

## Project Development Phase

### Sprint - 1

Team ID	PNT2022TMID05837
Project Name	Project - Retail Store Stock Inventory Analytics

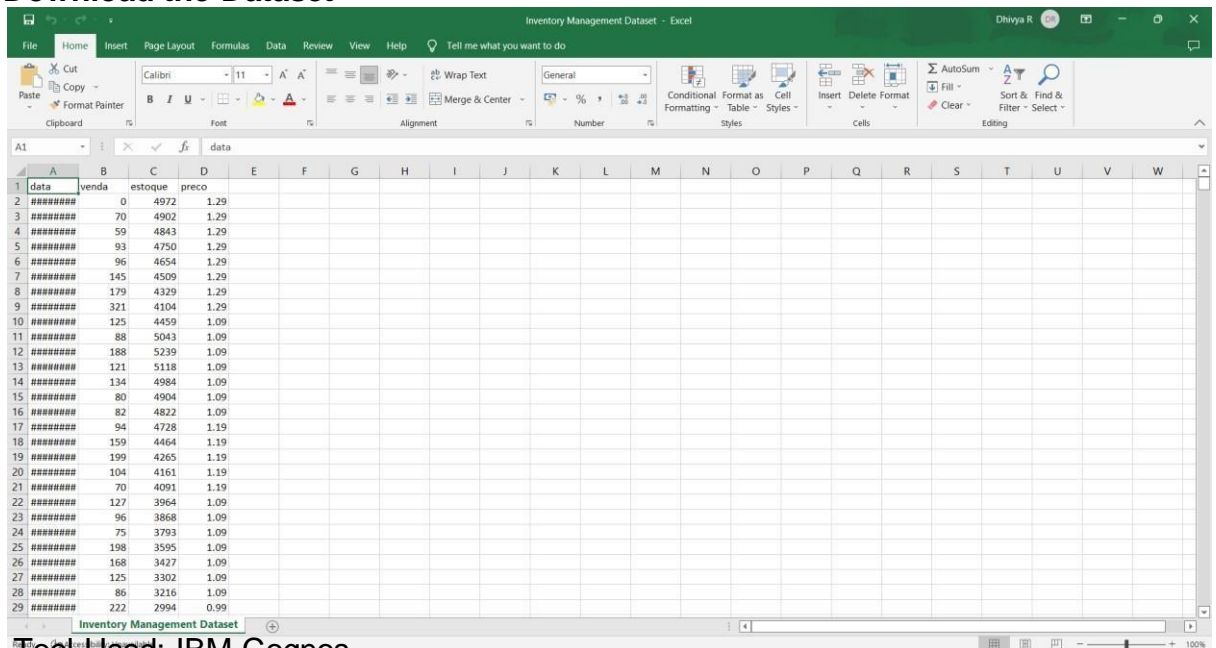
#### SPRINT-1

- Data Collection
- Data

Preparation **Data**

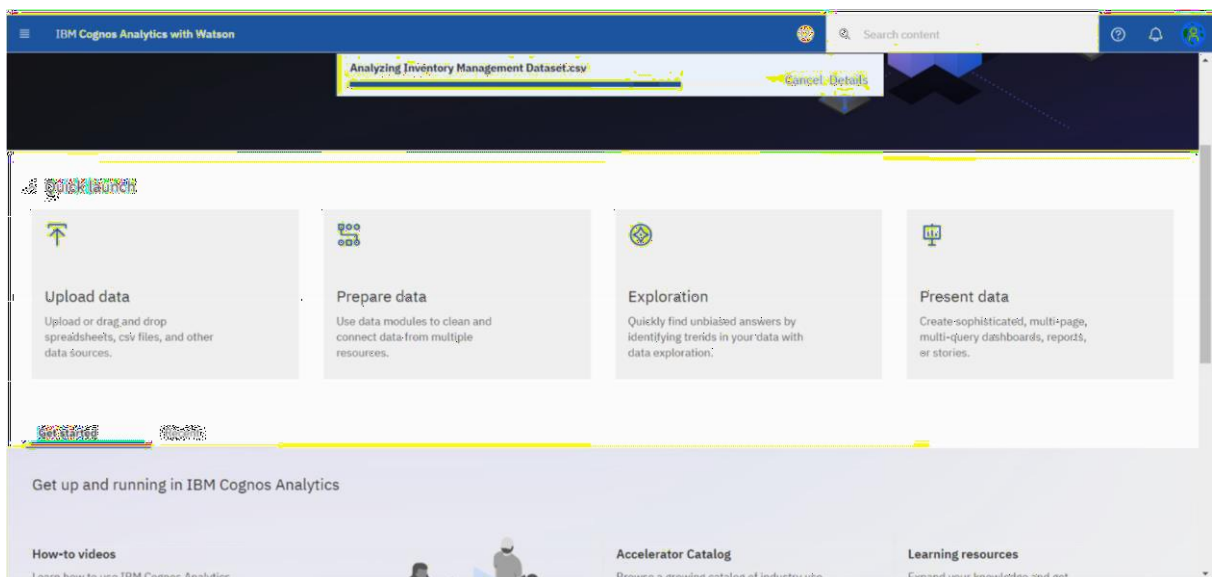
**Collection:**

#### 1. Download the Dataset

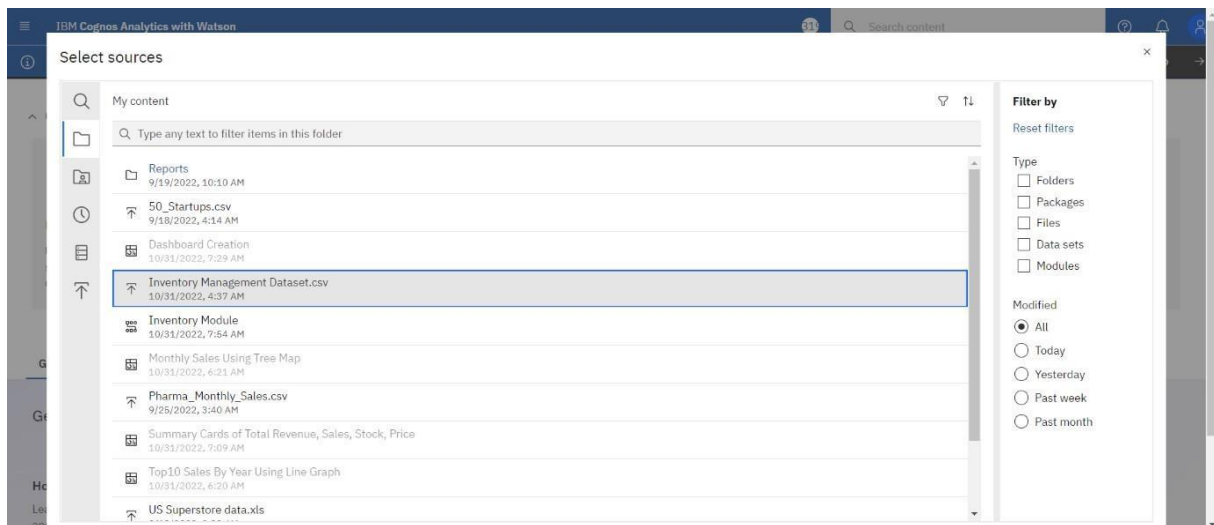


Tool Used: IBM Cognos

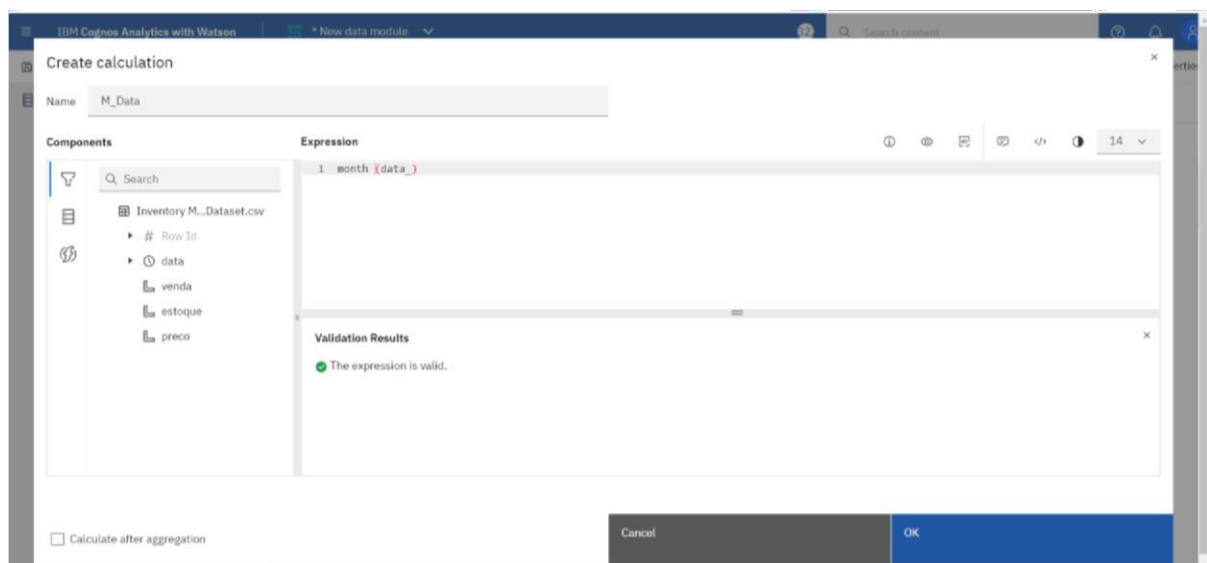
#### 2. Load the Dataset



## Data Preparation:



## Month Data(M\_Data):



The screenshot shows a data table in IBM Cognos Analytics. The table has columns: 'M\_Data', 'Row Id', 'Year', 'Sales', 'Stock', and 'Price'. The 'M\_Data' column contains the value '1' for all rows. The 'Row Id' column contains values from 1 to 10. The 'Year' column contains values from 2017 to 2022. The 'Sales', 'Stock', and 'Price' columns contain numerical values.

M_Data	Row Id	Year	Sales	Stock	Price
1	1	2017	100	100	100
1	2	2017	100	100	100
1	3	2017	100	100	100
1	4	2017	100	100	100
1	5	2017	100	100	100
1	6	2017	100	100	100
1	7	2017	100	100	100
1	8	2017	100	100	100
1	9	2017	100	100	100
1	10	2017	100	100	100

## Revenue Data:

Create calculation

Name: Revenue

Expression: 1 venda\*precio

Components:

- Inventory M...Dataset.csv
  - M\_Data
  - Row Id
  - Year
  - Sales
  - Stock
  - Price

Validation Results

✓ The expression is valid.

☐ Calculate after aggregation

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	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:

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	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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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	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

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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	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

T1	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

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

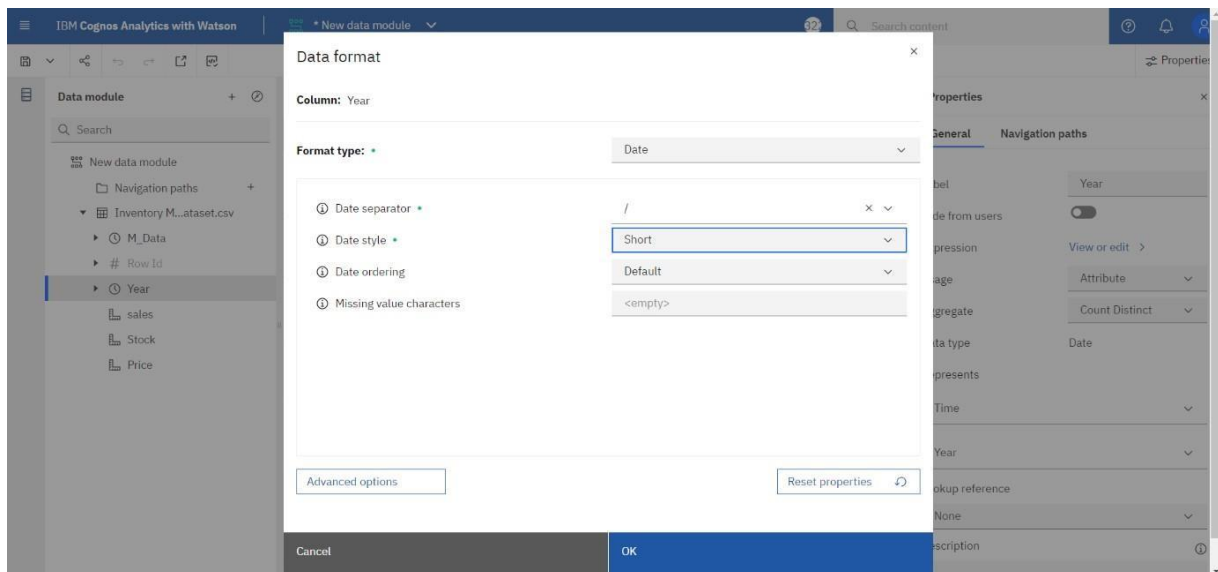
Properties

Data module

Grid Relationships Custom tables

T1	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
414.090000000000003	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
204.920000000000002	1	11	11	1/11/14	188	5239	1
133.000000000000003	1	12	12	1/12/14	121	5118	1
134.000000000000003	1	13	13	1/13/14	134	4984	1
80.000000000000003	1	14	14	1/14/14	80	4904	1
82.000000000000003	1	15	15	1/15/14	82	4822	1

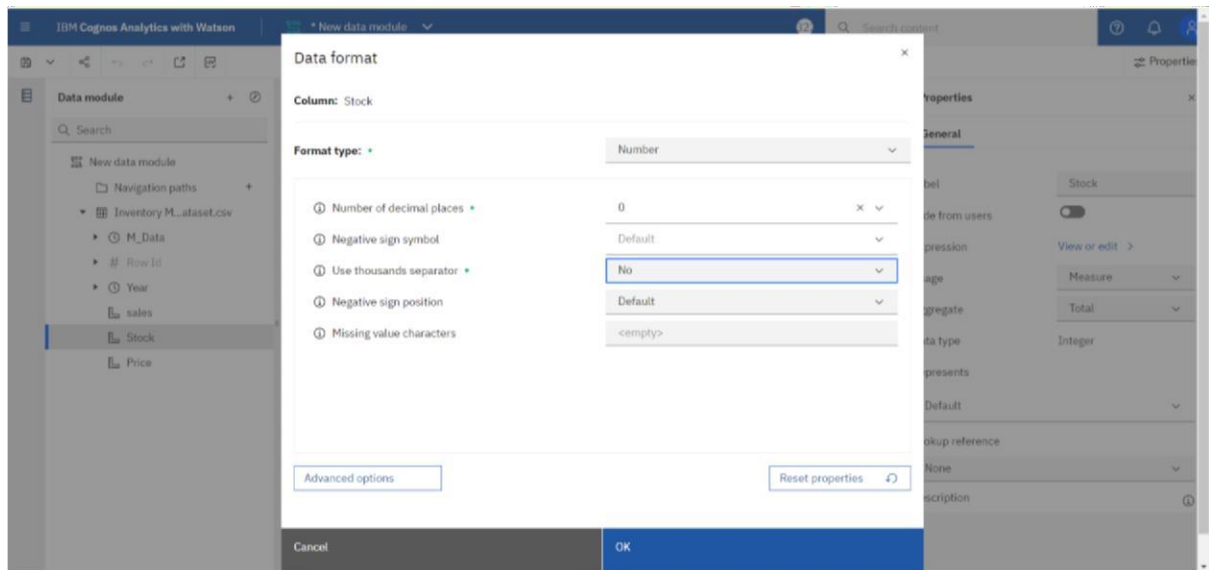
## Year Format Data:



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 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

## 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

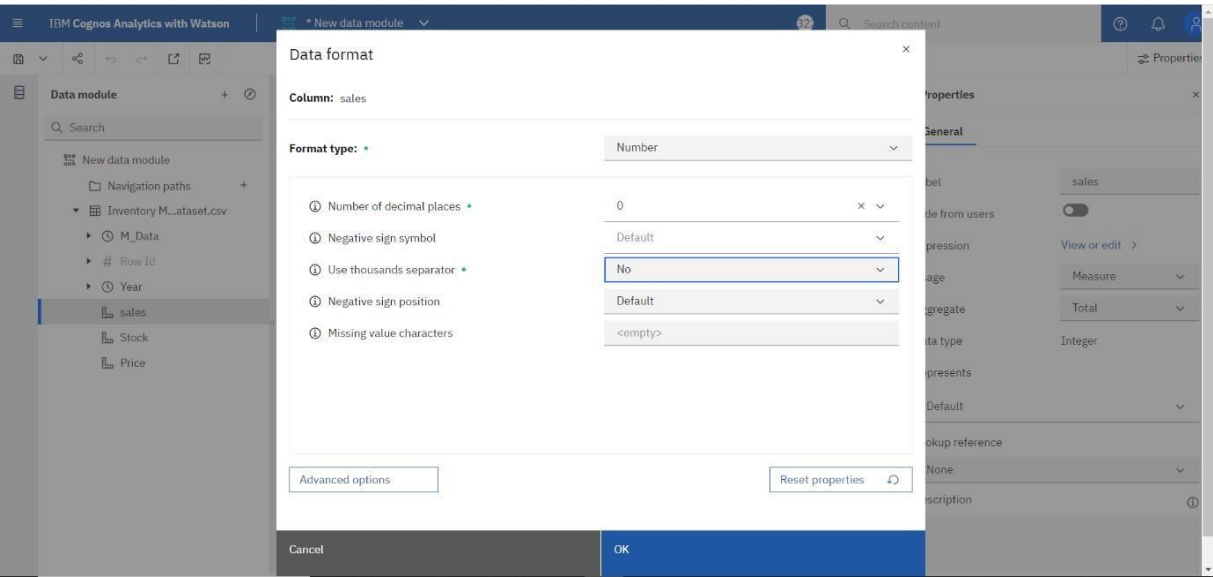
Grid

Relationships

Custom tables

	Revenue	M_Data	Row Id	Year	sales	Stock	Price
1	0	1	1	1/1/14	0	4972	1
2	90.3	1	2	1/2/14	70	4902	1
3	76.11	1	3	1/3/14	59	4843	1
4	119.97	1	4	1/4/14	93	4750	1
5	123.84	1	5	1/5/14	96	4654	1
6	187.05	1	6	1/6/14	145	4509	1
7	230.91	1	7	1/7/14	179	4329	1
8	414.09000000000003	1	8	1/8/14	321	4104	1
9	136.25	1	9	1/9/14	125	4459	1
10	95.92	1	10	1/10/14	88	5043	1
11	204.92000000000002	1	11	1/11/14	188	5239	1
12	121.00000000000001	1	12	1/12/14	121	5110	1

# Sales Format Data:

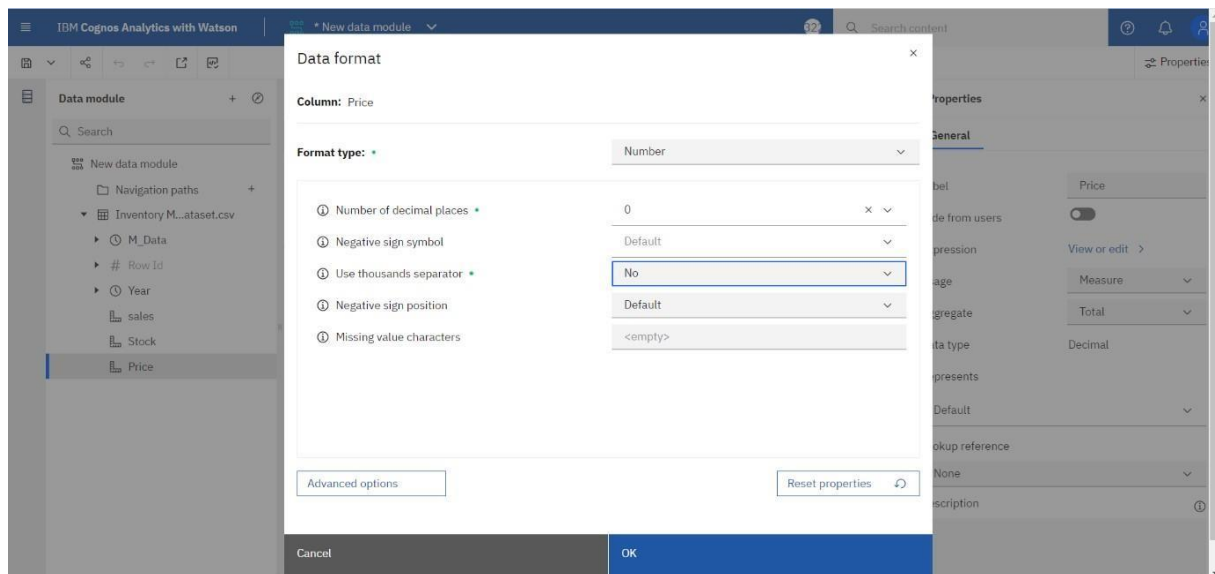


The screenshot shows the main data grid in IBM Cognos Analytics. The 'sales' column is highlighted. The grid displays data for Revenue, M\_Data, Row Id, Year, sales, Stock, and Price.

T↓	Revenue	M_Data	Row Id	Year	sales	Stock	Price
1	0	1	1	1/1/14	0	4972	1
2	90.3	1	2	1/2/14	70	4902	1
3	76.11	1	3	1/3/14	59	4843	1
4	119.97	1	4	1/4/14	93	4750	1
5	123.84	1	5	1/5/14	96	4654	1
6	187.05	1	6	1/6/14	145	4509	1
7	230.91	1	7	1/7/14	179	4329	1
8	414.09000000000003	1	8	1/8/14	321	4104	1
9	136.25	1	9	1/9/14	125	4459	1
10	95.92	1	10	1/10/14	88	5043	1
11	204.92000000000002	1	11	1/11/14	188	5239	1
12	131.00000000000001	1	12	1/12/14	121	5116	1



## Price Format Data:



The screenshot shows the 'Grid' view of the 'Price' column in IBM Cognos Analytics. The table has 12 rows and 7 columns: M\_Data, Row Id, Year, sales, Stock, and Price. The 'Price' column is highlighted with a blue border. 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	131	5110	1

## Revenue Format Data:

The screenshot shows the 'Data format' dialog box in IBM Cognos Analytics. The 'Column' is set to 'Revenue'. The 'Format type' is 'Number'. The 'Number of decimal places' is set to 0. The 'Negative sign symbol' is 'Default'. The 'Use thousands separator' is set to '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. The 'OK' button is at the bottom right, and the 'Cancel' button is at the bottom left.

T1	Revenue	M_Data	Row Id	Year	Sales	Stock	Price
0			1				
90			2				
76			3				
120			4				
124			5				
187			6				
231			7				
414			8				
136			9				
96			10				
205			11				
132							
146							
87							
89							

## Year Properties:

T1	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 Panel (Year):**

- 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:

T1	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 Panel (sales):**

- 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:

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 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 M\_Data

Hide from users ☐

Expression [View or edit](#)

Usage Attribute

Aggregate Count Distinct

Data type Integer

Represents

Time

Month

Description

## Prepared Data link:

[https://us3.ca.analytics.ibm.com/bi/?perspective=camodeller&pathRef=.my\\_folders%2FInventory%2BModule](https://us3.ca.analytics.ibm.com/bi/?perspective=camodeller&pathRef=.my_folders%2FInventory%2BModule)