

PROJECT DEVELOPMENT PHASE

SPRINT 2

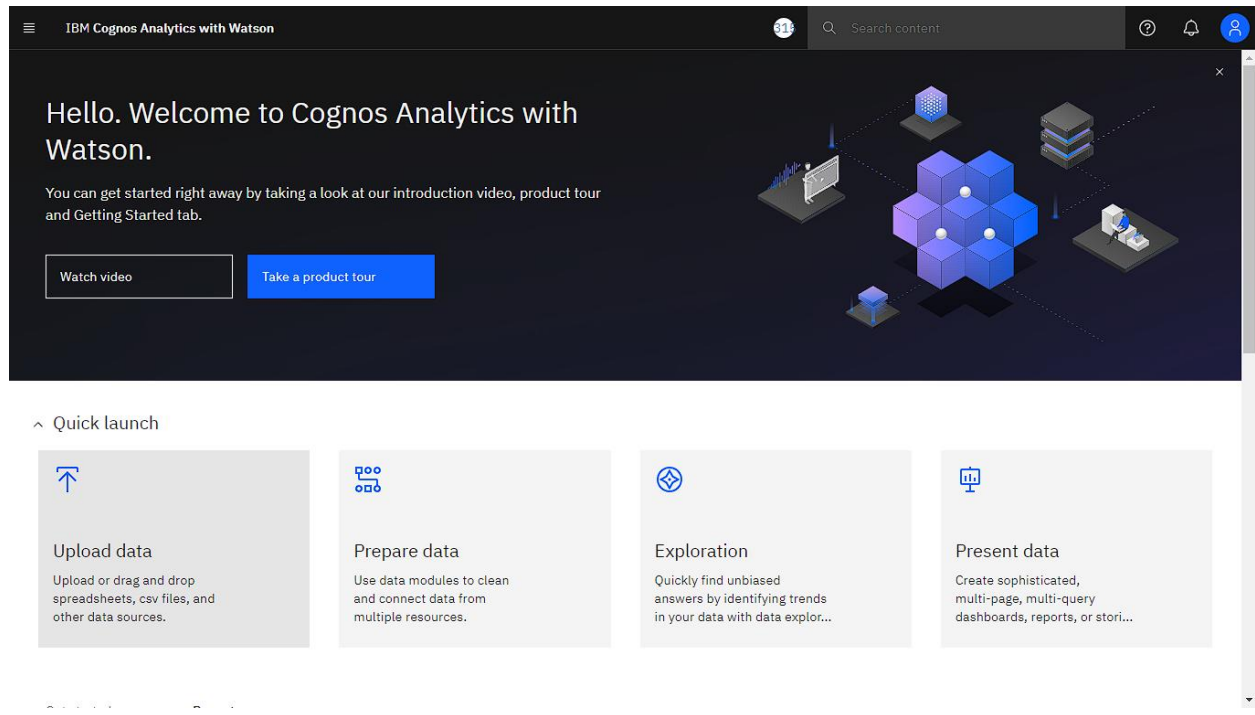
Date	10 NOVEMBER 2022
TEAM ID	PNT2022TMID00859
PROJECT NAME	CORPORATE EMPLOYEE ATTRITION ANALYTICS

SPRINT 2 FUNCTIONAL REQUIREMENTS:

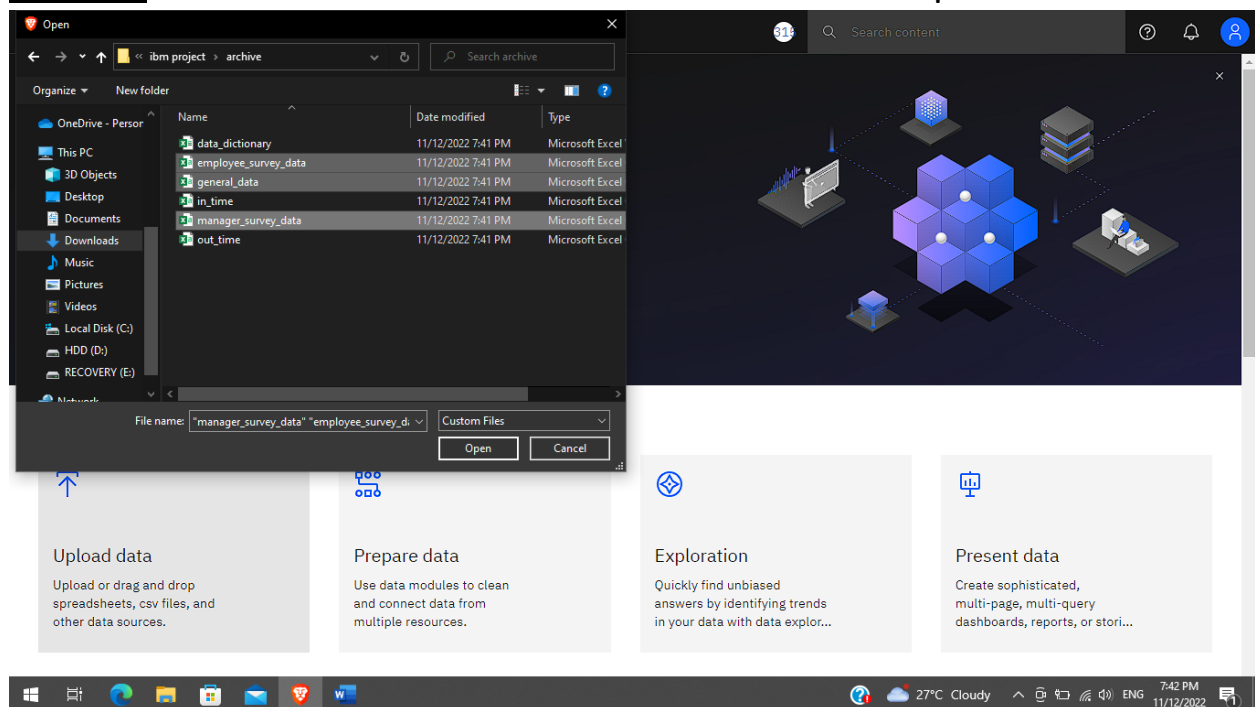
- UPLOAD DATA
- PREPARE DATA
- DATA VISUALIZATION

UPLOAD DATA:

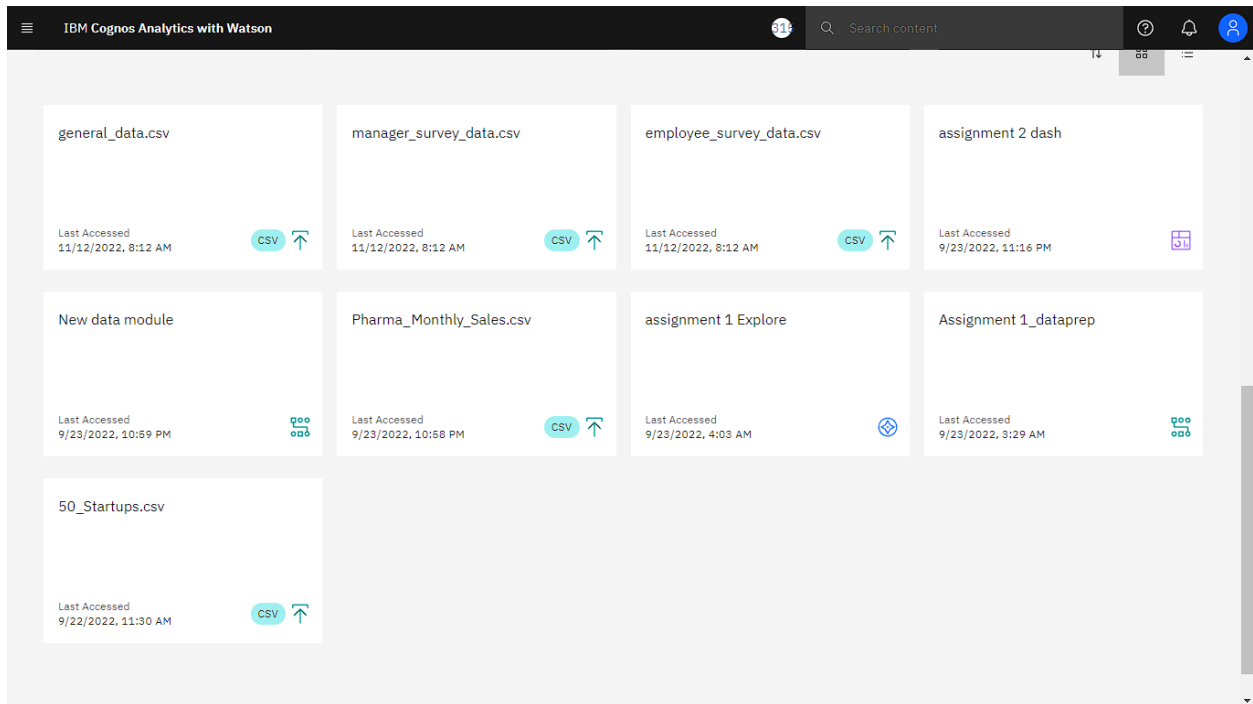
STEP 1: Click on the upload data which is available in quick launch.



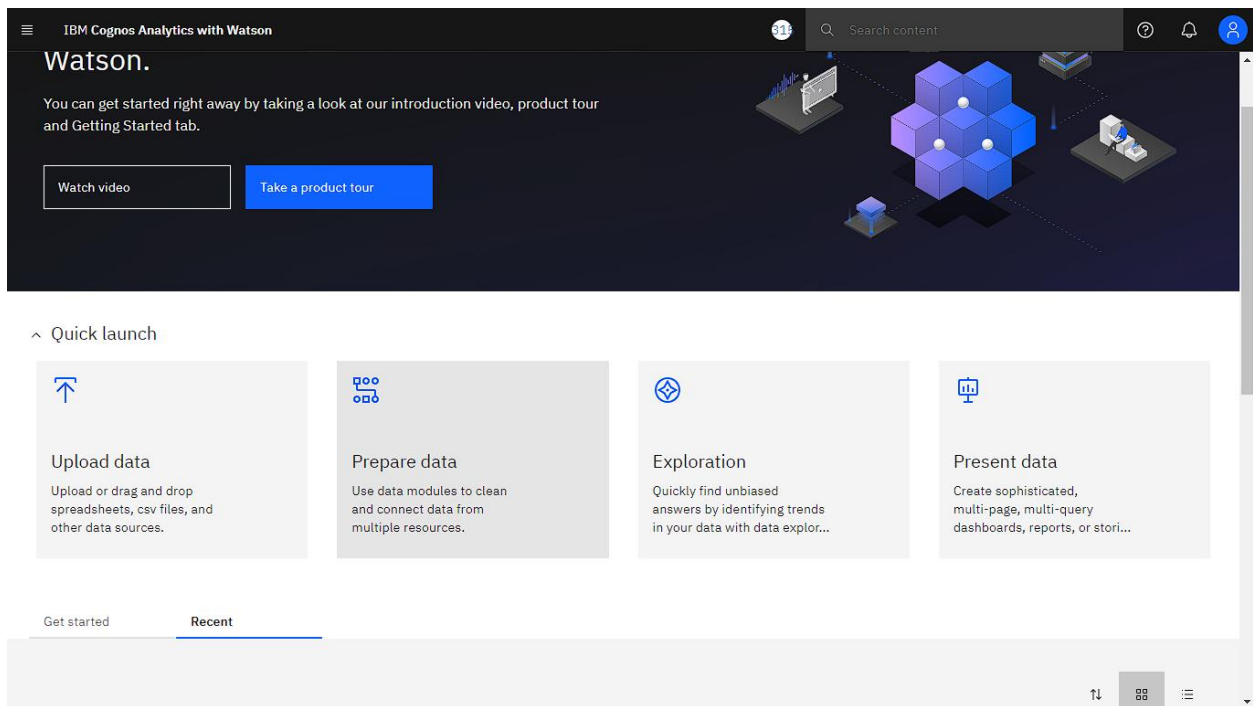
STEP 2: Select the destination of the data and click “open”.



STEP 3: Now we can see the uploaded data in the recents section.



STEP 4: Click on the “Prepare Data” option in the quick launch menu.



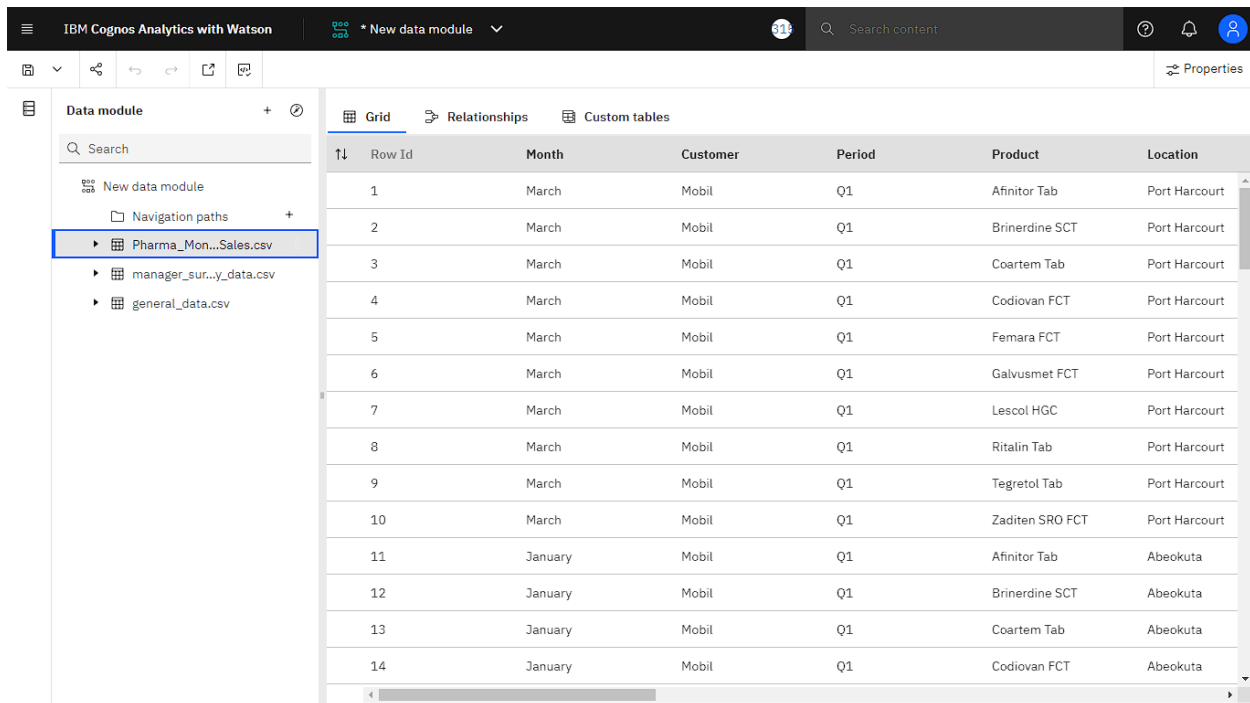
STEP 5: Select the .csv files which we want to prepare.

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 "New data module" dropdown, a search bar, and user profile icons. The left sidebar, titled "Data module", contains a search bar and a list of data modules: "New data module", "Navigation paths", "Pharma_Mon...Sales.csv" (highlighted with a blue box), "manager_sur...y_data.csv", and "general_data.csv". The main area displays a data grid with the following columns: "Row Id", "Month", "Customer", "Period", "Product", and "Location". The grid contains 14 rows of data, with the first 10 rows having a "March" month and the last 4 rows having a "January" month. The "Customer" column consistently shows "Mobil". The "Period" column consistently shows "Q1". The "Product" column lists various pharmaceutical products, and the "Location" column lists "Port Harcourt" for the first 10 rows and "Abeokuta" for the last 4 rows.

Row Id	Month	Customer	Period	Product	Location
1	March	Mobil	Q1	Afinitor Tab	Port Harcourt
2	March	Mobil	Q1	Brinerdine SCT	Port Harcourt
3	March	Mobil	Q1	Coartem Tab	Port Harcourt
4	March	Mobil	Q1	Codiovan FCT	Port Harcourt
5	March	Mobil	Q1	Femara FCT	Port Harcourt
6	March	Mobil	Q1	Galvusmet FCT	Port Harcourt
7	March	Mobil	Q1	Lescol HGC	Port Harcourt
8	March	Mobil	Q1	Ritalin Tab	Port Harcourt
9	March	Mobil	Q1	Tegretol Tab	Port Harcourt
10	March	Mobil	Q1	Zaditen SRO FCT	Port Harcourt
11	January	Mobil	Q1	Afinitor Tab	Abeokuta
12	January	Mobil	Q1	Brinerdine SCT	Abeokuta
13	January	Mobil	Q1	Coartem Tab	Abeokuta
14	January	Mobil	Q1	Codiovan FCT	Abeokuta

PREPARE DATA:

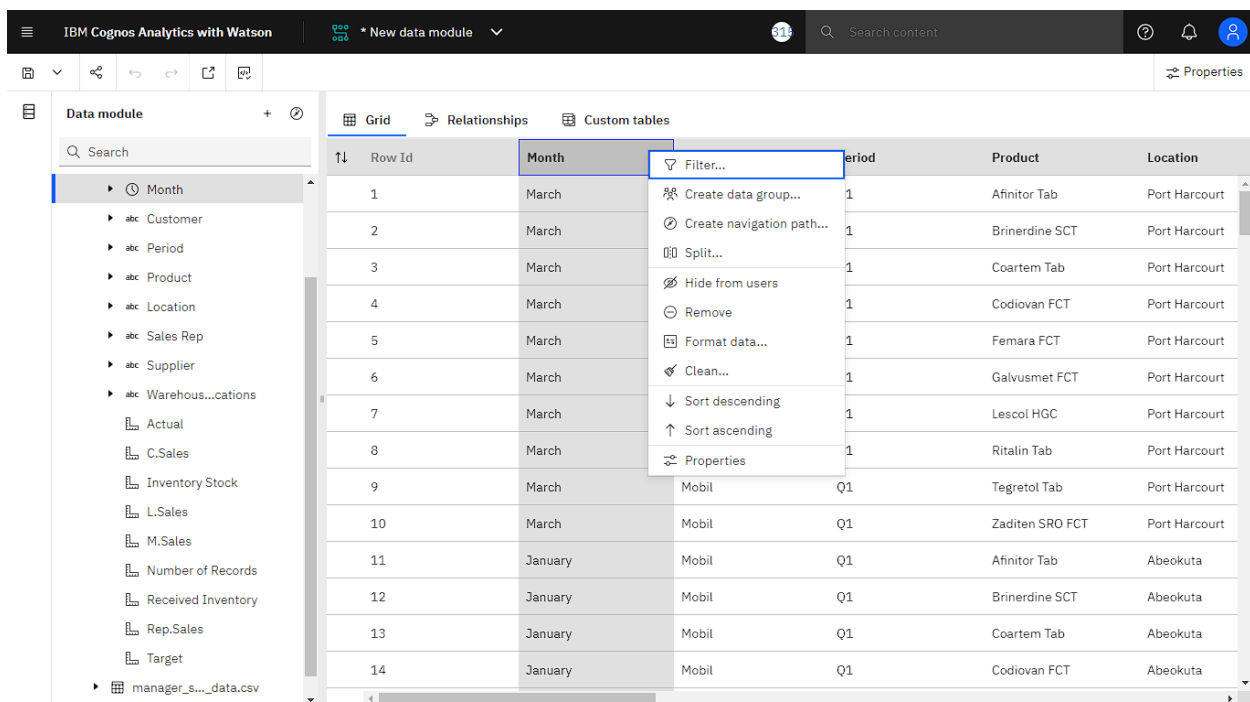
STEP 6: We can see the data tables, here we need to clean the data set using clean option.



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 left sidebar shows a 'Data module' section with a search bar and a list of data modules: 'Pharma_Mon...Sales.csv' (highlighted), 'manager_sur...y_data.csv', and 'general_data.csv'. The main area displays a grid view of the 'Pharma_Mon...Sales.csv' data module. The grid has 14 rows and 7 columns: 'Row Id', 'Month', 'Customer', 'Period', 'Product', and 'Location'. The data is as follows:

Row Id	Month	Customer	Period	Product	Location
1	March	Mobil	Q1	Afinitor Tab	Port Harcourt
2	March	Mobil	Q1	Brinerdine SCT	Port Harcourt
3	March	Mobil	Q1	Coartem Tab	Port Harcourt
4	March	Mobil	Q1	Codiovan FCT	Port Harcourt
5	March	Mobil	Q1	Femara FCT	Port Harcourt
6	March	Mobil	Q1	Galvusmet FCT	Port Harcourt
7	March	Mobil	Q1	Lescol HGC	Port Harcourt
8	March	Mobil	Q1	Ritalin Tab	Port Harcourt
9	March	Mobil	Q1	Tegretol Tab	Port Harcourt
10	March	Mobil	Q1	Zaditen SRO FCT	Port Harcourt
11	January	Mobil	Q1	Afinitor Tab	Abeokuta
12	January	Mobil	Q1	Brinerdine SCT	Abeokuta
13	January	Mobil	Q1	Coartem Tab	Abeokuta
14	January	Mobil	Q1	Codiovan FCT	Abeokuta

STEP 7: Right click on the column name and select “Clean” option.



The screenshot shows the IBM Cognos Analytics with Watson interface. The top navigation bar is the same as in the previous screenshot. The left sidebar shows a 'Data module' section with a search bar and a list of data modules: 'Pharma_Mon...Sales.csv' (highlighted), 'manager_sur...y_data.csv', and 'general_data.csv'. The main area displays a grid view of the 'Pharma_Mon...Sales.csv' data module. The grid has 14 rows and 7 columns: 'Row Id', 'Month', 'Customer', 'Period', 'Product', and 'Location'. The data is the same as in the previous screenshot. A right-click context menu is open over the 'Month' column header, showing options: 'Filter...', 'Create data group...', 'Create navigation path...', 'Split...', 'Hide from users', 'Remove', 'Format data...', 'Clean...' (highlighted), 'Sort descending', 'Sort ascending', and 'Properties'.

STEP 8: Enter the conditions to clean the data for eg:replace the null values with 0.

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists several data sources, including 'PerformanceRating'. The main area displays a table with columns: Row Id, EmployeeID, JobInvolvement, and PerformanceRating. A dialog box titled 'Clean - PerformanceRating' is open, showing options for handling NULL values. The 'Replace NULL values with' option is selected, and the value '0' is entered in the adjacent field. The 'Clean' button is highlighted in blue.

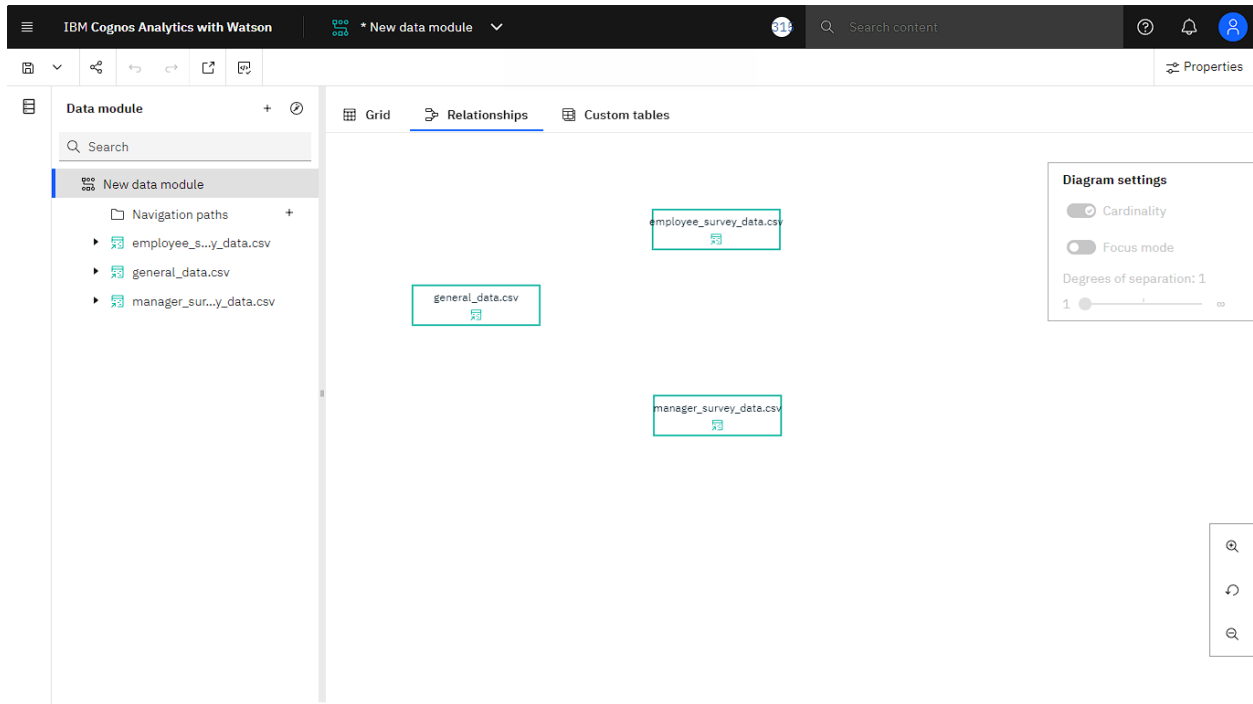
Row Id	EmployeeID	JobInvolvement	PerformanceRating
1	1	3	3
2			
3			
4			
5			
6			
7			
8			
9			
10	10	3	3
11	11	2	3
12	12	3	3
13	13	3	3
14	14	2	3
15	15	2	3

STEP 9: Repeat this step for all Data set files.

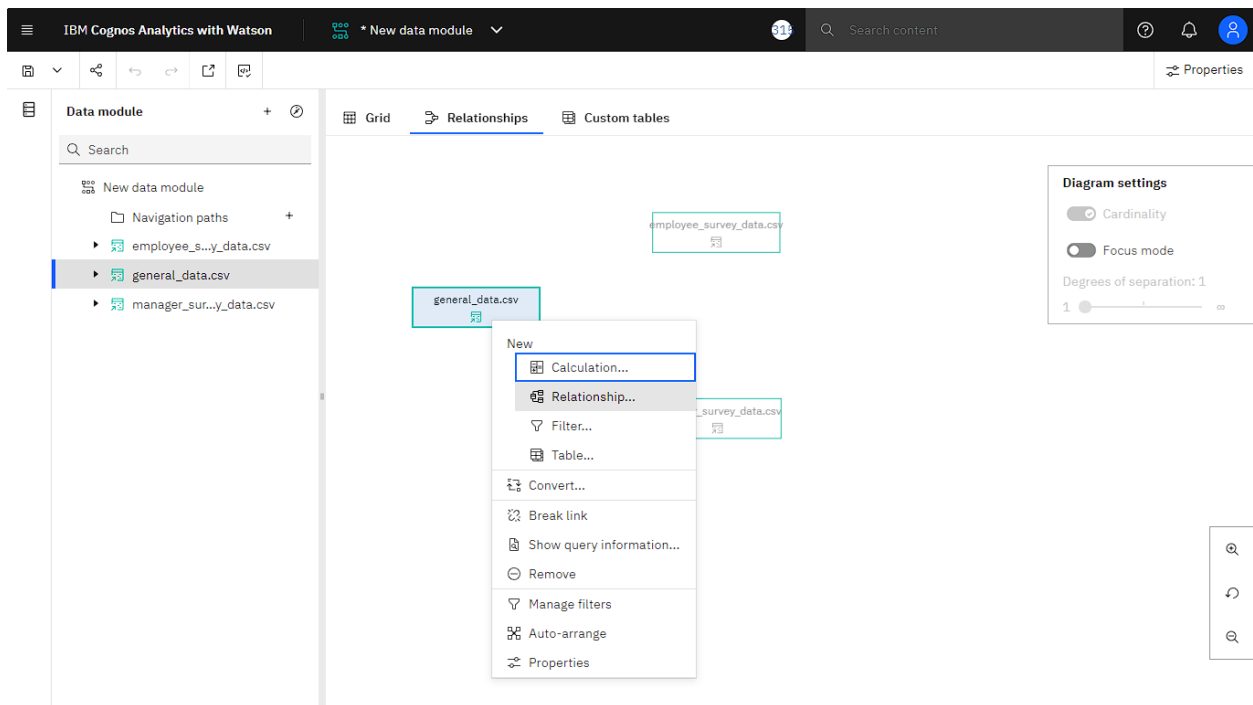
This screenshot is identical to the one above, showing the same IBM Cognos Analytics interface with the 'Clean - PerformanceRating' dialog box open. The dialog box shows the 'Replace NULL values with' option selected and the value '0' entered. The 'Clean' button is highlighted in blue.

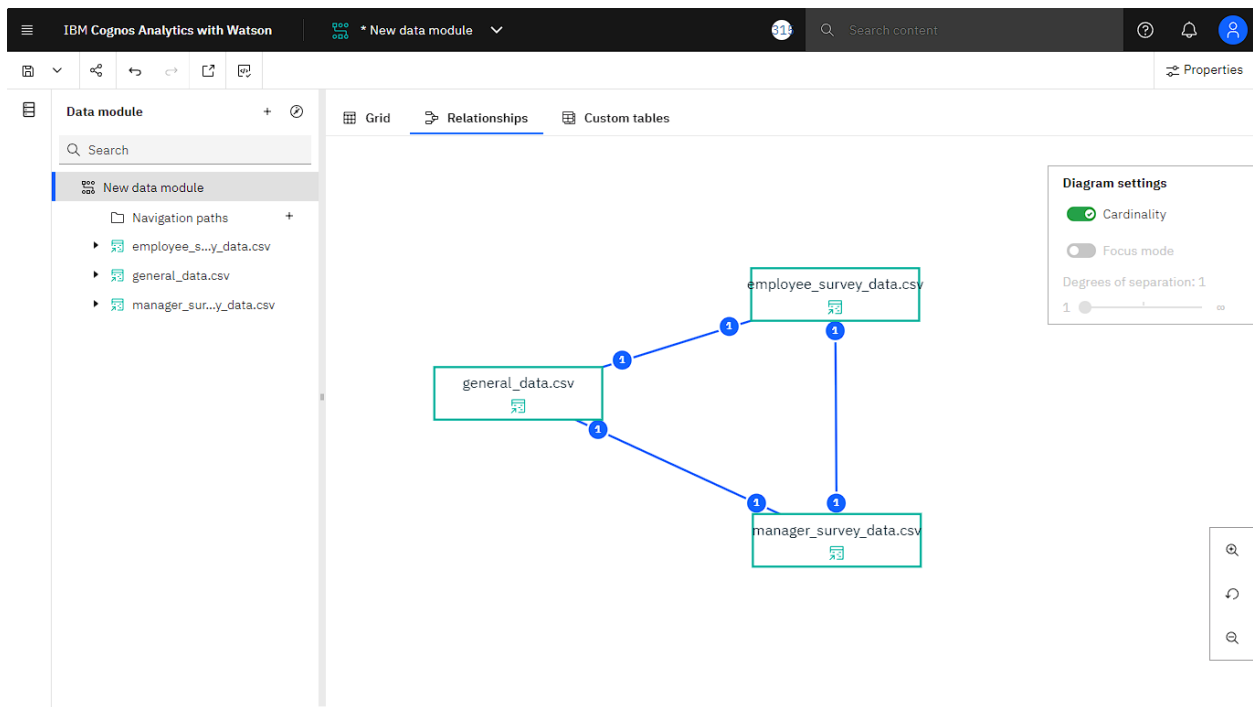
Row Id	EmployeeID	JobInvolvement	PerformanceRating
1	1	3	3
2			
3			
4			
5			
6			
7			
8			
9			
10	10	3	3
11	11	2	3
12	12	3	3
13	13	3	3
14	14	2	3
15	15	2	3

STEP 10: Draw relationships between tables to create connection from relationships tab.



STEP 11: Draw connection as per need.





STEP 12: Now save the Prepared_Dataset

IBM Cognos Analytics with Watson

* New data module

Search content

Properties

Save

Save as...

New data module

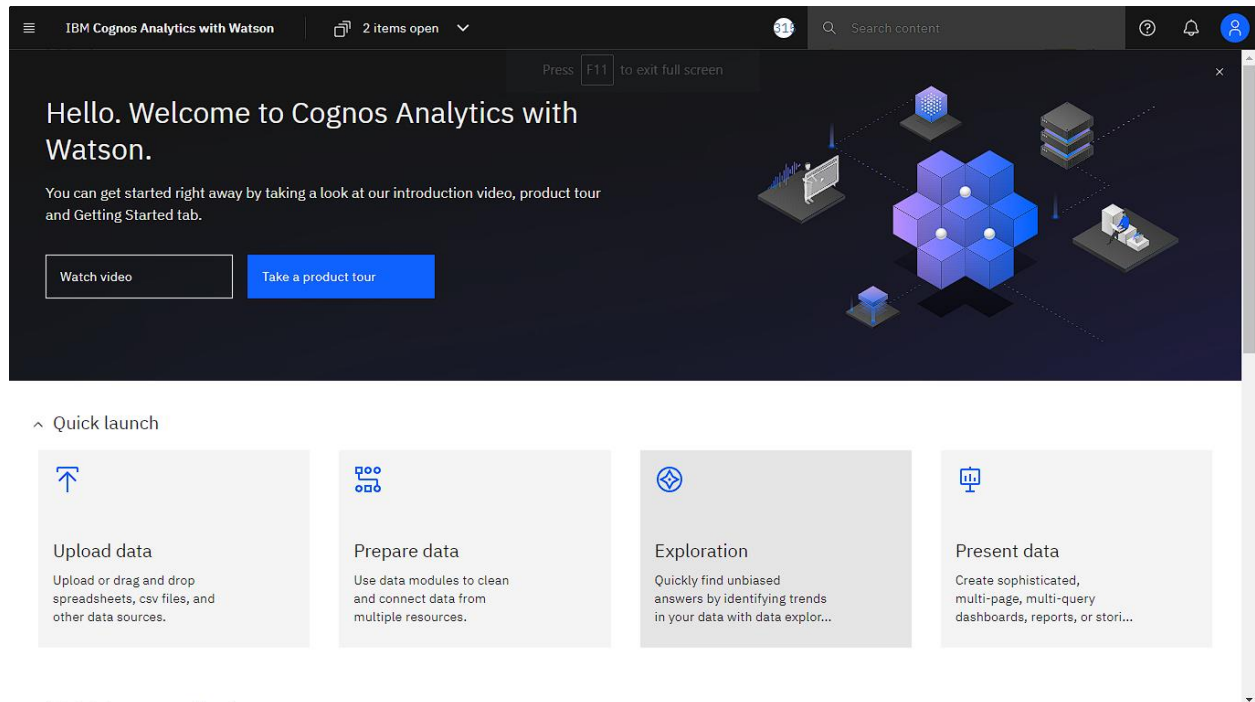
- Navigation paths
- Pharma_Mon...Sales.csv
- manager_survey_data.csv
- general_data.csv

Grid Relationships Custom tables

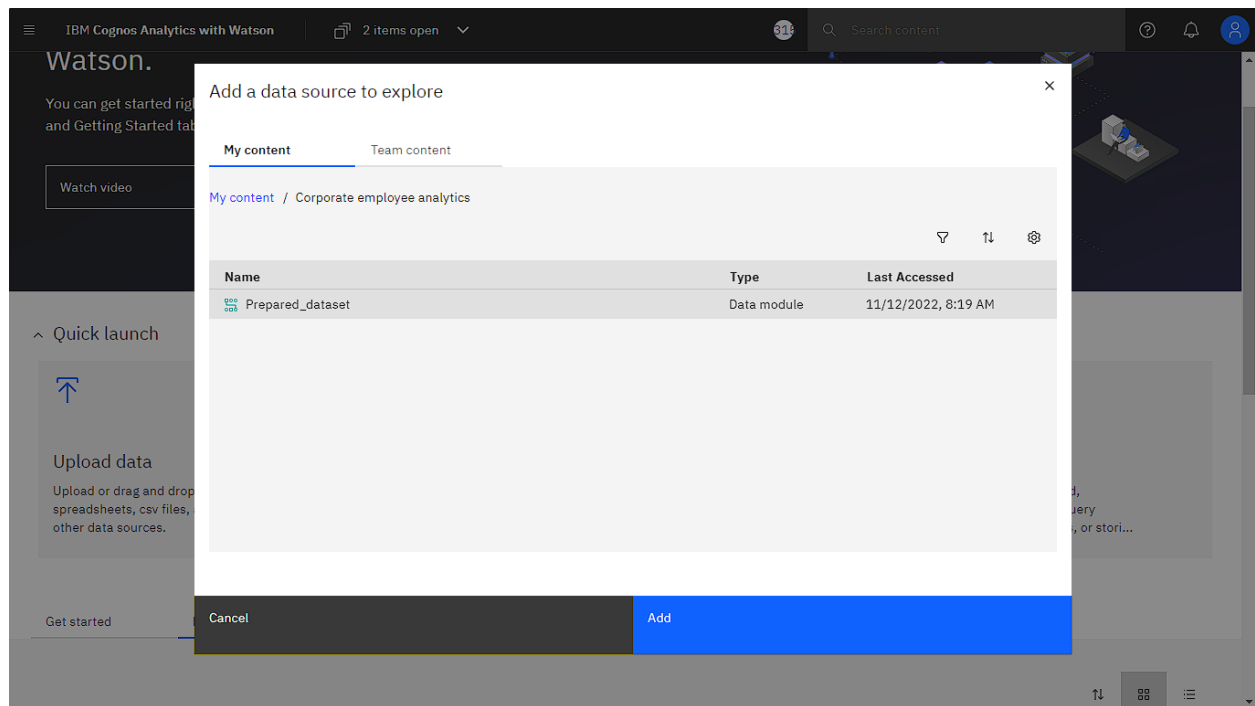
Row Id	Age	Attrition	BusinessTravel	Department	DistanceFromHon
1	51	No	Travel_Rarely	Sales	6
2	31	Yes	Travel_Frequently	Research & Development	10
3	32	No	Travel_Frequently	Research & Development	17
4	38	No	Non-Travel	Research & Development	2
5	32	No	Travel_Rarely	Research & Development	10
6	46	No	Travel_Rarely	Research & Development	8
7	28	Yes	Travel_Rarely	Research & Development	11
8	29	No	Travel_Rarely	Research & Development	18
9	31	No	Travel_Rarely	Research & Development	1
10	25	No	Non-Travel	Research & Development	7
11	45	No	Travel_Rarely	Research & Development	17
12	36	No	Travel_Rarely	Research & Development	28
13	55	No	Travel_Rarely	Research & Development	14
14	47	Yes	Non-Travel	Research & Development	1

DATA EXPLORATION:

STEP 1: Click on Exploration from quick launch menu.

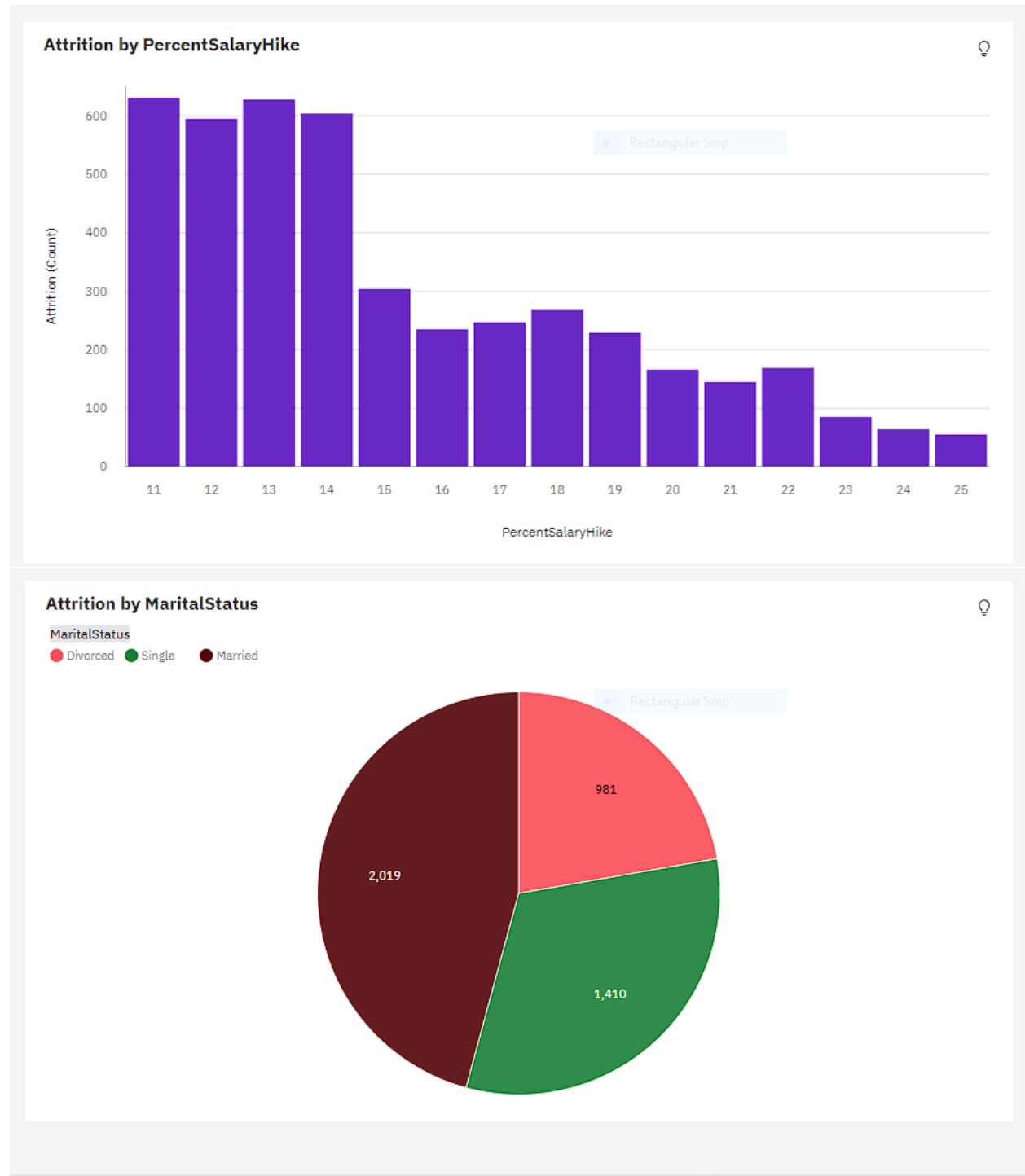


STEP 2: Select the previously saved dataprep file.

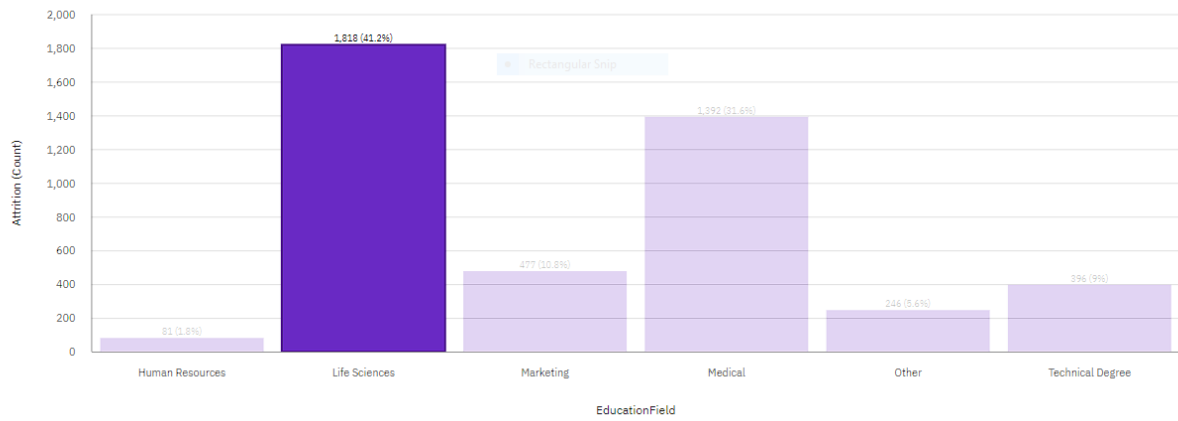


STEP 3: Draw various charts based on your needs

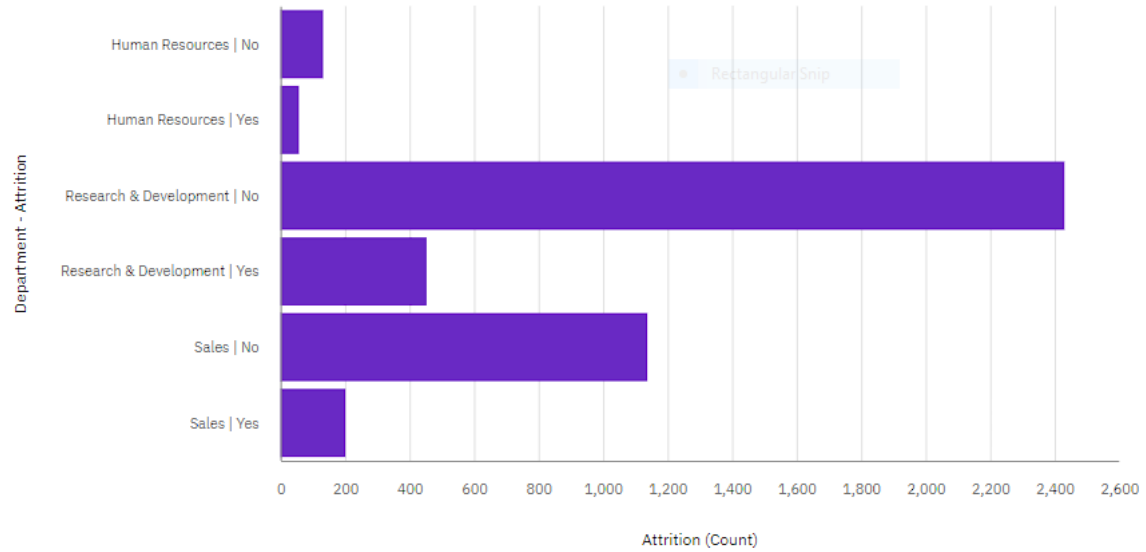
For example:



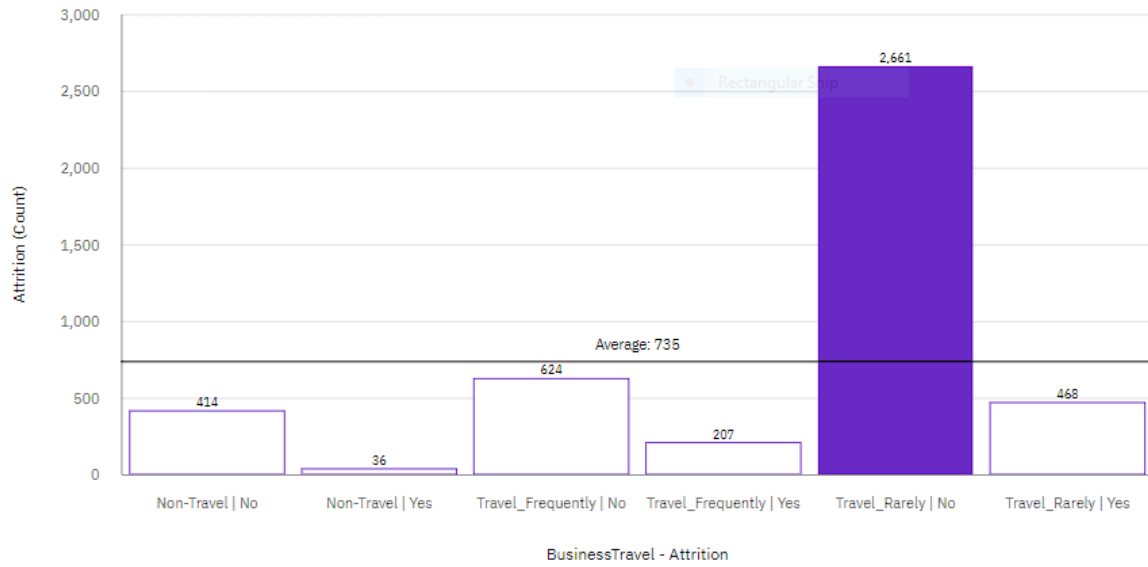
Attrition by EducationField



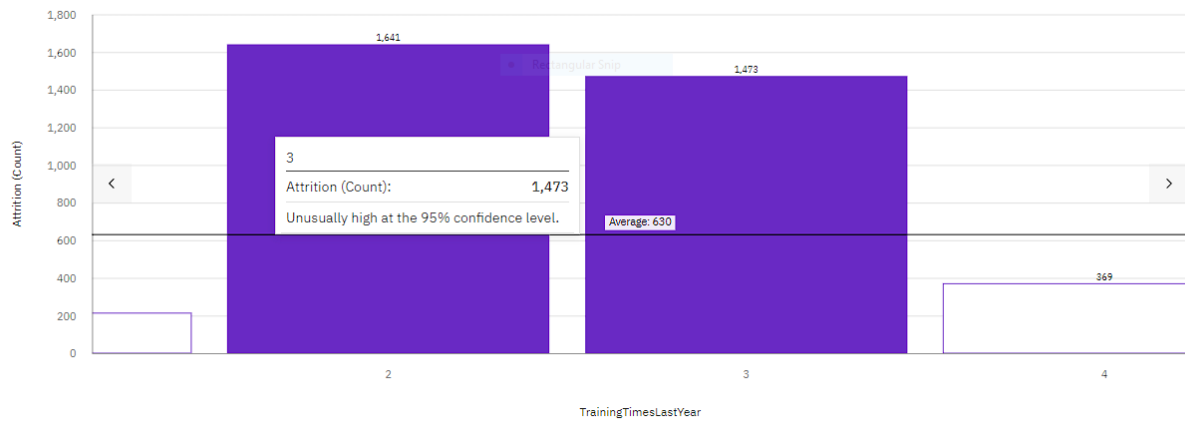
Attrition by Department and Attrition



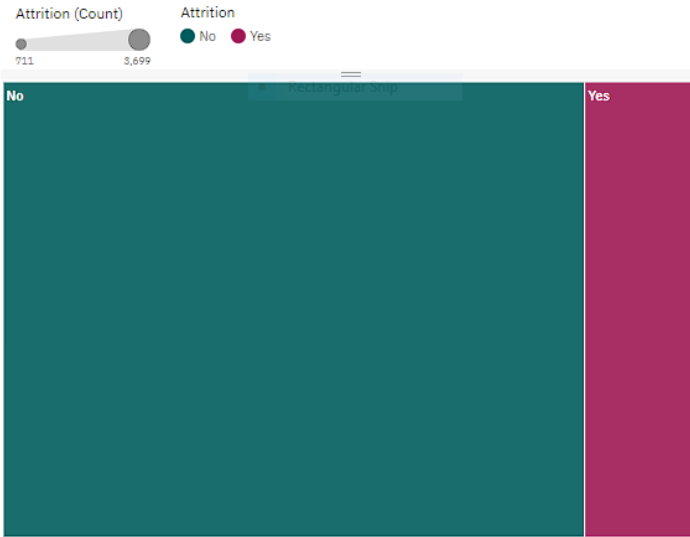
Attrition by BusinessTravel and Attrition



Attrition by TrainingTimesLastYear



Attrition for Attrition hierarchy



Details

The total number of results for **Attrition**, across all **Attrition**, is almost 4500.

The most common value of **Attrition** is No, occurring over 3500 times, which is 83.9 % of the total.

Attrition by MonthlyIncome (Group)

