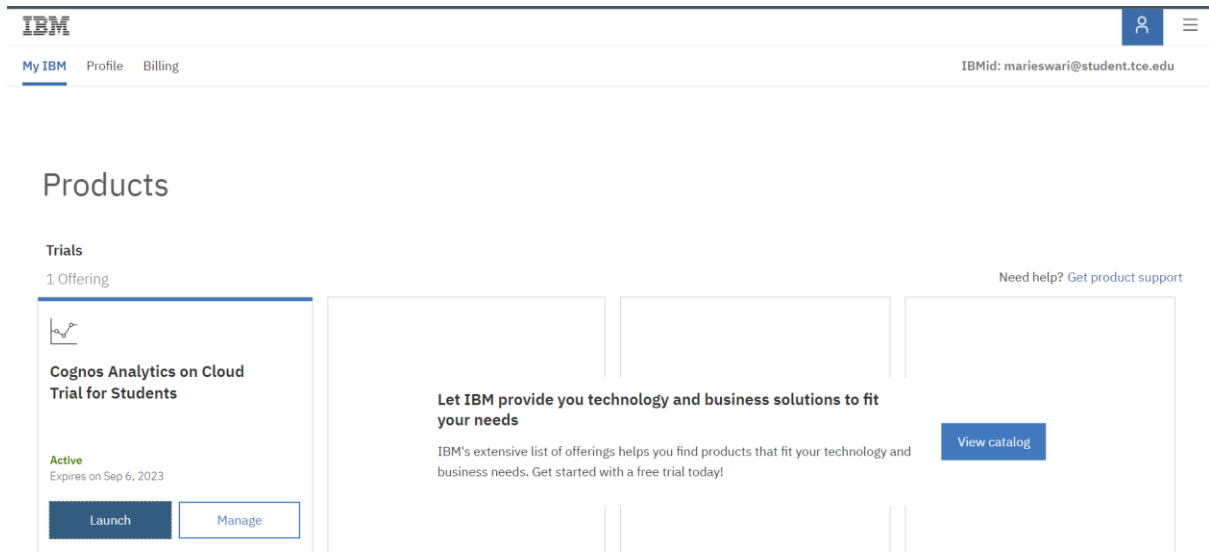


## Assignment - 1

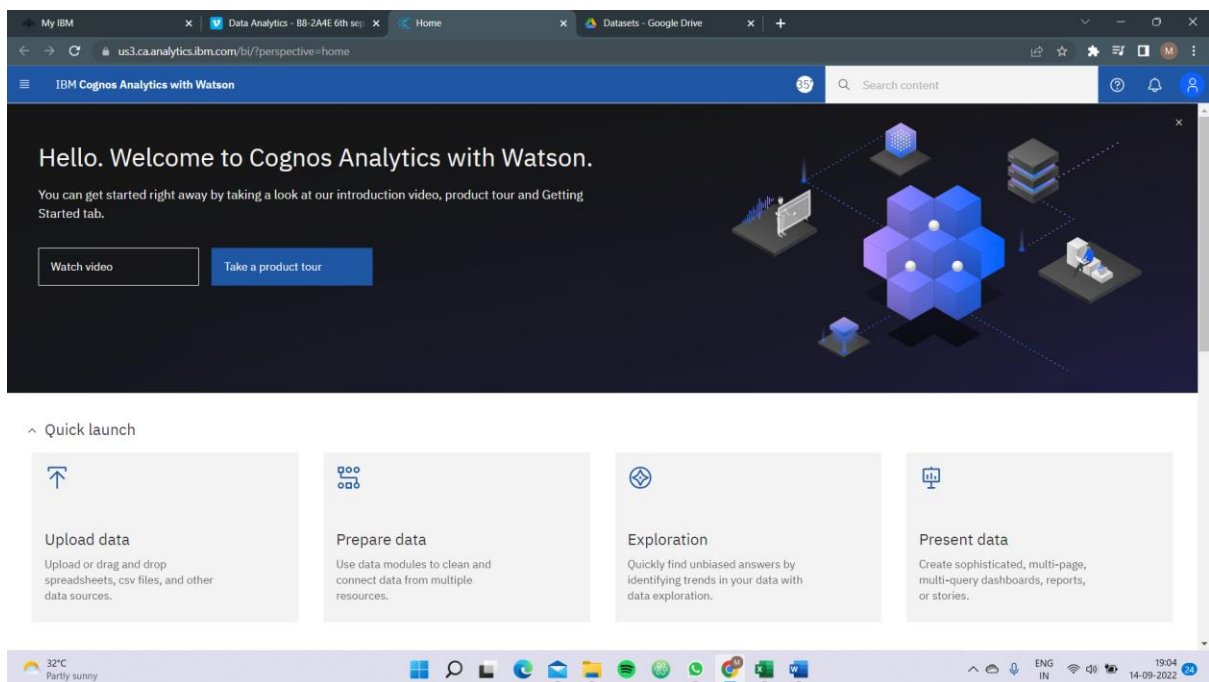
### The case of 50 Start-up's

Dataset: [50-Startup-Dataset](#)

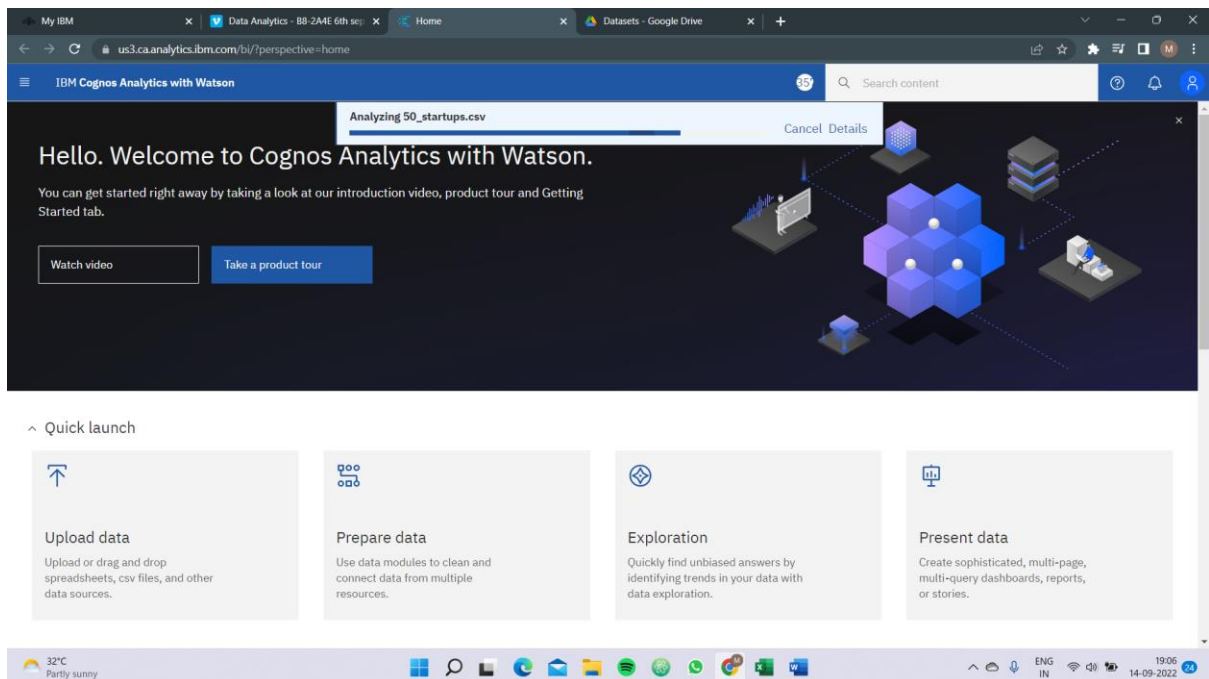
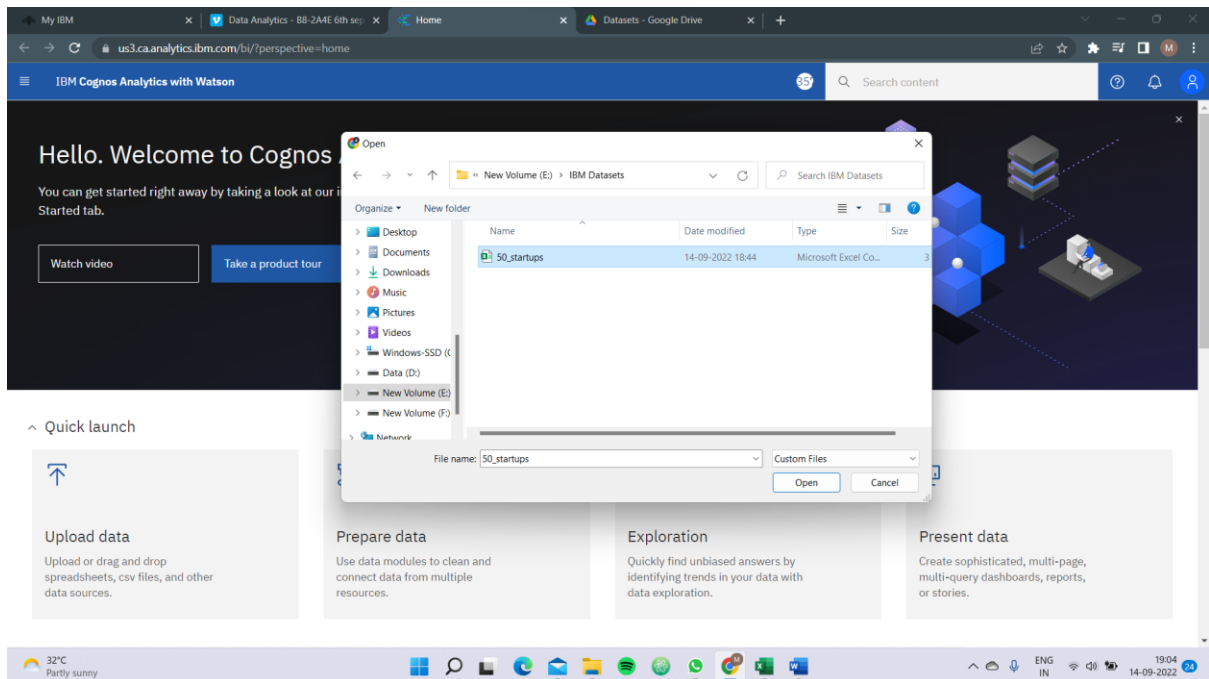
- ➔ Login to the IBM Cognos Analytics
- ➔ Select Launch from the product



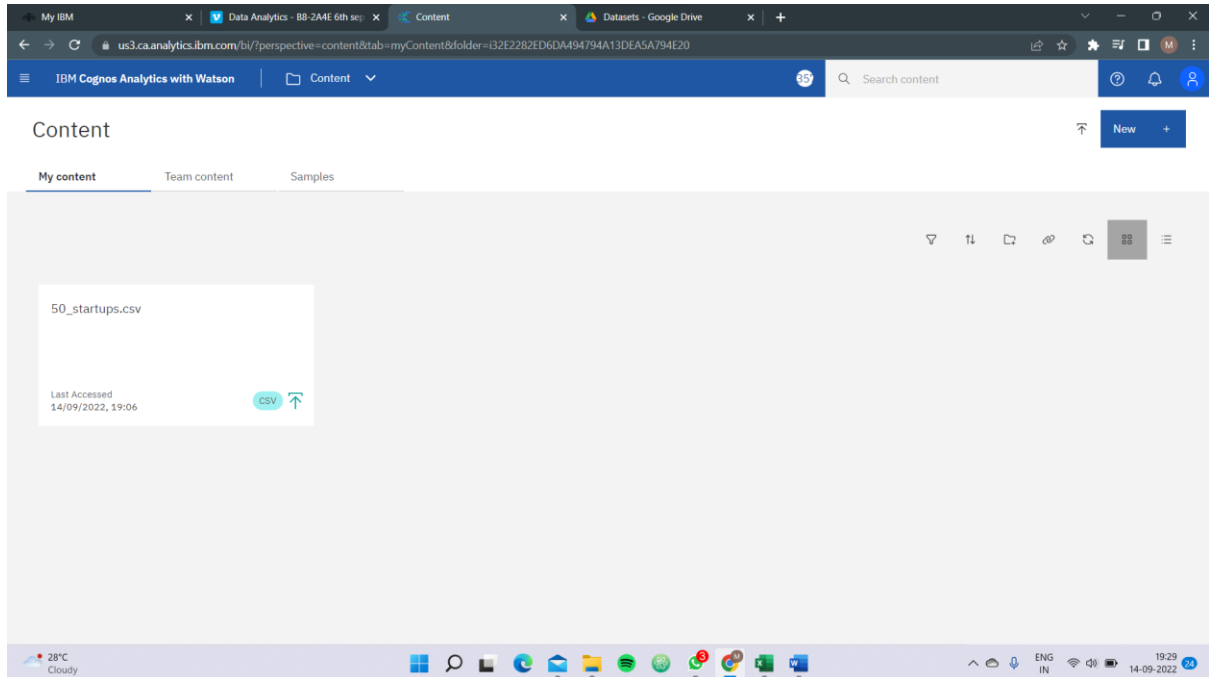
- ➔ Four main operations get displayed



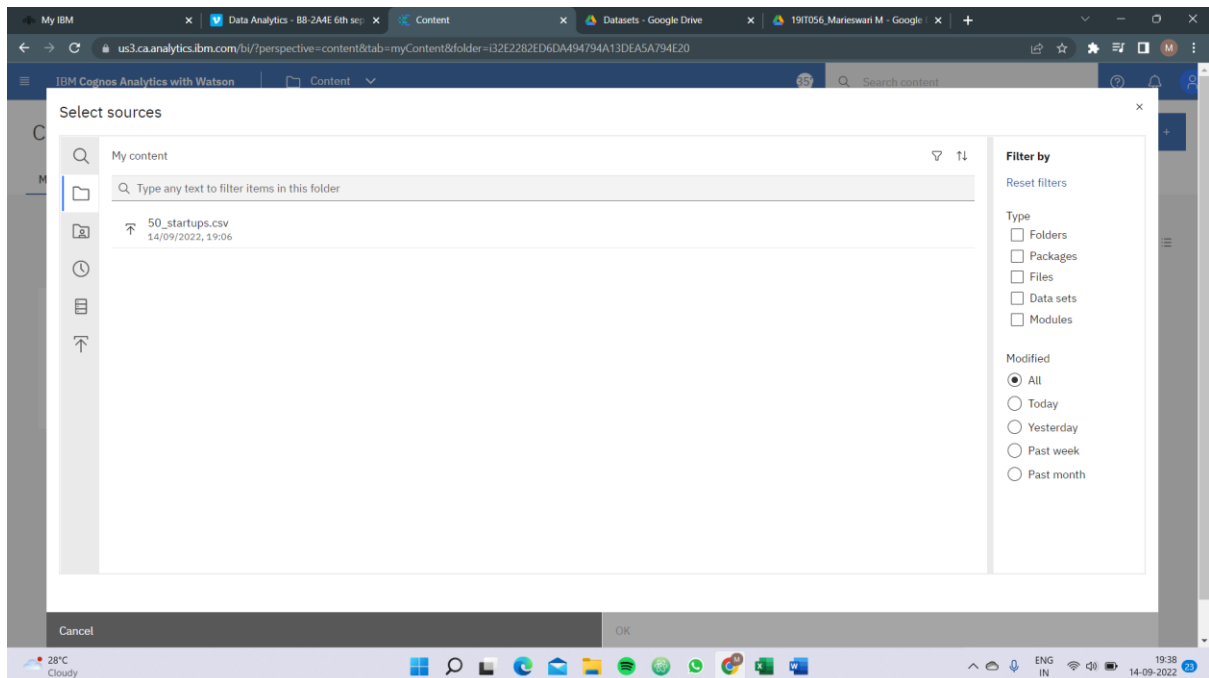
➔ Upload the 50 startup dataset from the local system



- ➔ The uploaded dataset can be viewed in My Content page
- ➔ Or you can also upload the dataset directly in my content page



- ➔ Dataset get displayed with date and time



## DATA PREPARATION

#- Unique values

Abc – Text values

Scale- Measure(numerical value)

Map mark – Map value

➔ Click +new – data module – select 50 startup module

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists '50\_startups.csv' as the selected module. The main grid displays 14 rows of data with the following columns: Row Id, R&D Spend, Administration, Marketing Spend, State, and 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
13	93863.75	127320.38	249839.44	Florida	141585.52
14	91992.39	135495.07	252664.93	California	134307.35

➔ Clean the data for attribute state:-

➔ Replace Florida with null value

The screenshot shows the 'Clean - State' dialog box. The 'Whitespace' section has 'Trim leading and trailing whitespace' checked. The 'Convert case to' section has 'Do not change' selected. The 'Return a substring of characters' section is empty. The 'NULL values' section has 'Replace this value with NULL' checked, with 'Florida' entered in the text box. The 'Clean' button is highlighted in blue.

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists various data sources. The main area displays a table with the following data:

R&D Spend	Administration	Marketing Spend	State
165349.2	136897.8	471784.1	New York
162597.7	151377.59	443898.53	California
153441.51	101145.55	407934.54	Null
144372.41	118671.85	383199.62	New York
142107.34	91391.77	366168.42	Null
131876.9	99814.71	362861.36	New York
134615.46	147198.87	127716.82	California
130298.13	145530.06	323876.68	Null
120542.52	148718.95	311613.29	New York
123334.88	108679.17	304981.62	California
101913.08	110594.11	229160.95	Null
100671.96	91790.61	249744.55	California
93863.75	127320.38	249839.44	Null
91097.39	135405.07	252664.93	California

The right sidebar shows the 'Properties' panel for the 'State' column, with options for Label, Hide from users, Expression, Usage, Aggregate, Data type, and Represents.

➔ Again replacing Null with Los Angeles

The screenshot shows the 'Clean - State' dialog box in IBM Cognos Analytics. The dialog has the following sections:

- 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: [Florida]
  - ☒ Replace NULL values with: [Los Angeles]

The 'Clean' button is highlighted in blue at the bottom right of the dialog.

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists 'New data module', 'Navigation paths', '50\_startups.csv', and its columns: '# Row Id', 'R&D Spend', 'Administration', 'Marketing Spend', 'State', and 'Profit'. The 'State' column is selected. The main grid displays data for various states, including New York, California, and Los Angeles. The 'Properties' pane on the right shows details for the 'State' column, including its label, usage as an identifier, and data type as text.

R&D Spend	Administration	Marketing Spend	State
165349.2	136897.8	471784.1	New York
162597.7	151377.59	443898.53	California
153441.51	101145.55	407934.54	Los Angeles
144372.41	118671.85	383199.62	New York
142107.34	91391.77	366168.42	Los Angeles
131876.9	99814.71	362861.36	New York
134615.46	147198.87	127716.82	California
130298.13	145530.06	323876.68	Los Angeles
120542.52	148718.95	311613.29	New York
123334.88	108679.17	304981.62	California
101913.08	110594.11	229160.95	Los Angeles
100671.96	91790.61	249744.55	California
93863.75	127320.38	249839.44	Los Angeles
91097.39	135495.07	252664.93	California

➔ To save the module in newly created folder

The screenshot shows the 'Save as' dialog box. The 'Name' field contains '50\_Startups data module'. The 'Selected destination' is 'My content'. The dialog lists the contents of 'My content', showing a 'Data Modules' folder and a '50\_startups.csv' file. A green confirmation message states 'Folder added: Data Modules folder was created in My content.' The 'Save' button is highlighted.

Name	Type	Last Accessed
Data Modules	Folder	14/09/2022, 20:14
50_startups.csv	Uploaded file	14/09/2022, 19:06

## DATA EXPLORATION

IBM Cognos Analytics with Watson

Content

Add a data source to explore

My content Team content

Name	Type	Last Accessed
Data Modules	Folder	14/09/2022, 20:14
50_startups.csv	Uploaded file	14/09/2022, 19:06

Cancel Add

➔ Exploring recommended attribute profit

IBM Cognos Analytics with Watson

New exploration

Explore data relationships

50\_startups.csv

Profit

Reset to original Edit diagram

Profit - Marketing Spend Strength: 61%

R&D Spend Profit Marketing Spend

Select single or multiple nodes to see visualizations.

Relationship diagram 10% 100%

Select a visualization

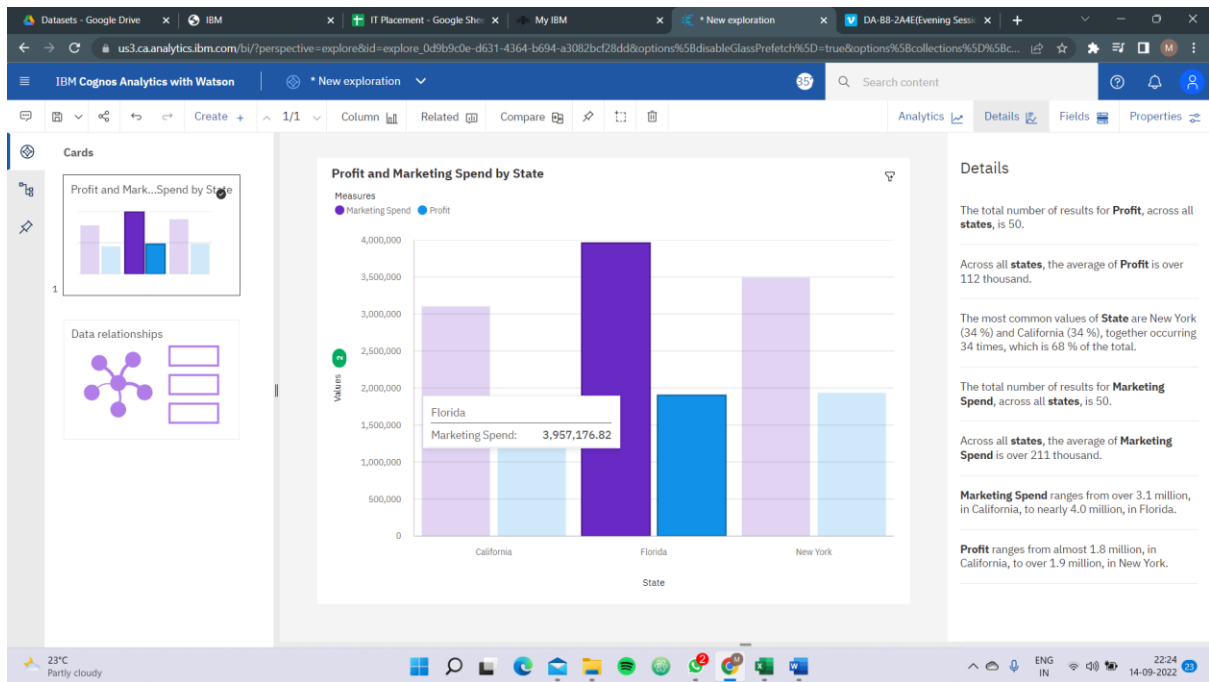
Explore visualizations related to 'Profit'

Profit

5.6M Profit

Add

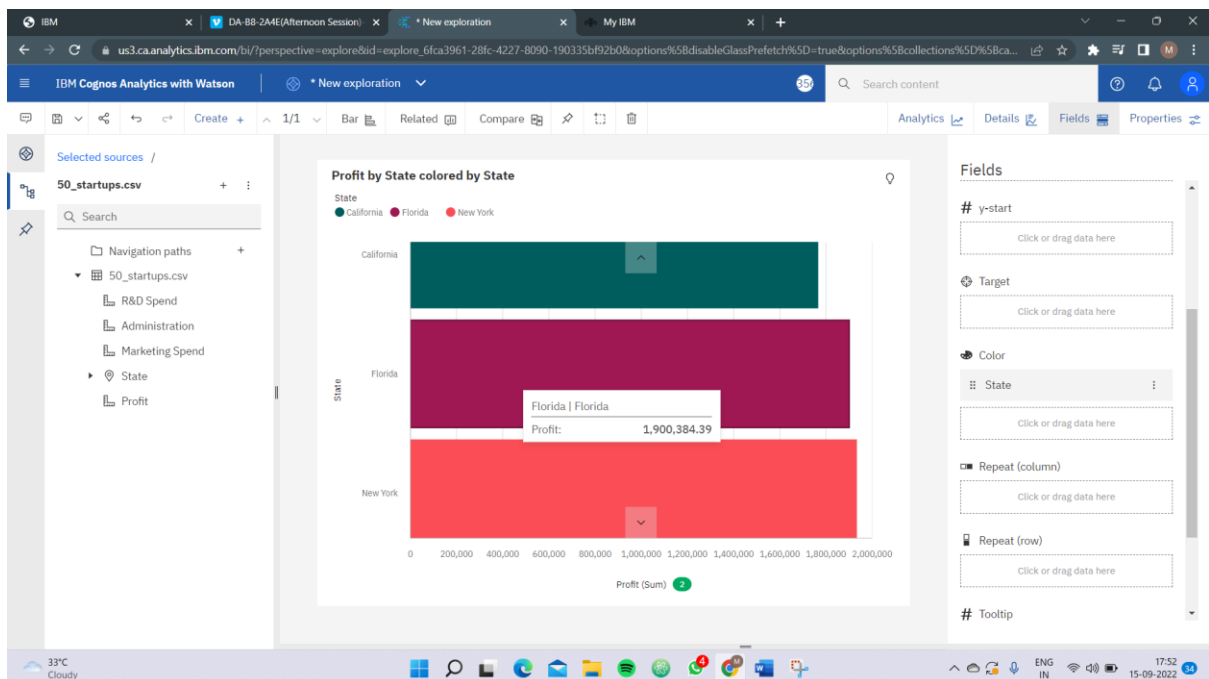
Administration and Profit for State regions



## VISUALIZATION

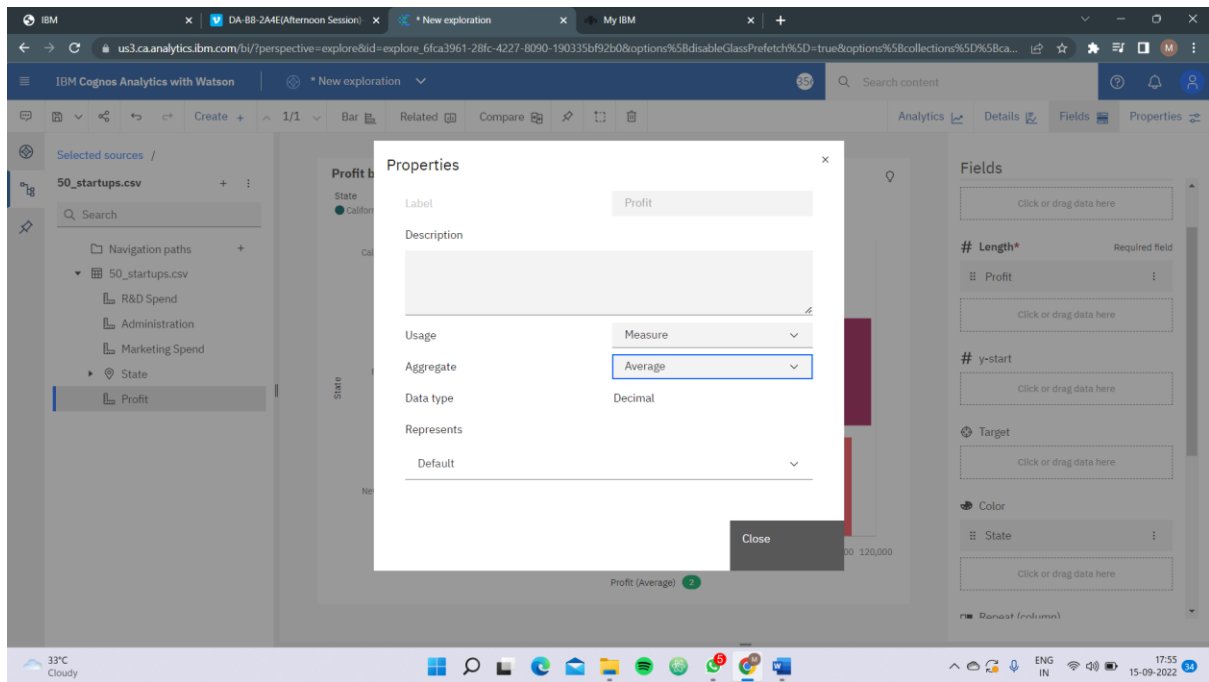
### 1.Bar Graph

#### Profit by state



➔ Profit -> properties -> average profit

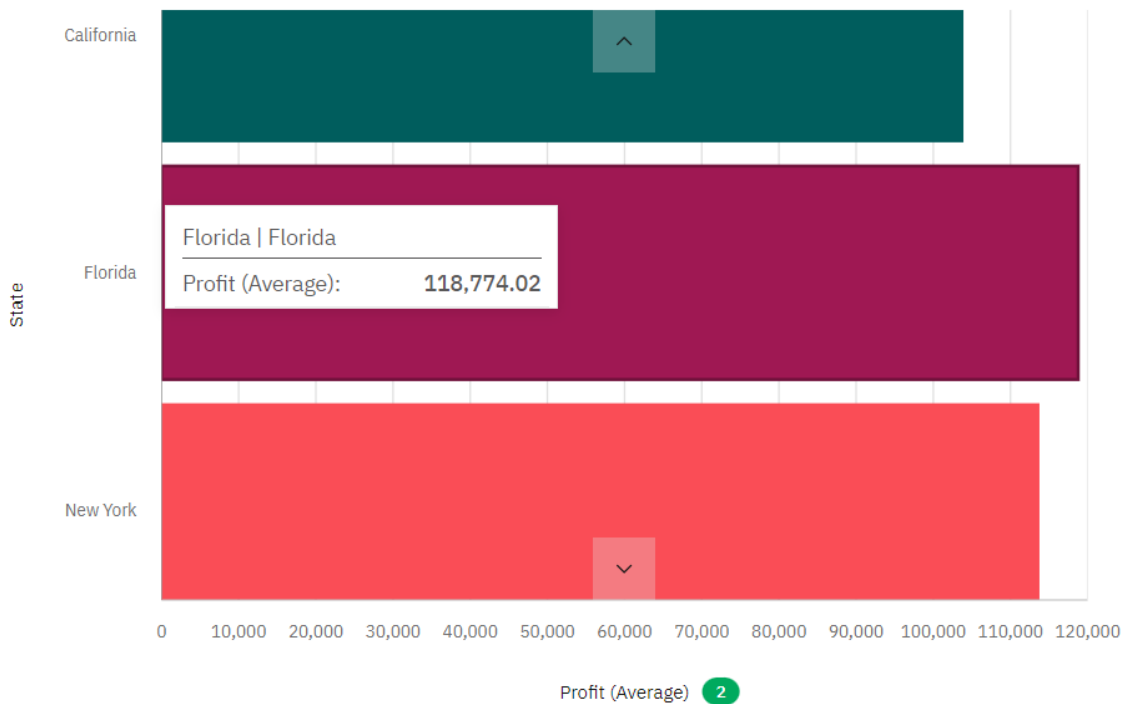




## Profit by State colored by State

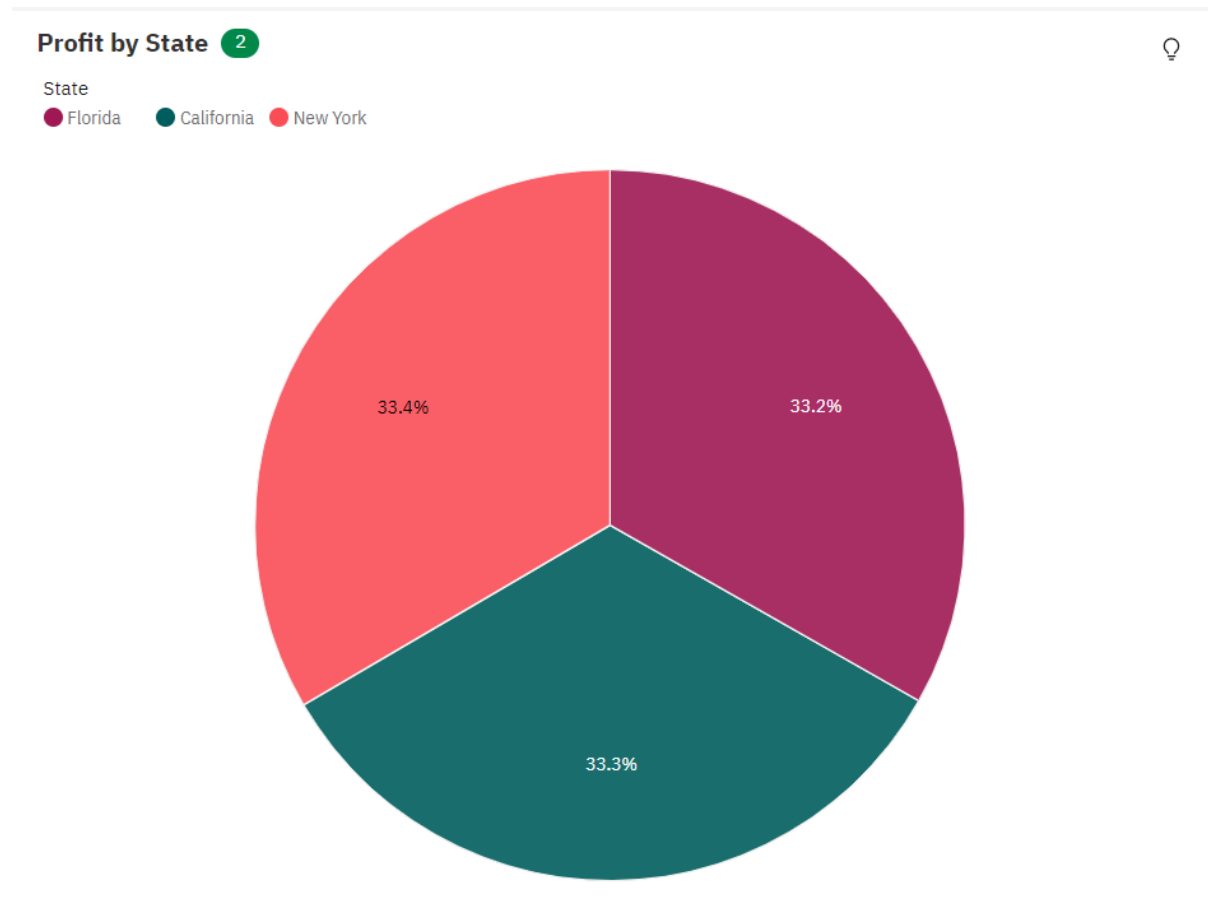
State

● California ● Florida ● New York



## 2. Pie Chart

Profit by state



IBM Cognos Analytics with Watson | \* New exploration

Search content

Analytics | Details | Fields | Properties

Selected sources / 50\_startups.csv

Navigation paths

- 50\_startups.csv
  - R&D Spend
  - Administration
  - Marketing Spend
  - State
    - Profit

Properties

Label: Profit

Description:

Usage: Measure

Aggregate: Maximum

Data type: Decimal

Represents:

Default:

Close

Fields

Segments\*

State

Click or drag data here

# Size\*

Profit

Click or drag data here

Repeat (column)

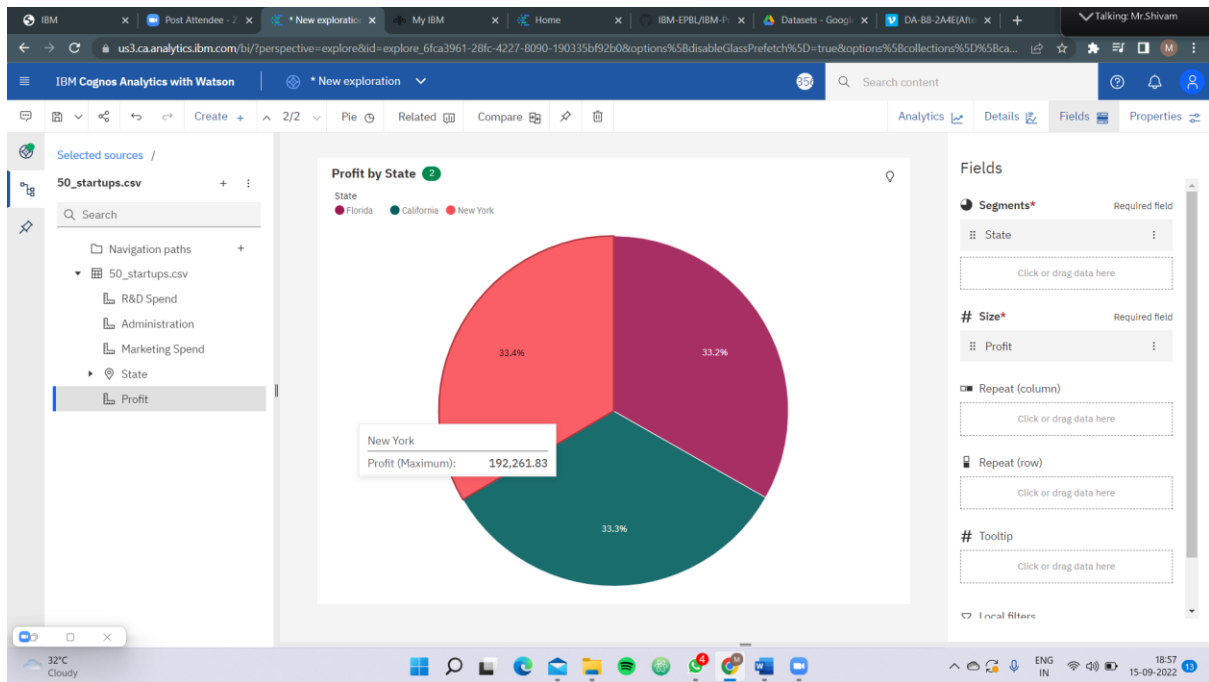
Click or drag data here

Repeat (row)

Click or drag data here

# Tooltip

Click or drag data here



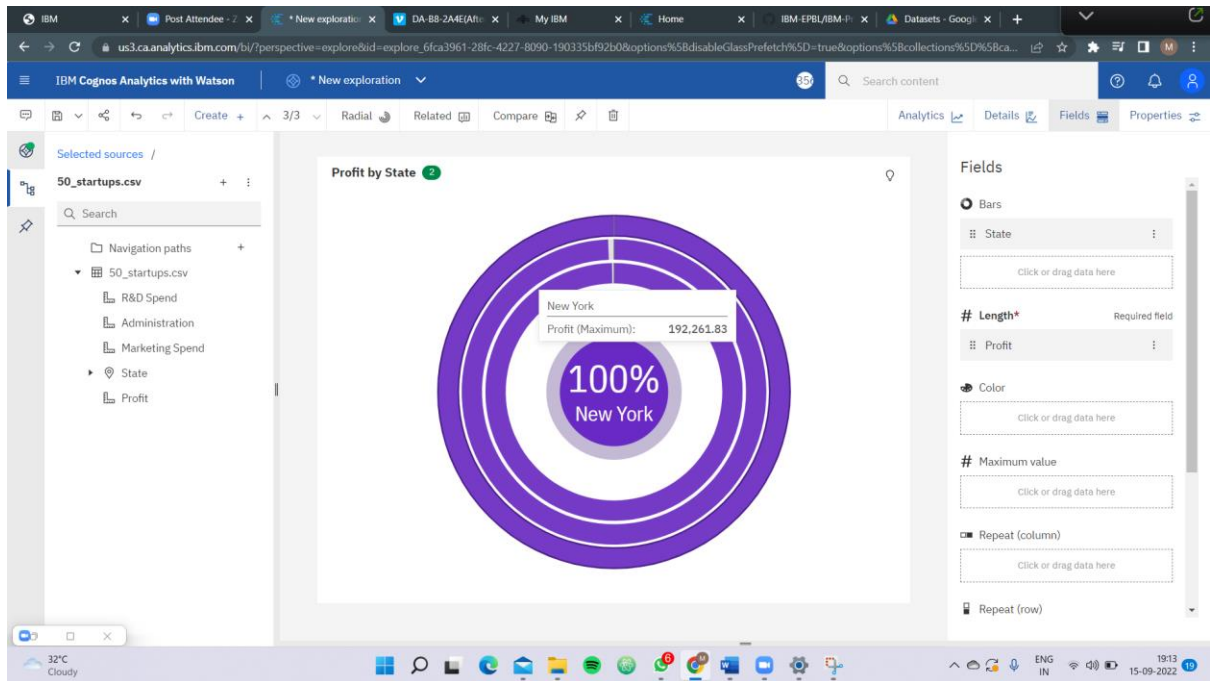
### 3.Crosstab

The screenshot shows the IBM Cognos Analytics interface with the view set to 'Crosstab'. The main view displays a table titled 'Profit for State' with the following data:

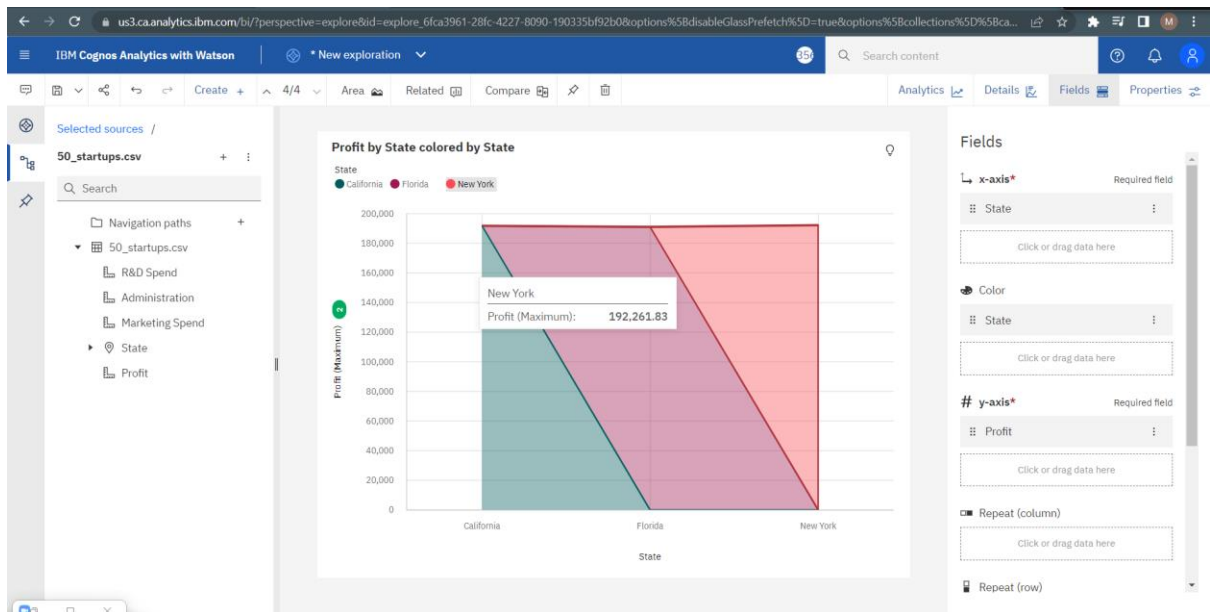
State	Profit
California	191,792.06
Florida	191,050.39
New York	192,261.83
Summary	192,261.83

The right pane shows the 'Fields' section with 'Columns' set to 'Profit' and 'Rows' set to 'State'. The bottom status bar shows the date as 15-09-2022 and time as 19:09.

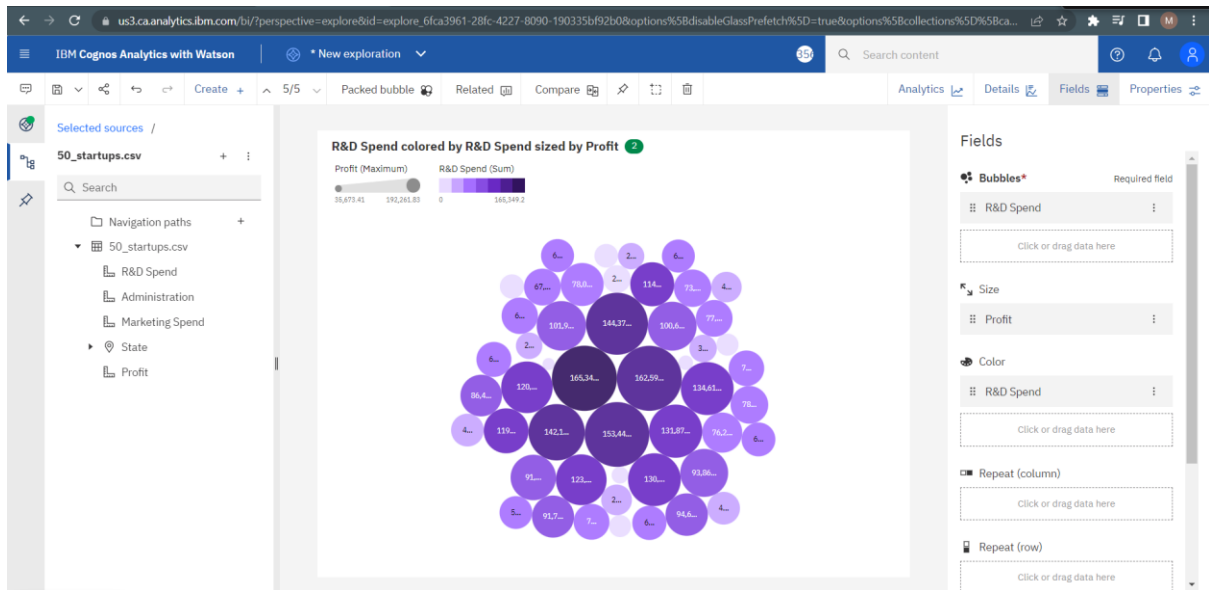
#### 4. Radial



#### 5. Area



## 6. Packed Bubble



## 7. Line graph

