

## Project Development Phase

### Sprint - 1

Team ID	PNT2022TMID54263
Project Name	Project - Retail Store Stock Inventory Analytics
Team member	Prithiv R S, Lokeshwaran k, Maharaja AbishekA, Mahammad Mubharak M

#### SPRINT-1

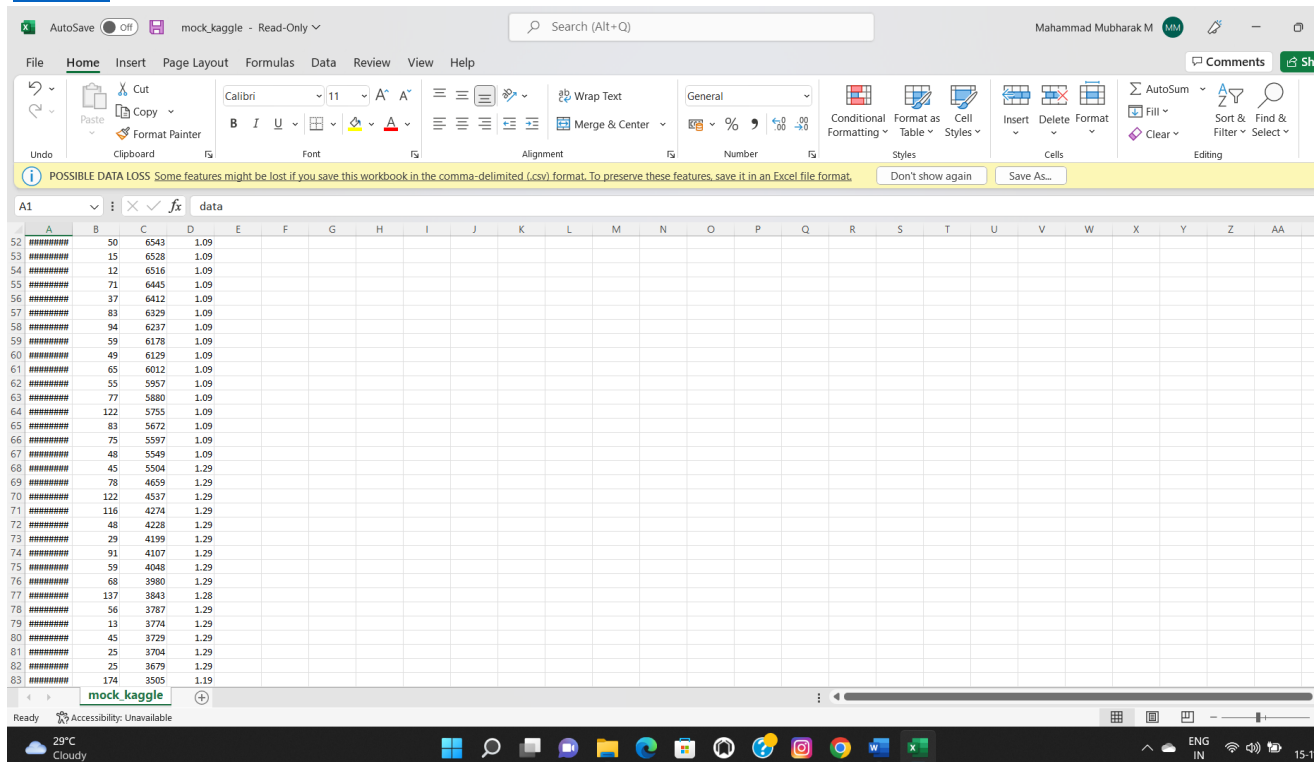
- Data Collection
- Data Preparation

#### Data Collection:

##### 1. Download the Dataset

Dataset link -

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



##### 2. Load the Dataset

Tool Used: IBM Cognos

IBM Cognos Analytics with Watson


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Search content

Cancel Details


Analyzing Inventory Management Dataset.csv

Quick launch




Upload data

Upload or drag and drop spreadsheets, csv files, and other data sources.




Prepare data

Use data modules to clean and connect data from multiple resources.



Exploration

Quickly find unbiased answers by identifying trends in your data with data exploration.



Present data

Create sophisticated, multi-page, multi-query dashboards, reports, or stories.

Get startedRecent

Get up and running in IBM Cognos Analytics

How-to videos

Learn how to use IBM Cognos Analytics

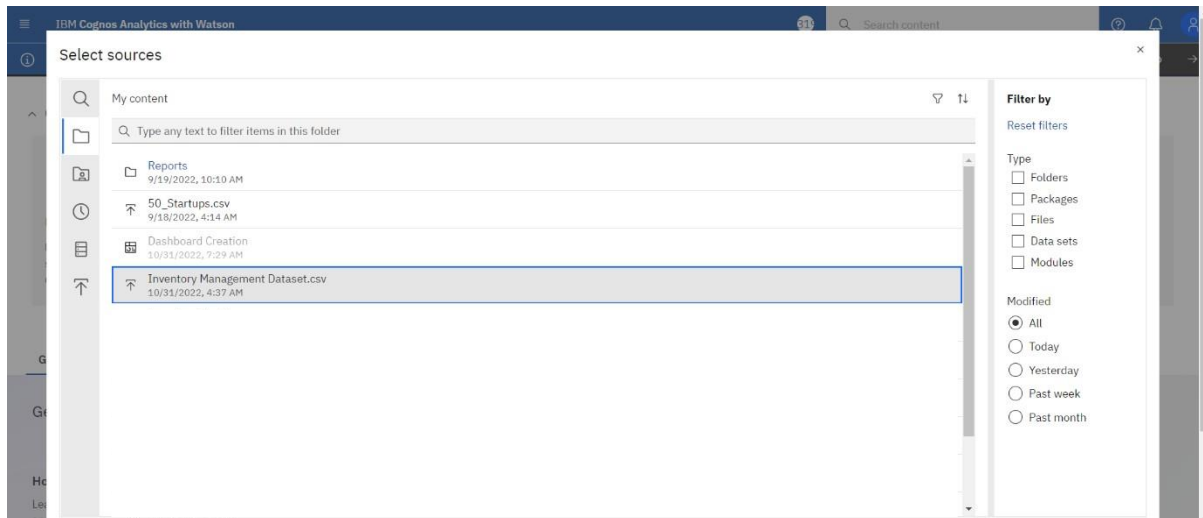
Accelerator Catalog

Browse a growing catalog of industry use

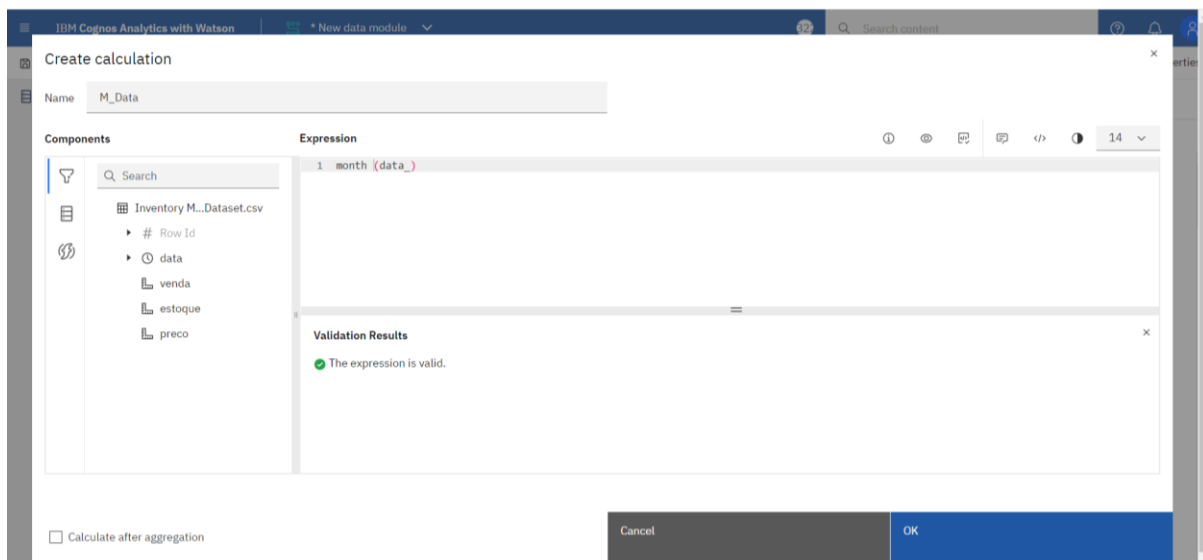
Learning resources

Expand your knowledge and get

## Data Preparation:



## Month Data(M\_Data):



The main interface of IBM Cognos Analytics shows the 'Grid' view of the 'M\_Data' data module. The table displays 15 rows of data with columns: 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

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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	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:

IBM Cognos Analytics with Watson

New data module

11

Search content

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Properties

Data module

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Search

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New data module

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Navigation paths

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Inventory M...ataset.csv

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Revenue

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#

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

## 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

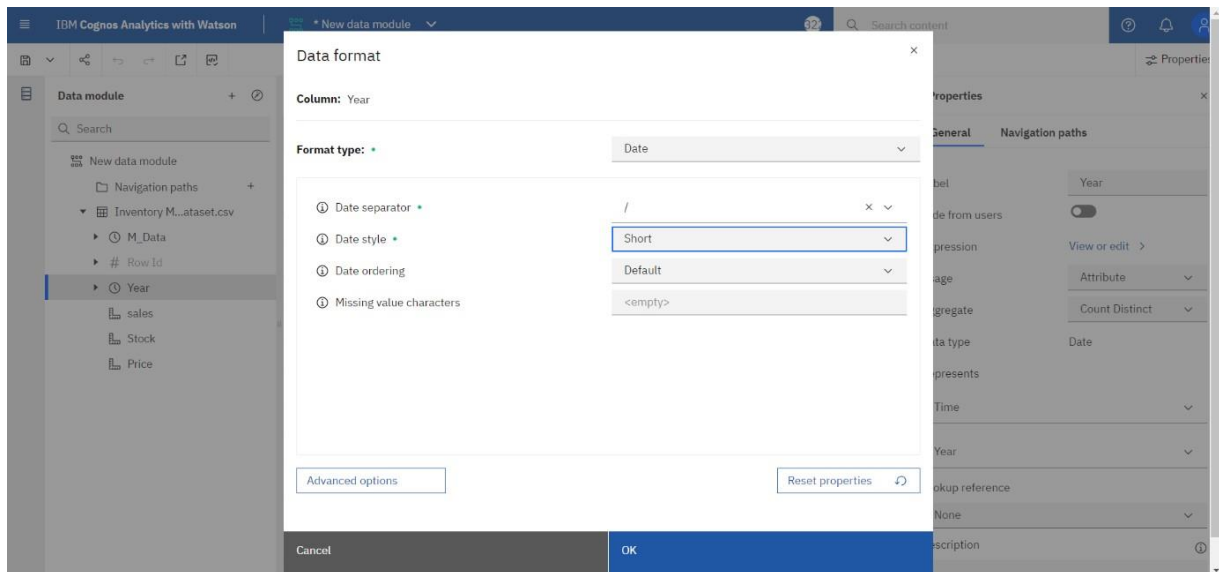
Sales

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
121.000000000000001	1	12	1/12/14	121	5118	1

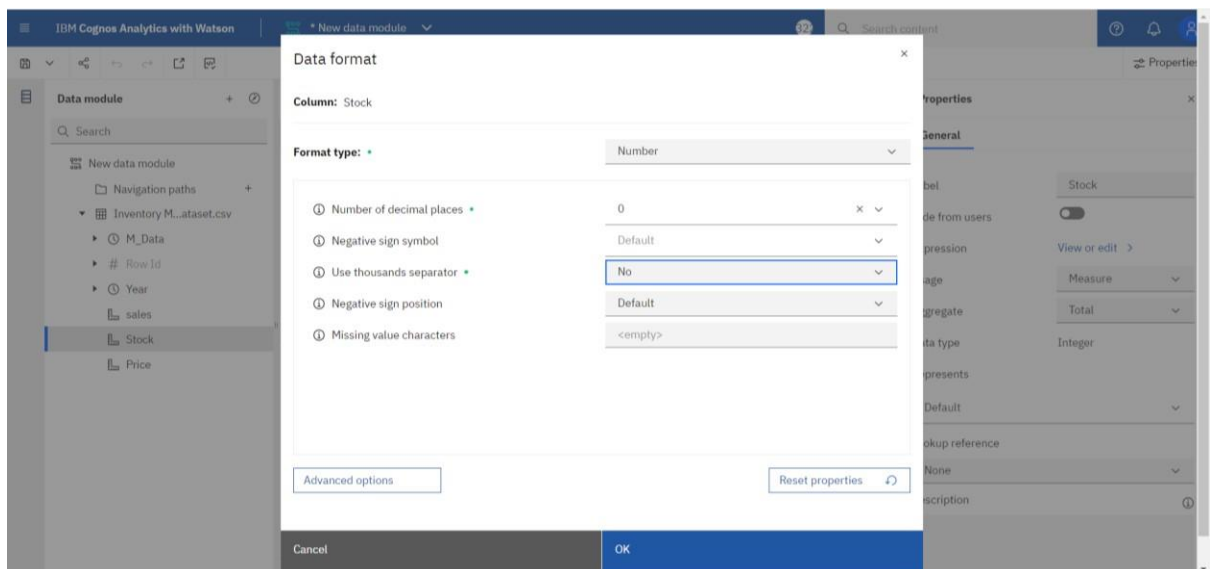
## Year Format Data:



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:



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

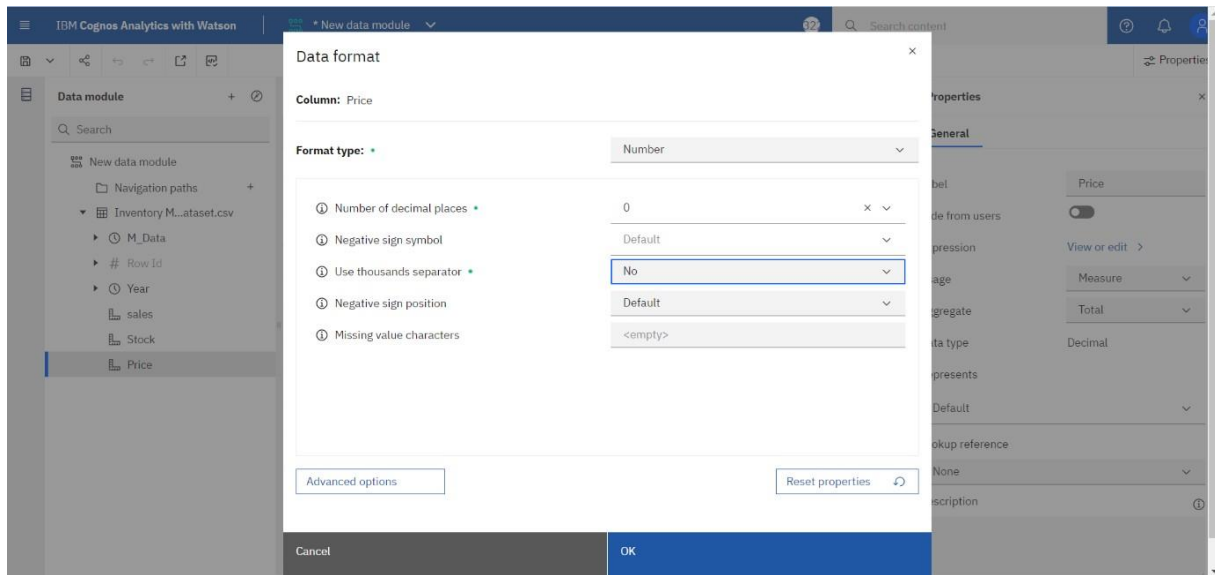
Stock

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



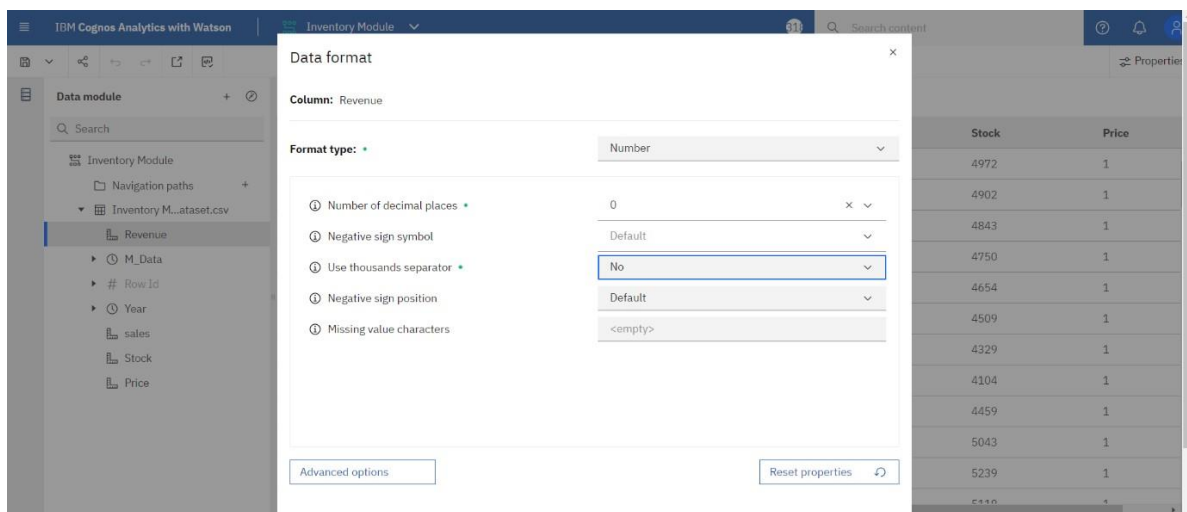
## Price Format Data:



The screenshot shows the 'Data module' grid view 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

Description:

## 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 '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=dashboard&pathRef=.my\\_folders%2FDATAANALYTICS%2BDASHBOARD&action=view&mode=dashboard&subView=model000001846c539598\\_00000000](https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FDATAANALYTICS%2BDASHBOARD&action=view&mode=dashboard&subView=model000001846c539598_00000000)