

PROJECT DEVELOPMENT PHASE

Delivery of Sprint - 2

Team ID	PNT2022TMID29085
Project Name	Global Sales Data Analytics
Team Leader	NANDHAKUMAR K

• DATA PREPARATION PHASE

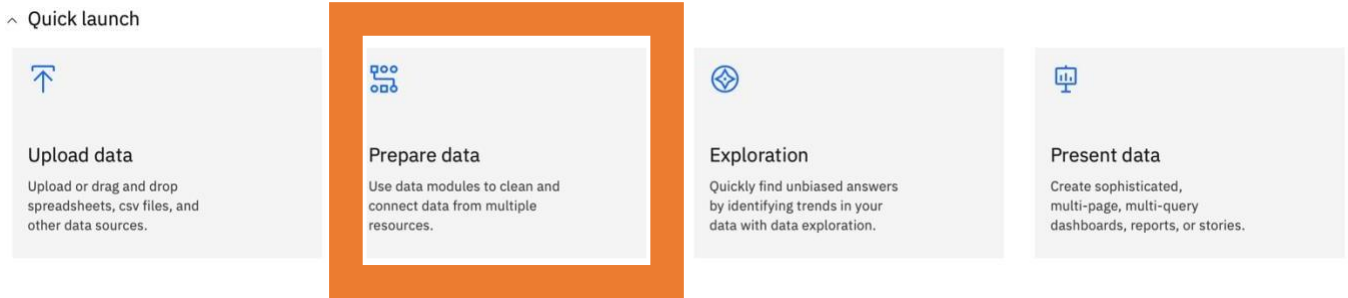
1. Open IBM Cognos Dashboard

The screenshot shows the IBM Cognos Analytics dashboard. At the top is a dark header bar with the text 'IBM Cognos Analytics with Watson', a search bar, and user profile icons. Below the header is a 'Quick launch' section with four cards: 'Upload data' (with an upload icon), 'Prepare data' (with a data flow icon), 'Exploration' (with a magnifying glass icon), and 'Present data' (with a bar chart icon). Each card has a brief description of its function. Below this is a 'Get started' section with tabs for 'Get started' and 'Recent'. The 'Get started' tab is active, showing a large illustration of people working together. To the right of the illustration are three columns: 'How-to videos' (with a link to 'Watch videos'), 'Accelerator Catalog' (with a link to 'Browse catalog'), and 'Learning resources' (with a link to 'Launch the learn pane').

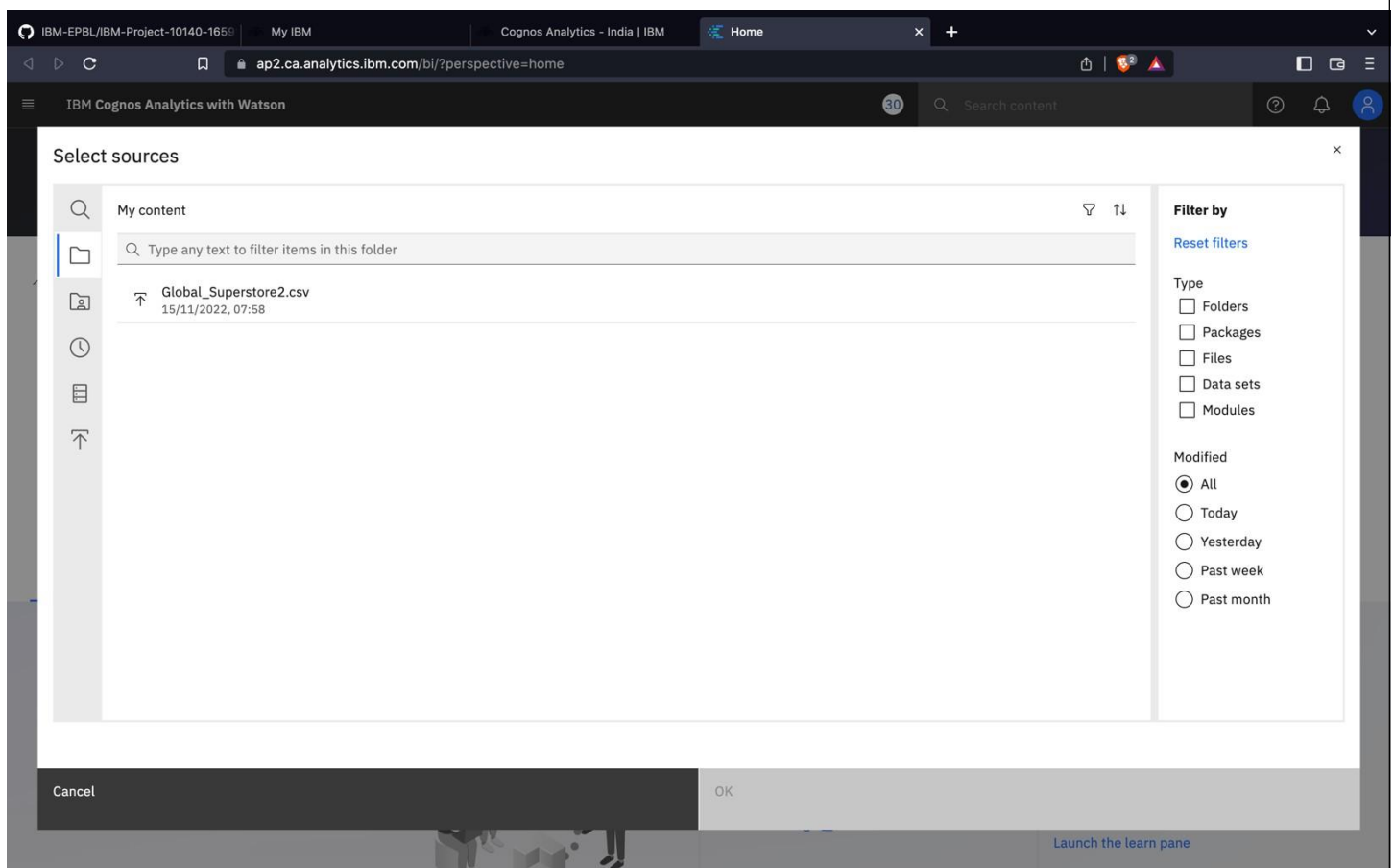
Preparation phase:

Once the Dataset is uploaded into the IBM Cognos dashboard, we need to prepare the dataset. The data preparation includes cleaning up the data, removing the null values, removing the duplicate values, structuring the data so that the data is well understood for exploration and analysis

2. Click on the Prepare Data option



3. Now select the uploaded dataset from the menu



Now select the dataset to be prepared and cleaned

4. Exploring the Data modules

The screenshot shows the IBM Cognos Analytics with Watson interface. The top navigation bar includes the IBM logo, the text 'IBM Cognos Analytics with Watson', a dropdown menu for '* New data module', a search bar, and user profile icons. The main workspace is divided into a left sidebar and a central area. The sidebar, titled 'Data module', contains a search bar and a list of 'New data module' items under 'Navigation paths'. The central area displays a 'Preview data' message with a calendar icon and the text: 'To preview data, select a table, a column in a table, or a folder that contains columns.'

Data module

Search

New data module

- Navigation paths
- Global_Superstore2.csv
 - # Row Id
 - # Row ID
 - abc Order ID
 - Order Date
 - Ship Date
 - Ship Mode
 - Customer ID
 - Customer Name
 - Segment
 - City
 - State
 - Country
 - Postal Code
 - Market
 - Region
 - Product ID
 - Category

Preview data

To preview data, select a table, a column in a table, or a folder that contains columns.

5. Understanding the Data

The screenshot shows the IBM Cognos Analytics with Watson interface. The top navigation bar includes the IBM logo, the text 'IBM Cognos Analytics with Watson', a dropdown menu for '* New data module', a search bar, and user profile icons. The main workspace is divided into a left sidebar and a central area. The sidebar, titled 'Data module', contains a search bar and a list of 'New data module' items under 'Navigation paths'. The central area displays a data table with columns: Row Id, Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. The table contains 12 rows of data.

Data module

Search

New data module

- Navigation paths
- Global_Superstore2.csv
 - # Row Id
 - # Row ID
 - abc Order ID
 - Order Date
 - Ship Date
 - Ship Mode
 - Customer ID
 - Customer Name
 - Segment
 - City
 - State
 - Country
 - Postal Code
 - Market
 - Region
 - Product ID
 - Category

Row Id	Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	2012-07-31	Same Day	RH
2	26341	IN-2013-77878	2013-02-05	2013-02-07	Second Class	JR
3	25330	IN-2013-71249	2013-10-17	2013-10-18	First Class	CR
4	13524	ES-2013-1579342	2013-01-28	2013-01-30	First Class	KM
5	47221	SG-2013-4320	2013-11-05	2013-11-06	Same Day	RH
6	22732	IN-2013-42360	2013-06-28	2013-07-01	Second Class	JM
7	30570	IN-2011-81826	2011-11-07	2011-11-09	First Class	TS
8	31192	IN-2012-86369	2012-04-14	2012-04-18	Standard Class	MB
9	40155	CA-2014-135909	2014-10-14	2014-10-21	Standard Class	JW
10	40936	CA-2012-116638	2012-01-28	2012-01-31	Second Class	JH
11	34577	CA-2011-102988	2011-04-05	2011-04-09	Second Class	GM
12	28879	ID-2012-28402	2012-04-19	2012-04-22	First Class	AJ

6. Filtering the data

Filter the data according to the requirements and remove the unnecessary data

The screenshot shows the IBM Cognos Analytics interface. On the left is a 'Data module' tree with various fields like Ship Mode, Customer ID, Customer Name, Segment, City, State, Country, Postal Code, Market, Region, Product ID, Category, Sub-Category, Product Name, Sales, Quantity, Discount, Profit, Shipping Cost, and Order Priority. The main area displays a data grid with columns: Ship Date, Ship Mode, Customer Name, Segment, City, and State. A context menu is open over the 'Ship Mode' column, showing options: Filter..., Create data group..., Create navigation path..., Split..., Hide from users, Remove, Format data..., Clean..., Sort descending, Sort ascending, and Properties.

Ship Date	Ship Mode	Customer Name	Segment	City	State
2012-07-31	Same Day	Rick Hansen	Consumer	New York City	Ne
2013-02-07	Second Class	Justin Ritter	Corporate	Wollongong	Ne
2013-10-18	First Class	Craig Reiter	Consumer	Brisbane	Qu
2013-01-30	First Class	Katherine Murray	Home Office	Berlin	Be
2013-11-06	Same Day	Rick Hansen	Consumer	Dakar	Da
2013-07-01	Second Class	Jim Mitchum	Corporate	Sydney	Ne
2011-11-09	First Class	Toby Swindell	Consumer	Porirua	We
2012-04-18	Standard Class	Mick Brown	Consumer	Hamilton	Wa
2014-10-21	Standard Class	Jane Waco	Corporate	Sacramento	Cal
2012-01-31	Second Class	Joseph Holt	Consumer	Concord	No
2011-04-09	Second Class	Greg Maxwell	Corporate	Alexandria	Vir
2012-04-22	First Class	Anthony Jacobs	Corporate	Kabul	Kab

Choose the required fields to be filtered

The screenshot shows the same IBM Cognos Analytics interface, but with a 'Filter - Ship Mode' dialog box open. The dialog has a search bar and a list of filter conditions: First Class, Same Day (checked), Second Class (checked), and Standard Class. There are 'Clear all' and 'Invert' buttons at the bottom. At the very bottom of the dialog, it says 'Select 'Refresh members' in the data tree to view the effect of the filter on members in the tree.' and has 'Cancel' and 'OK' buttons.

Ship Date	Ship Mode	Customer Name	Segment	City	State
2011-04-09	Second Class	Greg Maxwell	Corporate	Alexandria	Vir
2012-04-22	First Class	Anthony Jacobs	Corporate	Kabul	Kab

7. Creating Relationships among the data

The screenshot displays the IBM Cognos Analytics with Watson interface. The top navigation bar shows the application name, a dropdown menu for '* global sales data cleaned', a user profile icon, and a search bar. The main workspace is divided into three tabs: 'Grid', 'Relationships' (selected), and 'Custom tables'. On the left, the 'Data module' pane lists the contents of 'Global_Superstore2.csv', including fields like Row ID, Order ID, Ship Date, Ship Mode, Customer ID, Customer Name, Segment, City, State, Country, Postal Code, Market, Region, and Product ID. The 'Global_Superstore2.csv' module is highlighted in the workspace. A context menu is open over this module, showing options such as 'New', 'Calculation...', 'Filter...', 'Table...', 'Rename', 'Show query information...', 'Hide from users', 'Remove', 'Manage filters', 'Auto-arrange', and 'Properties'. The 'Calculation...' option is selected. On the right, the 'Diagram settings' pane is visible, showing options for 'Cardinality' and 'Focus mode', and a 'Degrees of separation' slider set to 1.

8. Save the dataset after preparing the data

Save as

Name

global sales data cleaned

Selected destination: My content

My content

Team content

Name	Type	Last Accessed
50_Startups.csv	CSV	Uploaded file
Global_Superstore2.csv	CSV	Uploaded file
Pharma_Monthly_Sales.csv	CSV	Uploaded file
pharmacy_data	Data module	26/09/2022, 8:37 AM
visualisation	Exploration	14/09/2022, 12:16 PM

Cancel

Save

IBM-EPBL/IBM-Project-10140-1656

My IBM

Cognos Analytics - India | IBM

New data module

ap2.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=1724333042_aa91adee224a47f1a4a7a105b85f2ed3_sessionTemp...

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Search

New data module

Navigation paths

Global_Superstore2.csv

Row Id

Row ID

abc Order ID

abc Ship Date

abc Ship Mode

abc Customer ID

abc Customer Name

abc Segment

abc City

abc State

abc Country

abc Postal Code

abc Market

abc Region

abc Product ID

abc Category

Grid

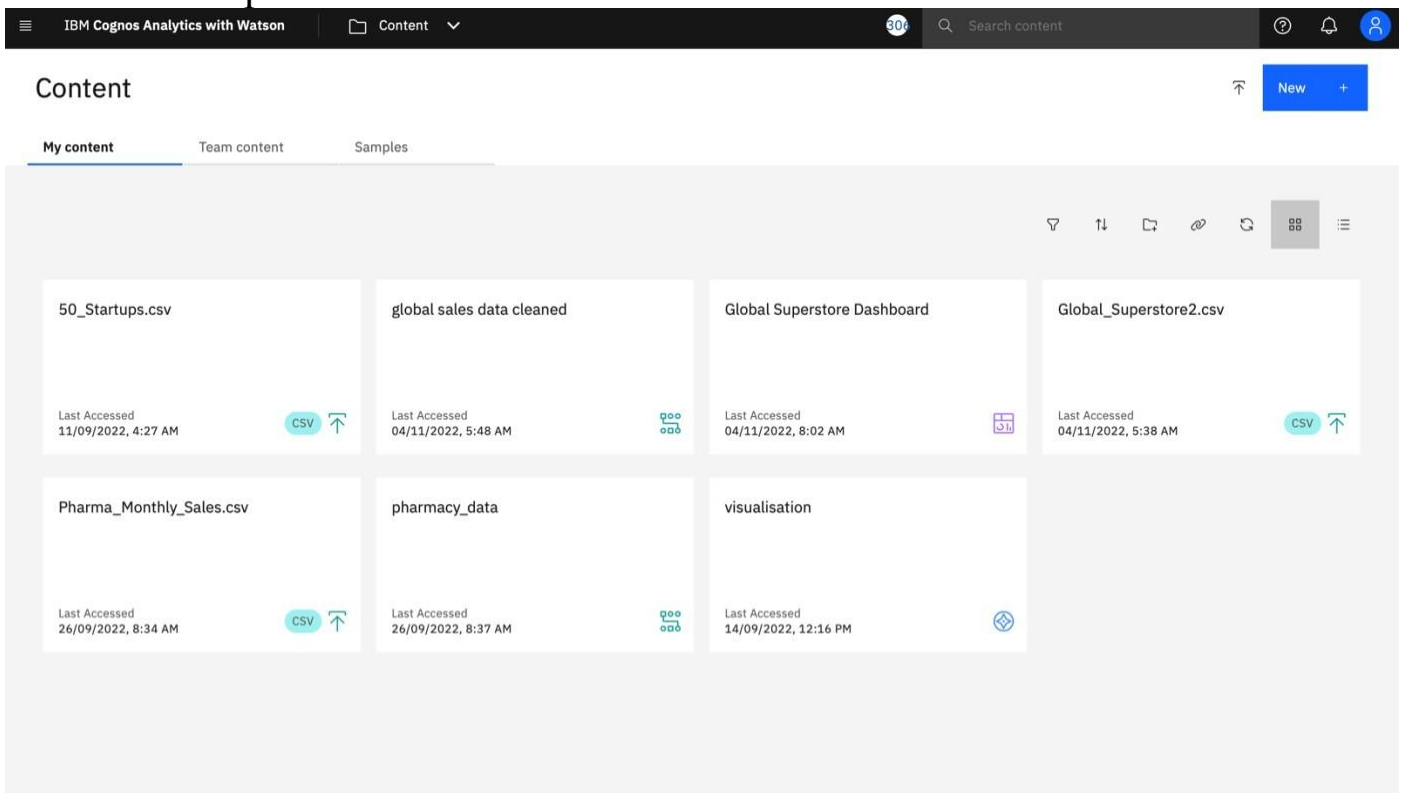
Relationships

Custom tables

Ship Mode	Customer ID	Customer Name	Segment	City	State
Same Day	RH-19495	Rick Hansen	Consumer	New York City	New York
Second Class	JR-16210	Justin Ritter	Corporate	Wollongong	New South Wales
First Class	CR-12730	Craig Reiter	Consumer	Brisbane	Queensland
First Class	KM-16375	Katherine Murray	Home Office	Berlin	Berlin
Same Day	RH-9495	Rick Hansen	Consumer	Dakar	Dakar
Second Class	JM-15655	Jim Mitchum	Corporate	Sydney	New South Wales
First Class	TS-21340	Toby Swindell	Consumer	Porirua	Wellington
Standard Class	MB-18085	Mick Brown	Consumer	Hamilton	Waikato
Standard Class	JW-15220	Jane Waco	Corporate	Sacramento	California
Second Class	JH-15985	Joseph Holt	Consumer	Concord	North Carolina
Second Class	GM-14695	Greg Maxwell	Corporate	Alexandria	Virginia
First Class	AJ-10780	Anthony Jacobs	Corporate	Kabul	Kabul

9. Open “Content” from the menu bar

The uploaded and saved data is available here

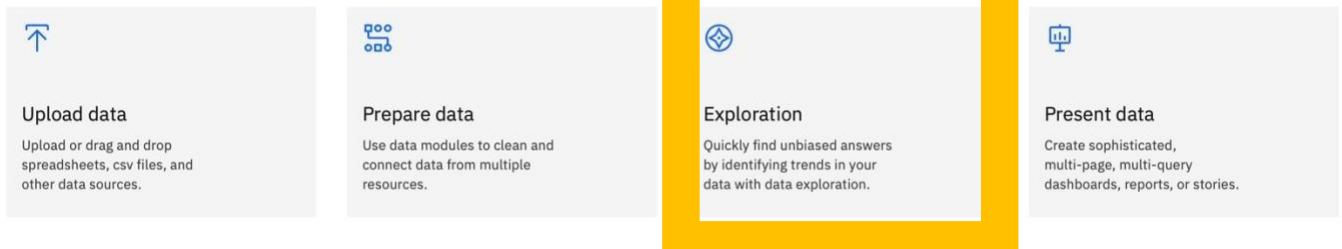


- DATA EXPLORATION PHASE

10. Data Exploration

Click on the Exploration option to explore the data

^ Quick launch



11. Select the Data to be explored

Now select the cleaned and prepared data from the “My Content” Menu, for exploring it

The screenshot shows the IBM Cognos Analytics interface. A dialog box titled "Add a data source to explore" is open, displaying a table of available data sources under the "My content" tab. The table lists several CSV files and data modules, including "50_Startups.csv", "global sales data cleaned", "Global_Superstore2.csv", "Pharma_Monthly_Sales.csv", and "pharmacy_data". The "global sales data cleaned" and "50_Startups.csv" files are highlighted with a blue selection bar. The dialog box has "Cancel" and "Add" buttons at the bottom.

Name	Type	Last Accessed
50_Startups.csv	Uploaded file	11/09/2022, 4:27 AM
global sales data cleaned	Data module	04/11/2022, 5:48 AM
Global_Superstore2.csv	Uploaded file	04/11/2022, 5:38 AM
Pharma_Monthly_Sales.csv	Uploaded file	26/09/2022, 8:34 AM
pharmacy_data	Data module	26/09/2022, 8:37 AM

12. Start exploring the data and create relationships among the data.

The screenshot shows the IBM Cognos Analytics interface with the "Explore data relationships" view. The central area displays a relationship diagram for the "global sales data cleaned" dataset, with "Quantity" as the central node. Other nodes include "Region", "Market", "Profit", "Sales", "Country", and "Shipping Cost". The diagram is a hub-and-spoke model with "Quantity" at the center. The left sidebar shows a "Cards" panel with a "Data relationships" card. The right sidebar shows a "Select a visualization" panel with a "Quantity" card displaying "178K" and a "Quantity and Sales for Region regions" card showing a world map. The interface includes a top navigation bar with "IBM Cognos Analytics with Watson" and a search bar.

Explore data relationships

global sales data cleaned

Reset to original

Quantity

Region

Market

Profit

Sales

Country

Shipping Cost

Quantity

178K

Quantity and Sales for Region regions

13. Save the exploration

Save as

Name

New exploration

Selected destination: My content

My content

Team content

Name	Type	Last Accessed
<div><div></div></div> 50_Startups.csv <div>CSV</div>	Uploaded file	11/09/2022, 4:27 AM
<div><div></div></div> global sales data cleaned	Data module	04/11/2022, 5:48 AM
<div><div></div></div> Global Superstore Dashboard	Dashboard	04/11/2022, 8:02 AM
<div><div></div></div> Global_Superstore2.csv <div>CSV</div>	Uploaded file	04/11/2022, 5:38 AM
<div><div></div></div> Pharma_Monthly_Sales.csv <div>CSV</div>	Uploaded file	26/09/2022, 8:34 AM
<div><div></div></div> pharmacy_data	Data module	26/09/2022, 8:37 AM
<div><div></div></div> visualisation	Exploration	14/09/2022, 12:16 PM

Cancel

Save