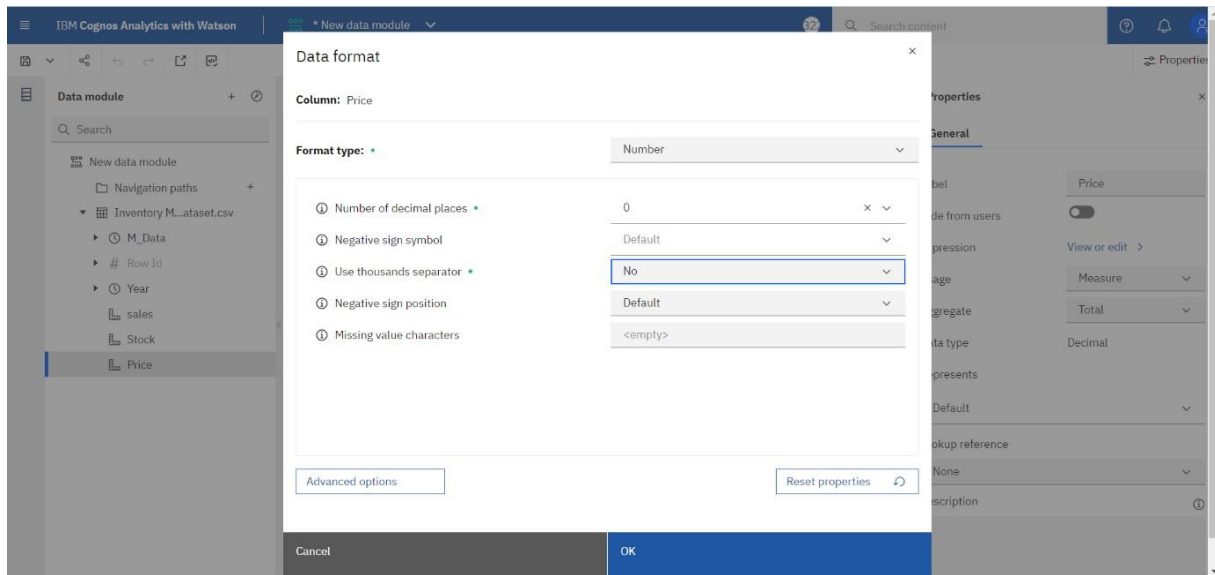
Revenue	M_Data	Row Id	Year	sales	Stock	Price
0	1	1	1/1/14	0	4972	1
90.3	1	2	1/2/14	70	4902	1
76.11	1	3	1/3/14	59	4843	1
119.97	1	4	1/4/14	93	4750	1
123.84	1	5	1/5/14	96	4654	1
187.05	1	6	1/6/14	145	4509	1
230.91	1	7	1/7/14	179	4329	1
414.09000000000003	1	8	1/8/14	321	4104	1
136.25	1	9	1/9/14	125	4459	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:





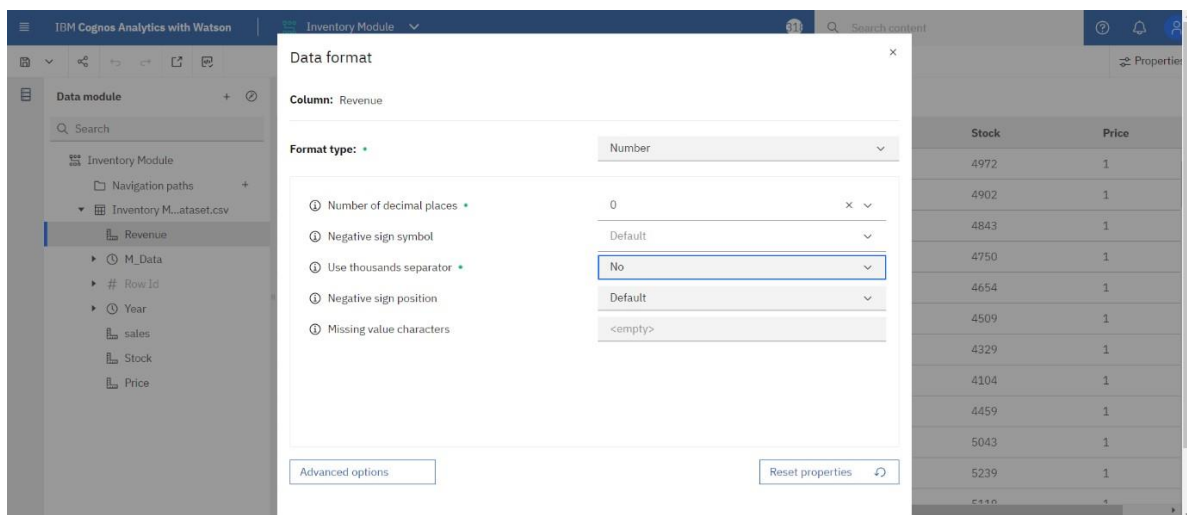
## Price Format Data:



The screenshot shows the 'Data module' grid view in IBM Cognos Analytics. 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

Inventory Module

Navigation paths

Inventory M...ataset.csv

Revenue

M\_Data

Row Id

Year

sales

Stock

Price

Grid

Relationships

Custom tables

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:

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

Inventory Module

Navigation paths

Inventory M...ataset.csv

Revenue

M\_Data

Row Id

Year

sales

Stock

Price

Grid

Relationships

Custom tables

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:

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 '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), and Month (Month). 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