

## Project Development Phase

### Delivery of Sprint-1

Date	29 October 2022
Team ID	PNT2022TMID05551
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:

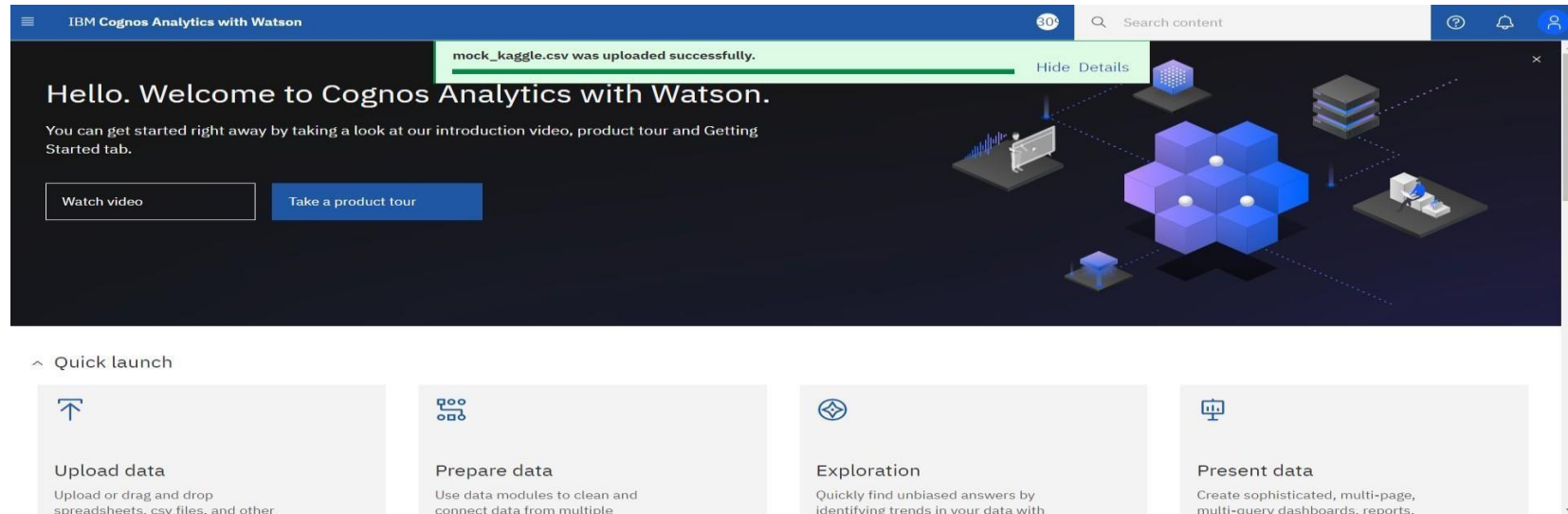
### Data Collection:

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

30%

Search content

Properties

Data module

Search

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 search bar. The main area is divided into two panes: 'Components' on the left and 'Expression' on the right. The 'Components' pane shows a tree structure of available data sources: 'mock\_kaggle.csv', '# Row Id', 'data', 'venda', 'estoque', and 'preco'. The 'Expression' pane shows the expression '1 Month (data\_)'. Below the expression pane, there is a 'Validation Results' section with a green checkmark and the text 'The expression is valid.' At the bottom of the dialog, there is a checkbox labeled 'Calculate after aggregation' which is unchecked, and two buttons: 'Cancel' and 'OK'.

IBM Cognos Analytics with Watson

\* Retail Store Stock ... Analytics

Search content

Create calculation

Name: M\_data

Components

Search

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

Expression

1 Month (data\_)

Validation Results

✓ The expression is valid.

☐ Calculate after aggregation

Cancel OK

Datamodule	*	@ Grid	@ Relationships	@ Custom tables				
Q Search		TI	N_data	Row Id	data	venda	estoque	preco
Retail Store Analytics		1		1	2014-01-01	0	972	1.29
Ed Navigation paths	+	1		2	2014-01-02	70	902	1.29
@ mock_kaggle.csv	*	1		3	2014-01-03	59	843	1.29
@ M data		1		4	2014-01-04	93	750	1.29
# RowId		1		5	2014-01-05	96	654	1.29
data		1		6	2014-01-06	145	4509	1.29
@ venda	ii	1		7	2014-01-07	179	4329	1.29
estoque		1		8	2014-01-08	321	104	1.29
preco		1		9	2014-01-09	125	4489	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	984	1.09

📄 ⌵ 🔗 ↶ ↷ ↗ 🖨

Properties

Data module		@ Grid	@ Relationships	@ Custom table	Properties	
Q Searchh		↕ M_data	Row Id	data	venda	esioque
@ Retail Store St...tory Analytics		1	1	2014-01-01	0	49g3
Eg Navigation paths		1	2	2014-01-02	70	4902
mock_kaggle.csv		1	3	2014-01-03	59	4843
M_data		1	4	2014-01-04	93	4750
# RowId		1	5	2014-01-05	9%	4654
@ data		1	6	2014-01-06	145	4509
venda		1	7	2014-01-07	179	4329
@ esioque		1	8	2014-01-08	321	4104
preco		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	In	5118
		1	13	2014-01-13	134	4RB4

Label

M data

Hide from users

Expression

Usage

Aggregate

Data type

Represents

Time

i-ionth

Description

View or edit

Attribute

C6um Distinct

Integer

🔔

# Revenue data:

IBM Cognos Analytics with Watson

\* Retail Store Stock ... Analytics

30%

Search content

?

🔔

👤

📄

🔍

↶

↷

📄

📄

Properties

Data module

🔍 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		90.3	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

30

Search content

?

🔔

👤

📁

🔍

🔗

↶

↷

📄

🖨

⚙️ Properties

Data module

🔍 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

🔴

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

30%

Search content

?

🔔

👤

📁

🔍

↶

↷

📄

🔗

Properties

Data module

🔍 Search

Retail Store St...tory Analytics

📁 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

30%

Search content

?

🔔

👤

📄

⌵

🔊

↶

↷

📄

🖨

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

×

General

Label

Stock

Hide from users

🔴

Expression

View or edit >

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

30

Search content

?

🔔

👤

📁

🔍 Search

📁 Retail Store Story Analytics

📁 Navigation paths

📁 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

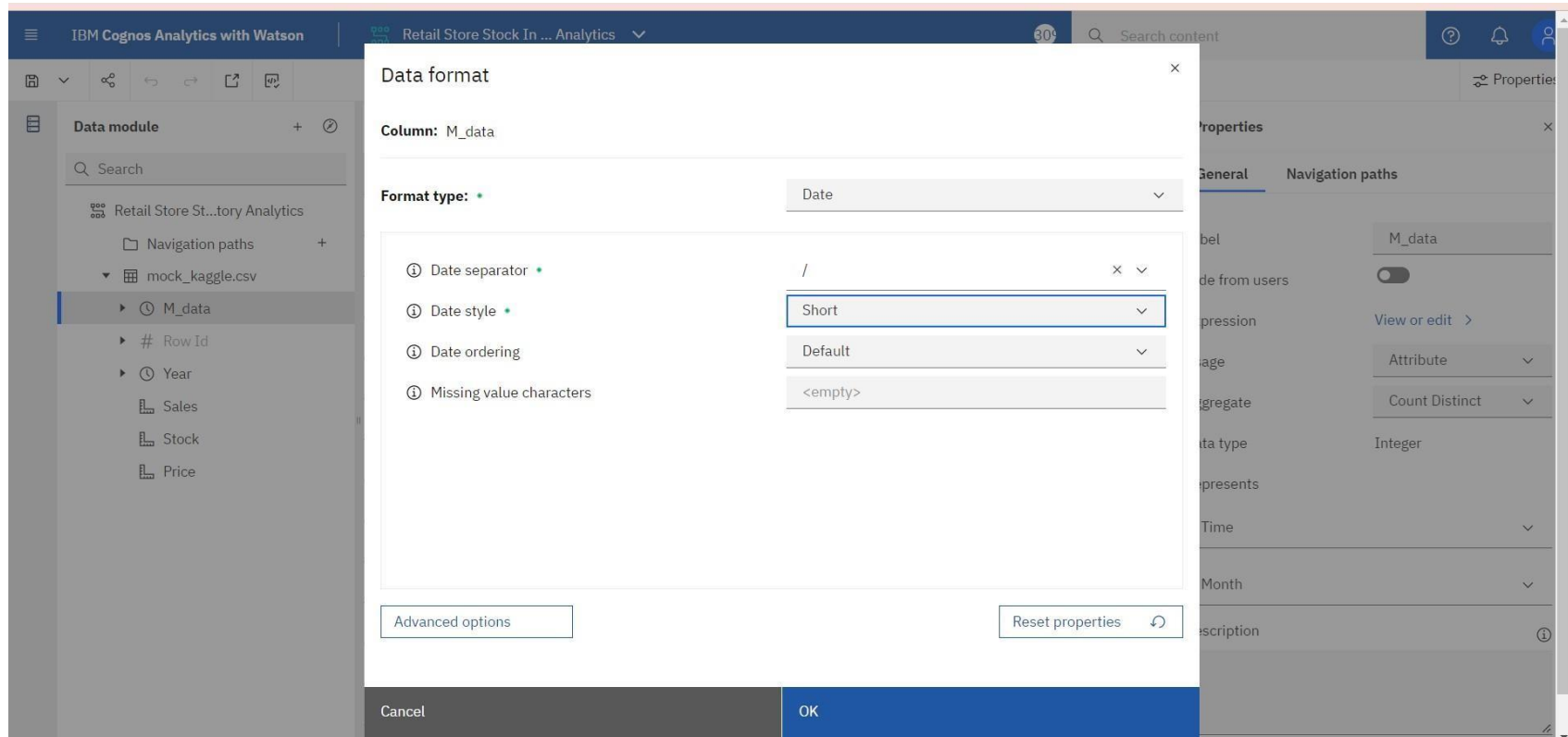
Default

Lookup referenceNone

Description

↑↓	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

# Month-Format Data:



Data module

Q Search

@ Retail Store Story Analytics

EZ Navigation paths

•

mock kaggle.csv

▶

🕒

M\_data

▶

#

Row Id

▶

🕒

Year

@

Sales

@

Stock

@

Price

⌵

⌴

M\_data

Row Id

Year

Sales

Stock

General

Navigation paths

1

1

1 // t4

0

4972

Label

M\_data

2

2

1/2/14

70

4902

Hide from users

3

3

1/3/14

59

4843

Expression

View or edit >

4

4

1/4/14

93

4750

Usage

Attribute

▼

5

5

1/5/14

96

4654

Aggregate

Count Distinct

w

6

6

1/6/14

145

4509

Data type

Integer

7

7

1/7/14

t79

4329

8

8

1/8/t4

32t

4104

Time

"

9

9

1/9/14

t25

4459

Month

•

10

10

1/10/14

88

5043

Description

📄

11

11

1/11/14

t88

5239

12

12

1/12/14

121

5118

13

13

1/M/14

t34

4984 ,

Label

Hide from users

Expression

Usage

Aggregate

Data type

Time

Month

Description

M\_data

☐

View or edit >

Attribute

Count Distinct

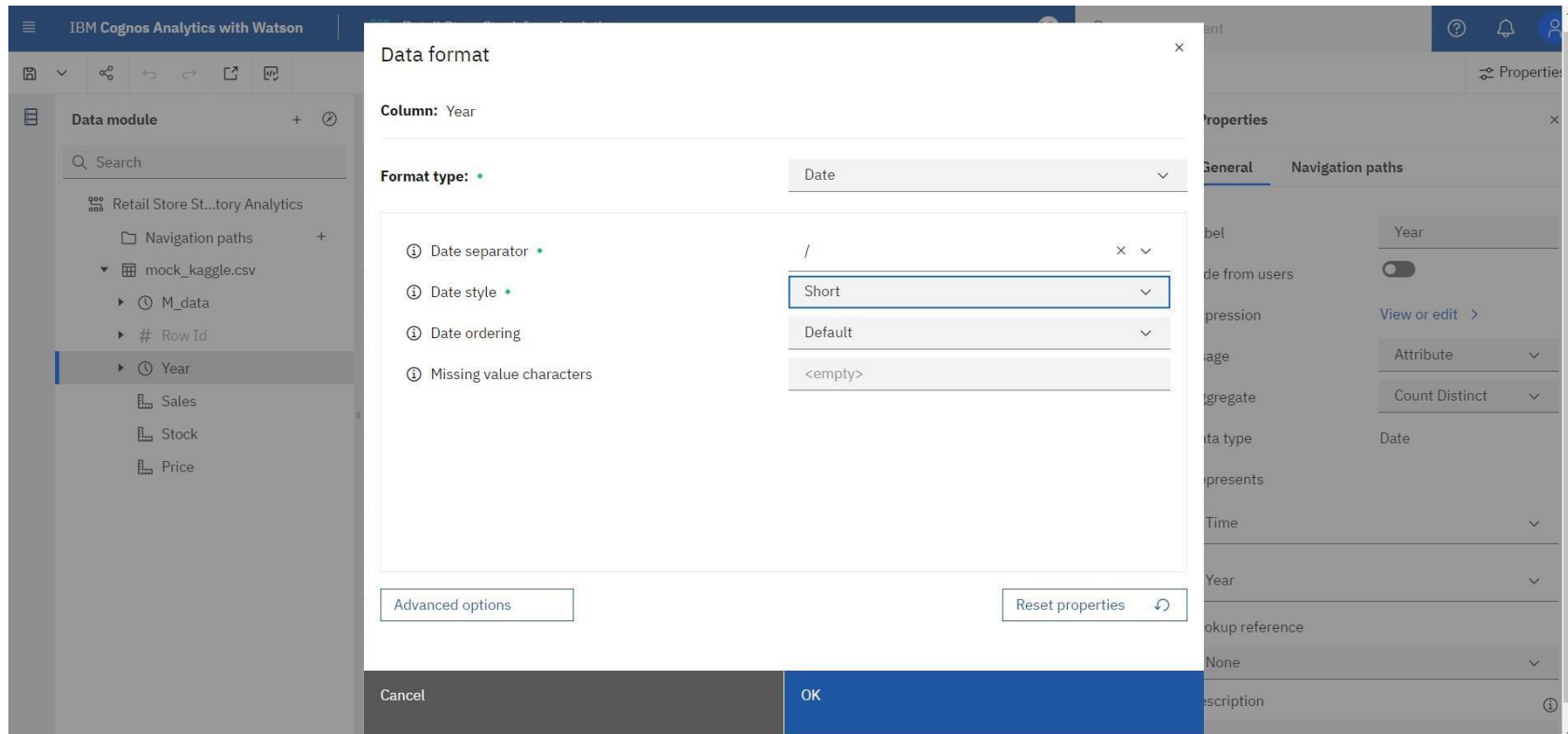
Integer

"

•



# Year-Format Data:



@

Data module

Search

PetailStoreSt...2ocyAnal/ics

Q Navigation paths

• @ mOck\_kaggle.csv

t (i) M\_data

▶ # RowId

▶ ⌚ Year

@ Sales

@ StOck

@ Price

@ Grid

@ Relationships

@ Custom tables

Jt	M_data	Row Id	Year	Salee	.Stock
	1	1	1/1/14	0	4972
	1	2	1/2/.14	70	^902
	1	3	1/3/14	59	843
	1	4	1/4/14	93	^750
	1	5	1/5/14	96	46S4
ii	1	6	1/6/14	145	^509
	1	7	1/7/14	179	329
	1	8	1/8/14	321	^104
	1	9	1/9/14	125	^459
	1	10	1/10/14	88	5043
	1	11	1j11/1é-	188	***
	1	12	1/12/.14	121	5118
	1	13	1/13/14	134	984

Properties

General

Navigation paths

Label

Year

Hide from users

Expression

Usage

Aggregate

Data type

Represents

Time

Year

Lookup reference

Description

View or edit 7

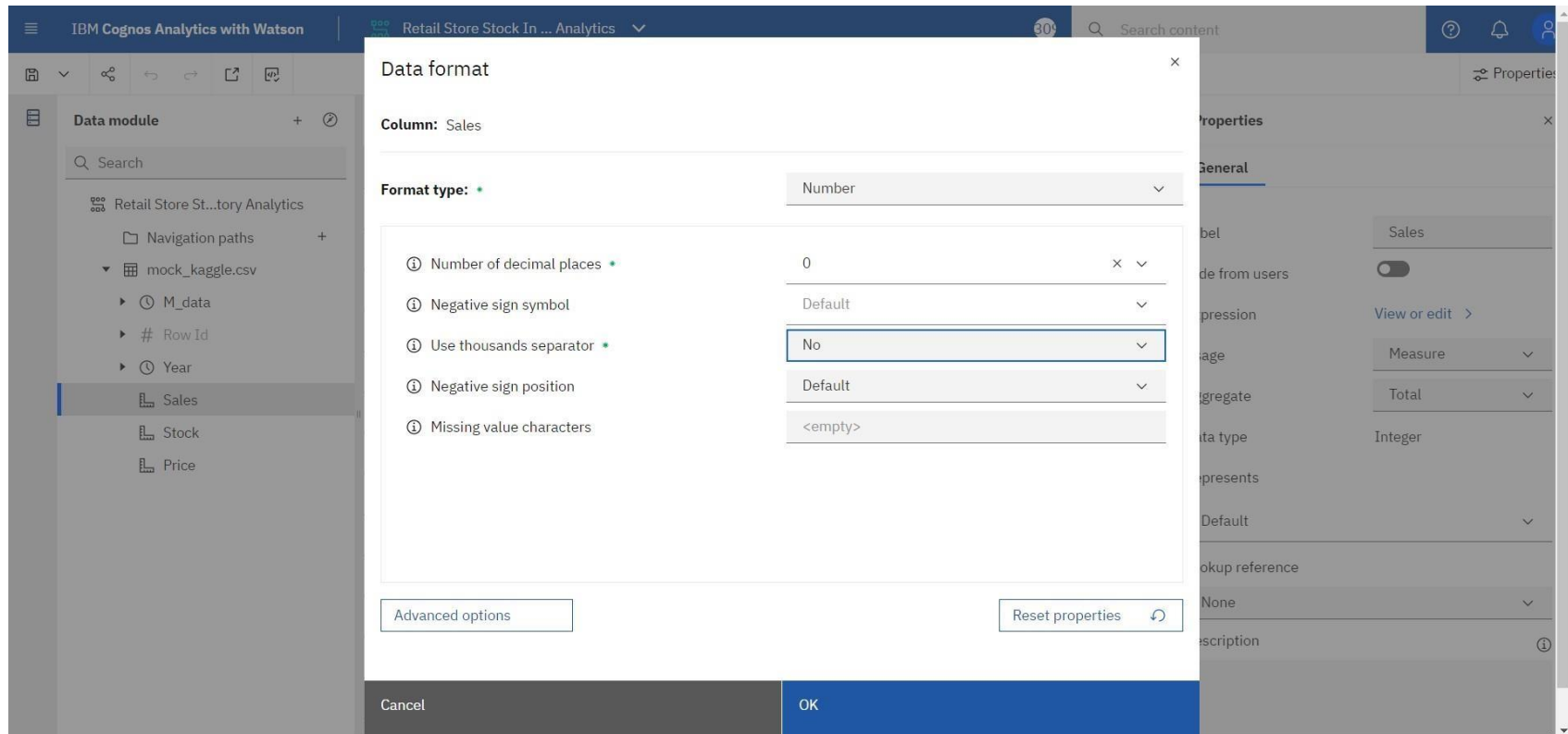
Attribute

Count0istincl

Date

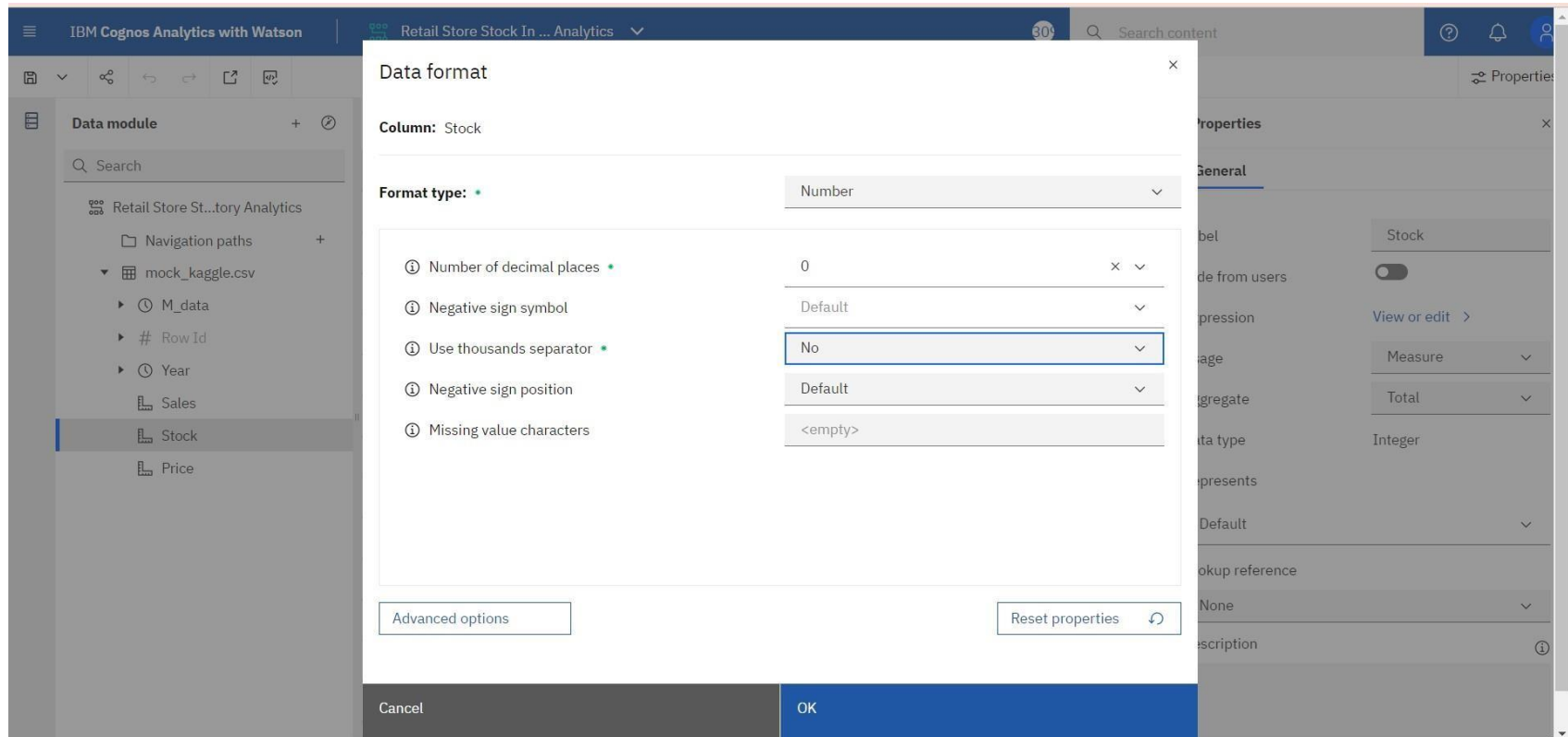


# Sales-Format Data:



<

# Stock-Format Data:



Data module	Bg	Grid	@ Relationships	@ Custom tables	Properties
Search			Row Id	Yea	Stock
Retail Store St...tory Analytics			1	1/1/14	4972
Pj Mavgaflonpaths				1/2/14	490;2
mock kaggfe.csv			3	1/3/14	4843
Qt M data			4	1/4/14	4750
# RowId			5	1/5/14	4654
Year			6	1/6/14	4509
Sales			7	1/7/14	4329
Stock			8	1/8/14	#104
Price			9	1/9/14	445?
			10	1/10/14	5043
			11	1/11/14	5239
			12	1/12/14	51.18
			13	1/13/14	4984

General

Label

Hide from u sers

Expression

Usage

Aggregate

Datatype

Represents

Default

Lookup reference

None

Description

Stock'

☐

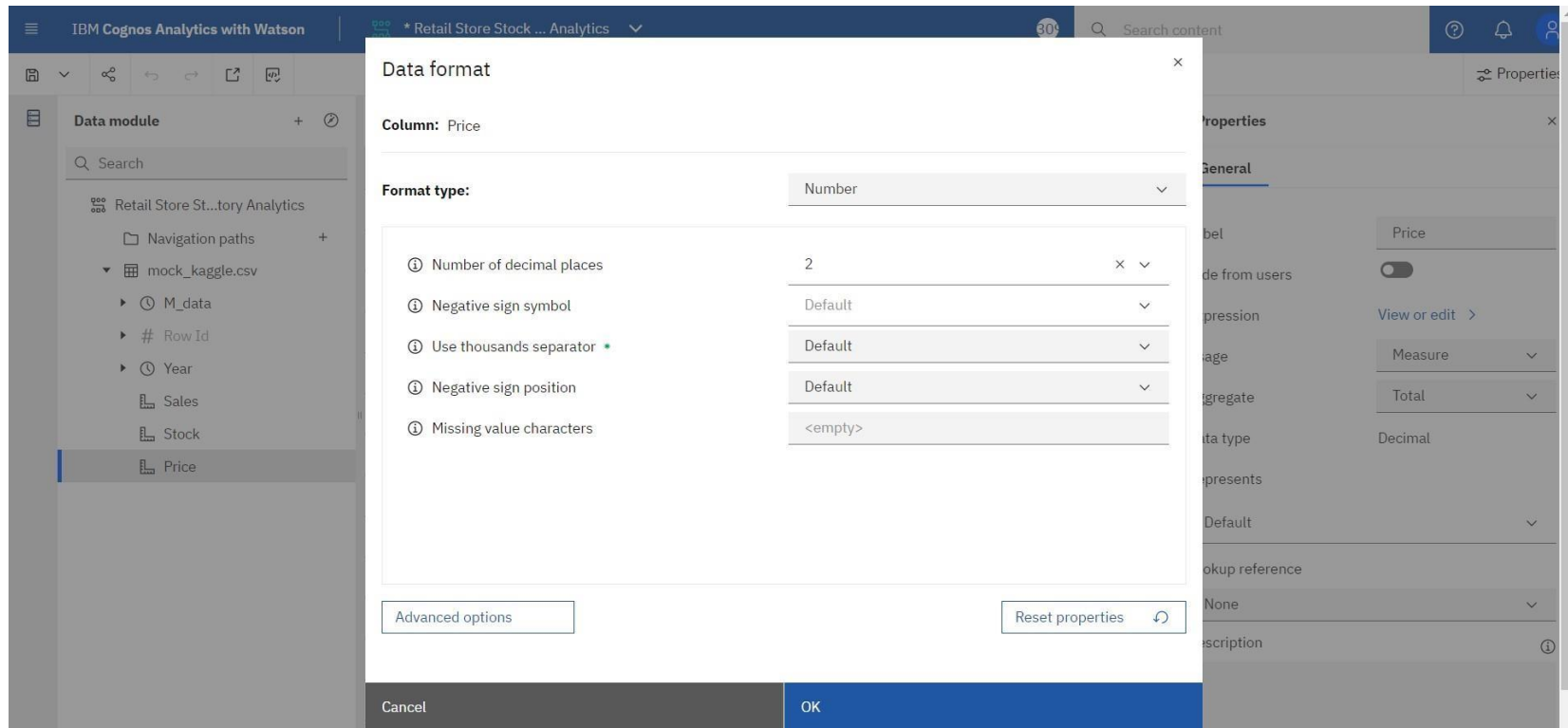
View or edit I

Measure

Total

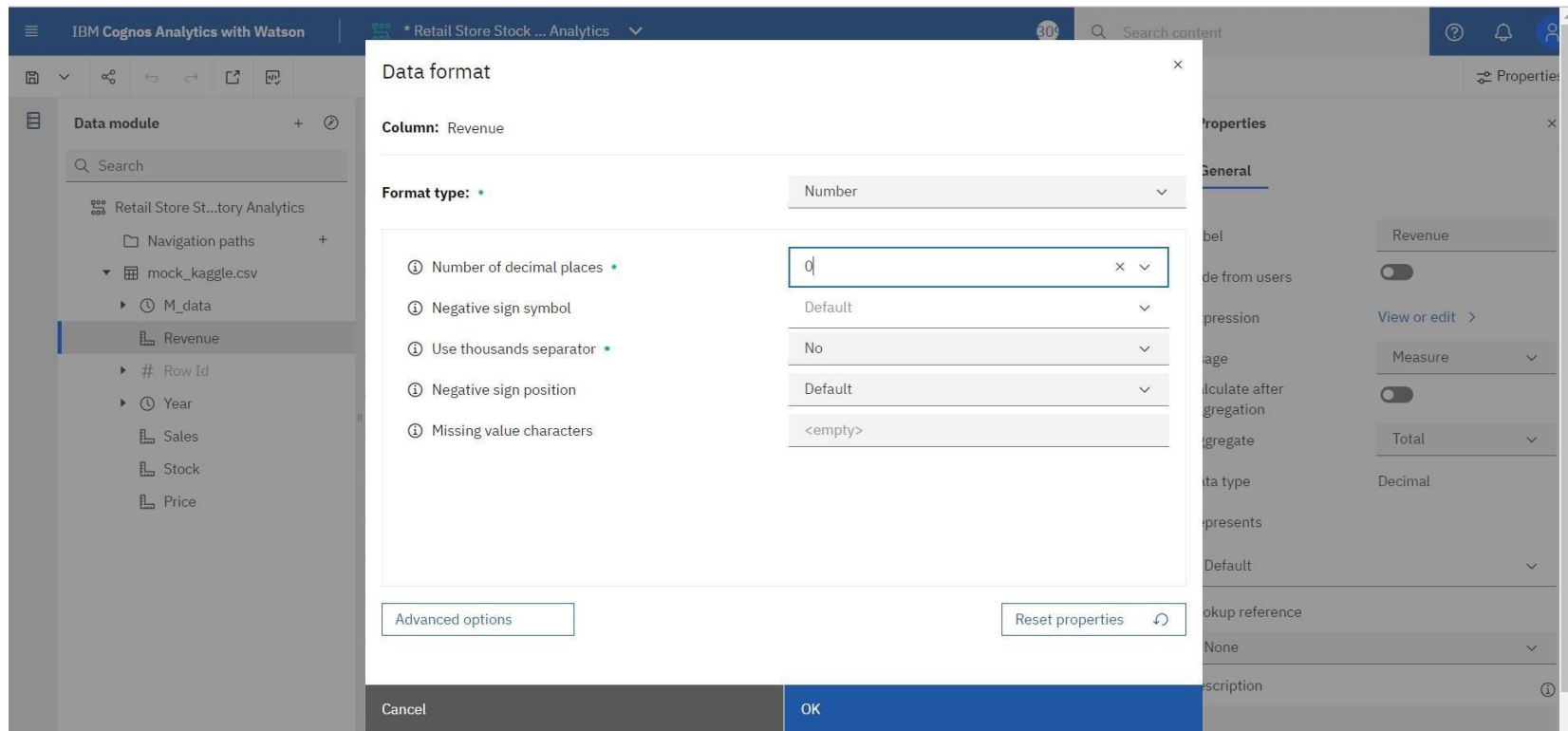
Integer

# Price-Format Data:



BB Günd		@ Relationships	@ Custom tables	
↑↓	Year	Swize	Stodk	Price
	1/1/14	0	4972	L29
	1/2/t4	70	4902	L29
	1/3/14	69	4843	1.29
	1/4/14	93	4750	1.29
	1/5/t4	96	4654	L29
	1/6/t4	145	4509	L29
	1/7/t4	179	4329	L29
	1/8/14	321	4104	1.29
	1/9/t4	125	4459	1.09
	1/10/14	99	5043	L09
	1/11/14	t88	5239	L09
	1/12/14	t21	5I18	1.09
	1/M/14	t34	49B4	1.09

# Revenue-Format Data:



Data module

Q Search

Retail Store Story Analytics

Ed Navigation paths

@ mock\_kaggle.csv

\* {g M\_data

Revenue

\* # RowId

\* @ Year

@ Sales

@ Stock

@ Price

Grid

Relationships

Custom tablee

↕	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	Egg
1		132	12	3/12/14	121
1		146	13	1/M/14	134

Properties

General

Label

Hide from users

Expression

Usage

Calculate after aggregation

Aggregate

Data type

Represents

Default

Lookup reference

None

Description

Revenue

View or edit 7

measure

Total

Decimal



## **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)