

Project Development Phase Delivery of Sprint-1

Team ID	PNT2022TMID47316
Project Name	Data Analytics- 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 Management



Project coordinator

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2. Abisha M

3.Deepika S

4. Thiruthamizhi T

Sprint-1

Data Collection

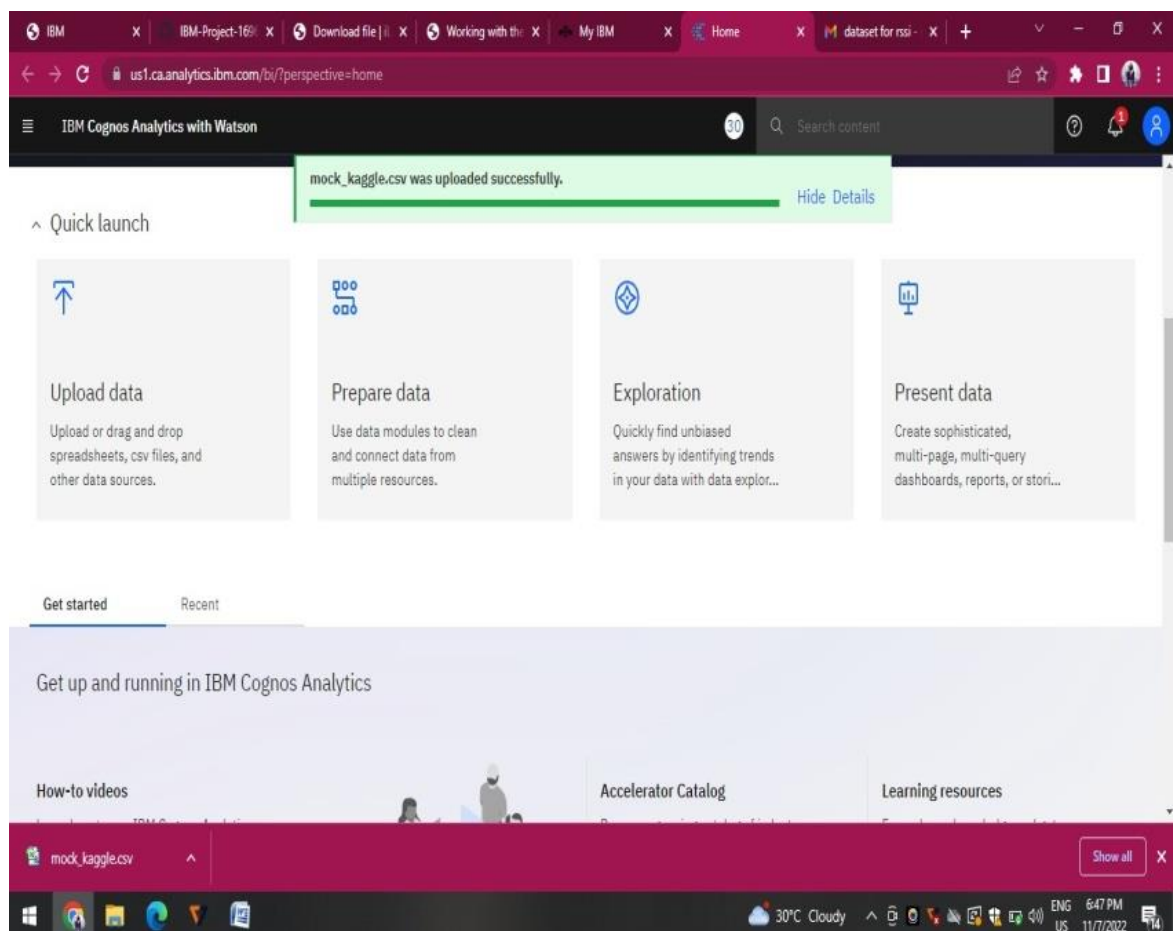
Download the Dataset

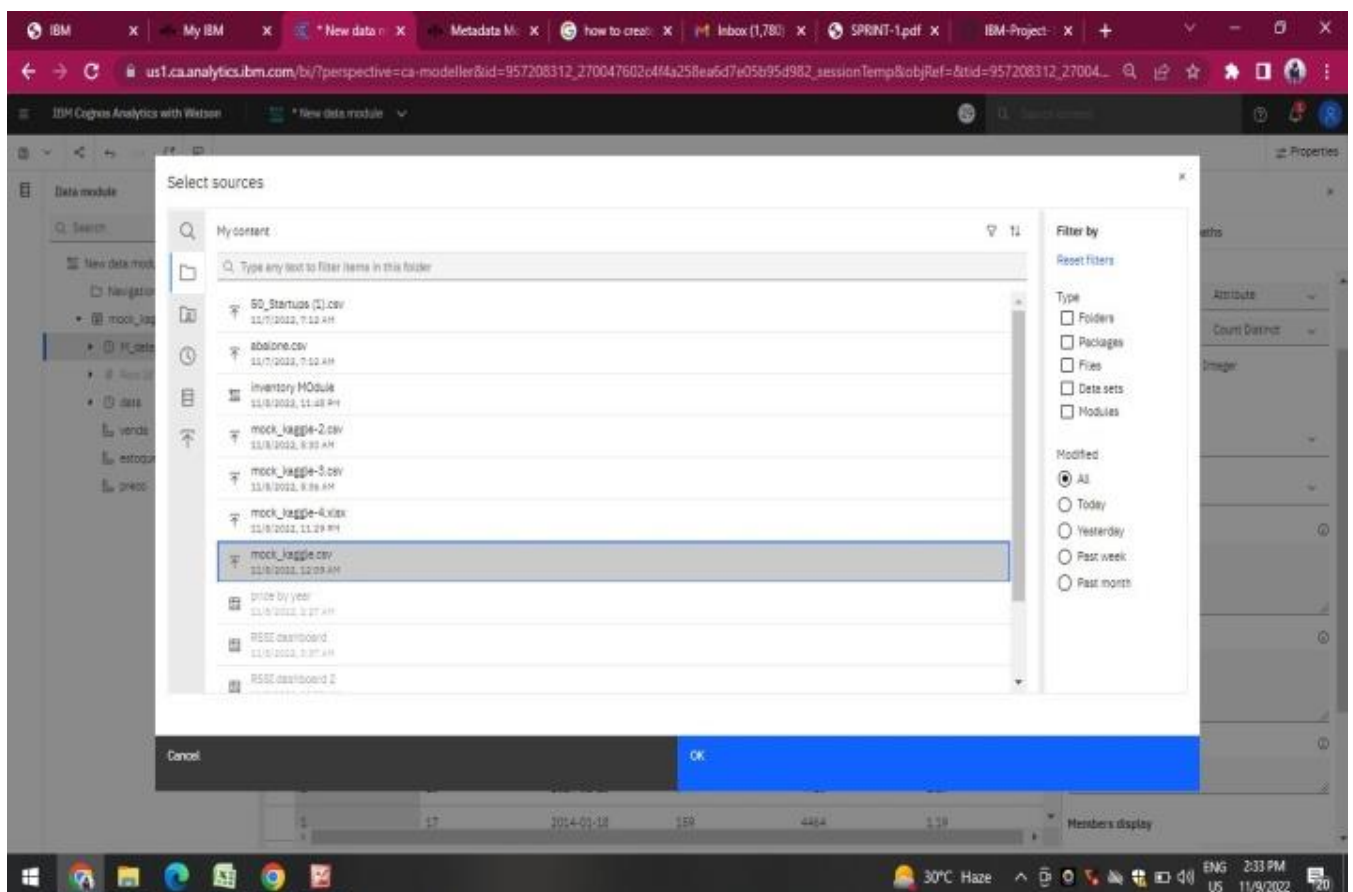
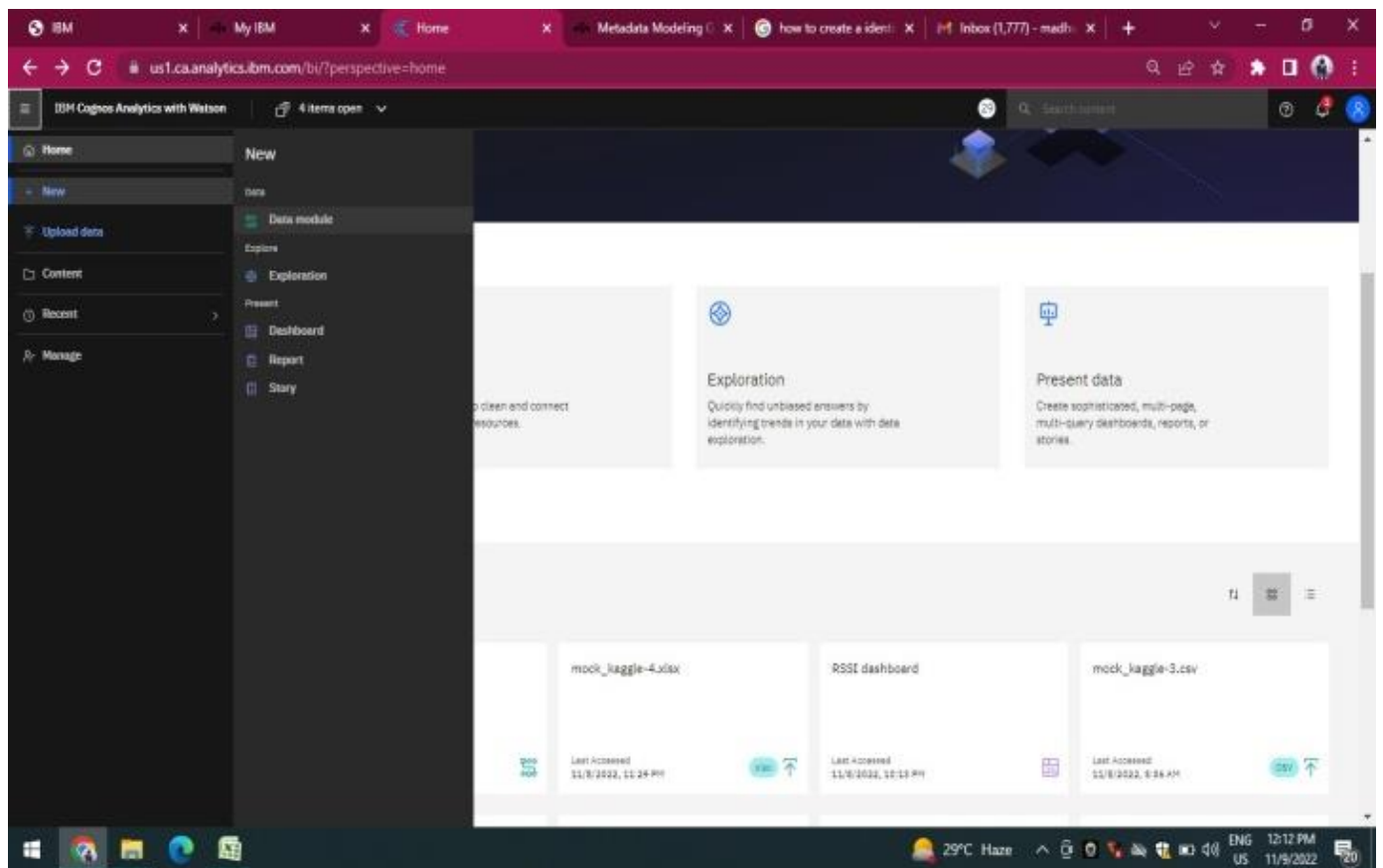
Dataset link -

<https://drive.google.com/drive/folders/1kiL-5CHJmQvbK9VyFsuUs-myAupBZGNy>

Load the Dataset

Tool used – IBM Cognos Analytics





Month data

Create calculation

Name: M_data

Expression: 1 month(data_)

Components:

- mock_kaggle.csv
 - # Row Id
 - data
 - venda
 - estoque
 - preco

Validation Results

The expression is valid.

Data module

Grid

Row Id	M_data	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	148	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	325	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	5116	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
1	16	2014-01-16	94	4728	1.19
1	17	2014-01-18	159	4454	1.19

Properties

General

Usage: Attribute

Aggregate: Count Distinct

Data type: Integer

Represents: Time

Month

Description

Comments

Screen tip

Members display

Revenue data

IBM Cognos Analytics with Watson

Search content

Properties

Data module

Grid Relationships Custom tables

revenue

Row Id	revenue	data	venda	estoque
1	0	2014-01-01	0	4972
2	90.3	2014-01-02	70	4902
3	76.11	2014-01-03	59	4843
4	119.97	2014-01-04	93	4790
5	123.84	2014-01-05	96	4684
6	187.05	2014-01-06	145	4509
7	230.91	2014-01-07	179	4329
8	414.09	2014-01-08	321	4104
9	136.28	2014-01-09	125	4459
10	95.92	2014-01-10	88	6043
11	204.92	2014-01-11	188	6239
12	131.89	2014-01-12	121	6118
13	146.06	2014-01-13	134	4984
14	87.2	2014-01-14	80	4904
15	89.38	2014-01-15	82	4822
16	111.86	2014-01-16	94	4728
17	189.21	2014-01-18	159	4464

Properties

General

Label: revenue

Hide from users: ☐

Expression: View or edit

Usage: Measure

Aggregate: Total

Data type: Decimal

Represents: Default

Lookup reference: None

Description:

Comments:

Year data

IBM Cognos Analytics with Watson

Search content

Properties

Data module

Grid Relationships Custom tables

year

Row Id	revenue	data	venda	estoque
1	0	2014-01-01	0	4972
2	90.3	2014-01-02	70	4902
3	76.11	2014-01-03	59	4843
4	119.97	2014-01-04	93	4790
5	123.84	2014-01-05	96	4684
6	187.05	2014-01-06	145	4509
7	230.91	2014-01-07	179	4329
8	414.09	2014-01-08	321	4104
9	136.28	2014-01-09	125	4459
10	95.92	2014-01-10	88	6043
11	204.92	2014-01-11	188	6239
12	131.89	2014-01-12	121	6118
13	146.06	2014-01-13	134	4984
14	87.2	2014-01-14	80	4904
15	89.38	2014-01-15	82	4822
16	111.86	2014-01-16	94	4728
17	189.21	2014-01-18	159	4464

Properties

General

Label: year

Hide from users: ☐

Expression: View or edit

Usage: Measure

Aggregate: Count

Data type: Year

Represents: Year

Lookup reference: None

Description:

Comments:

Stock data

The screenshot shows the IBM Cognos Analytics interface. The 'Data module' on the left lists 'sales' as a selected item. The main grid displays data for 'sales' and 'estoque' columns. The 'Properties' panel on the right shows the configuration for the 'sales' column.

T1	M_data	Row Id	revenue	year	sales	estoque
1		1	0	2014-01-01	0	4972
1		2	90.3	2014-01-02	70	4902
1		3	76.11	2014-01-03	59	4843
1		4	119.97	2014-01-04	93	4750
1		5	123.84	2014-01-05	96	4654
1		6	187.05	2014-01-06	145	4509
1		7	230.91	2014-01-07	179	4329
1		8	414.09	2014-01-08	321	4104
1		9	136.25	2014-01-09	125	4459
1		10	95.92	2014-01-10	88	5043
1		11	204.92	2014-01-11	188	5239
1		12	131.89	2014-01-12	121	5118
1		13	146.06	2014-01-13	134	4984
1		14	87.2	2014-01-14	80	4904
1		15	89.38	2014-01-15	82	4822
1		16	111.86	2014-01-16	94	4728
1		17	189.21	2014-01-18	159	4464

Properties panel (General):

- Label: sales
- Hide from users: ☐
- Expression: [View or edit](#)
- Usage: Measure
- Aggregate: Total
- Data type: Integer
- Represents: ☐
- Default:
- Lookup reference: None
- Description:
- Comments:

Sales data

The screenshot shows the IBM Cognos Analytics interface. The 'Data module' on the left lists 'stock' as a selected item. The main grid displays data for 'sales' and 'stock' columns. The 'Properties' panel on the right shows the configuration for the 'stock' column.

T1	M_data	Row Id	revenue	year	sales	stock
1		1	0	2014-01-01	0	4972
1		2	90.3	2014-01-02	70	4902
1		3	76.11	2014-01-03	59	4843
1		4	119.97	2014-01-04	93	4750
1		5	123.84	2014-01-05	96	4654
1		6	187.05	2014-01-06	145	4509
1		7	230.91	2014-01-07	179	4329
1		8	414.09	2014-01-08	321	4104
1		9	136.25	2014-01-09	125	4459
1		10	95.92	2014-01-10	88	5043
1		11	204.92	2014-01-11	188	5239
1		12	131.89	2014-01-12	121	5118
1		13	146.06	2014-01-13	134	4984
1		14	87.2	2014-01-14	80	4904
1		15	89.38	2014-01-15	82	4822
1		16	111.86	2014-01-16	94	4728
1		17	189.21	2014-01-18	159	4464

Properties panel (General):

- Label: stock
- Hide from users: ☐
- Expression: [View or edit](#)
- Usage: Measure
- Aggregate: Total
- Data type: Integer
- Represents: ☐
- Default:
- Lookup reference: None
- Description:
- Comments:

Price data

The screenshot shows the IBM Cognos Analytics interface. The main data table is displayed in the center, with columns: Row Id, revenue, year, sales, stock, and price. The 'price' column is highlighted in the Properties panel on the right. The Properties panel shows the following settings for the 'price' column:

- Label: price
- Hide from users: ☐
- Expression: View or edit >
- Usage: Measure
- Aggregate: Total
- Data type: Decimal
- Represents: Default
- Lookup reference: None
- Description:
- Comments:

Row Id	revenue	year	sales	stock	price
1	0	2014-01-01	0	4972	1.29
2	90.3	2014-01-02	70	4902	1.29
3	76.11	2014-01-03	59	4843	1.29
4	119.97	2014-01-04	93	4750	1.29
5	123.84	2014-01-05	96	4654	1.29
6	187.06	2014-01-06	145	4509	1.29
7	230.91	2014-01-07	179	4329	1.29
8	414.09	2014-01-08	321	4104	1.29
9	136.25	2014-01-09	125	4459	1.09
10	95.92	2014-01-10	88	5043	1.09
11	204.92	2014-01-11	188	5239	1.09
12	131.89	2014-01-12	121	5118	1.09
13	146.06	2014-01-13	134	4984	1.09
14	87.2	2014-01-14	80	4904	1.09
15	89.38	2014-01-15	82	4822	1.09
16	111.86	2014-01-16	94	4728	1.19
17	189.21	2014-01-18	159	4464	1.19

Month-Format Date

The screenshot shows the IBM Cognos Analytics interface with the 'Data format' dialog box open for the 'M_data' column. The dialog is configured with the following settings:

- Column: M_data
- Format type: Date
- Date separator: /
- Date style: Short
- Date ordering: Default
- Missing value characters: <empty>

The 'Advanced options' button is visible at the bottom of the dialog. The background shows the same data table as the previous screenshot, but the 'price' column is no longer selected.

IBM Cognos Analytics with Watson

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=iC0649AD76B1B437891ABFCC0EEE28A1A&objRef=iC0649AD76B1B437891ABFCC0EEE28A1A&tid...

Data module

link

Navigation paths

mock_kaggle.csv

M_data

Row Id

revenue

year

sales

stock

price

Grid

Row Id	revenue	year	sales	stock
1	0	1/1/14	0	4972
2	90	1/2/14	70	4902
3	76	1/3/14	59	4843
4	120	1/4/14	93	4750
5	124	1/5/14	96	4654
6	187	1/6/14	145	4509
7	231	1/7/14	179	4329
8	414	1/8/14	321	4104
9	136	1/9/14	125	4459
10	96	1/10/14	88	5043
11	205	1/11/14	188	5239
12	132	1/12/14	121	5118
13	146	1/13/14	134	4984
14	87	1/14/14	80	4904
15	89	1/15/14	82	4822
16	112	1/16/14	94	4728
17	189	1/18/14	159	4464

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

Comments

Screen tip

Revenue-Format Data

IBM Cognos Analytics with Watson

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=iC0649AD76B1B437891ABFCC0EEE28A1A&objRef=iC0649AD76B1B437891ABFCC0EEE28A1A&tid...

Data module

link

Navigation paths

mock_kaggle.csv

M_data

Row Id

revenue

year

sales

stock

price

Grid

Row Id	revenue	year	sales	stock
1	0	1/1/14	0	4972
2	90	1/2/14	70	4902
3	76	1/3/14	59	4843
4	120	1/4/14	93	4750
5	124	1/5/14	96	4654
6	187	1/6/14	145	4509
7	231	1/7/14	179	4329
8	414	1/8/14	321	4104
9	136	1/9/14	125	4459
10	96	1/10/14	88	5043
11	205	1/11/14	188	5239
12	132	1/12/14	121	5118
13	146	1/13/14	134	4984
14	87	1/14/14	80	4904
15	89	1/15/14	82	4822
16	112	1/16/14	94	4728
17	189	1/18/14	159	4464

Data format

Column: revenue

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

Properties

General

Navigation paths

Label

revenue

Hide from users

Expression

View or edit

Usage

Measure

Aggregate

Total

Data type

Decimal

Represents

Default

Lookup reference

None

Description

Comments

Screen tip

IBM Cognos Analytics with Watson

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=iC0649AD76B1B437891ABFCC0EEE28A1A&objRef=iC0649AD76B1B437891ABFCC0EEE28A1A&tid...

Data module

link

Navigation paths

mock_kaggle.csv

M_data

Row Id

revenue

year

sales

stock

price

Grid

M_data	Row Id	revenue	year	sales	stock
1	1	0	1/1/14	0	4972
1	2	90	1/2/14	70	4902
1	3	76	1/3/14	59	4843
1	4	120	1/4/14	93	4750
1	5	124	1/5/14	96	4654
1	6	187	1/6/14	145	4509
1	7	231	1/7/14	179	4329
1	8	414	1/8/14	321	4104
1	9	136	1/9/14	125	4459
1	10	96	1/10/14	88	5043
1	11	205	1/11/14	188	5239
1	12	132	1/12/14	121	5118
1	13	146	1/13/14	134	4984
1	14	87	1/14/14	80	4904
1	15	89	1/15/14	82	4822
1	16	112	1/16/14	94	4728
1	17	189	1/18/14	159	4464

Properties

General

Label: revenue

Hide from users: ☐

Expression: View or edit >

Usage: Measure

Aggregate: Total

Data type: Decimal

Represents: Default

Lookup reference: None

Description:

Comments:

Year-Format Data

IBM Cognos Analytics with Watson

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=iC0649AD76B1B437891ABFCC0EEE28A1A&objRef=iC0649AD76B1B437891ABFCC0EEE28A1A&tid...

Data module

link

Navigation paths

mock_kaggle.csv

M_data

Row Id

revenue

year

sales

stock

price

Grid

M_data	Row Id	revenue	year	sales	stock
1	1	0	1/1/14	0	4972
1	2	90	1/2/14	70	4902
1	3	76	1/3/14	59	4843
1	4	120	1/4/14	93	4750
1	5	124	1/5/14	96	4654
1	6	187	1/6/14	145	4509
1	7	231	1/7/14	179	4329
1	8	414	1/8/14	321	4104
1	9	136	1/9/14	125	4459
1	10	96	1/10/14	88	5043
1	11	205	1/11/14	188	5239
1	12	132	1/12/14	121	5118
1	13	146	1/13/14	134	4984
1	14	87	1/14/14	80	4904
1	15	89	1/15/14	82	4822
1	16	112	1/16/14	94	4728
1	17	189	1/18/14	159	4464

Data format

Column: year

Format type: Date

Date separator: /

Date style: Short

Date ordering: Default

Missing value characters: <empty>

Advanced options

Reset properties

Cancel

OK

Properties

General

Label: year

Hide from users: ☐

Expression: View or edit >

Usage: Attribute

Aggregate: Count Distinct

Data type: Date

Represents: Time

Year: Year

Lookup reference: None

Description:

Comments:

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane shows a tree view with 'link' as the parent, containing 'Navigation paths', 'mock_kaggle.csv', 'M_data', 'Row Id', 'revenue', 'year', 'sales', 'stock', and 'price'. The 'year' column is selected. The main area displays a table with 17 rows of data. The 'Properties' panel on the right shows the 'General' tab for the 'year' column, with settings for Label, Hide from users, Expression, Usage, Aggregate, Data type (Date), and Represents.

T1	M_data	Row Id	revenue	year	sales	stock	price
1		1	0	1/1/14	0	4972	
1		2	90	1/2/14	70	4902	
1		3	76	1/3/14	59	4843	
1		4	120	1/4/14	93	4750	
1		5	124	1/5/14	96	4654	
1		6	187	1/6/14	145	4509	
1		7	291	1/7/14	179	4329	
1		8	414	1/8/14	321	4104	
1		9	136	1/9/14	125	4459	
1		10	96	1/10/14	88	5043	
1		11	205	1/11/14	188	5239	
1		12	132	1/12/14	121	5118	
1		13	146	1/13/14	134	4984	
1		14	87	1/14/14	80	4904	
1		15	89	1/15/14	82	4822	
1		16	112	1/16/14	94	4728	
1		17	189	1/18/14	159	4464	

Sales-Format Data

The screenshot shows the IBM Cognos Analytics interface with the 'Data format' dialog box open for the 'sales' column. The dialog box has a 'Format type' dropdown set to 'Number'. Below it, there are several settings: 'Number of decimal places' (0), 'Negative sign symbol' (Default), 'Use thousands separator' (No), 'Negative sign position' (Default), and 'Missing value characters' (<empty>). There are buttons for 'Advanced options', 'Reset properties', 'Cancel', and 'OK'. The background shows the same data table as the first screenshot, but the 'year' column is no longer selected.

T1	M_data	Row Id	revenue	year	sales	stock	price
1		1	0	1/1/14	0	4972	
1		2	90	1/2/14	70	4902	
1		3	76	1/3/14	59	4843	
1		4	120	1/4/14	93	4750	
1		5	124	1/5/14	96	4654	
1		6	187	1/6/14	145	4509	
1		7	291	1/7/14	179	4329	
1		8	414	1/8/14	321	4104	
1		9	136	1/9/14	125	4459	
1		10	96	1/10/14	88	5043	
1		11	205	1/11/14	188	5239	
1		12	132	1/12/14	121	5118	
1		13	146	1/13/14	134	4984	
1		14	87	1/14/14	80	4904	
1		15	89	1/15/14	82	4822	
1		16	112	1/16/14	94	4728	
1		17	189	1/18/14	159	4464	

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists the data source 'mock_kaggle.csv' and its columns: M_data, Row Id, revenue, year, sales, stock, and price. The 'sales' column is selected. The main area displays a table with 17 rows of data. The 'Properties' panel on the right shows the configuration for the 'sales' column, including its label, usage (Measure), aggregate (Total), and data type (Integer).

M_data	Row Id	revenue	year	sales	stock	price
1	1	0	1/1/14	0	4972	
1	2	90	1/2/14	70	4902	
1	3	76	1/3/14	59	4843	
1	4	120	1/4/14	93	4750	
1	5	124	1/5/14	96	4654	
1	6	187	1/6/14	145	4509	
1	7	291	1/7/14	179	4329	
1	8	414	1/8/14	321	4104	
1	9	136	1/9/14	125	4459	
1	10	96	1/10/14	88	5043	
1	11	205	1/11/14	188	5239	
1	12	132	1/12/14	121	5118	
1	13	146	1/13/14	134	4984	
1	14	87	1/14/14	80	4904	
1	15	89	1/15/14	82	4822	
1	16	112	1/16/14	94	4728	
1	17	189	1/18/14	159	4464	

Stock-Format Data

The screenshot shows the 'Data format' dialog box for the 'stock' column. The 'Format type' is set to 'Number'. The 'Number of decimal places' is set to 0. The 'Negative sign symbol' is set to 'Default'. The 'Use thousands separator' is set to 'No'. The 'Negative sign position' is set to 'Default'. The 'Missing value characters' are set to '<empty>'. The 'Advanced options' button is visible at the bottom left of the dialog. The 'Reset properties' button is visible at the bottom right of the dialog. The 'OK' button is highlighted in blue.

M_data	Row Id	revenue	year	sales	stock	price
1	1	0	2014-01-01	0	4972	
1	2	90	2014-01-02	70	4902	
1	3	76	2014-01-03	59	4843	
1	4	120	2014-01-04	93	4750	
1	5	124	2014-01-05	96	4654	
1	6	187	2014-01-06	145	4509	
1	7	291	2014-01-07	179	4329	
1	8	414	2014-01-08	321	4104	
1	9	136	2014-01-09	125	4459	
1	10	96	2014-01-10	88	5043	
1	11	205	2014-01-11	188	5239	
1	12	132	2014-01-12	121	5118	
1	13	146	2014-01-13	134	4984	
1	14	87	2014-01-14	80	4904	
1	15	89	2014-01-15	82	4822	
1	16	112	2014-01-16	94	4728	
1	17	189	2014-01-18	159	4464	

The screenshot shows the IBM Cognos Analytics interface. The main data table has the following columns: M_data, Row Id, revenue, year, sales, and stock. The 'stock' column is highlighted in the Properties panel on the right.

M_data	Row Id	revenue	year	sales	stock
1	1	0	1/1/14	0	4972
1	2	90	1/2/14	70	4902
1	3	76	1/3/14	59	4843
1	4	120	1/4/14	93	4750
1	5	124	1/5/14	96	4654
1	6	187	1/6/14	145	4509
1	7	231	1/7/14	179	4329
1	8	414	1/8/14	321	4104
1	9	136	1/9/14	125	4459
1	10	96	1/10/14	88	5043
1	11	205	1/11/14	188	5239
1	12	132	1/12/14	121	5118
1	13	146	1/13/14	134	4984
1	14	87	1/14/14	80	4904
1	15	89	1/15/14	82	4822
1	16	112	1/16/14	94	4728
1	17	189	1/18/14	159	4464

The Properties panel on the right shows the 'General' tab for the 'stock' column. The 'Label' is 'stock', 'Usage' is 'Measure', 'Aggregate' is 'Total', and 'Data type' is 'Integer'.

Price-Format Data

The screenshot shows the IBM Cognos Analytics interface with the 'Data format' dialog box open for the 'price' column. The dialog allows setting the format type to 'Number' and the number of decimal places to '0'.

Data format dialog box settings:

- Column: price
- Format type: Number
- Number of decimal places: 0
- Negative sign symbol: Default
- Use thousands separator: No
- Negative sign position: Default
- Missing value characters: <empty>

The background data table is partially visible, showing columns: Row Id, revenue, year, sales, and price.

Row Id	revenue	year	sales	price
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16	112	2014-01-16	94	4728
17	189	2014-01-18	159	4464

IBM Cognos Analytics with Watson

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=iC0649AD76B1B437891ABFCC0EEE28A1A&objRef=iC0649AD76B1B437891ABFCC0EEE28A1A&tid=...

Data module

link

Navigation paths

mock_kaggle.csv

M_data

Row Id

revenue

year

sales

stock

price

Grid

11	Row Id	revenue	year	sales	stock	price
1		0	1/1/14	0	4972	1
2		90	1/2/14	70	4902	1
3		76	1/3/14	59	4843	1
4		120	1/4/14	93	4750	1
5		124	1/5/14	96	4654	1
6		187	1/6/14	145	4509	1
7		231	1/7/14	179	4329	1
8		414	1/8/14	321	4104	1
9		136	1/9/14	125	4459	1
10		96	1/10/14	88	5043	1
11		205	1/11/14	188	5239	1
12		132	1/12/14	121	5118	1
13		146	1/13/14	134	4984	1
14		87	1/14/14	80	4904	1
15		89	1/15/14	82	4822	1
16		112	1/16/14	94	4728	1
17		189	1/18/14	159	4464	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:

Comments:

ENG 4:07 PM 11/9/2022

PREPARED DATA LINK

https://us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2Flink