

# Project Development Phase

## Delivery of Sprint-1

Date	3 October 2022
Team ID	PNT2022TMID47924
Project Name	Retail Store Stock Inventory Analytics

### Project Development Phase:

#### Sprint-1:

- Data Collection
- Data Preparation

#### Sprint-2:

- Data Exploration

#### Sprint-3:

- Dashboard Creation

#### Sprint-4:

- Report Creation
- Story Creation

# Retail Store Stock Inventory Analytics



## Sprint-1:

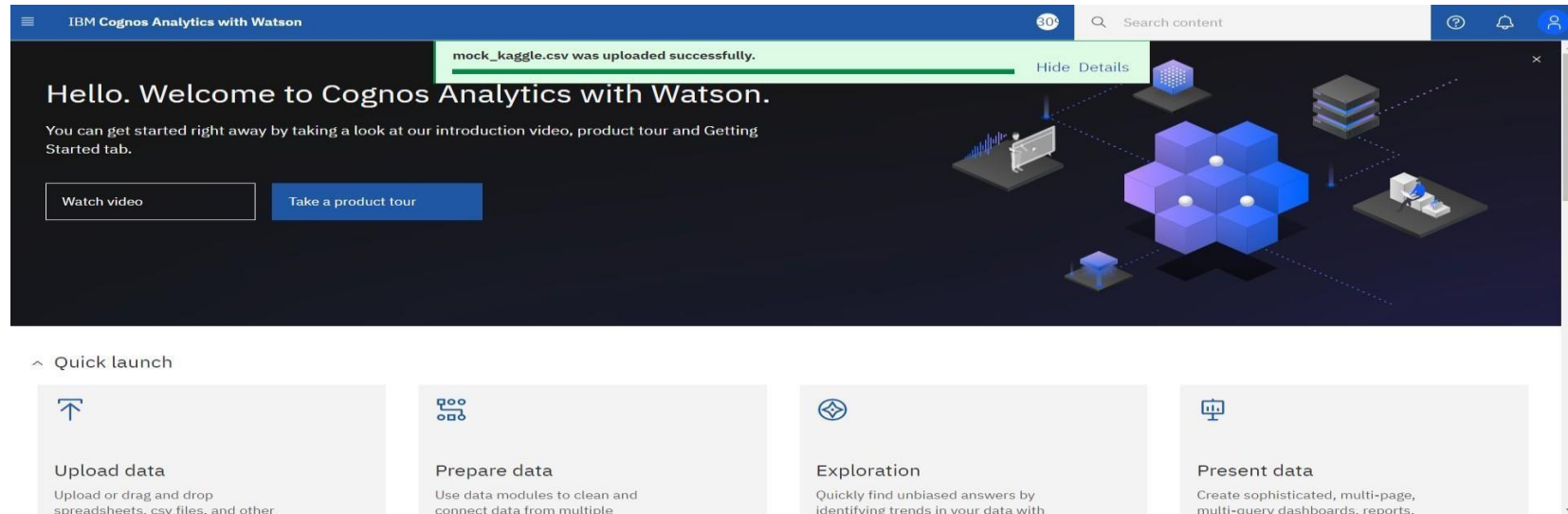
### Data Collection:

Download the Dataset

Dataset link - <https://drive.google.com/drive/folders/1kiL-5CHJmQvbk9VyFsuUs-myAupBZGNy>

### Load the Dataset:

Tool used – IBM Cognos



# Data Preparation:

## Prepare the Dataset

IBM Cognos Analytics with Watson

Retail Store Stock In ... Analytics

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Properties

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📄 Retail Store St...tory Analytics

📄 Navigation paths

📄 mock\_kaggle.csv

▶ # Row Id

▶ ⌚ data

📄 venda

📄 estoque

📄 preco

📄 Grid

📄 Relationships

📄 Custom tables

↑↓	Row Id	data	venda	estoque	preco
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	

## Month data:

The screenshot shows the 'Create calculation' dialog box in IBM Cognos Analytics. The dialog has a title bar with 'IBM Cognos Analytics with Watson' and a breadcrumb trail '\* Retail Store Stock ... Analytics'. The main area is divided into three sections: 'Name', 'Components', and 'Expression'. The 'Name' field contains 'M\_data'. The 'Components' section on the left shows a search bar and a list of available components: 'mock\_kaggle.csv', '# Row Id', 'data', 'venda', 'estoque', and 'preco'. The 'Expression' section on the right contains the text '1 Month (data\_)'. Below the expression, a 'Validation Results' panel shows a green checkmark and the message 'The expression is valid.'. At the bottom of the dialog, there is a checkbox labeled 'Calculate after aggregation' which is currently unchecked, and two buttons: 'Cancel' and 'OK'.

IBM Cognos Analytics with Watson | \* Retail Store Stock ... Analytics | 30 | Search content

### Create calculation

Name: M\_data

**Components**

- mock\_kaggle.csv
  - # Row Id
  - data
  - venda
  - estoque
  - preco

**Expression**

```
1 Month (data_)
```

**Validation Results**

✓ The expression is valid.

☐ Calculate after aggregation

Cancel OK

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Retail Store St...tory Analytics

Navigation paths

mock\_kaggle.csv

# M\_data

# Row Id

🕒 data

📊 venda

📊 estoque

📊 preco

Grid

Relationships

Custom tables

↕	M_data	Row Id	data	venda	estoque	preco
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

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Data module

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🔍 Search

📁 Retail Store St...tory Analytics

📁 Navigation paths

📁 mock\_kaggle.csv

▶ 🕒 M\_data

▶ # Row Id

▶ 🕒 data

📊 venda

📊 estoque

📊 preco

📊 Grid

🔗 Relationships

📄 Custom tables

↕	M_data	Row Id	data	venda	estoque
1		1	2014-01-01	0	4972
1		2	2014-01-02	70	4902
1		3	2014-01-03	59	4843
1		4	2014-01-04	93	4750
1		5	2014-01-05	96	4654
1		6	2014-01-06	145	4509
1		7	2014-01-07	179	4329
1		8	2014-01-08	321	4104
1		9	2014-01-09	125	4459
1		10	2014-01-10	88	5043
1		11	2014-01-11	188	5239
1		12	2014-01-12	121	5118
1		13	2014-01-13	134	4984

Properties

General

Navigation paths

Label

M\_data

Hide from users

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Expression

View or edit >

Usage

Attribute

Aggregate

Count Distinct

Data type

Integer

Represents

Time

Month

Description

# Revenue data:

IBM Cognos Analytics with Watson

\* Retail Store Stock ... Analytics

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Data module

🔍 Search

Retail Store St...tory Analytics

📁 Navigation paths

📄 mock\_kaggle.csv

🕒 M\_data

**📊 Revenue**

📊 # Row Id

🕒 Year

📊 Sales

📊 Stock

📊 Price

Grid

Relationships

Custom tables

↕	M_data	Revenue	Row Id	Year	Sales
1		0	1	1/1/14	0
1		90.3	2	1/2/14	70
1		76.11	3	1/3/14	59
1		119.97	4	1/4/14	93
1		123.84	5	1/5/14	96
1		187.05	6	1/6/14	145
1		230.91	7	1/7/14	179
1		414.09000000000003	8	1/8/14	321
1		136.25	9	1/9/14	125
1		95.92	10	1/10/14	88
1		204.92000000000002	11	1/11/14	188
1		131.89000000000001	12	1/12/14	121
1		146.06	13	1/13/14	134

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



# Year data:

IBM Cognos Analytics with Watson

Retail Store Stock In ... Analytics

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🔍 Search

Retail Store Story Analytics

📁 Navigation paths

📄 mock\_kaggle.csv

🕒 M\_data

# Row Id

🕒 Year

📄 venda

📄 estoque

📄 preco

Grid

Relationships

Custom tables

↕	M_data	Row Id	Year	venda	estoque
1		1	2014-01-01	0	4972
1		2	2014-01-02	70	4902
1		3	2014-01-03	59	4843
1		4	2014-01-04	93	4750
1		5	2014-01-05	96	4654
1		6	2014-01-06	145	4509
1		7	2014-01-07	179	4329
1		8	2014-01-08	321	4104
1		9	2014-01-09	125	4459
1		10	2014-01-10	88	5043
1		11	2014-01-11	188	5239
1		12	2014-01-12	121	5118
1		13	2014-01-13	134	4984

Properties

General

Navigation paths

Label

Year

Hide from users

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Expression

View or edit

Usage

Attribute

Aggregate

Count Distinct

Data type

Date

Represents

Time

Year

Lookup reference

None

Description

# Sales data:

IBM Cognos Analytics with Watson

\* Retail Store Stock ... Analytics

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🔍 Search

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📁 Navigation paths

📄 mock\_kaggle.csv

🕒 M\_data

# Row Id

🕒 Year

**Sales**

estoque

preco

Grid

Relationships

Custom tables

↕	M_data	Row Id	Year	Sales	estoque
1	1	1	2014-01-01	0	4972
1	1	2	2014-01-02	70	4902
1	1	3	2014-01-03	59	4843
1	1	4	2014-01-04	93	4750
1	1	5	2014-01-05	96	4654
1	1	6	2014-01-06	145	4509
1	1	7	2014-01-07	179	4329
1	1	8	2014-01-08	321	4104
1	1	9	2014-01-09	125	4459
1	1	10	2014-01-10	88	5043
1	1	11	2014-01-11	188	5239
1	1	12	2014-01-12	121	5118
1	1	13	2014-01-13	134	4984

Properties

General

LabelSales

Hide from users

ExpressionView or edit

UsageMeasure

AggregateTotal

Data typeInteger

Represents

Default

Lookup referenceNone

Description

# Stock data:

IBM Cognos Analytics with Watson

\* Retail Store Stock ... Analytics

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⚙ Properties

📄 Data module

🔍 Search

Retail Store Story Analytics

📁 Navigation paths

📄 mock\_kaggle.csv

🕒 M\_data

📄 # Row Id

🕒 Year

📄 Sales

**📄 Stock**

📄 preco

📄 Grid

🔗 Relationships

📄 Custom tables

↕	Row Id	Year	Sales	Stock
	1	2014-01-01	0	4972
	2	2014-01-02	70	4902
	3	2014-01-03	59	4843
	4	2014-01-04	93	4750
	5	2014-01-05	96	4654
	6	2014-01-06	145	4509
	7	2014-01-07	179	4329
	8	2014-01-08	321	4104
	9	2014-01-09	125	4459
	10	2014-01-10	88	5043
	11	2014-01-11	188	5239
	12	2014-01-12	121	5118
	13	2014-01-13	134	4984

🔗 Properties

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Stock

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Expression

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Usage

Measure

Aggregate

Total

Data type

Integer

Represents

Default

Lookup reference

None

Description

# Price data:

IBM Cognos Analytics with Watson

Retail Store Stock In ... Analytics

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📁 Data module

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📁 mock\_kaggle.csv

🕒 M\_data

🔢 # Row Id

🕒 Year

📊 Sales

📊 Stock

📊 Price

📊 Grid

🔗 Relationships

📄 Custom tables

Year	Sales	Stock	Price
2014-01-01	0	4972	1.29
2014-01-02	70	4902	1.29
2014-01-03	59	4843	1.29
2014-01-04	93	4750	1.29
2014-01-05	96	4654	1.29
2014-01-06	145	4509	1.29
2014-01-07	179	4329	1.29
2014-01-08	321	4104	1.29
2014-01-09	125	4459	1.09
2014-01-10	88	5043	1.09
2014-01-11	188	5239	1.09
2014-01-12	121	5118	1.09
2014-01-13	134	4984	1.09

Properties

General

LabelPrice

Hide from users

ExpressionView or edit

UsageMeasure

AggregateTotal

Data typeDecimal

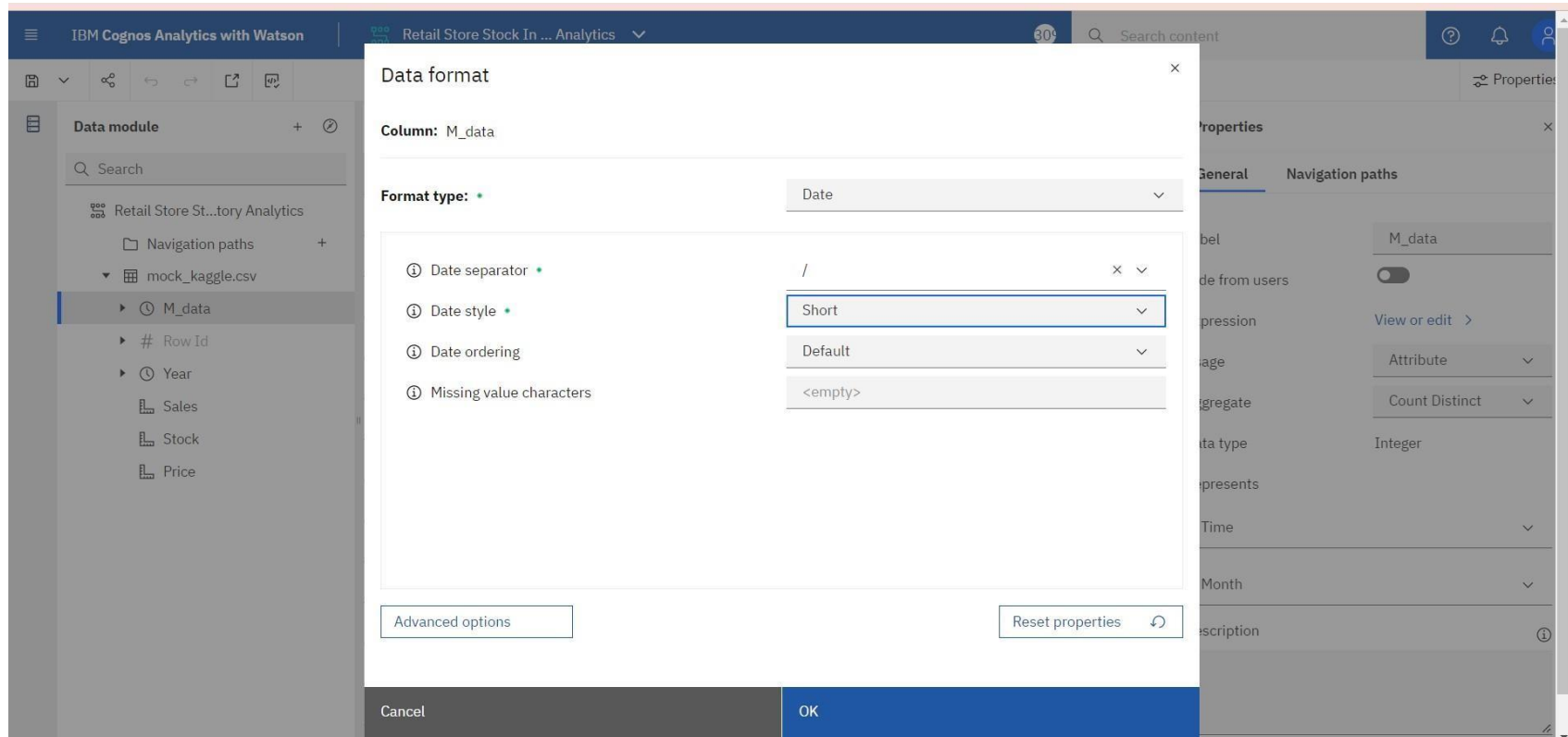
Represents

Default

Lookup referenceNone

Description

# Month-Format Data:



IBM Cognos Analytics with Watson

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Sales

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Stock

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Price

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Grid

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Relationships

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Custom tables

↕	M_data	Row Id	Year	Sales	Stock
1		1	1/1/14	0	4972
1		2	1/2/14	70	4902
1		3	1/3/14	59	4843
1		4	1/4/14	93	4750
1		5	1/5/14	96	4654
1		6	1/6/14	145	4509
1		7	1/7/14	179	4329
1		8	1/8/14	321	4104
1		9	1/9/14	125	4459
1		10	1/10/14	88	5043
1		11	1/11/14	188	5239
1		12	1/12/14	121	5118
1		13	1/13/14	134	4984

Properties

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General

Navigation paths

Label

M\_data

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Expression

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Usage

Attribute

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Aggregate

Count Distinct

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Data type

Integer

Represents

Time

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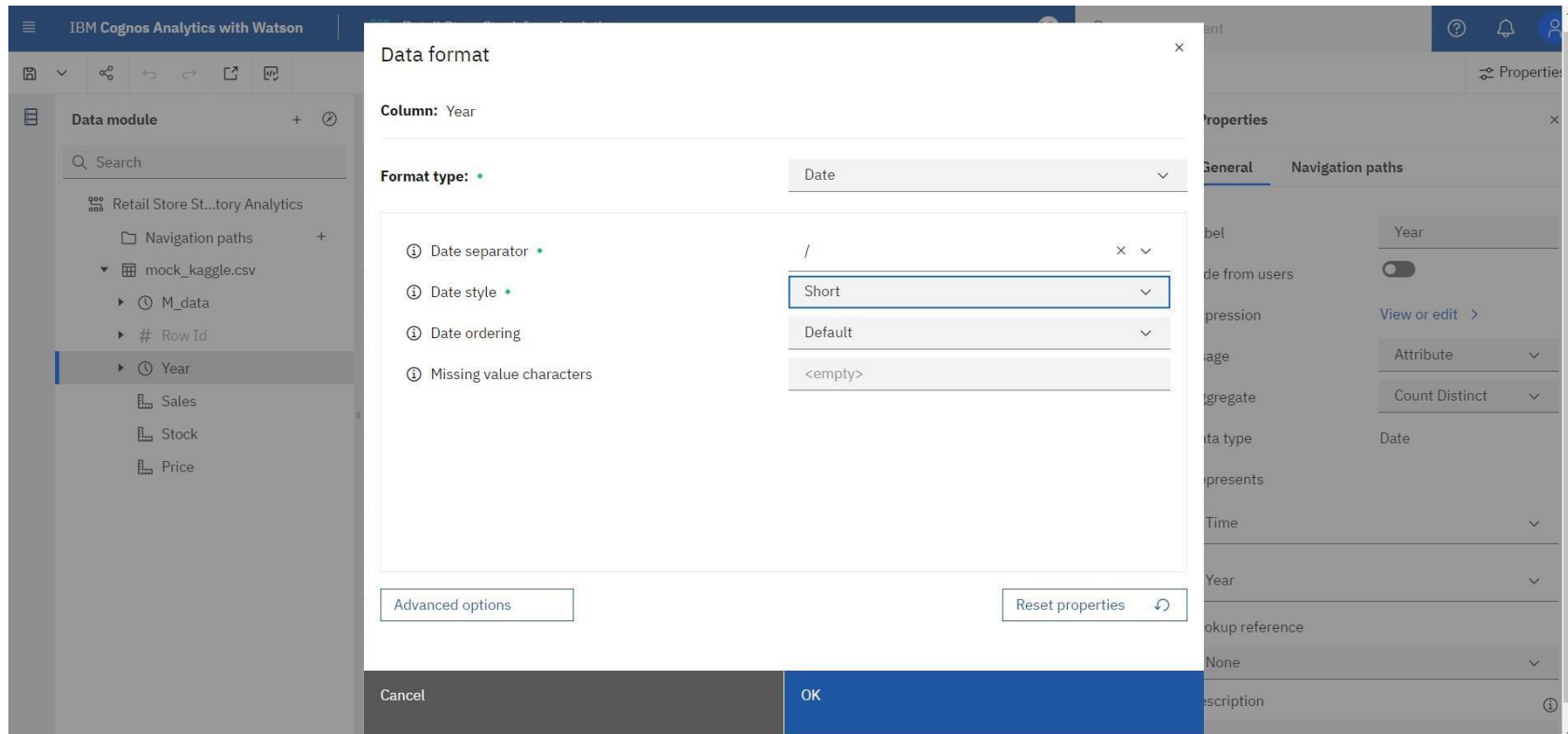
Month

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Description

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# Year-Format Data:



IBM Cognos Analytics with Watson

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Data module

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Retail Store St...tory Analytics

Navigation paths

mock\_kaggle.csv

M\_data

# Row Id

Year

Sales

Stock

Price

Grid

Relationships

Custom tables

↑↓	M_data	Row Id	Year	Sales	Stock
1		1	1/1/14	0	4972
1		2	1/2/14	70	4902
1		3	1/3/14	59	4843
1		4	1/4/14	93	4750
1		5	1/5/14	96	4654
1		6	1/6/14	145	4509
1		7	1/7/14	179	4329
1		8	1/8/14	321	4104
1		9	1/9/14	125	4459
1		10	1/10/14	88	5043
1		11	1/11/14	188	5239
1		12	1/12/14	121	5118
1		13	1/13/14	134	4984

Properties

General

Navigation paths

Label

Year

Hide from users

Expression

View or edit >

Usage

Attribute

Aggregate

Count Distinct

Data type

Date

Represents

Time

Year

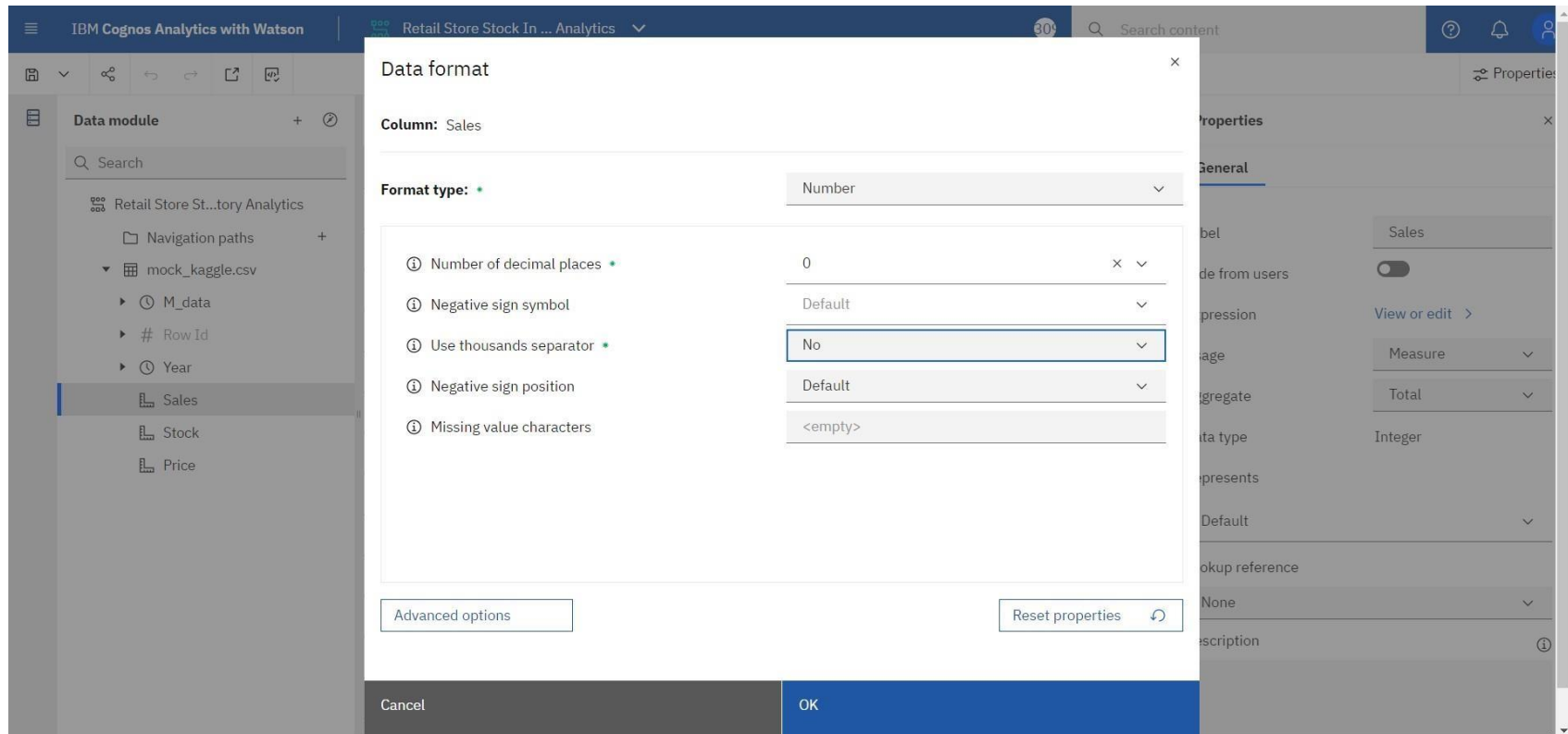
Lookup reference

None

Description



# Sales-Format Data:



IBM Cognos Analytics with Watson

\* Retail Store Stock ... Analytics

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Search content

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Grid

Relationships

Custom tables

	M_data	Row Id	Year	Sales	Stock
1	1	1	1/1/14	0	4972
1	2	2	1/2/14	70	4902
1	3	3	1/3/14	59	4843
1	4	4	1/4/14	93	4750
1	5	5	1/5/14	96	4654
1	6	6	1/6/14	145	4509
1	7	7	1/7/14	179	4329
1	8	8	1/8/14	321	4104
1	9	9	1/9/14	125	4459
1	10	10	1/10/14	88	5043
1	11	11	1/11/14	188	5239
1	12	12	1/12/14	121	5118
1	13	13	1/13/14	134	4984

Properties

General

LabelSales

Hide from users

ExpressionView or edit

UsageMeasure

AggregateTotal

Data typeInteger

Represents

Default

Lookup referenceNone

Description

Data module

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Retail Store St...tory Analytics

Navigation paths

mock\_kaggle.csv

M\_data

Row Id

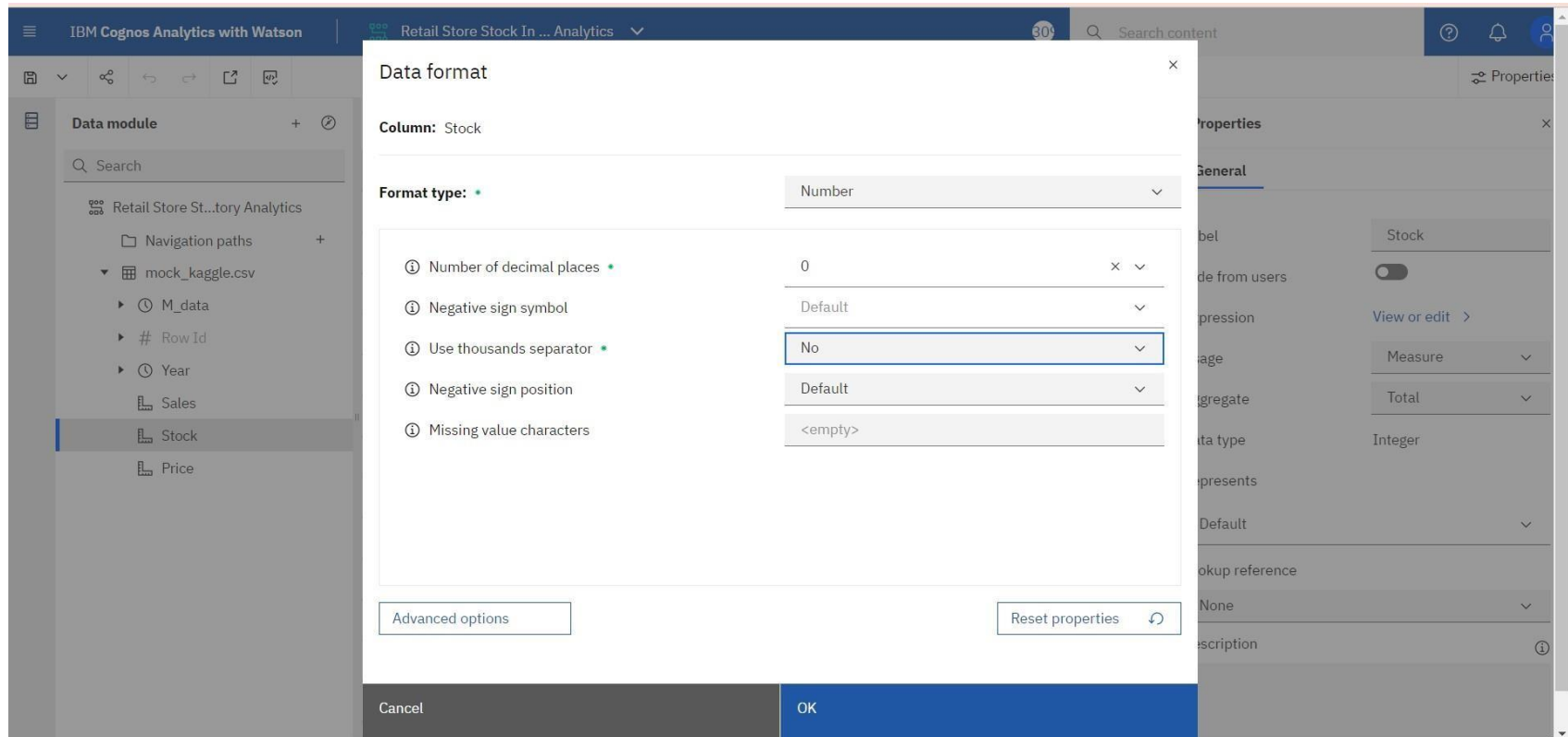
Year

Sales

Stock

Price

# Stock-Format Data:



IBM Cognos Analytics with Watson

\* Retail Store Stock ... Analytics

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Retail Store Story Analytics

Navigation paths

mock\_kaggle.csv

M\_data

# Row Id

Year

Sales

Stock

Price

Grid

Relationships

Custom tables

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
12	1/12/14	121	5118
13	1/13/14	134	4984

Properties

General

Label

Stock

Hide from users

Expression

View or edit

Usage

Measure

Aggregate

Total

Data type

Integer

Represents

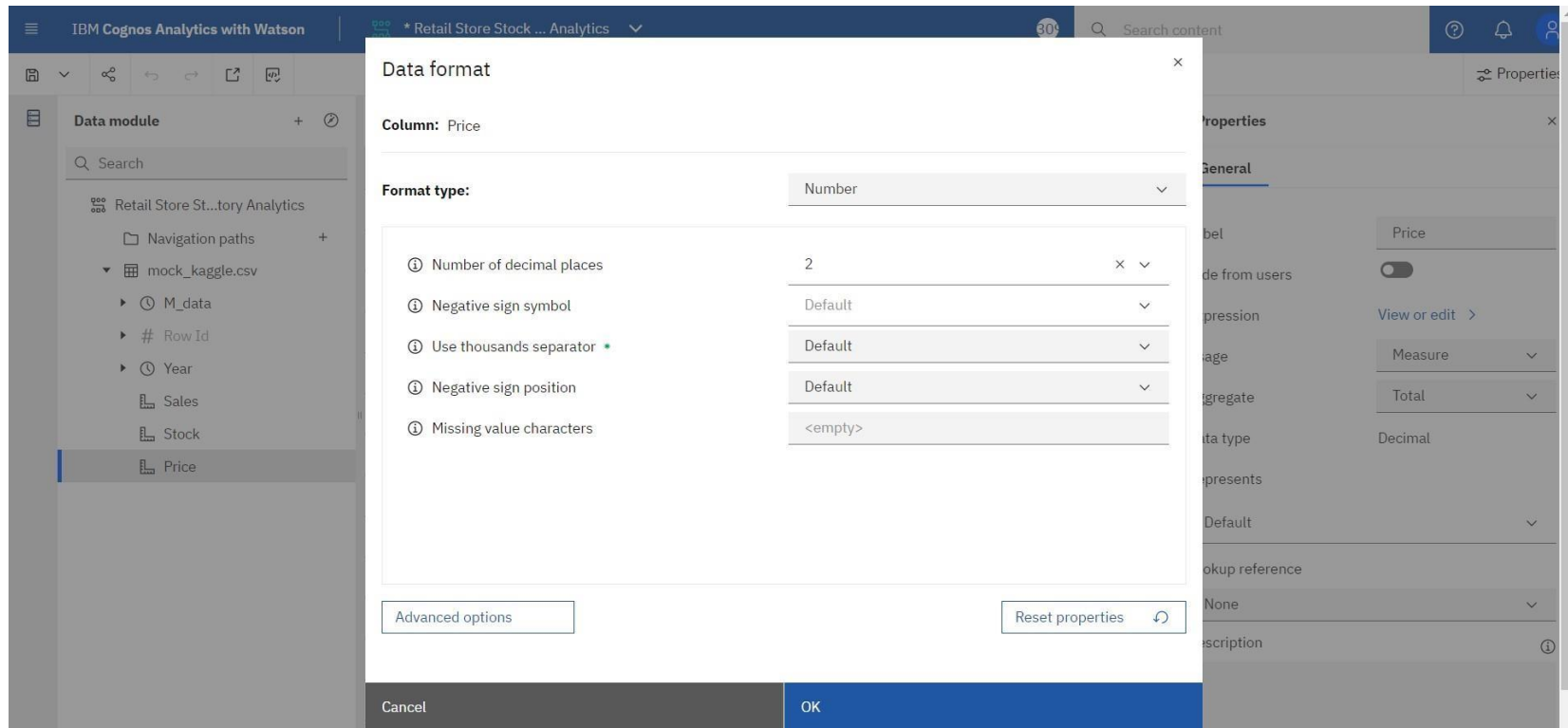
Default

Lookup reference

None

Description

# Price-Format Data:



IBM Cognos Analytics with Watson

\* Retail Store Stock ... Analytics

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Retail Store St...tory Analytics

Navigation paths

mock\_kaggle.csv

M\_data

# Row Id

Year

Sales

Stock

Price

Grid

Relationships

Custom tables

↕	Year	Sales	Stock	Price
	1/1/14	0	4972	1.29
	1/2/14	70	4902	1.29
	1/3/14	59	4843	1.29
	1/4/14	93	4750	1.29
	1/5/14	96	4654	1.29
	1/6/14	145	4509	1.29
	1/7/14	179	4329	1.29
	1/8/14	321	4104	1.29
	1/9/14	125	4459	1.09
	1/10/14	88	5043	1.09
	1/11/14	188	5239	1.09
	1/12/14	121	5118	1.09
	1/13/14	134	4984	1.09

Properties

General

LabelPrice

Hide from users

ExpressionView or edit >

UsageMeasure

AggregateTotal

Data typeDecimal

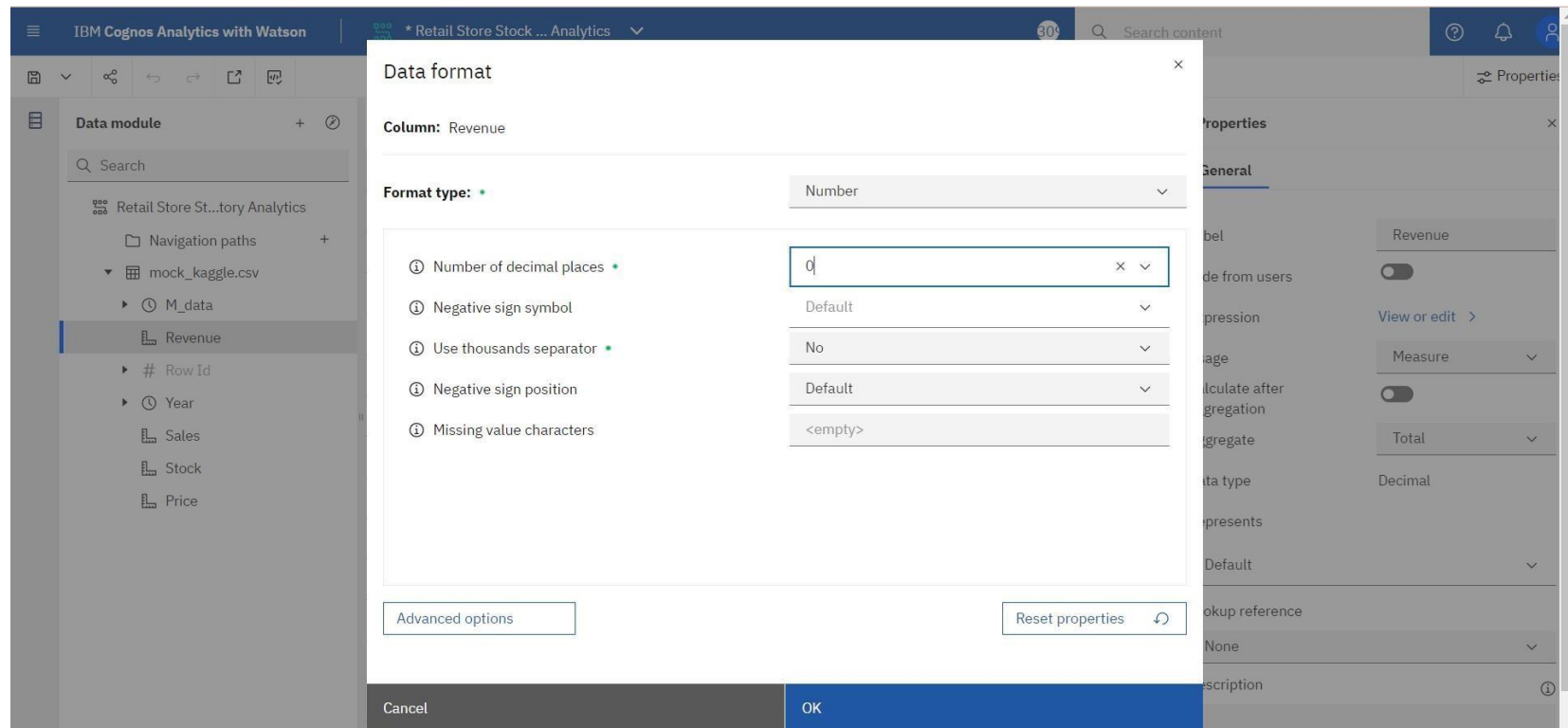
Represents

Default

Lookup referenceNone

Description

# Revenue-Format Data:



IBM Cognos Analytics with Watson

\* Retail Store Stock ... Analytics

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Properties

Data module

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🔍 Search

Retail Store Story Analytics

Navigation paths

mock\_kaggle.csv

M\_data

Revenue

# Row Id

🕒 Year

📊 Sales

📊 Stock

📊 Price

Grid

Relationships

Custom tables

↕	M_data	Revenue	Row Id	Year	Sales
1		0	1	1/1/14	0
1		90	2	1/2/14	70
1		76	3	1/3/14	59
1		120	4	1/4/14	93
1		124	5	1/5/14	96
1		187	6	1/6/14	145
1		231	7	1/7/14	179
1		414	8	1/8/14	321
1		136	9	1/9/14	125
1		96	10	1/10/14	88
1		205	11	1/11/14	188
1		132	12	1/12/14	121
1		146	13	1/13/14	134

Properties

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General

Label

Revenue

Hide from users

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Expression

View or edit

Usage

Measure

Calculate after aggregation

☐

Aggregate

Total

Data type

Decimal

Represents

Default

Lookup reference

None

Description

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## **Prepared data link –**

[https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my\\_folders%2FRetail%2BStore%2BStock%2BInventory%2BAnalytics](https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2FRetail%2BStore%2BStock%2BInventory%2BAnalytics)