

## PROJECT DEVELOPMENT PHASE

### DELIVERY OF SPRINT-2

Date	15 NOVEMBER 2022
TEAM ID	PNT2022TMID53647
PROJECT NAME	GLOBAL SALES DATA ANALYTICS

### SPRINT 2 FUNCTIONAL REQUIREMENT

☐ UPLOAD DATASET

☐ DATA

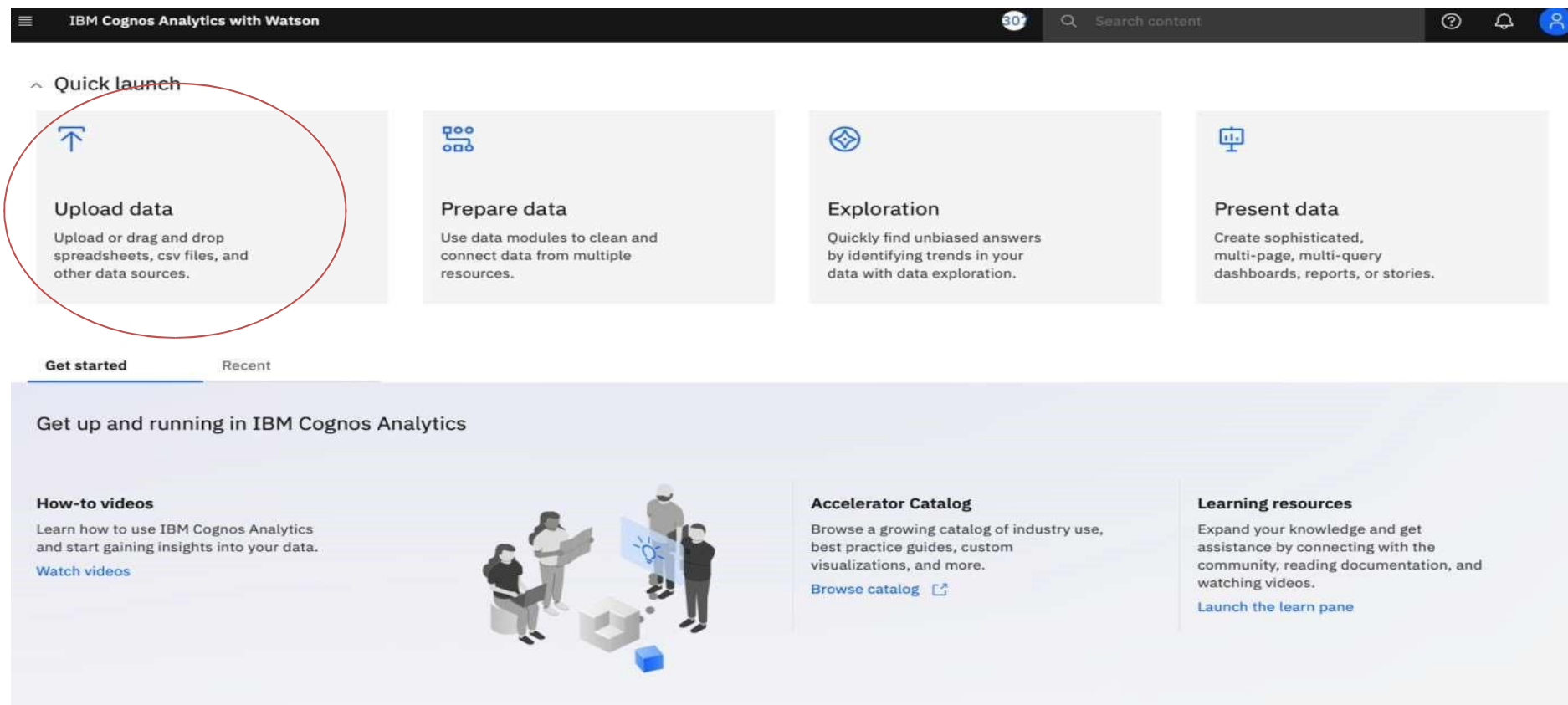
PREPARATION ☐

DATA EXPLORATION

UPLOAD DATASET:





DOWNLOAD THE DATASET: <https://www.kaggle.com/datasets/apoorvaappz/global-super-store-dataset>

- OPEN IBM COGNOS DASHBOARD AND CLICK THE UPLOAD DATA AND UPLOAD THE DATASET FILE




DATA PREPARATION:

## STEP 1 : CLICK THE PREPARE DATA


 IBM Cognos Analytics with Watson 90°    

Quick launch




### Upload data

Upload or drag and drop spreadsheets, csv files, and other data sources.




### Prepare data

Use data modules to clean and connect data from multiple resources.



### Exploration

Quickly find unbiased answers by identifying trends in your data with data exploration.



### Present data

Create sophisticated, multi-page, multi-query dashboards, reports, or stories.


Get startedRecent

Get up and running in IBM Cognos Analytics

#### How-to videos


Learn how to use IBM Cognos Analytics and start gaining insights into your data.

[Watch videos](#)



#### Accelerator Catalog

Browse a growing catalog of industry use, best practice guides, custom visualizations, and more.

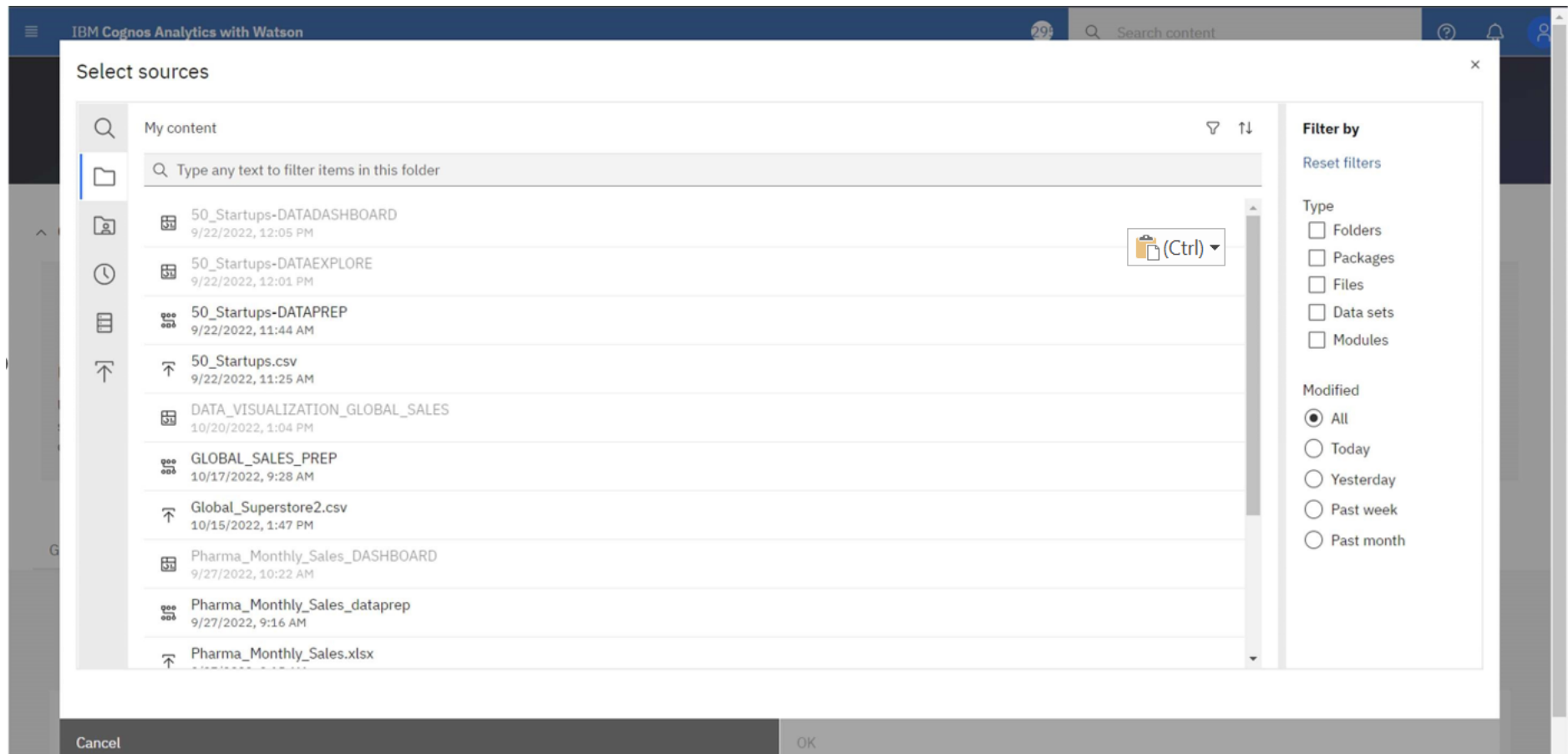
[Browse catalog](#) 

#### Learning resources

Expand your knowledge and get assistance by connecting with the community, reading documentation, and watching videos.

[Launch the learn pane](#)

## STEP 2: SELECT THE UPLOAD DATASET FROM THE CONTENT MENU



### STEP 3 : PREPARATION OF THE DATA

The screenshot displays the IBM Cognos Analytics with Watson interface. The top navigation bar includes the title "IBM Cognos Analytics with Watson", a dropdown menu for "New data module", a search bar, and user profile icons. The left sidebar shows a "Data module" section with a search bar and a list of items: "New data module", "Navigation paths", and "Global\_Superstore2.csv". The "Global\_Superstore2.csv" item is expanded, showing a list of columns: "# Row Id", "# Row ID", "abc Order ID", "Order Date", "Ship Date", "abc Ship Mode", "abc Customer ID", "abc Customer Name", "abc Segment", "City", "State", "Country", "Postal Code", "abc Market", "Region", "abc Product ID", and "abc Category". The main workspace is divided into three tabs: "Grid", "Relationships", and "Custom tables". The "Grid" tab is active, showing a large area with a "Preview data" icon and text: "Preview data" and "To preview data, select a table, a column in a table, or a folder that contains columns."

STEP 4: ONCE YOU LOAD THE DATA, WE NEED TO PREPARE THE DATA.

A. REMOVE THE NULL VALUES

B. PREPARE CALCULATIONS OF YEAR, MONTH, DAY FIELDS AND ALSO THE RELATED NAVIGATION PATH

C. CREATE A FEW MORE CALCULATIONS – TARGET SALES, MIN SALES, MAX SALES, MIDDLE RANGE SALES

IBM Cognos Analytics with Watson

9:02 AM

GLOBAL\_SALES\_PREP

29

Search content

Properties

Data module

Search

Customer Name

Segment

City

State

Country

Postal Code

Market

Region

Product ID

Category

Sub-Category

Product Name

Sales

Quantity

Discount

Profit

Shipping Cost

Order Priority

Grid

Relationships

Custom tables

Country

Postal Code

Market

Region

Product ID

Category

York

United States

10024

US

East

TEC-AC-10003033

Technology

South Wales

Australia

Null

APAC

Oceania

FUR-CH-10003950

Furniture

nsland

Australia

Null

APAC

Oceania

TEC-PH-10004664

Technology

Germany

Null

EU

Central

TEC-PH-10004583

Technology

Senegal

Null

Africa

Africa

TEC-SHA-10000501

Technology

South Wales

Australia

Null

APAC

Oceania

TEC-PH-10000030

Technology

ngton

New Zealand

Null

APAC

Oceania

FUR-CH-10004050

Furniture

ato

New Zealand

Null

APAC

Oceania

FUR-TA-10002958

Furniture

ernia

United States

95823

US

West

OFF-BI-10003527

Office Supplies

Carolina

United States

28027

US

South

FUR-TA-10000198

Furniture

## □ CREATE CALCULATION TO MAKE THE DATE PREPARED

The screenshot displays the IBM Cognos Analytics with Watson interface. The top navigation bar includes the application name, a breadcrumb trail for 'global sales data cleaned', a search bar, and user profile icons. The main workspace is divided into three tabs: 'Grid', 'Relationships', and 'Custom tables'. The 'Relationships' tab is active, showing a diagram with a single data module 'Global\_Superstore2.csv'. A context menu is open over this module, offering options to create a new calculation, filter, or table, as well as actions like rename, show query information, hide from users, remove, manage filters, auto-arrange, and properties. The left sidebar lists the fields available in the 'Global\_Superstore2.csv' module, including Row ID, Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Customer Name, Segment, City, State, Country, Postal Code, Market, Region, and Product ID. The right sidebar contains 'Diagram settings' with toggles for 'Cardinality' and 'Focus mode', and a 'Degrees of separation' slider set to 1. A vertical toolbar on the bottom right provides navigation controls.

IBM Cognos Analytics with Watson

\* global sales data cleaned

Search content

Properties

Data module

Grid Relationships Custom tables

Global\_Superstore2.csv

New

- Calculation...
- Filter...
- Table...
- Rename
- Show query information...
- Hide from users
- Remove
- Manage filters
- Auto-arrange
- Properties

Diagram settings

- Cardinality
- Focus mode
- Degrees of separation: 1

IBM Cognos Analytics with Watson

\* GLOBAL\_SALES\_PREP

29

Search content

?

Edit calculation

Name

day

Components

Expression

Q Search

Global\_Sup...tore2.csv

# day

# month

# year

# Calcul... name

# Row Id

# Row ID

abc Order ID

🕒 Order Date

🕒 Ship Date

abc Ship Mode

1

day(Order\_Date)

Validation Results

✔

The expression is valid.

Cancel

OK



## STEP 5 : SAVE THE DATASET AFTER PREPARING THE DATA

IBM Cognos Analytics with Watson | \*GLOBAL\_SALES\_PREP

Search content

Properties

Data module

Search

GLOBAL\_SALES\_PREP

Navigation paths

Global\_Su...tore2.csv

# day

# month

# year

# Calculation name

# Row Id

# Row ID

abc Order ID

Order Date

Ship Date

Ship Mode

Customer ID

Customer Name

Segment

City

Save as

Name

GLOBAL\_SALES\_PREP

Selected destination: My content

My content Team content

Name	Type	Last Accessed
50_Startups-DATADASHBOARD	Dashboard	9/22/2022, 12:05 PM
50_Startups-DATAEXPLORE	Exploration	9/22/2022, 12:01 PM
50_Startups-DATAPREP	Data module	9/22/2022, 11:44 AM
50_Startups.csv	Uploaded file	9/22/2022, 11:25 AM
DATA_VISUALIZATION_GLOBAL_SALES	Dashboard	10/20/2022, 1:04 PM
GLOBAL_SALES_PREP	Data module	10/17/2022, 9:28 AM

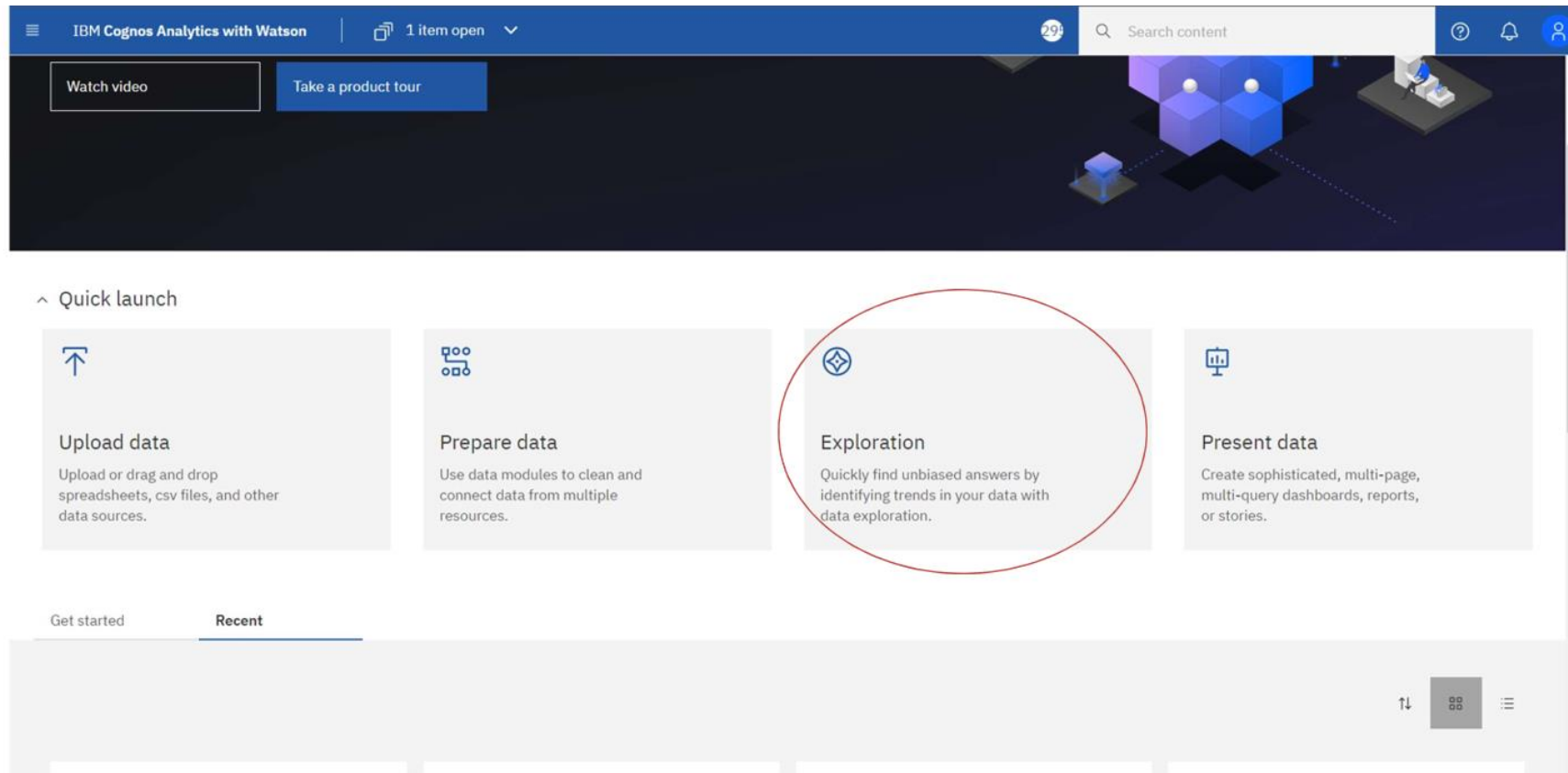
Cancel Save

Row ID	Order ID
32298	CA-2012-12489
26341	IN-2013-77878
25330	IN-2013-71249
13524	ES-2013-15793
47221	SG-2013-4320
22732	IN-2013-42360
30570	IN-2011-81826
31192	IN-2012-86369
40155	CA-2014-13590
40936	CA-2012-11662

LINK FOR THE DATA EXPLORATION:

[https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my\\_folders%2FGLOBAL\\_SALES\\_PREP&id=iB0AF8BAE444C4605AB487916EB3BF3CA&objRef=iB0AF8BAE444C4605AB487916EB3BF3CA&tid=2818311301\\_106cdc168b8c493f92db250eb684e70d\\_sessionTemp](https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2FGLOBAL_SALES_PREP&id=iB0AF8BAE444C4605AB487916EB3BF3CA&objRef=iB0AF8BAE444C4605AB487916EB3BF3CA&tid=2818311301_106cdc168b8c493f92db250eb684e70d_sessionTemp)

## DATA EXPLORATION: STEP 1: CLICK THE EXPLORATION



## STEP 2 : ADD A DATA SOURCE TO EXPLORE

The screenshot shows the IBM Cognos Analytics with Watson interface. A modal dialog titled "Add a data source to explore" is open, displaying a list of data sources under the "My content" tab. The dialog has a search bar and filters at the top. The list contains eight items, each with a name, type, and last accessed date. The items are: 50\_Startups-DATAPREP (Data module), 50\_Startups.csv (Uploaded file, CSV), GLOBAL\_SALES\_PREP (Data module), Global\_Superstore2.csv (Uploaded file, CSV), Pharma\_Monthly\_Sales\_dataprep (Data module), Pharma\_Monthly\_Sales.xlsx (Uploaded file, xlsx), Sample - Superstore.xls (Uploaded file, xls), and samplestore\_dataprep (Data module). The dialog has "Cancel" and "Add" buttons at the bottom.

IBM Cognos Analytics with Watson | 1 item open

Search content

Watch video

Quick launch

Upload data

Upload or drag and drop spreadsheets, csv files, and other data sources.

Get started Recent

Add a data source to explore

My content Team content

Name	Type	Last Accessed
50_Startups-DATAPREP	Data module	9/22/2022, 11:44 AM
50_Startups.csv CSV	Uploaded file	9/22/2022, 11:25 AM
GLOBAL_SALES_PREP	Data module	11/12/2022, 7:38 PM
Global_Superstore2.csv CSV	Uploaded file	10/15/2022, 1:47 PM
Pharma_Monthly_Sales_dataprep	Data module	9/27/2022, 9:16 AM
Pharma_Monthly_Sales.xlsx xlsx	Uploaded file	9/27/2022, 9:15 AM
Sample - Superstore.xls xls	Uploaded file	9/19/2022, 11:37 AM
samplestore_dataprep	Data module	9/19/2022, 11:50 AM

Cancel Add

### STEP 3 : SELECT THE NEEDED METRIC TO BE EXPLORED

The screenshot displays the IBM Cognos Analytics with Watson interface. The top navigation bar includes the product name, a 'New exploration' button, a user profile icon, and a search bar. Below this, a toolbar contains icons for chat, save, share, undo, redo, and a 'Create' button. The left sidebar, titled 'Cards', shows a 'Data relationships' card with a network diagram and three empty rectangular slots. The main content area is titled 'Select a starting point' and includes a 'Skip' button. It provides instructions to start with any column and offers a search input field with the placeholder text 'Enter data column. Not sure? Try Profit, Quantity'. Below this, a section titled 'Try starting with one of these...' lists five suggested metrics: Profit, Quantity, Discount, Sales, and Shipping Cost, each in a button format.

IBM Cognos Analytics with Watson | \* New exploration 29 Search content

Cards

Data relationships

Select a starting point

Skip

Every exploration includes a data relationships card.

Start with any column. You can always change it later.

Enter data column. Not sure? Try Profit, Quantity

Try starting with one of these...

Profit Quantity Discount Sales Shipping Cost

## STEP 4 : EXPLORE THE DATA RELATIONSHIPS

IBM Cognos Analytics with Watson | \*samplestore ... ep\_dataexplore 29° Search content

Cards

Sales by Region...ales by Region

Average: \$74,300

1

Data relationships

Explore data relationships

samplestore\_dataprep

Reset to original

Q Sales x Edit diagram

Category

Sub-Category

Quantity

Discount

Profit

Relationship diagram ①

10% 100%

Select a visualization

Explore visualizations related to 'Sales'

Sales

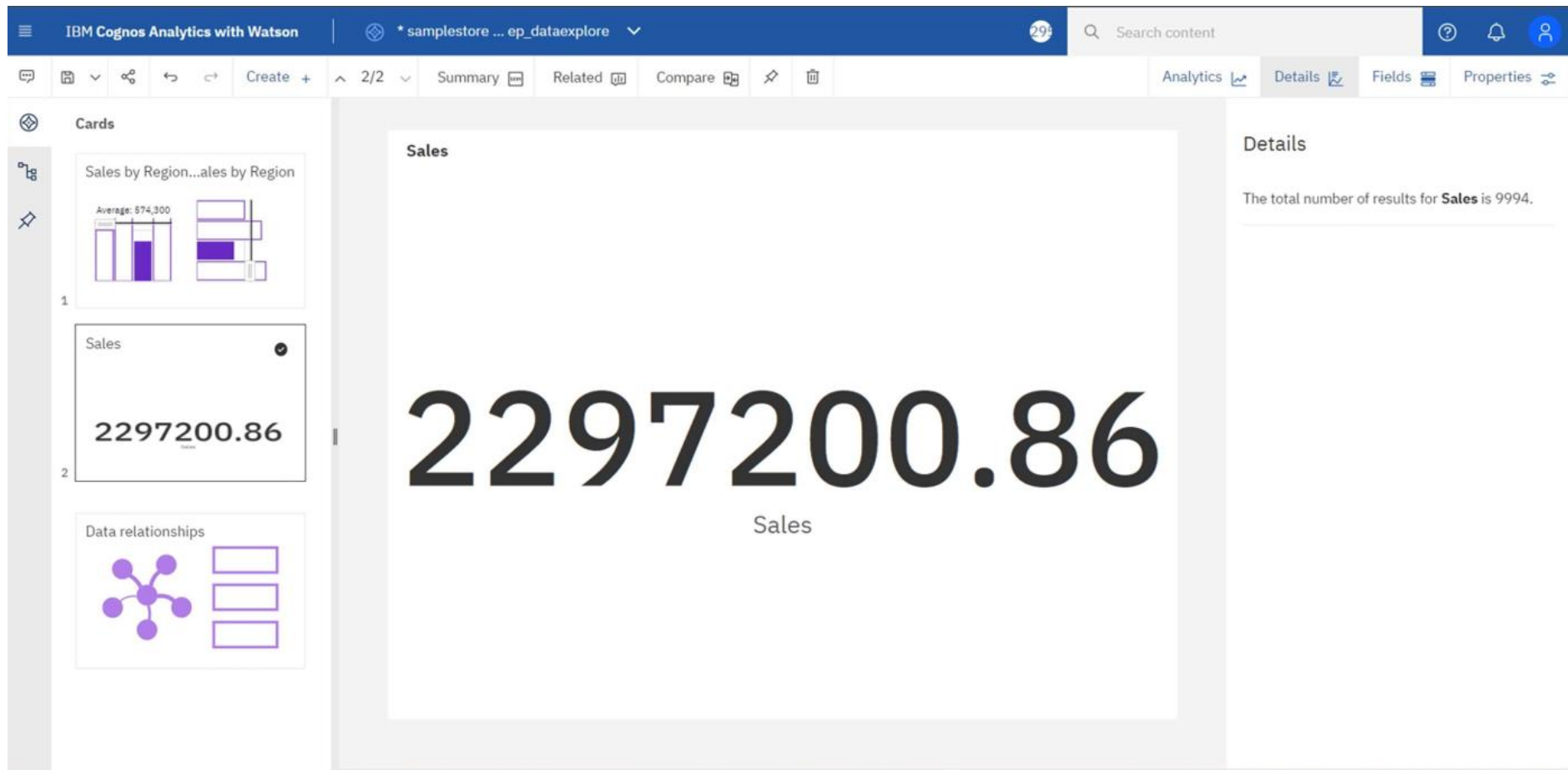
Add +

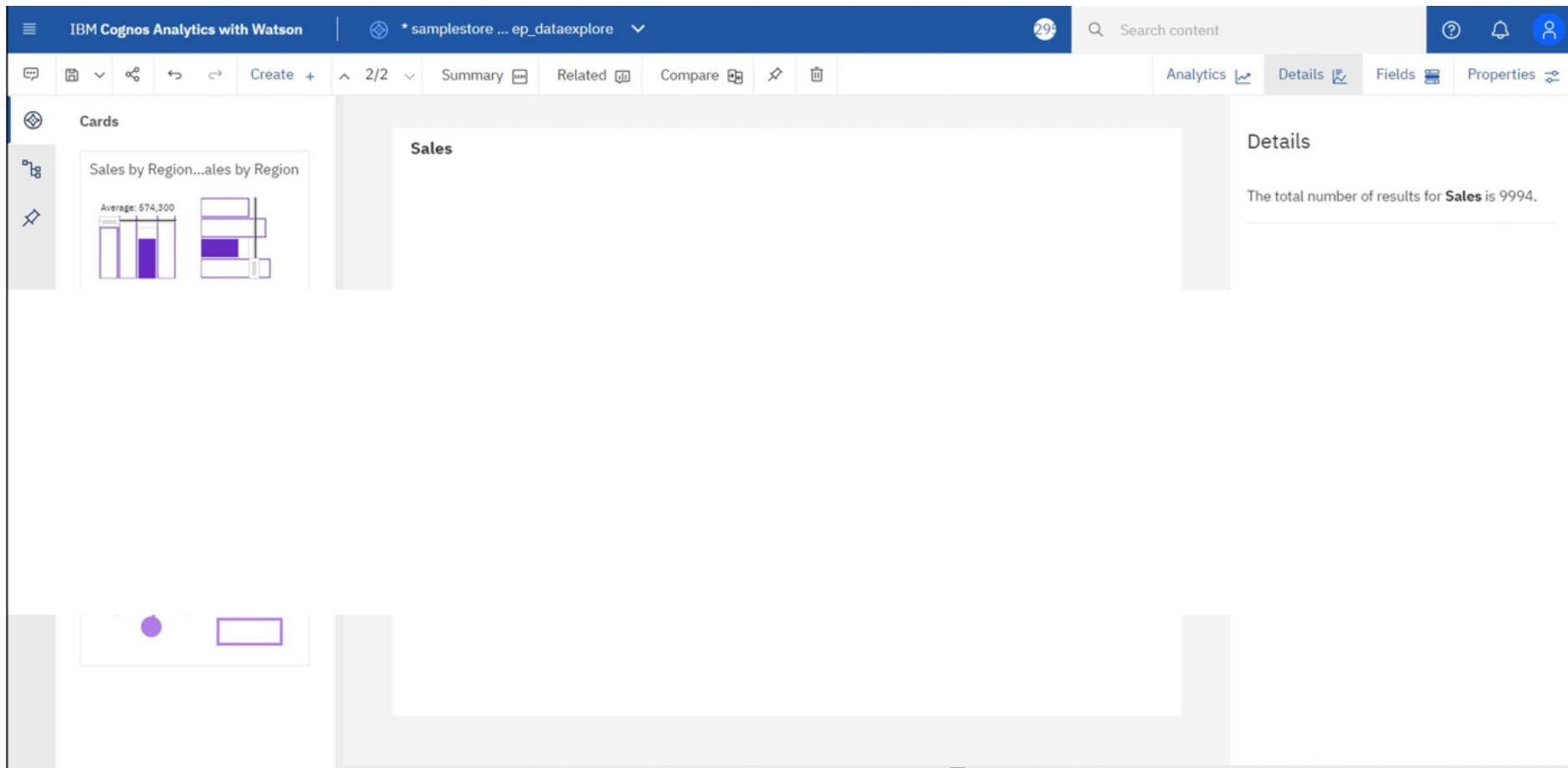
Sales

Add +

Profit and Sales for State regions

The screenshot displays the IBM Cognos Analytics interface. The top navigation bar includes the IBM Cognos Analytics with Watson logo, a breadcrumb trail for 'samplestore ... ep\_dataexplore', a user profile icon, and a search bar. Below the navigation bar is a toolbar with icons for chat, save, share, undo, redo, and a 'Create' button. The main content area is divided into three panels. The left panel, titled 'Cards', shows two cards: 'Sales by Region...ales by Region' with a bar chart and 'Data relationships' with a network diagram icon. The central panel, titled 'Explore data relationships', shows a network diagram for the 'Sales' dataset. The diagram has a central node labeled 'Sales' connected to five other nodes: 'Category', 'Sub-Category', 'Quantity', 'Discount', and 'Profit'. The right panel, titled 'Select a visualization', shows a list of visualizations related to 'Sales', including 'Sales', 'Sales', and 'Profit and Sales for State regions'. A 'Reset to original' button and an 'Edit diagram' dropdown are also visible in the central panel.







1

Sales by Region...ales by Region

Average: 574,300

Data relationships

Chart A

Sales by Region

Chart B

Sales by Region

Summary	Chart A : Sales	Chart B : Sales	Combined
Chart percent of data set	100%	100%	-
Chart percent displayed	50%	50%	-
Average	574300.215	574300.215	-
Chart total	2297200.86	2297200.86	-
Difference of chart totals			-

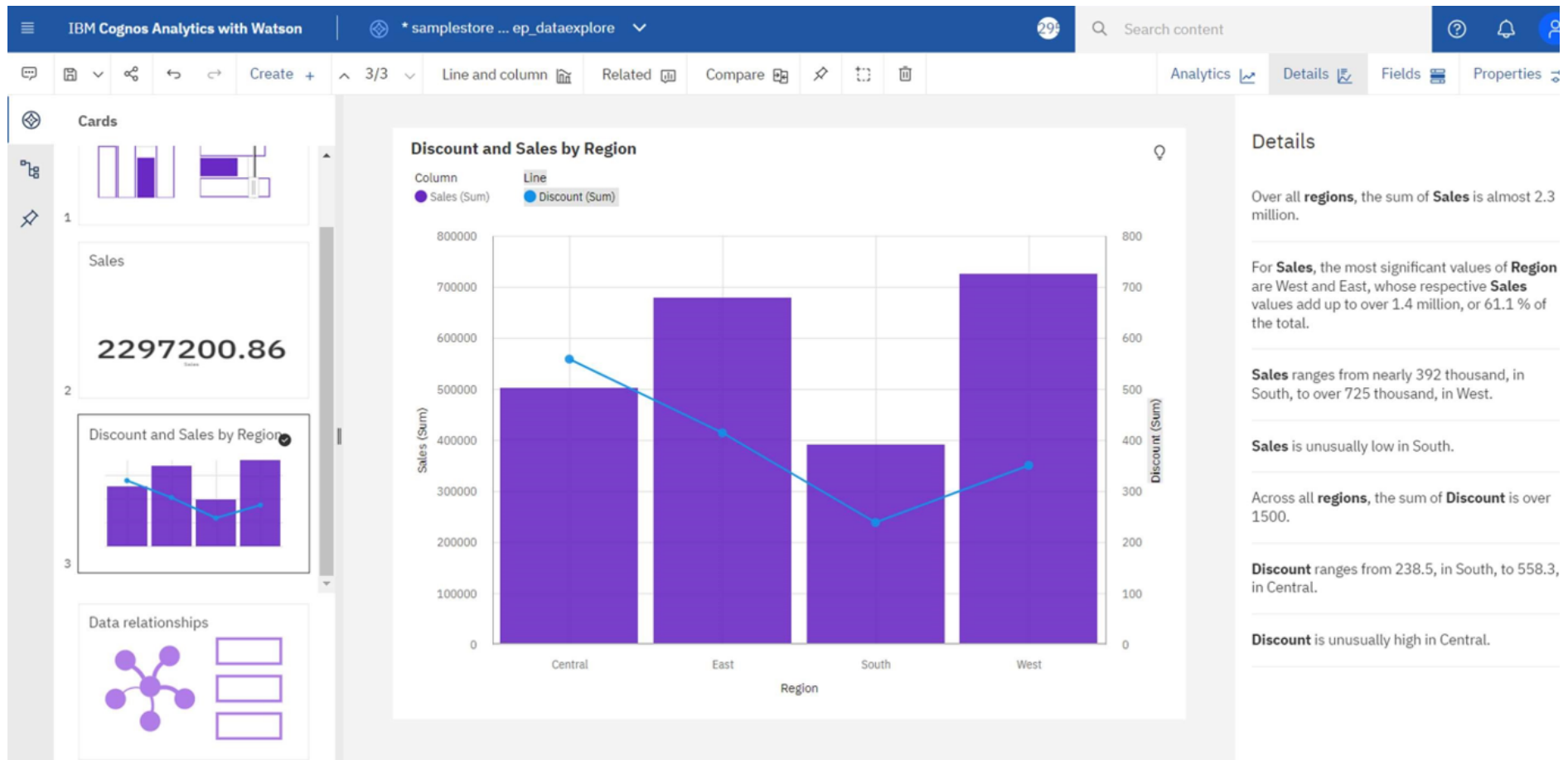
Details

Over all **regions**, the sum of **Sales** is nearly 2.3 million.

For **Sales**, the most significant values of **Region** are West and East, whose respective **Sales** values add up to over 1.4 million, or 61.1 % of the total.

**Sales** ranges from almost 392 thousand, in South, to over 725 thousand, in West.

**Sales** is unusually low in South.





STEP 5 :SAVE THE EXPLORATION

IBM Cognos Analytics with Watson

\* global sales data cleaned

306

Search content

?

🔔

👤

📄

🔍

🔗

↩️

🔄

📄

Properties

Data module

🔍 Search

Global\_Superstore2.csv

# Row Id

# Row ID

abc Order ID

🕒 Order Date

🕒 Ship Date

abc Ship Mode

abc Customer ID

abc Customer Name

abc Segment

📍 City

📍 State

📍 Country

📍 Postal Code

abc Market

📍 Region

abc Product ID

FUR-ADV...000002

FUR-ADV...000108

FUR-ADV...000183

Grid

Relationships

Custom tables

Global\_Superstore2.csv

New

📄 Calculation...

🔍 Filter...

📄 Table...

🔄 Rename

📄 Show query information...

🔍 Hide from users

🗑 Remove

🔍 Manage filters

🔄 Auto-arrange

🔍 Properties

Diagram settings

🔍 Cardinality

🔍 Focus mode

Degrees of separation: 1

1

🔍

🔍

🔄

🔍

LINK FOR THE DATA EXPLORATION:

[https://us3.ca.analytics.ibm.com/bi/?perspective=explore&pathRef=.my\\_folders%2Fsamplestore\\_dataprep\\_dataexplore&subView=model0000001846eb0ab0d\\_000000004](https://us3.ca.analytics.ibm.com/bi/?perspective=explore&pathRef=.my_folders%2Fsamplestore_dataprep_dataexplore&subView=model0000001846eb0ab0d_000000004)