

Reg no- 917719IT071- PRIYANKA S- INFORMATION TECHNOLOGY

## Assignment 1

### Uploading the data

The screenshot shows the IBM My IBM dashboard. The browser tabs include WhatsApp, IBM, My IBM, GitHub, and an inbox. The URL is myibm.ibm.com/dashboard/. The user's IBM ID is spriyanka@student.tce.edu. The 'Products' section features a trial offer for IBM Cognos Analytics on Cloud, which is active and expires on Oct 15, 2022. A 'Launch' button is available. To the right, there is a message: 'Let IBM provide you technology and business solutions to fit your needs' with a 'View catalog' button. A 'Cookie Preferences' pop-up is visible in the bottom right corner.

The screenshot shows the IBM Cognos Analytics with Watson home page. The browser tabs include WhatsApp, IBM, My IBM, Home, GitHub, and an inbox. The URL is us1.ca.analytics.ibm.com/bi/?perspective=home. The page has a dark theme and a search bar. A welcome message says 'Hello. Welcome to Cognos Analytics with Watson.' and provides links to 'Watch video' and 'Take a product tour'. Below this is a 'Quick launch' section with four tiles: '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), and 'Present data' (create sophisticated, multi-page, multi-query dashboards, reports, or stories).

The screenshot displays a Windows 10 desktop environment. In the foreground, a file explorer window is open, showing the 'Downloads' folder. The file list includes:

Name	Date modified
Today (1)	
50_Startups	15-Sep-22 7:51 PM
Yesterday (2)	
SAB_Tool_Windows_Whitelabel_141228	14-Sep-22 11:13 PM
SAB_Tool_Windows_Whitelabel_141228	14-Sep-22 11:14 PM
Last week (2)	
framingham (1)	08-Sep-22 10:05 PM
[English (auto-generated)] What is the Data Life ...	05-Sep-22 9:48 PM
Last month (4)	
IBAWindowsLauncher	08-Aug-22 5:35 PM

The main application window is the IBM Cognos Analytics dashboard. It features a header with navigation links and a search bar. The main content area displays a welcome message: 'Hello. Welcome to Cognos Analytics with Watson.' Below this, there is a progress bar for 'Analyzing 50\_Startups.csv' with a 'Cancel Details' button. The dashboard also includes a 'Quick launch' section with four tiles:

- 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.

The taskbar at the bottom shows various application icons, including the Start menu, search bar, and system tray with the date and time (7:51 PM, 15-Sep-22).

## Data Preparation

IBM Cognos Analytics with Watson

Select sources

My content

Type any text to filter items in this folder

50\_Startups.csv  
9/15/2022, 9:21 AM

Filter by

Reset filters

Type

- ☐ Folders
- ☐ Packages
- ☐ Files
- ☐ Data sets
- ☐ Modules

Modified

- ☒ All
- ☐ Today
- ☐ Yesterday
- ☐ Past week
- ☐ Past month

IBM Cognos Analytics with Watson

\* New data module

Search content

Properties

Data module

Search

New data module

Navigation paths

50\_Startups.csv

# Row Id

R&D Spend

Administration

Marketing Spend

State

Profit

Row Id	R&D Spend	Administration	Marketing Spend	State	Profit
1	165349.2	136897.8	471784.1	New York	192261.83
2	162597.7	151377.59	443898.53	California	191792.06
3	153441.51	101145.55	407934.54	Florida	191050.39
4	144372.41	118671.85	383199.62	New York	182901.99
5	142107.34	91391.77	366168.42	Florida	166187.94
6	131876.9	99814.71	362861.36	New York	156991.12
7	134615.46	147198.87	127716.82	California	156122.51
8	130298.13	145530.06	323876.68	Florida	155752.6
9	120542.52	148718.95	311613.29	New York	152211.77
10	123334.88	108679.17	304981.62	California	149759.96
11	101913.08	110594.11	229160.95	Florida	146121.95
12	100671.96	91790.61	249744.55	California	144259.4

The screenshot shows the 'Clean - State' dialog box in IBM Cognos Analytics. The dialog has several sections: 'Whitespace' with a checked 'Trim leading and trailing whitespace' option; 'Convert case to' with radio buttons for 'UPPERCASE', 'lowercase', and 'Do not change' (selected); 'Return a substring of characters' with 'Start' and 'Length' input fields; a 'Preview' section showing 'This is a preview'; and 'NULL values' with a checked 'Replace this value with NULL' option and a text input field containing 'California'. There are also 'Cancel' and 'Clean' buttons at the bottom.

State	Profit
New York	192261.83
Null	191792.06
Florida	191050.39
New York	182901.99
Florida	166187.94
New York	156991.12
Null	156122.51
Florida	155752.6
New York	152211.77
Null	149759.96
Florida	146121.95
Null	144259.4

The screenshot shows the data grid view in IBM Cognos Analytics. The grid displays 12 rows of data with columns for Row Id, R&D Spend, Administration, Marketing Spend, State, and Profit. The 'State' column contains values like New York, Null, and Florida. The 'Profit' column contains numerical values.

Row Id	R&D Spend	Administration	Marketing Spend	State	Profit
1	165349.2	136897.8	471784.1	New York	192261.83
2	162597.7	151377.59	443898.53	Null	191792.06
3	153441.51	101145.55	407934.54	Florida	191050.39
4	144372.41	118671.85	383199.62	New York	182901.99
5	142107.34	91391.77	366168.42	Florida	166187.94
6	131876.9	99814.71	362861.36	New York	156991.12
7	134615.46	147198.87	127716.82	Null	156122.51
8	130298.13	145530.06	323876.68	Florida	155752.6
9	120542.52	148718.95	311613.29	New York	152211.77
10	123334.88	108679.17	304981.62	Null	149759.96
11	101913.08	110594.11	229160.95	Florida	146121.95
12	100671.96	91790.61	249744.55	Null	144259.4

IBM Cognos Analytics with Watson

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=1599586486\_fb0e0f48dc640c1ac87afba9ca7a66b\_sessionTemp&objRef=&tid=15995864...

**Clean - State**

**Whitespace**

☒ Trim leading and trailing whitespace

**Convert case to**

☐ UPPERCASE ☐ lowercase ☒ Do not change

**Return a substring of characters**

Start  Length

**Preview**

This is a preview

**NULL values**

☒ Replace this value with NULL

☒ Replace NULL values with

Cancel Clean

State	Profit
New York	192261.83
Chicago	191792.06
Florida	191050.39
New York	182901.99
Florida	166187.94
New York	156991.12
Chicago	156122.51
Florida	155752.6
New York	152211.77
Chicago	149759.96
Florida	146121.95
Chicago	144259.4

IBM Cognos Analytics with Watson

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=1599586486\_fb0e0f48dc640c1ac87afba9ca7a66b\_sessionTemp&objRef=&tid=15995864...

**Data module**

**Grid** Relationships Custom tables

Row Id	R&D Spend	Administration	Marketing Spend	State	Profit
1	165349.2	136897.8	471784.1	New York	192261.83
2	162597.7	151377.59	443898.53	Chicago	191792.06
3	153441.51	101145.55	407934.54	Florida	191050.39
4	144372.41	118671.85	383199.62	New York	182901.99
5	142107.34	91391.77	366168.42	Florida	166187.94
6	131876.9	99814.71	362861.36	New York	156991.12
7	134615.46	147198.87	127716.82	Chicago	156122.51
8	130298.13	145530.06	323876.68	Florida	155752.6
9	120542.52	148718.95	311613.29	New York	152211.77
10	123334.88	108679.17	304981.62	Chicago	149759.96
11	101913.08	110594.11	229160.95	Florida	146121.95
12	100671.96	91790.61	249744.55	Chicago	144259.4

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane is open, showing a search bar and a list of modules. A new module named '50\_Startups.csv' is being created. The main area displays a table with the following data:

Row Id	R&D Spend	Administration	Marketing Spend
1	165349.2	136897.8	471784.1
2	162597.7	151377.59	443898.53
3	153441.51	101145.55	407934.54
4	144372.41	118671.85	383199.62
5	142107.34	91391.77	366168.42
6	131876.9	99814.71	362861.36
7	134615.46	147198.87	127716.82
8	130298.13	145530.06	323876.68
9	120542.52	148718.95	311613.29
10	123334.88	108679.17	304981.62
11	101913.08	110594.11	229160.95
12	100671.96	91790.61	249744.55

On the right, the 'Properties' pane is open, showing the 'General' tab. The 'Label' is set to 'State', 'Hide from users' is checked, 'Expression' is 'View or edit', 'Usage' is 'Identifier', 'Aggregate' is 'None', 'Data type' is 'Text', and 'Represents' is 'Geographic location'.

**A new folder called Data module is created and the newly created module is saved there.**

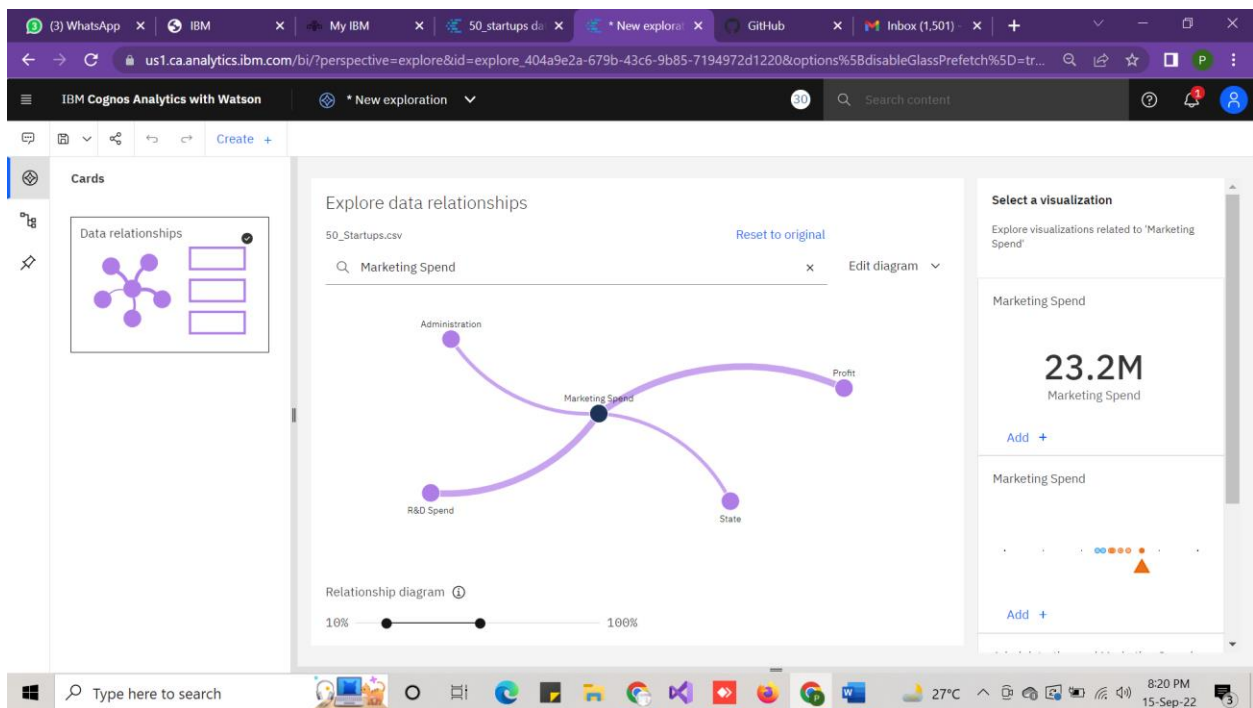
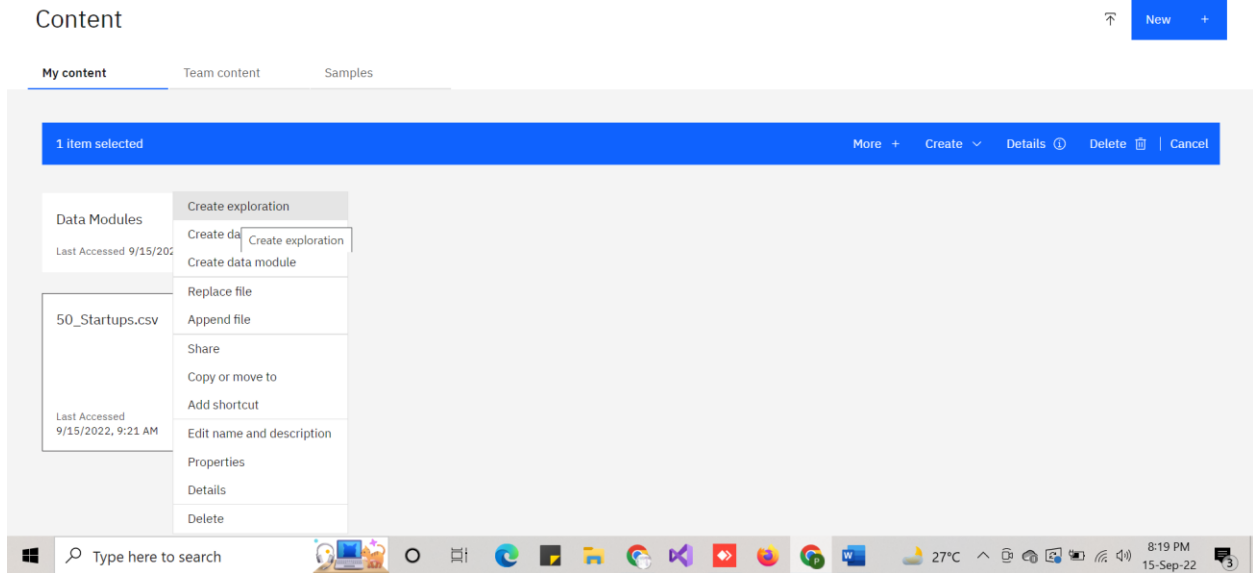
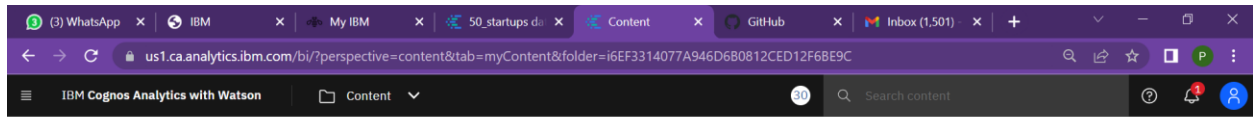
The screenshot shows the IBM Cognos Analytics interface with the 'Save as' dialog box open. The dialog box has a 'Name' field with the text '50\_startups data module'. Below the name field, it says 'Selected destination: Data Modules'. There are two tabs: 'My content' and 'Team content'. The 'My content' tab is selected, showing a list of data modules. The list has the following columns: 'Name', 'Type', and 'Last Accessed'.

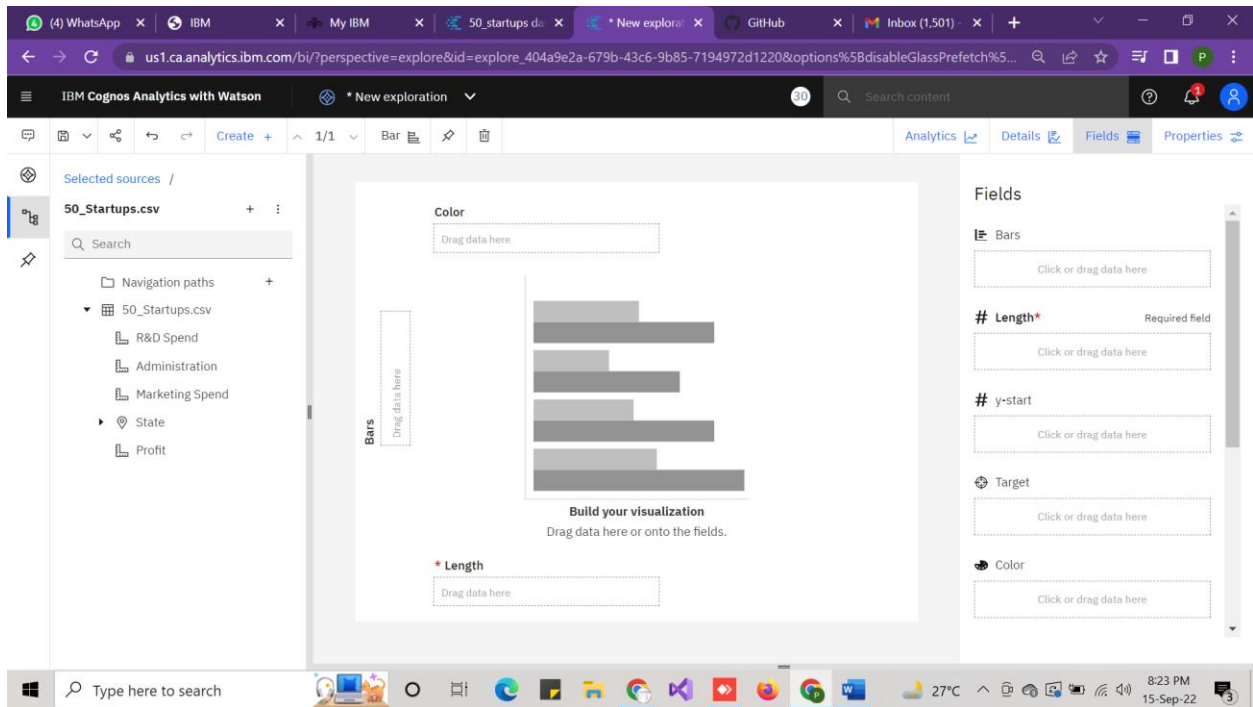
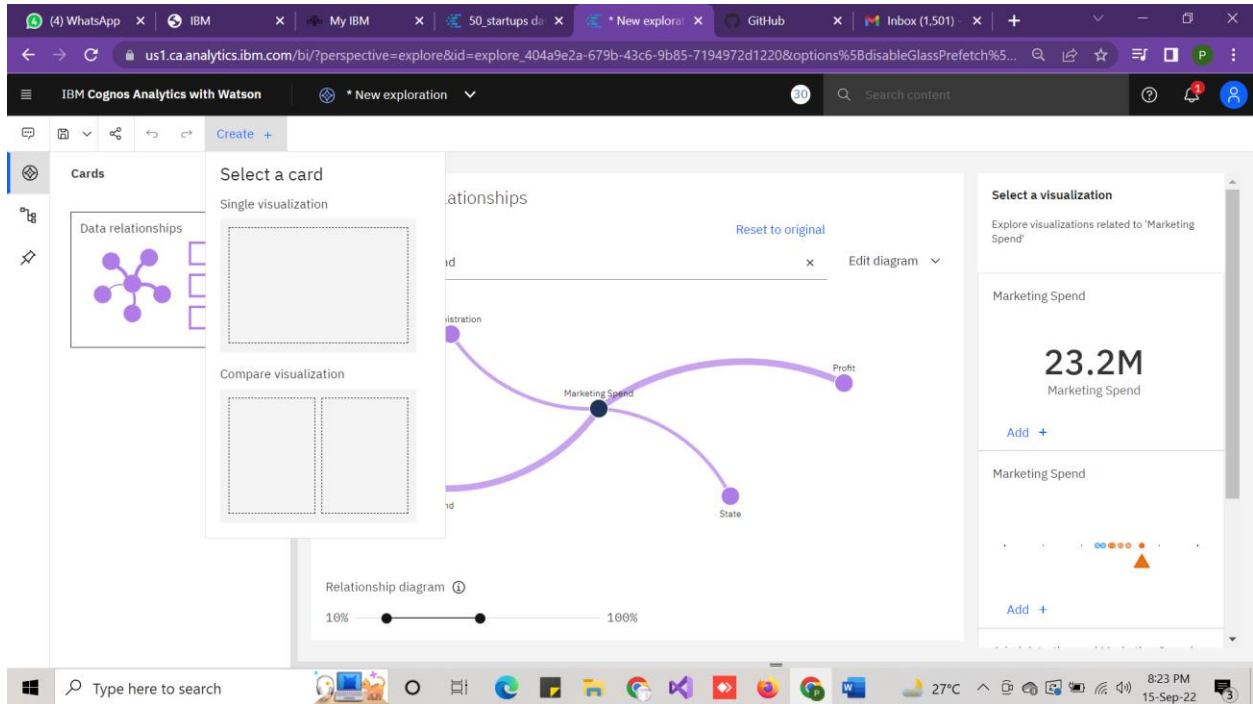
Name	Type	Last Accessed
50_startups data module	Data module	9/15/2022, 9:37 AM

At the bottom of the dialog box, there are 'Cancel' and 'Save' buttons. The 'Save' button is highlighted in blue.

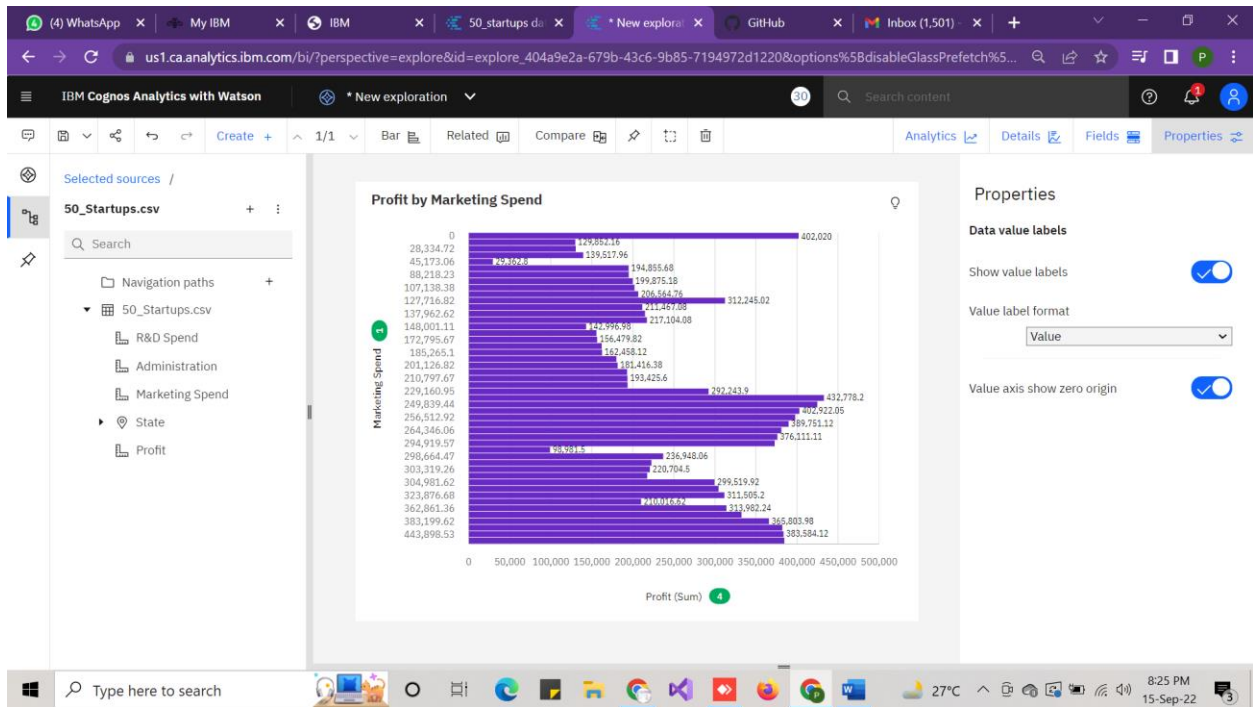
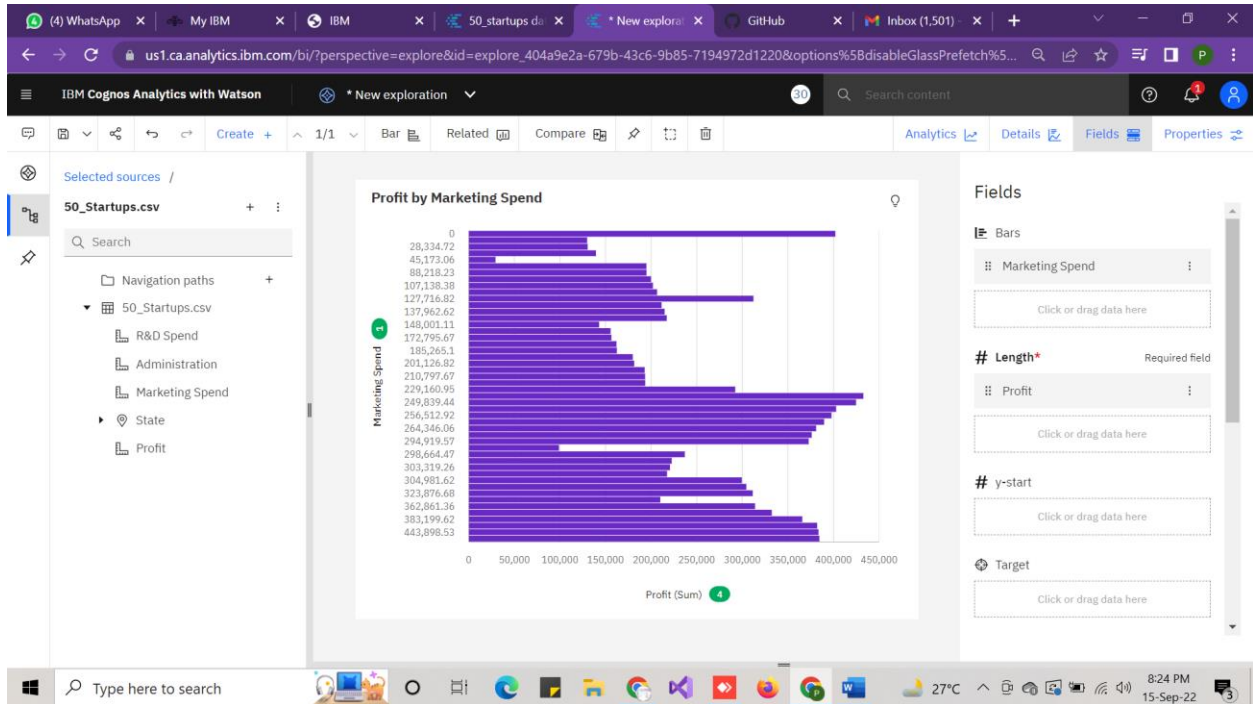


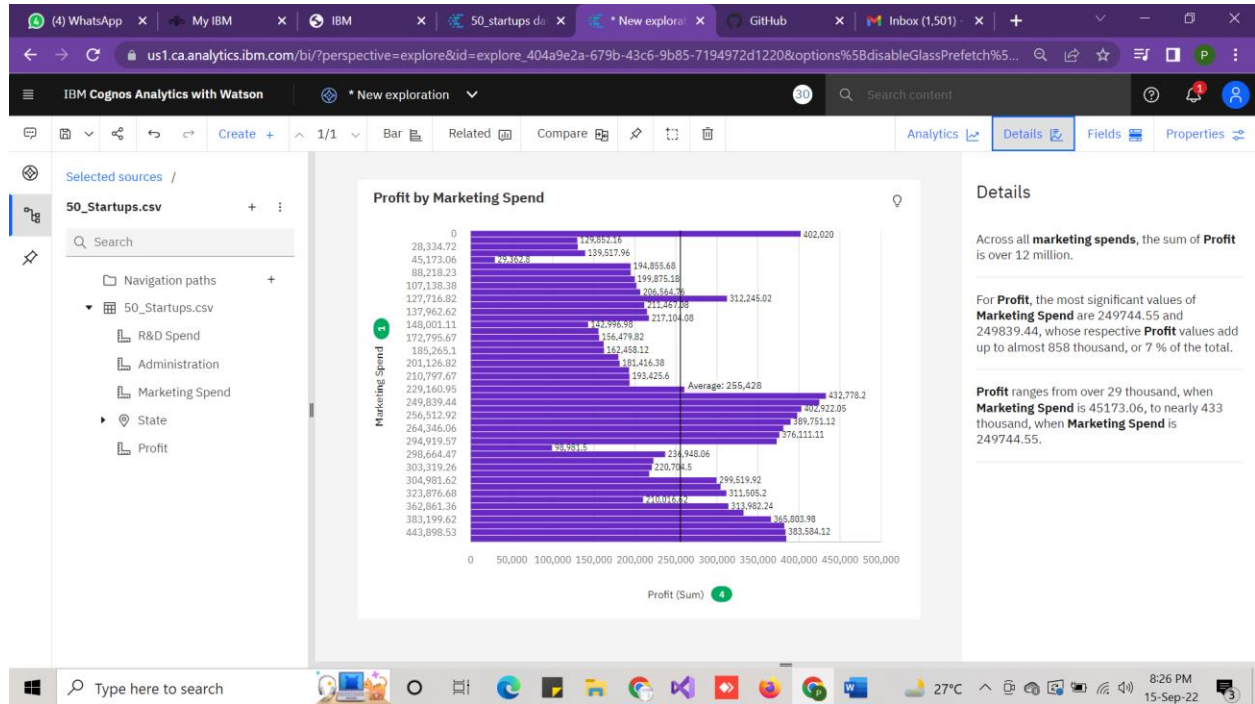
## Data Exploration





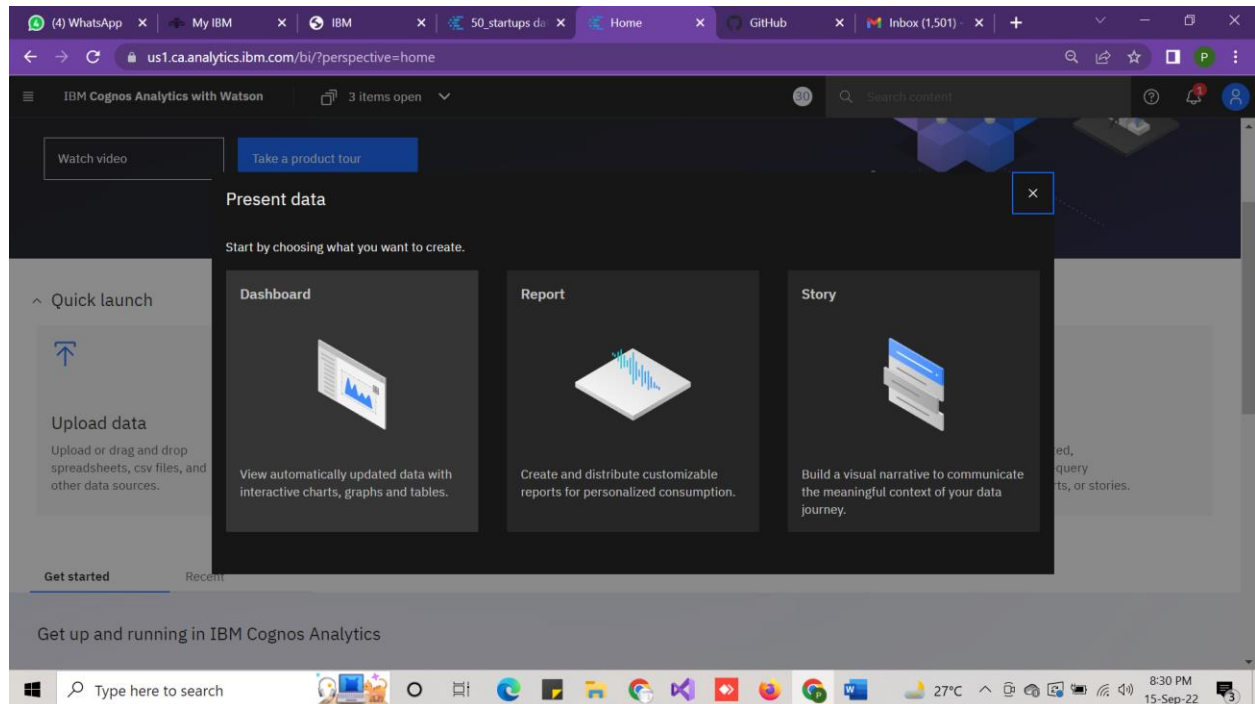






## Data visualization

### Bar chart:



The screenshot shows the IBM Cognos Analytics interface with a 'Select a source' dialog box open. The dialog has two tabs: 'My content' (selected) and 'Team content'. Under 'My content', there is a table listing available data sources:

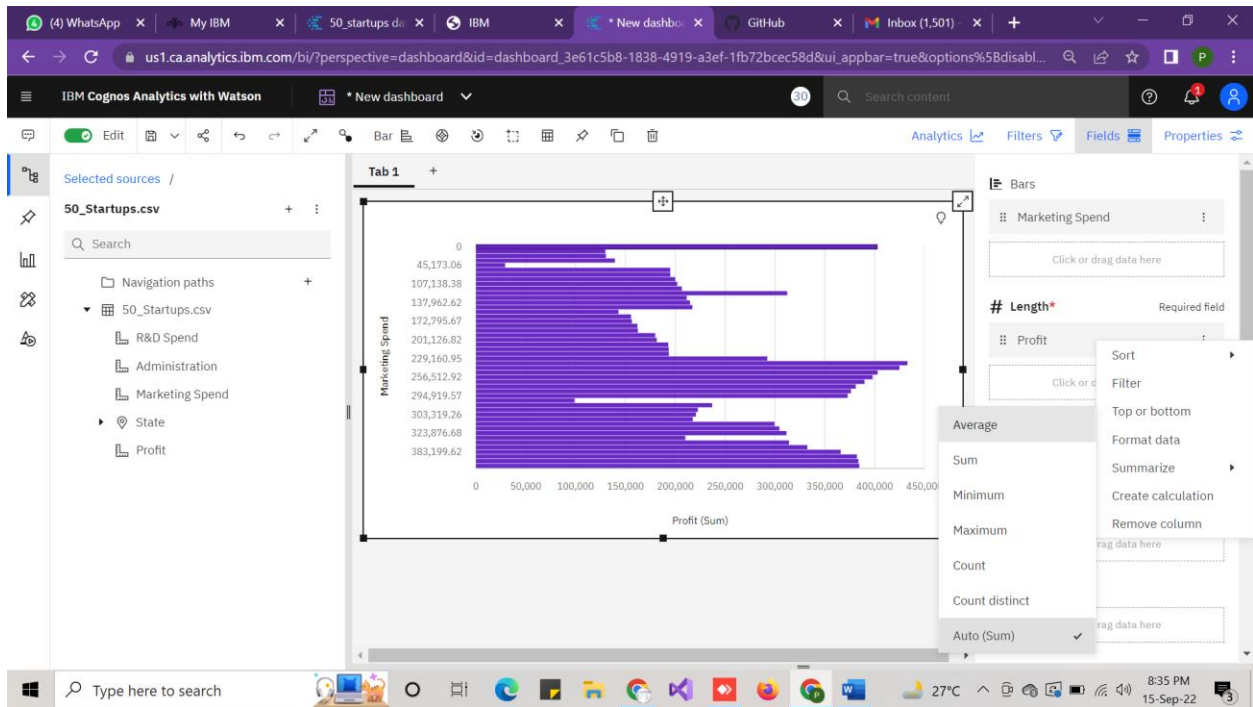
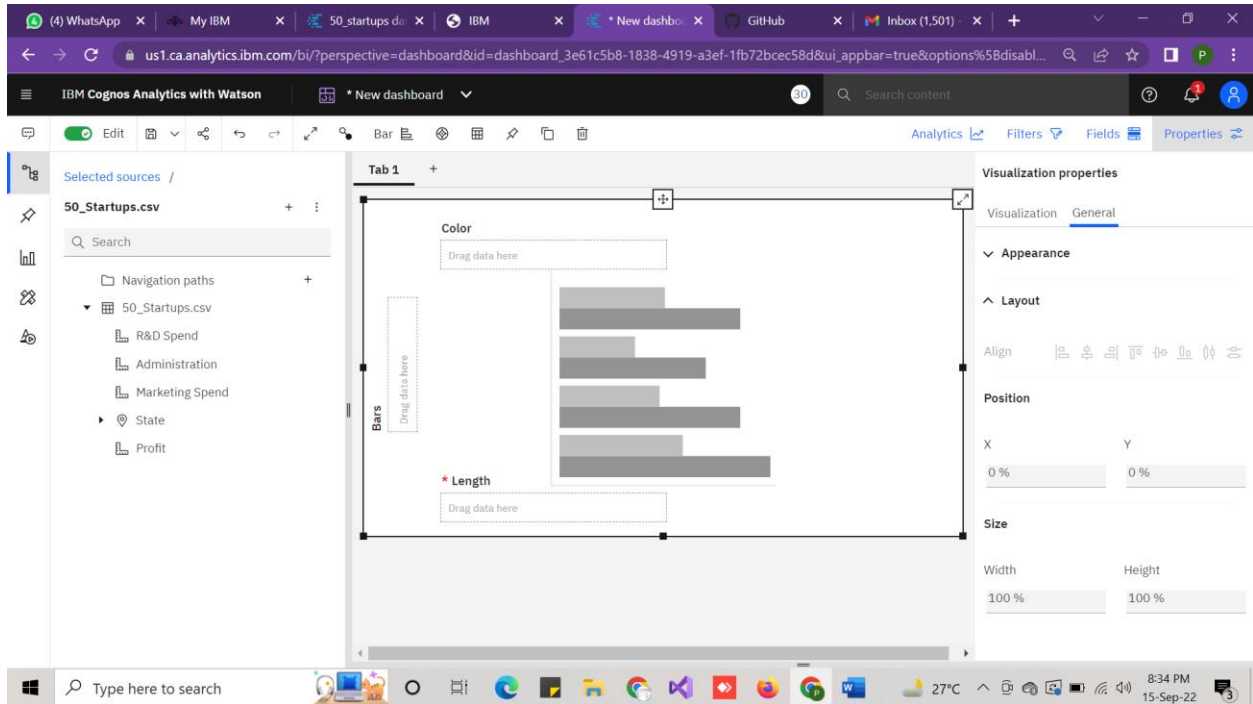
Name	Type	Last Accessed
Data Modules	Folder	9/15/2022, 9:36 AM
50_Startups.csv	Uploaded file	9/15/2022, 9:21 AM

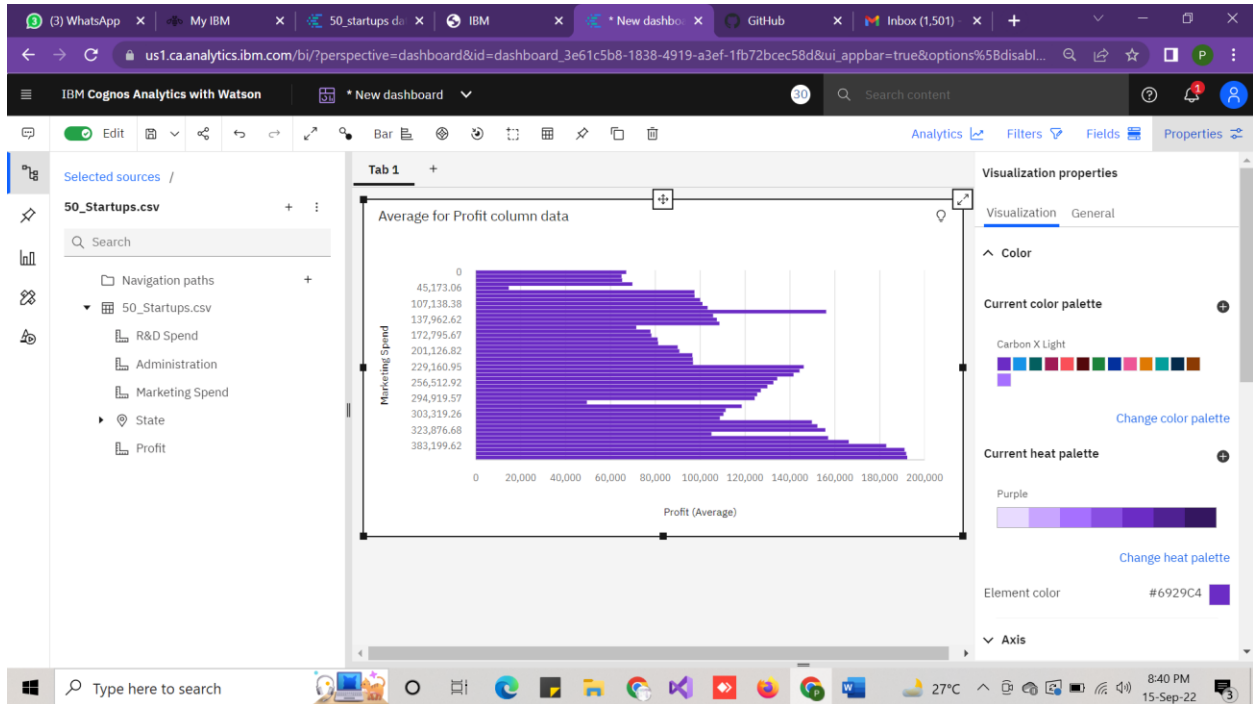
The '50\_Startups.csv' file is highlighted with a blue bar and a 'CSV' label. At the bottom of the dialog are 'Cancel' and 'Add' buttons. The background shows the dashboard editor with a 'Data' tab selected and a 'Select a source' button.

The screenshot shows the IBM Cognos Analytics dashboard editor. The 'Visualizations' panel on the left is active, displaying various chart types under the 'System' tab. The main workspace shows a 'Tab 1' with a grid for data visualization. The top navigation bar includes 'Analytics', 'Filters', 'Fields', and 'Properties' tabs. The bottom status bar shows the time as 8:33 PM on 15-Sep-22.

**Visualizations Panel:**

- Area
- Bar
- Box plot
- Bubble
- Bullet
- Column
- Crosstab
- Data player
- Decision tree
- Driver analysis





**Save as**

Name: 50startups\_Dashboard1

Selected destination: Data Modules

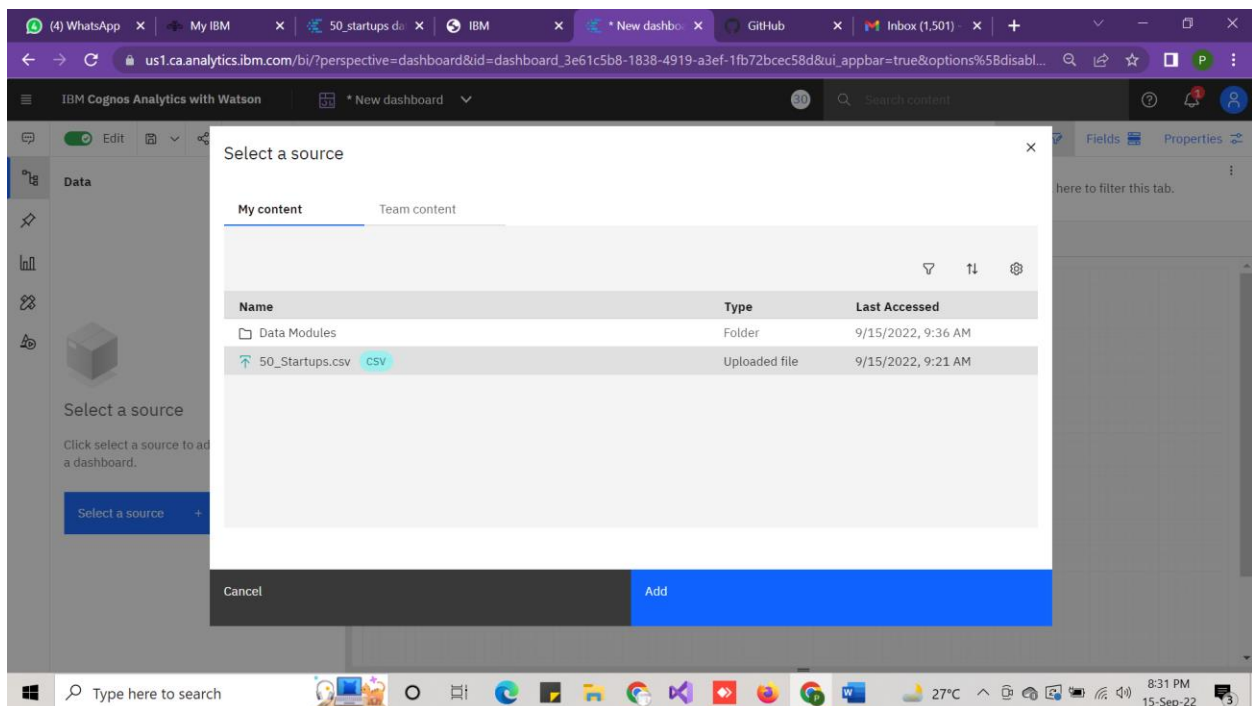
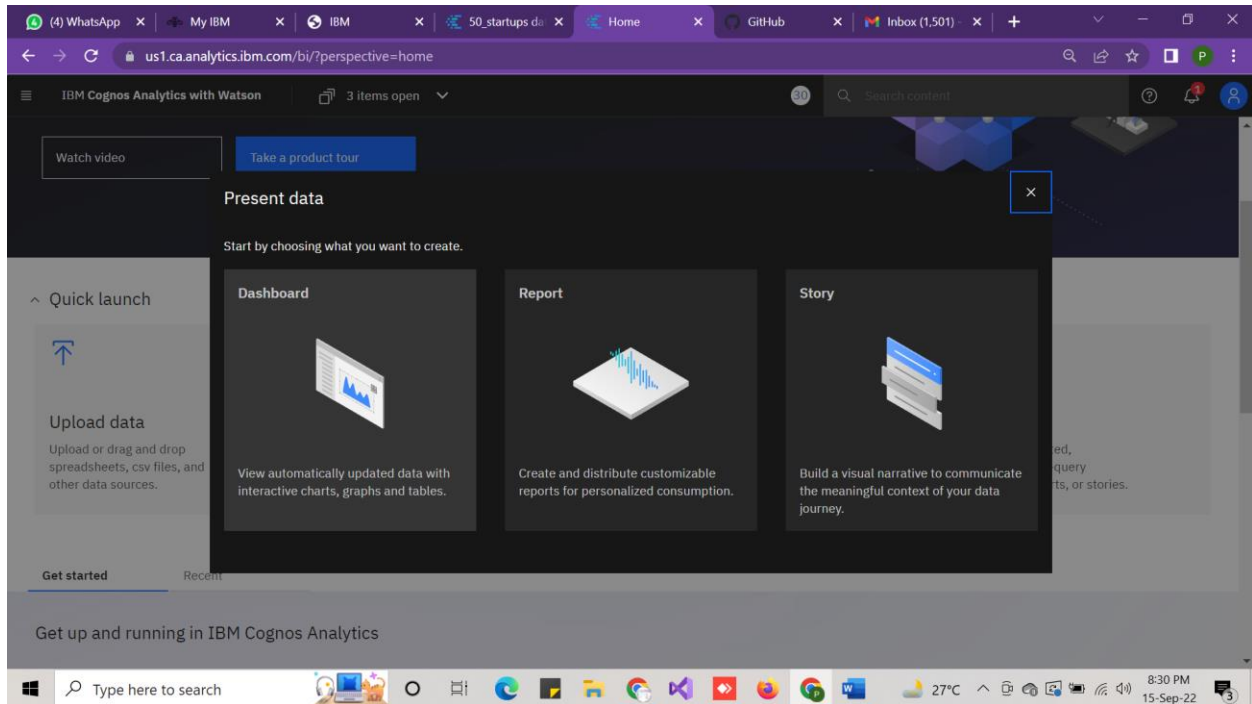
My content | Team content

My content / Data Modules

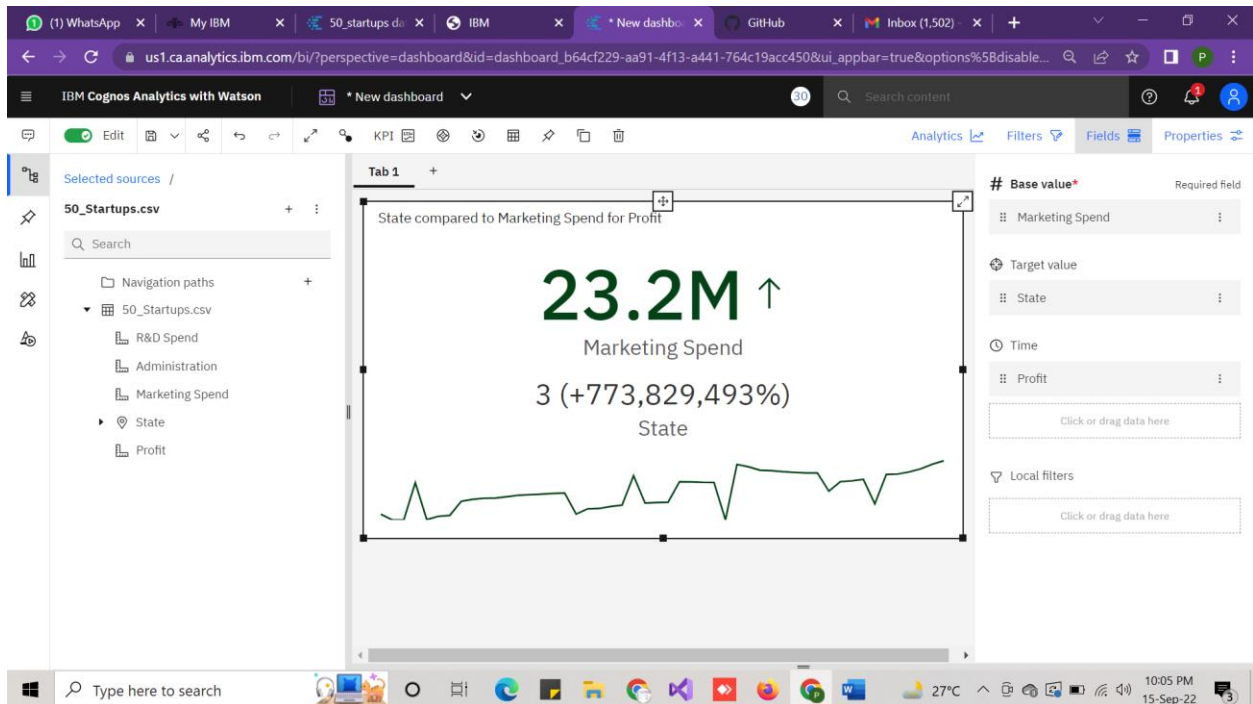
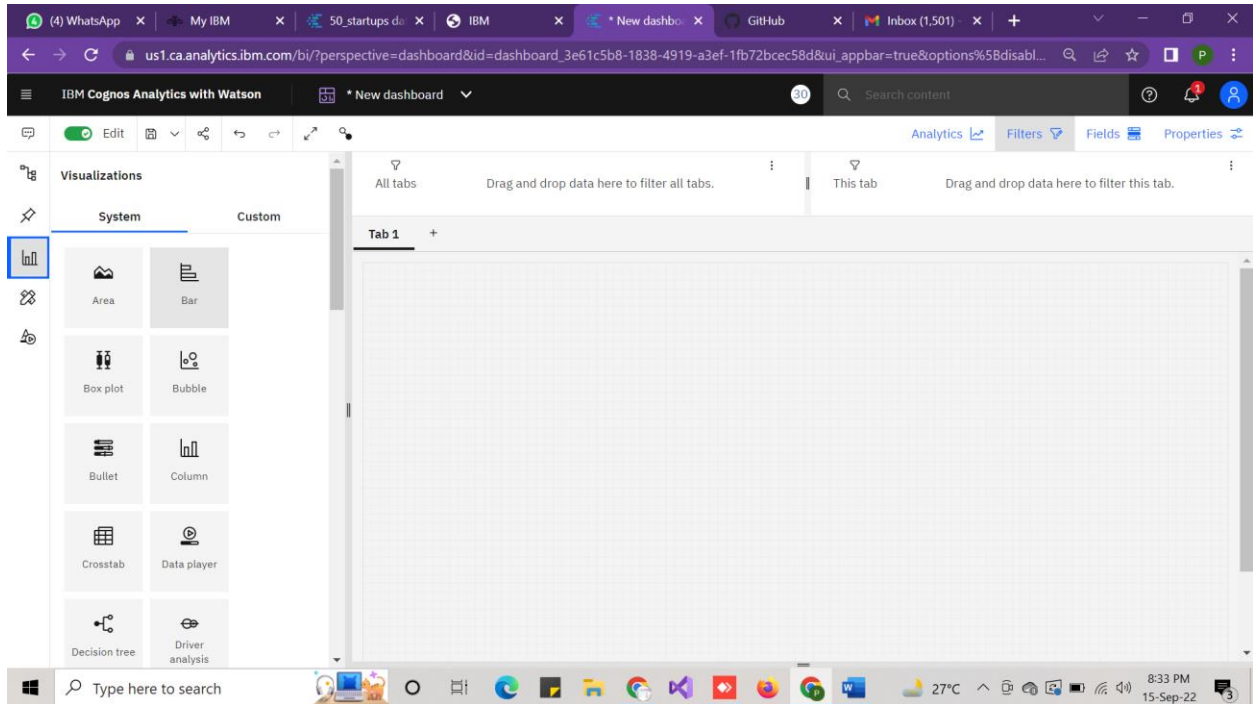
Name	Type	Last Accessed
50_startups data module	Data module	9/15/2022, 9:46 AM
Exploration	Exploration	9/15/2022, 10:00 AM

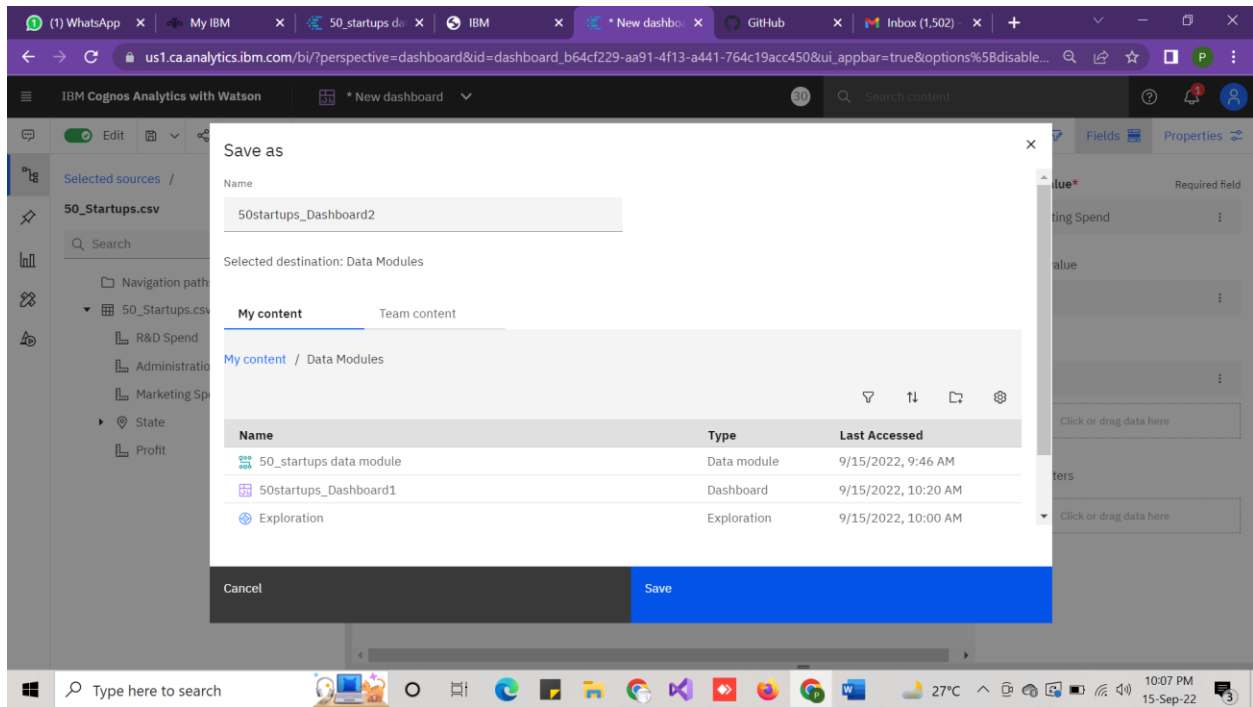
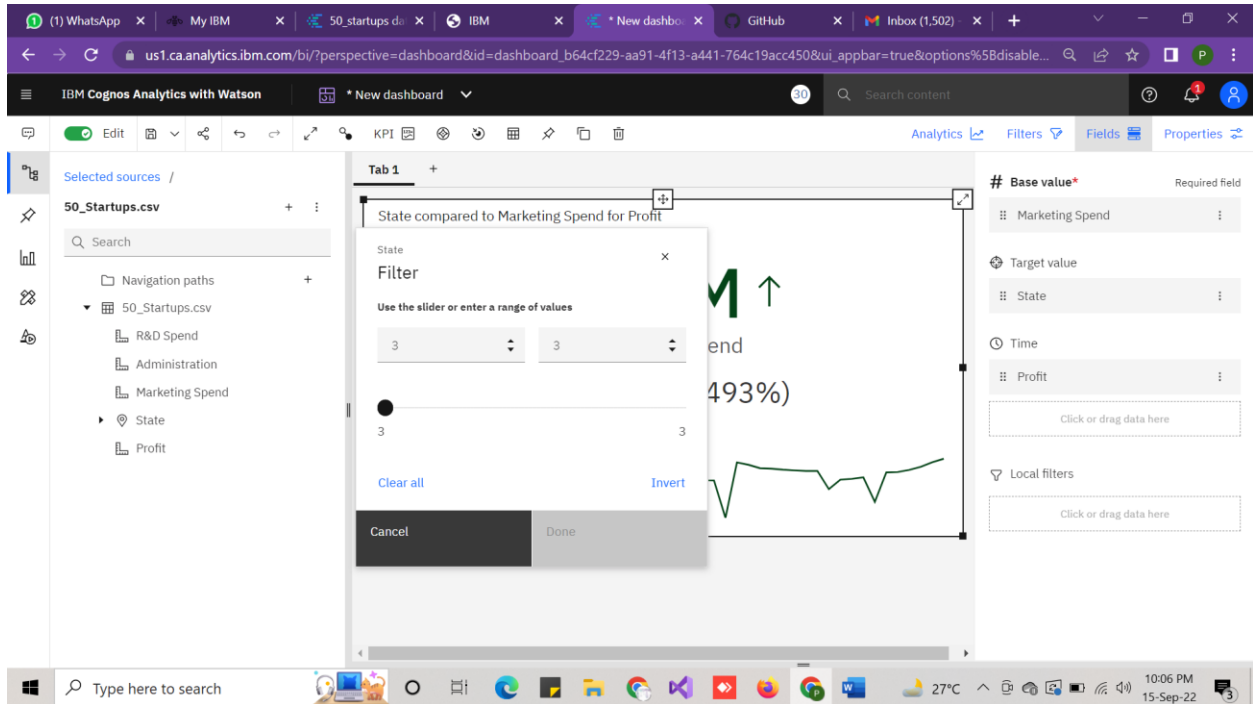
Cancel | Save



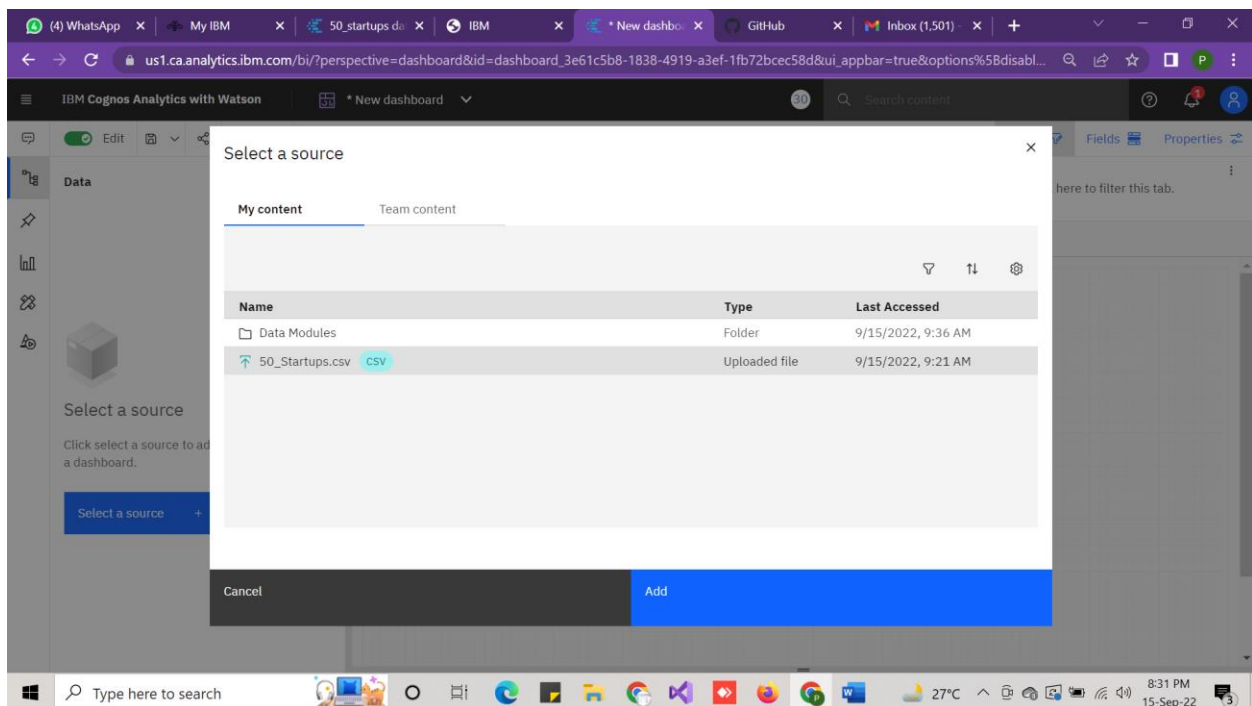
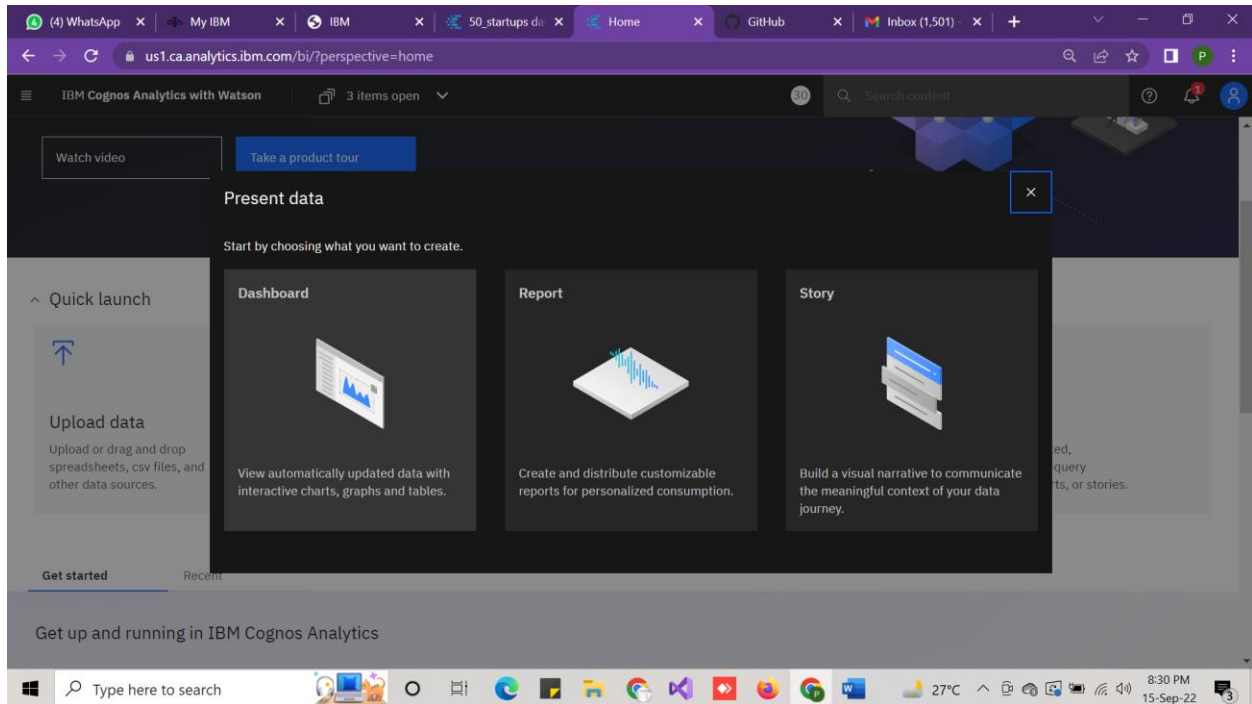
**KPI:**







## Cross Tab:



The screenshot shows the IBM Cognos Analytics interface. The top navigation bar includes tabs for WhatsApp, My IBM, 50\_startups, IBM, New dashbo, GitHub, and Inbox (1,501). The main header displays the URL: [us1.ca.analytics.ibm.com/bi/?perspective=dashboard&id=dashboard\\_3e61c5b8-1838-4919-a3ef-1fb72bcec58d&ui\\_appbar=true&options%5Bdisabl...](https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&id=dashboard_3e61c5b8-1838-4919-a3ef-1fb72bcec58d&ui_appbar=true&options%5Bdisabl...). The left sidebar shows the 'Visualizations' panel with 'System' and 'Custom' tabs. The 'System' tab is active, displaying various chart types: Area, Bar, Box plot, Bubble, Bullet, Column, Crosstab, Data player, Decision tree, and Driver analysis. The main workspace is titled 'Tab 1' and contains a large empty grid for visualization. The bottom status bar shows the Windows taskbar with a search bar and system icons.

The screenshot shows the IBM Cognos Analytics interface with data loaded. The top navigation bar is similar to the previous screenshot. The main header displays the URL: [us1.ca.analytics.ibm.com/bi/?perspective=dashboard&id=dashboard\\_0f937111-cd87-45c4-ad40-ae2bb86c5f2f&ui\\_appbar=true&options%5Bdisabl...](https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&id=dashboard_0f937111-cd87-45c4-ad40-ae2bb86c5f2f&ui_appbar=true&options%5Bdisabl...). The left sidebar shows the 'Selected sources' panel with a search bar and a list of data sources: 50\_Startups.csv, Navigation paths, R&D Spend, Administration, Marketing Spend, State, and Profit. The main workspace is titled 'Tab 1' and displays a table titled 'Administration for Marketing Spend and State'. A filter dialog is open over the table, showing a slider for 'R&D Spend' with a range from 0 to 359,829.72. The table data is as follows:

Administration	0	1,903.93	28,334.72	35,534.17
California	270,853.84	(no value)	309,612.28	(no value)
Florida	(no value)	(no value)	(no value)	(no value)
New York	410,514.52	248,306.08	(no value)	254,764.6
Summary	681,368.36	248,306.08	309,612.28	254,764.6

The bottom status bar shows the Windows taskbar with a search bar and system icons.

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Selected sources' pane displays '50\_Startups.csv' with a search bar and a tree view showing 'Navigation paths', '50\_Startups.csv', 'R&D Spend', 'Administration', 'Marketing Spend', 'State', and 'Profit'. The main area shows 'Tab 1' with a table titled 'Administration for Marketing Spend and State'. The table has columns for 'Administration', '0', '1,903.93', '28,334.72', '35,534.17', and '45,173.04'. The rows are 'California', 'Florida', 'New York', and 'Summary'. The right pane shows 'Columns' with 'Marketing Spend', 'Rows' with 'State', and 'Values' with 'Administration'. A 'Local filters' section shows 'R&D Spend' with a range of 'Between 0 and 359,828.72'.

Administration	0	1,903.93	28,334.72	35,534.17	45,173.04
California	270,853.84	(no value)	309,612.28	(no value)	2
Florida	(no value)	(no value)	(no value)	(no value)	(
New York	410,514.52	248,306.08	(no value)	254,764.6	(
Summary	681,368.36	248,306.08	309,612.28	254,764.6	2

## Column:

The screenshot shows the IBM Cognos Analytics home screen. The top navigation bar includes 'Watch video', 'Take a product tour', and 'Present data'. The main area is titled 'Start by choosing what you want to create.' and features three large cards: 'Dashboard' (View automatically updated data with interactive charts, graphs and tables), 'Report' (Create and distribute customizable reports for personalized consumption), and 'Story' (Build a visual narrative to communicate the meaningful context of your data journey). The bottom section is titled 'Get up and running in IBM Cognos Analytics'.

The screenshot shows the IBM Cognos Analytics interface with a 'Select a source' dialog box open. The dialog has two tabs: 'My content' (selected) and 'Team content'. Under 'My content', there is a table listing available data sources:

Name	Type	Last Accessed
Data Modules	Folder	9/15/2022, 9:36 AM
50_Startups.csv	Uploaded file	9/15/2022, 9:21 AM

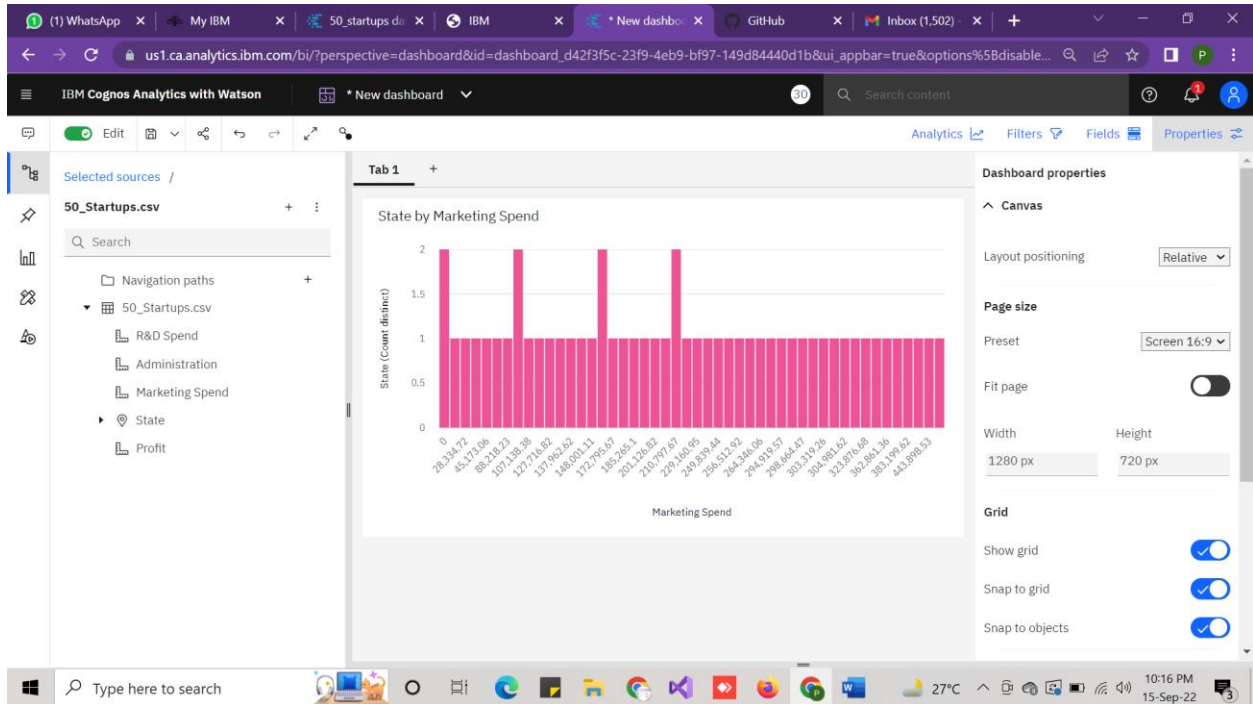
The '50\_Startups.csv' file is highlighted with a blue bar and a 'CSV' label. At the bottom of the dialog are 'Cancel' and 'Add' buttons. The background shows the dashboard editor with a 'Data' sidebar and a 'Select a source' button.

The screenshot shows the IBM Cognos Analytics dashboard editor. The 'Visualizations' sidebar on the left is active, displaying various chart types under the 'System' tab:

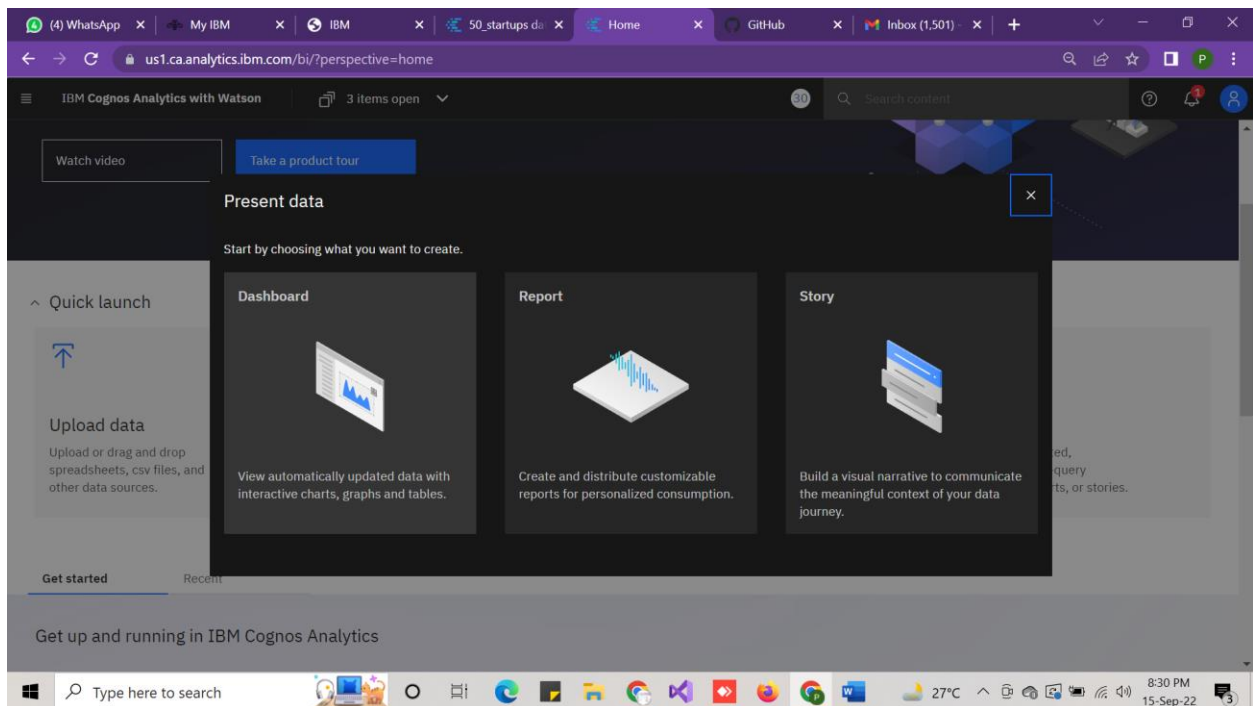
- Area
- Bar
- Box plot
- Bubble
- Bullet
- Column
- Crosstab
- Data player
- Decision tree
- Driver analysis

The main workspace shows a 'Tab 1' with a grid area for visualizations. The top navigation bar includes 'Analytics', 'Filters', 'Fields', and 'Properties' tabs. The bottom status bar shows the time as 8:33 PM on 15-Sep-22.





## Heat Map:



The screenshot shows the IBM Cognos Analytics interface with a 'Select a source' dialog box open. The dialog has two tabs: 'My content' (selected) and 'Team content'. Under 'My content', there is a table listing available data sources:

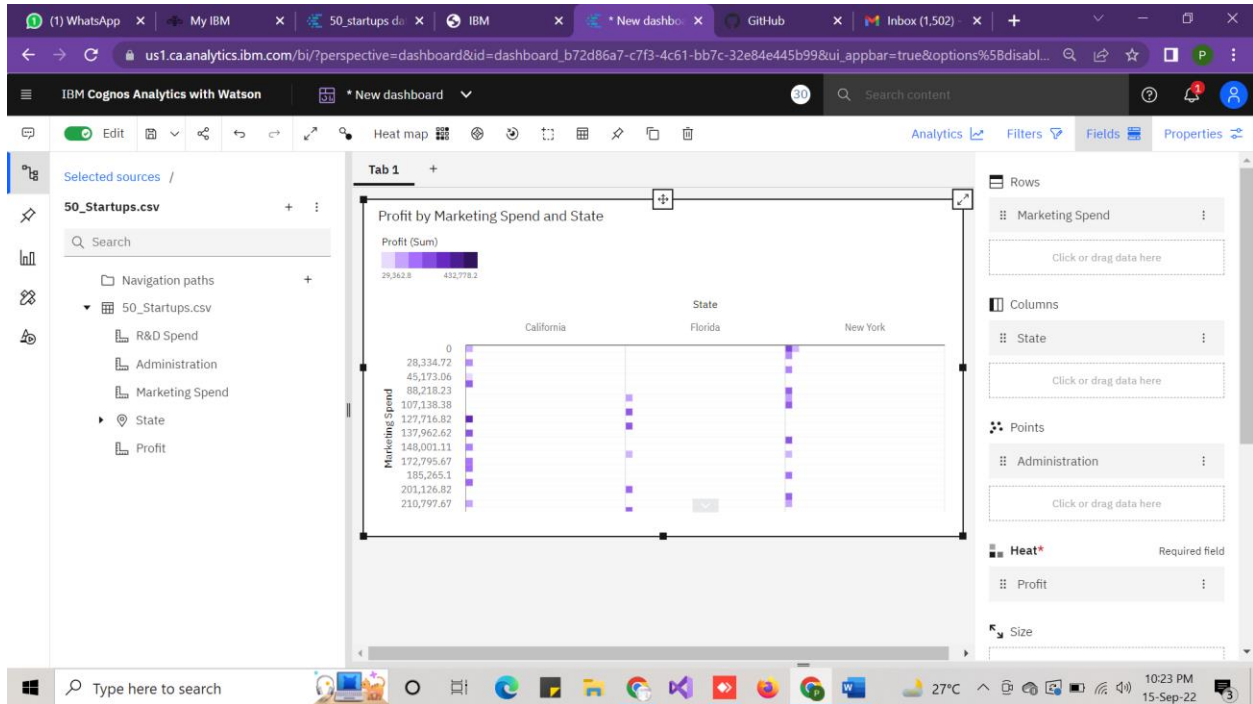
Name	Type	Last Accessed
Data Modules	Folder	9/15/2022, 9:36 AM
50_Startups.csv	Uploaded file	9/15/2022, 9:21 AM

At the bottom of the dialog are 'Cancel' and 'Add' buttons. The background shows the dashboard editor with a 'Data' sidebar and a 'Select a source' prompt.

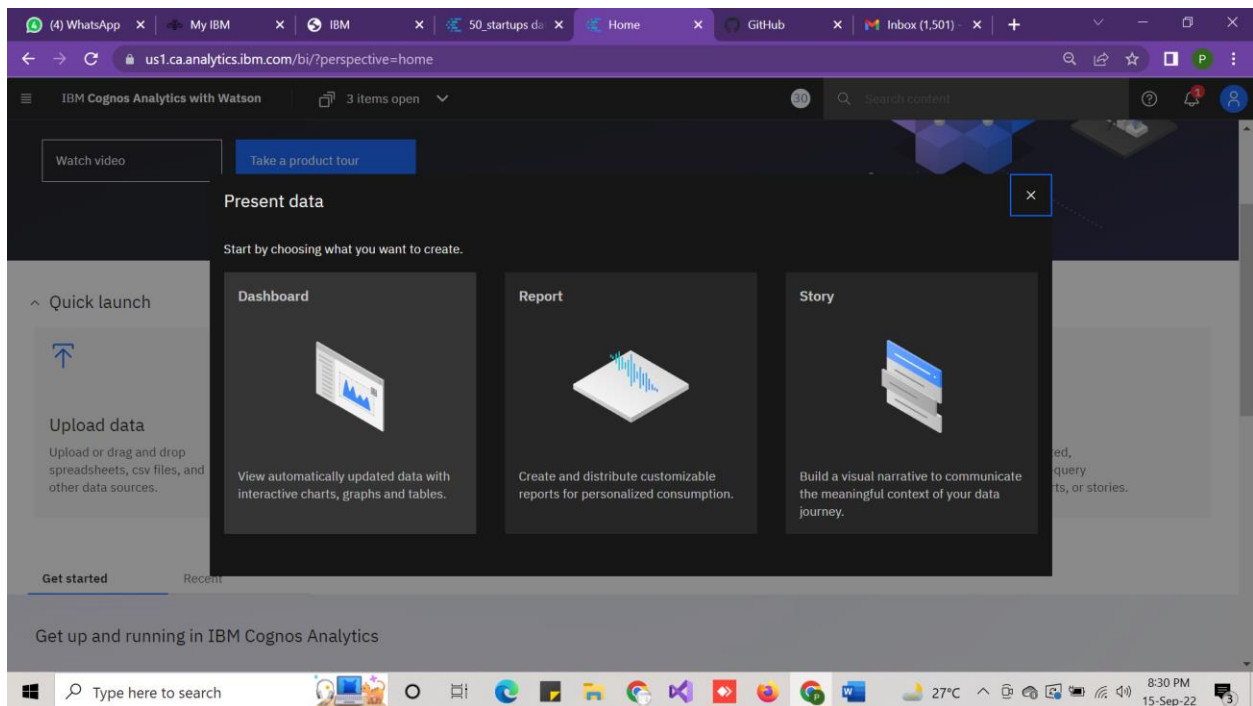
The screenshot shows the IBM Cognos Analytics dashboard editor. The 'Visualizations' sidebar on the left is active, displaying various chart types under the 'System' tab:

- Area
- Bar
- Box plot
- Bubble
- Bullet
- Column
- Crosstab
- Data player
- Decision tree
- Driver analysis

The main workspace shows a 'Tab 1' with a grid area for visualizations. The top navigation bar includes 'Analytics', 'Filters', 'Fields', and 'Properties' tabs. The bottom status bar shows the time as 8:33 PM on 15-Sep-22.



## Line and Column:



The screenshot shows the 'Select a source' dialog box in IBM Cognos Analytics. The 'My content' tab is selected, displaying a table of available data sources. The table has three columns: Name, Type, and Last Accessed. Two items are listed: 'Data Modules' (Folder, 9/15/2022, 9:36 AM) and '50\_Startups.csv' (Uploaded file, 9/15/2022, 9:21 AM). The '50\_Startups.csv' file is highlighted with a blue bar and a 'CSV' label. At the bottom of the dialog are 'Cancel' and 'Add' buttons. The background shows the dashboard interface with a sidebar on the left and a main workspace.

Name	Type	Last Accessed
Data Modules	Folder	9/15/2022, 9:36 AM
50_Startups.csv	Uploaded file	9/15/2022, 9:21 AM

The screenshot shows the main dashboard interface of IBM Cognos Analytics. The 'Visualizations' panel on the left is active, showing a grid of visualization types: Area, Bar, Box plot, Bubble, Bullet, Column, Crosstab, Data player, Decision tree, and Driver analysis. The 'System' tab is selected. The main workspace displays a grid for 'Tab 1' with a header 'All tabs' and a sub-header 'This tab'. The workspace is currently empty, with instructions to 'Drag and drop data here to filter all tabs.' and 'Drag and drop data here to filter this tab.' The top navigation bar includes 'Edit', 'Analytics', 'Filters', 'Fields', and 'Properties' tabs. The bottom status bar shows the time as 8:33 PM on 15-Sep-22.

