

Project Development Phase Delivery of Sprint-2

Team ID	PNT2022TMID47316
Project Name	Data Analytics- Retail Store Stock Inventory Analytics

Project Development Phase:

Sprint-1

- Data Collection

Sprint-2

- Data Preparation

Sprint-3

- Data Exploration

Sprint-4

- Dashboard 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>

Sprint-2

Prepared Data Link

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

Load the Dataset

Tool used – IBM Cognos Analytics

Month data

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.

Data module

Search

- New data module
- Navigation paths
- mock_kaggle.csv
 - M_data
 - # Row Id
 - data
 - venda
 - estoque
 - preco

Grid

	M_data	Row Id	data	venda	estoque	preco
1	1	1	2014-01-01	0	4972	1.29
1	2	2	2014-01-02	70	4902	1.29
1	3	3	2014-01-03	69	4843	1.29
1	4	4	2014-01-04	93	4750	1.29
1	5	5	2014-01-05	96	4654	1.29
1	6	6	2014-01-06	145	4509	1.29
1	7	7	2014-01-07	179	4329	1.29
1	8	8	2014-01-08	321	4104	1.29
1	9	9	2014-01-09	125	4459	1.09
1	10	10	2014-01-10	88	5043	1.09
1	11	11	2014-01-11	188	5239	1.09
1	12	12	2014-01-12	121	5118	1.09
1	13	13	2014-01-13	134	4984	1.09
1	14	14	2014-01-14	80	4904	1.09
1	15	15	2014-01-15	82	4822	1.09
1	16	16	2014-01-16	94	4728	1.19
1	17	17	2014-01-18	159	4464	1.19

Properties

General

Usage: Attribute

Aggregate: Count Distinct

Data type: Integer

Represents: Time

Month

Description

Comments

Screen tip

Members display

Revenue data

IBM

My IBM

New data module

Metadata Manager

how to create

Inbox (1,780)

SPRINT-1.pdf

IBM-Project

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=2878668387_13bd3974aff8436c8bf2859ce1fee1c7_sessionTemp&objRef=&tid=2878668387_13bd...

IBM Cognos Analytics with Watson

New data module

Search content

Grid

Relationships

Custom tables

M_data	Row Id	revenue	data	venda	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

General

Label

revenue

Hide from users

Expression

View or edit

Usage

Measure

Aggregate

Total

Data type

Decimal

Represents

Default

Lookup reference

None

Description

Comments

Windows Taskbar

30°C Haze

ENG US

3:19 PM

11/9/2022

Year data

IBM

My IBM

link

Metadata Manager

how to create

Inbox (1,780)

SPRINT-1.pdf

IBM-Project

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

IBM Cognos Analytics with Watson

link

Search content

Grid

Relationships

Custom tables

M_data	Row Id	revenue	year	venda	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

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

Comments

Windows Taskbar

30°C Haze

ENG US

3:27 PM

11/9/2022

Stock data

The screenshot shows the IBM Cognos Analytics interface. The 'Data module' on the left lists 'mock_kaggle.csv' with fields: M_data, Row Id, revenue, year, sales, estoque, and preco. The 'Grid' view displays a table with 17 rows. The 'Properties' panel on the right shows the 'General' tab for the 'sales' column, with settings: Label: sales, Hide from users: off, Expression: View or edit, Usage: Measure, Aggregate: Total, Data type: Integer, Represents: Default, Default: None, Lookup reference: None, Description: (empty), and Comments: (empty).

M_data	Row Id	revenue	year	sales	estoque	preco
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	

Sales data

The screenshot shows the IBM Cognos Analytics interface. The 'Data module' on the left lists 'mock_kaggle.csv' with fields: M_data, Row Id, revenue, year, sales, stock, and preco. The 'Grid' view displays a table with 17 rows. The 'Properties' panel on the right shows the 'General' tab for the 'stock' column, with settings: Label: stock, Hide from users: off, Expression: View or edit, Usage: Measure, Aggregate: Total, Data type: Integer, Represents: Default, Default: None, Lookup reference: None, Description: (empty), and Comments: (empty).

M_data	Row Id	revenue	year	sales	stock	preco
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	

Price data

The screenshot shows the IBM Cognos Analytics interface. The main data table is displayed in the 'Grid' view. The 'price' column is highlighted in the table and in the 'Properties' panel on the right. The 'Properties' panel shows the 'General' tab with the following settings:

- 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	187.05	2014-01-06	145	4609	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 'Properties' panel on the right shows the 'General' tab with the following settings:

- Label: M_data
- Hide from users: ☐
- Expression: [View or edit](#)
- Usage: Attribute
- Aggregate: Count Distinct
- Data type: Integer
- Represents:
- Time:
- Month:
- 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	187.05	2014-01-06	145	4609	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

IBM Cognos Analytics with Watson

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

Data module: link, mock_kaggle.csv, M_data, # Row Id, revenue, year, sales, stock, price

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

Data format dialog:

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>

Buttons: Advanced options, Reset properties, Cancel, OK

Properties: General, 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

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

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	2014-01-16	94	4728
1	17	189	2014-01-18	159	4464

Properties

General

Label: year

Hide from users: ☐

Expression: View or edit

Usage: Attribute

Aggregate: Count Distinct

Data type: Date

Represents: Time

Lookup reference: None

Description:

Comments:

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

The screenshot shows the IBM Cognos Analytics web interface. The main data table is displayed in a grid view. The 'year' column is highlighted in the Properties panel on the right, showing its data type as 'Date' and its representation as 'Year'.

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	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	

Sales-Format Data

The screenshot shows the 'Data format' dialog box in the IBM Cognos Analytics interface. The dialog is for the 'sales' column and allows configuring the format type and various options.

Column: sales

Format type: Number

Options:

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

Buttons: Advanced options, Reset properties, Cancel, OK

IBM Cognos Analytics with Watson

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IBM Cognos Analytics with Watson

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: sales

Hide from users: ☐

Expression: [View or edit](#)

Usage: Measure

Aggregate: Total

Data type: Integer

Represents:

Default:

Lookup reference:

Description:

Comments:

Stock-Format Data

IBM Cognos Analytics with Watson

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

IBM Cognos Analytics with Watson

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	2014-01-16	94	4728
1	17	189	2014-01-18	159	4464

Properties

General

Label: stock

Hide from users: ☐

Expression: [View or edit](#)

Usage: Measure

Aggregate: Total

Data type: Integer

Represents:

Default:

Lookup reference:

Description:

Comments:

Data format

Column: stock

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

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists various data sources, including 'link', 'Navigation paths', 'mock_kaggle.csv', 'M_data', 'Row Id', 'revenue', 'year', 'sales', 'stock', and 'price'. The 'stock' 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 'stock' column, including its label, usage (Measure), aggregate (Total), and data type (Integer).

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

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 configuring the format type (Number), decimal places (0), negative sign symbol (Default), thousands separator (No), negative sign position (Default), and missing value characters (<empty>). The 'price' column is selected in the Properties panel.

Row Id	revenue	year	sales	price
1	0	2014-01-16	94	4728
2	90	2014-01-16	70	4902
3	76	2014-01-16	59	4843
4	120	2014-01-16	93	4750
5	124	2014-01-16	96	4654
6	187	2014-01-16	145	4509
7	231	2014-01-16	179	4329
8	414	2014-01-16	321	4104
9	136	2014-01-16	125	4459
10	96	2014-01-16	88	5043
11	205	2014-01-16	188	5239
12	132	2014-01-16	121	5118
13	146	2014-01-16	134	4984
14	87	2014-01-16	80	4904
15	89	2014-01-16	82	4822
16	112	2014-01-16	94	4728
17	189	2014-01-18	159	4464

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Row Id

revenue

year

sales

stock

price

Grid Relationships Custom tables

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	146	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

Windows Taskbar

Rain off and on 4:07 PM US 11/9/2022