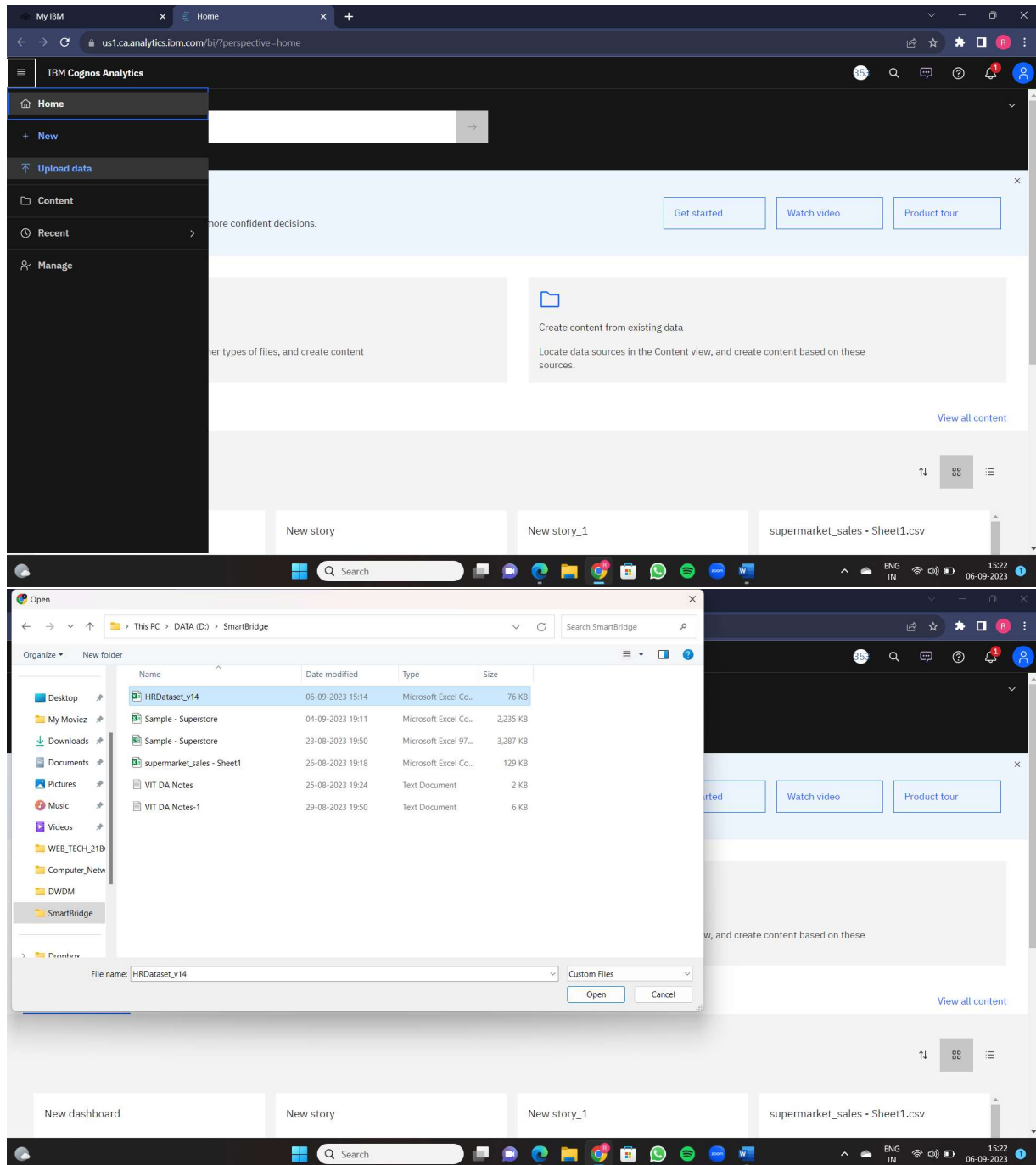


# VITAP ASSIGNMENT-2

## IBM COGNOS ANALYTICS

uploading data set HR Data set to Cognos analytics:



## Creating Data Module for the data set HR Dataset.

The screenshot displays the IBM Cognos Analytics interface. The top section shows the 'Select sources' dialog box, which lists various data sources. The 'HRDataset\_v14.csv' file is selected. The bottom section shows the 'HR Dataset\_Data module' view, which displays a table of employee data.

**Select sources dialog:**

- Search: Type any text to filter items in this folder
- Filter by: Type (Folders, Packages, Files, Data sets, Modules), Modified (All, Today, Yesterday, Past week, Past month)
- Selected source: HRDataset\_v14.csv (9/6/2023, 4:54 AM)

**HR Dataset\_Data module view:**

Row Id	Employee_Name	EmpID	MarriedID	MaritalStatusID	GenderID	EmpStatusID
1	Adinolfi, Wilson K	10026	0	0	1	1
2	Ait Sidi, Karthikeyan	10084	1	1	1	5
3	Akinkuolie, Sarah	10196	1	1	0	5
4	Alagbe, Trina	10088	1	1	0	1
5	Anderson, Carol	10069	0	2	0	5
6	Anderson, Linda	10002	0	0	0	1
7	Andreola, Colby	10194	0	0	0	1
8	Athwal, Sam	10062	0	4	1	1
9	Bachiochi, Linda	10114	0	0	0	3
10	Bacong, Alejandro	10250	0	2	1	1
11	Baczinski, Rachael	10252	1	1	0	5
12	Barbara, Thomas	10242	1	1	1	5
13	Barbossa, Hector	10012	0	2	1	1

Preparing the data, Explorations and Creating Interactive Dashboard, Report and Story.

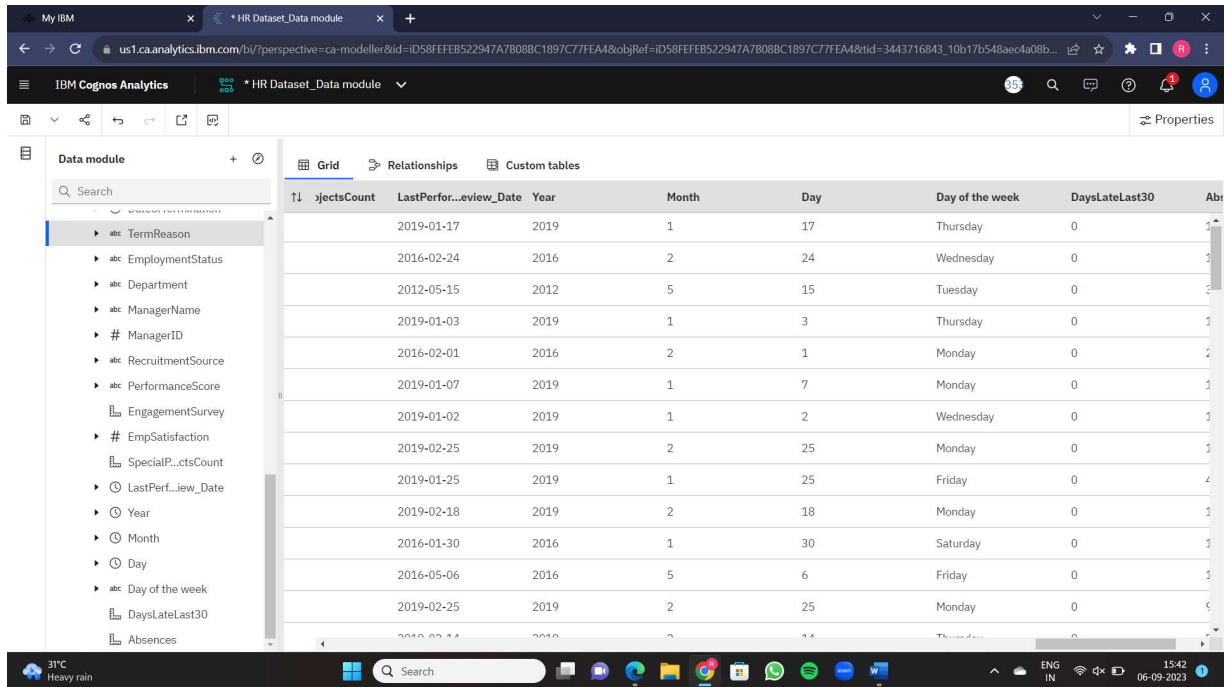
## Cleaning (Replacing Null Values) for column DateofTermination:

The screenshot displays the IBM Cognos Analytics interface. The top panel shows the 'Data module' with a list of columns. The 'DateofTermination' column is selected. A 'Clean - DateofTermination' dialog box is open, showing the 'NULL values' section. The 'Replace NULL values with' checkbox is checked, and the date '2016-07-08' is entered. The 'Clean' button is highlighted in blue.

The bottom panel shows the 'Grid' view of the data. The 'DateofTermination' column is highlighted in blue. The data table is as follows:

HispanicLatino	RaceDesc	DateofHire	DateofTermination	TermReason	EmploymentStatus	Department	ManagerName
No	White	2011-07-05	2016-07-08	N/A-StillEmployed	Active	Production	Michael Alt
No	White	2015-03-30	2016-06-16	career change	Voluntarily Terminated	IT/IS	Simon Rou
No	White	2011-07-05	2012-09-24	hours	Voluntarily Terminated	Production	Kissy Sulliv
No	White	2008-01-07	2016-07-08	N/A-StillEmployed	Active	Production	Elijah Gray
No	White	2011-07-11	2016-09-06	return to school	Voluntarily Terminated	Production	Webster Bu
No	White	2012-01-09	2016-07-08	N/A-StillEmployed	Active	Production	Amy Dunn
No	White	2014-11-10	2016-07-08	N/A-StillEmployed	Active	Software Engineering	Alex Sweet
No	White	2013-09-30	2016-07-08	N/A-StillEmployed	Active	Production	Ketsia Liebi
No	Black or African American	2009-07-06	2016-07-08	N/A-StillEmployed	Active	Production	Brannon Mi
No	White	2015-01-05	2016-07-08	N/A-StillEmployed	Active	IT/IS	Peter Monn
No	Black or African American	2011-01-10	2017-01-12	Another position	Voluntarily Terminated	Production	David Stanl
No	Black or African American	2012-04-02	2016-09-19	unhappy	Voluntarily Terminated	Production	Kissy Sulliv
No	Black or African American	2014-11-10	2016-07-08	N/A-StillEmployed	Active	IT/IS	Simon Rou

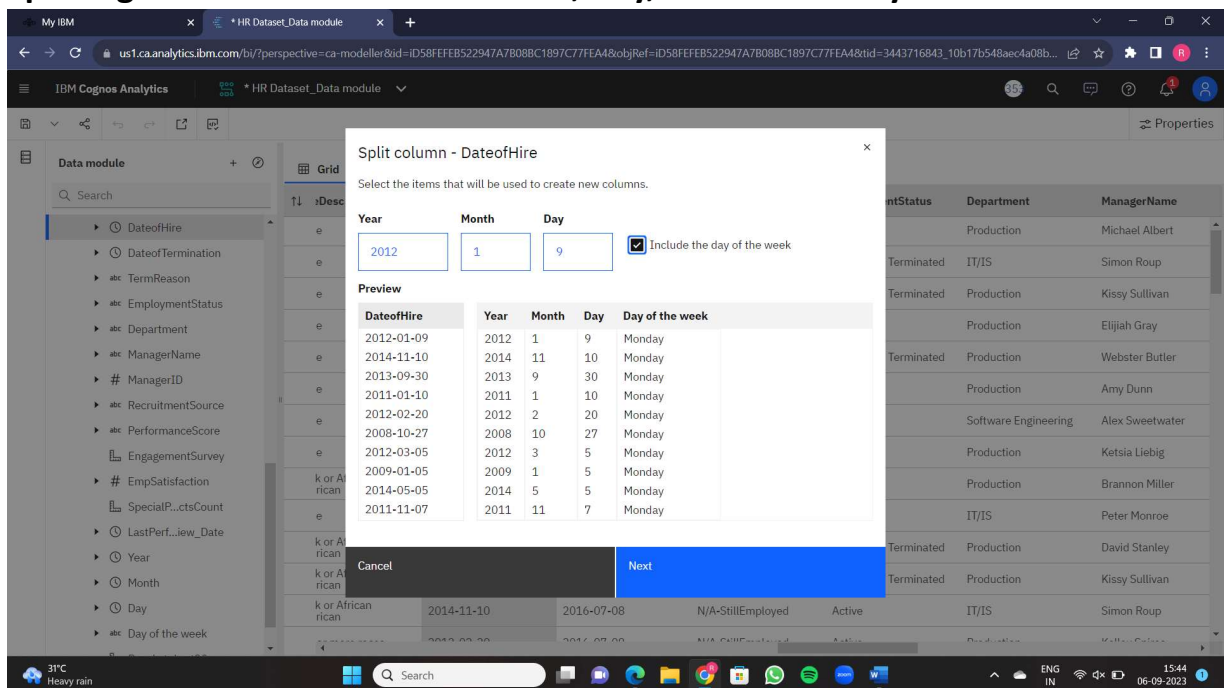
## Splitting LastPerformanceReview\_Date column into Year, Day, Month and Day of the week:



The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists various fields. The main grid displays a table with columns: 'SubjectsCount', 'LastPerformanceReview\_Date', 'Year', 'Month', 'Day', 'Day of the week', and 'DaysLateLast30'. The 'LastPerformanceReview\_Date' column is highlighted in the 'Split column' dialog box.

SubjectsCount	LastPerformanceReview_Date	Year	Month	Day	Day of the week	DaysLateLast30
1	2019-01-17	2019	1	17	Thursday	0
1	2016-02-24	2016	2	24	Wednesday	0
1	2012-05-15	2012	5	15	Tuesday	0
1	2019-01-03	2019	1	3	Thursday	0
1	2016-02-01	2016	2	1	Monday	0
1	2019-01-07	2019	1	7	Monday	0
1	2019-01-02	2019	1	2	Wednesday	0
1	2019-02-25	2019	2	25	Monday	0
1	2019-01-25	2019	1	25	Friday	0
1	2019-02-18	2019	2	18	Monday	0
1	2016-01-30	2016	1	30	Saturday	0
1	2016-05-06	2016	5	6	Friday	0
1	2019-02-25	2019	2	25	Monday	0

## Splitting DateofHire column into Year, Day, Month and Day of the week:



The screenshot shows the IBM Cognos Analytics interface. A 'Split column - DateofHire' dialog box is open, allowing the user to select the items to be used to create new columns. The 'DateofHire' column is selected. The dialog shows the 'Year' (2012), 'Month' (1), and 'Day' (9) fields, and the 'Include the day of the week' checkbox is checked. A preview table is also displayed.

DateofHire	Year	Month	Day	Day of the week
2012-01-09	2012	1	9	Monday
2014-11-10	2014	11	10	Monday
2013-09-30	2013	9	30	Monday
2011-01-10	2011	1	10	Monday
2012-02-20	2012	2	20	Monday
2008-10-27	2008	10	27	Monday
2012-03-05	2012	3	5	Monday
2009-01-05	2009	1	5	Monday
2014-05-05	2014	5	5	Monday
2011-11-07	2011	11	7	Monday

IBM Cognos Analytics - HR Dataset\_Data module

Grid Relationships Custom tables

Search

- DateofHire
- Year
- Month
- Day
- Day of the week
- DateofTermination
- TermReason
- EmploymentStatus
- Department
- ManagerName
- ManagerID
- RecruitmentSource
- PerformanceScore
- EngagementSurvey
- EmpSatisfaction
- SpecialP...ctsCount
- LastPerf...iew\_Date

	DateofHire	Year	Month	Day	Day of the week	DateofTermination	Term
	2011-07-05	2011	7	5	Tuesday	2016-07-08	N...
	2015-03-30	2015	3	30	Monday	2016-06-16	ce
	2011-07-05	2011	7	5	Tuesday	2012-09-24	hc
	2008-01-07	2008	1	7	Monday	2016-07-08	N...
	2011-07-11	2011	7	11	Monday	2016-09-06	re
	2012-01-09	2012	1	9	Monday	2016-07-08	N...
	2014-11-10	2014	11	10	Monday	2016-07-08	N...
	2013-09-30	2013	9	30	Monday	2016-07-08	N...
ican	2009-07-06	2009	7	6	Monday	2016-07-08	N...
	2015-01-05	2015	1	5	Monday	2016-07-08	N...
ican	2011-01-10	2011	1	10	Monday	2017-01-12	Ar
ican	2012-04-02	2012	4	2	Monday	2016-09-19	ur
ican	2014-11-10	2014	11	10	Monday	2016-07-08	N...

## Splitting DateofTermination column into Year, Day, Month and Day of the week:

Split column - DateofTermination

Select the items that will be used to create new columns.

Year: 2016 Month: 7 Day: 8 ☒ Include the day of the week

Preview

DateofTermination	Year	Month	Day	Day of the week
2016-07-08	2016	7	8	Friday
2016-02-19	2016	2	19	Friday
2014-08-02	2014	8	2	Saturday
2013-01-07	2013	1	7	Monday
2016-09-23	2016	9	23	Friday
2015-11-04	2015	11	4	Wednesday
2017-06-06	2017	6	6	Tuesday
2015-12-15	2015	12	15	Tuesday
2012-04-07	2012	4	7	Saturday
2016-04-01	2016	4	1	Friday

Cancel Next

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists various fields including DateofTermination, Year, Month, Day, Day of the week, TermReason, EmploymentStatus, Department, ManagerName, ManagerID, RecruitmentSource, PerformanceScore, EngagementSurvey, EmpSatisfaction, SpecialP...ctsCount, LastPerf...iew\_Date, and Year. The main grid displays a table with the following data:

ek	DateofTermination	Year	Month	Day	Day of the week	TermReason	Employee
	2016-07-08	2016	7	8	Friday	N/A-StillEmployed	Acti
	2016-06-16	2016	6	16	Thursday	career change	Volu
	2012-09-24	2012	9	24	Monday	hours	Volu
	2016-07-08	2016	7	8	Friday	N/A-StillEmployed	Acti
	2016-09-06	2016	9	6	Tuesday	return to school	Volu
	2016-07-08	2016	7	8	Friday	N/A-StillEmployed	Acti
	2016-07-08	2016	7	8	Friday	N/A-StillEmployed	Acti
	2016-07-08	2016	7	8	Friday	N/A-StillEmployed	Acti
	2016-07-08	2016	7	8	Friday	N/A-StillEmployed	Acti
	2017-01-12	2017	1	12	Thursday	Another position	Volu
	2016-09-19	2016	9	19	Monday	unhappy	Volu
	2016-07-08	2016	7	8	Friday	N/A-StillEmployed	Acti

## Splitting DOB column into Year, Day, Month and Day of the week:

The screenshot shows the 'Split column - DOB' dialog box in IBM Cognos Analytics. The dialog allows reviewing and editing new columns created from the DOB field. The table below shows the results of splitting the DOB column:

DOB	Year	Month	Day	Day of the week
1988-01-07	1988	1	7	Thursday
1974-01-12	1974	1	12	Saturday
1977-07-15	1977	7	15	Friday
1979-04-06	1979	4	6	Friday
1989-09-01	1989	9	1	Friday
1972-02-09	1972	2	9	Wednesday
1983-08-27	1983	8	27	Saturday
1988-05-31	1988	5	31	Tuesday
1985-09-05	1985	9	5	Thursday
1980-08-26	1980	8	26	Tuesday
1977-09-08	1977	9	8	Thursday
1979-08-12	1979	8	12	Sunday
1988-04-15	1988	4	15	Friday
1979-07-05	1979	7	5	Thursday



**Data module**

- DOB
- Year
- Month
- Day
- Day of the week
- Sex
- MaritalDesc
- CitizenDesc
- HispanicLatino
- RaceDesc
- DateofHire
- Year
- Month
- Day
- Day of the week
- DateofTermination
- Year

DOB	Year	Month	Day	Day of the week	Sex	MaritalDesc
1983-07-10	1983	7	10	Sunday	M	Sing
1975-05-05	1975	5	5	Monday	M	Mar
1988-09-19	1988	9	19	Monday	F	Mar
1988-09-27	1988	9	27	Tuesday	F	Mar
1989-09-08	1989	9	8	Friday	F	Divc
1977-05-22	1977	5	22	Sunday	F	Sing
1979-05-24	1979	5	24	Thursday	F	Sing
1983-02-18	1983	2	18	Friday	M	Wid
1970-02-11	1970	2	11	Wednesday	F	Sing
1988-01-07	1988	1	7	Thursday	M	Divc
1974-01-12	1974	1	12	Saturday	F	Mar
1974-02-21	1974	2	21	Thursday	M	Mar
1988-07-04	1988	7	4	Monday	M	Divc

Creating Dashboard for the data module HR Data\_set:

Click on Dashboard option:

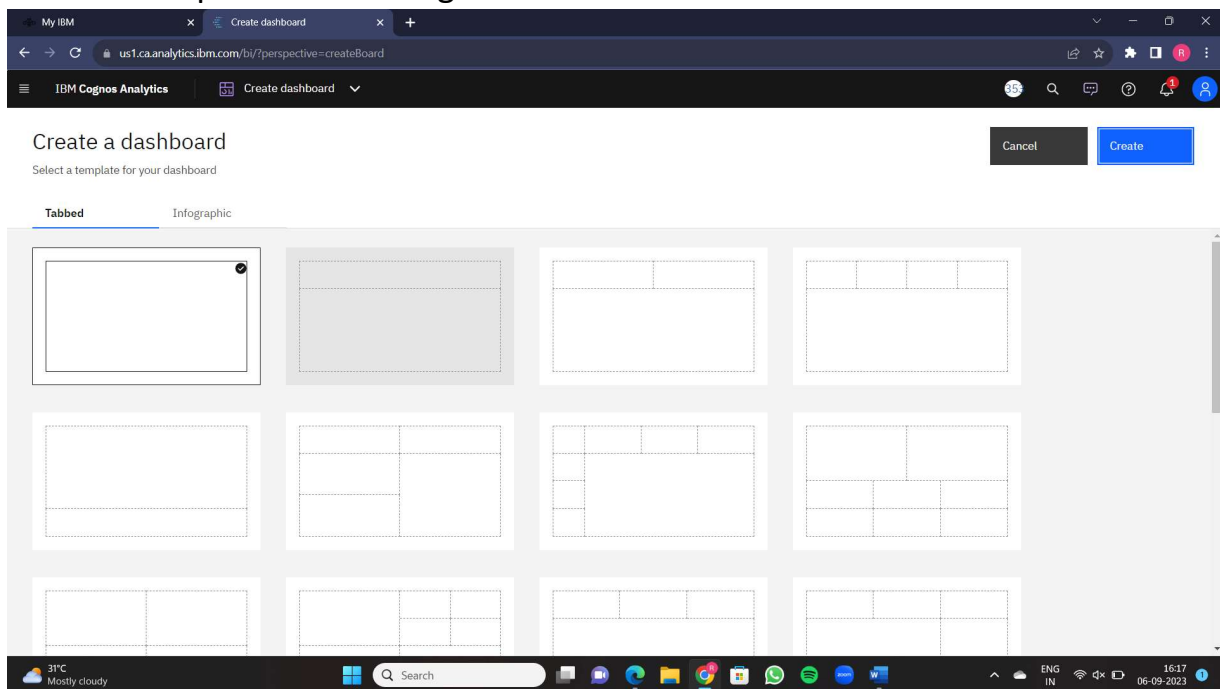
**New**

- Data
- Explore
- Exploration
- Present
- Dashboard
- Report
- Story

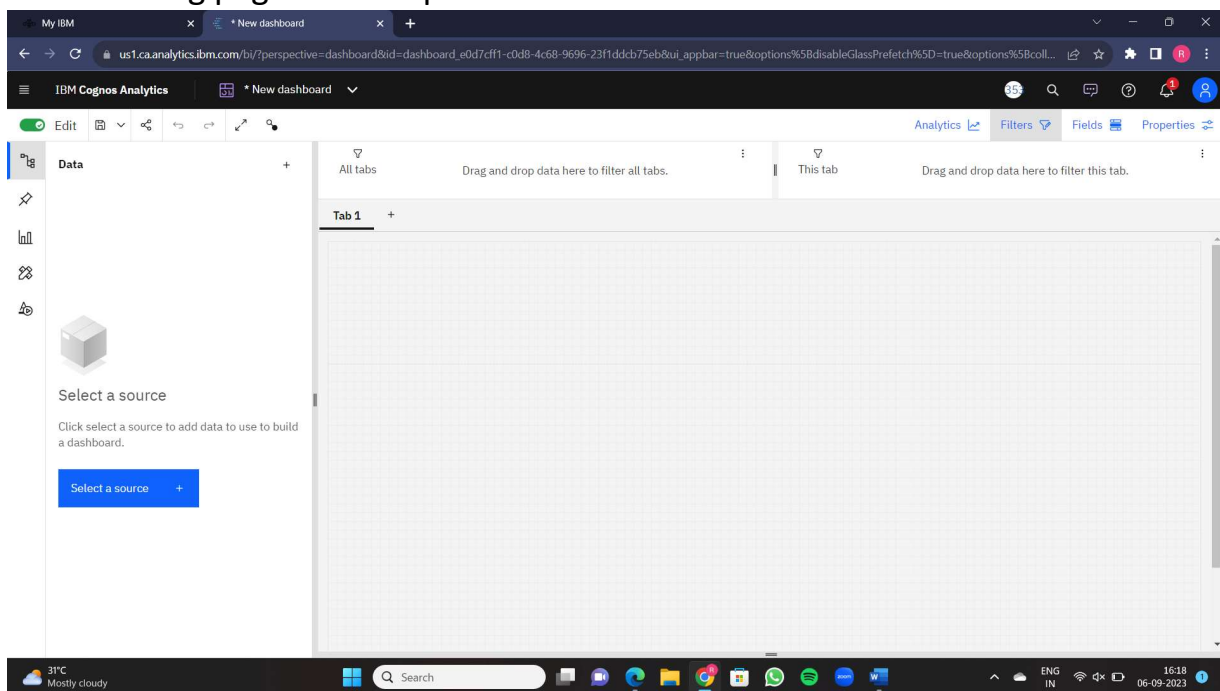
**Dashboard Tiles:**

- New dashboard (Last Accessed: 9/1/2023, 8:12 AM)
- New story (Last Accessed: 8/30/2023, 8:29 AM)
- Supermarket\_Explorations (Last Accessed: 8/29/2023, 1:26 AM)
- SuperMarket\_Data module (Last Accessed: 8/29/2023, 1:12 AM)
- Sample - Superstore.xls

## Select a Template for creating Dashboard:



After selecting a template click on Create, which is on the right upper side and the following page will be opened:



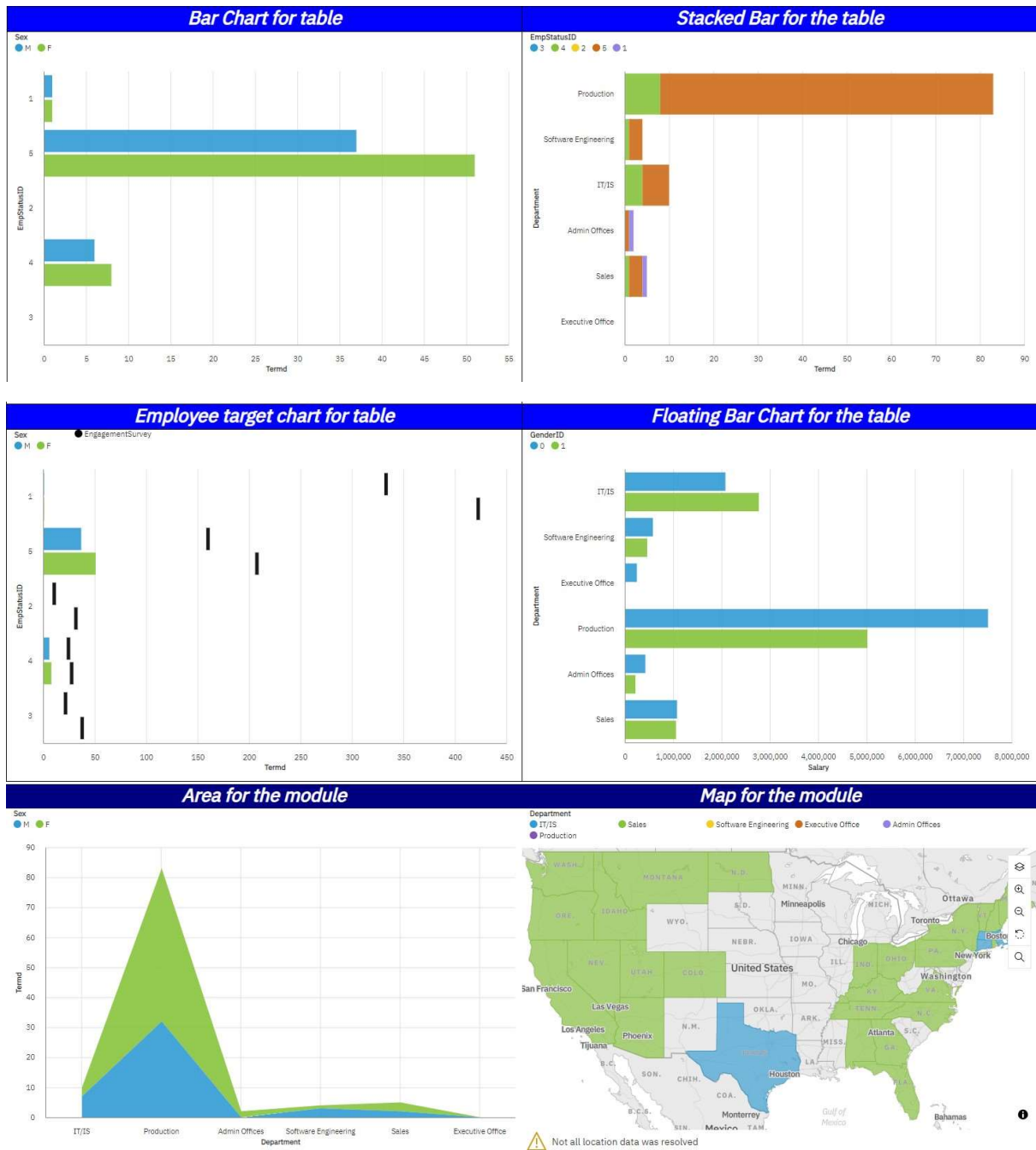


Click on **Select a source** option, from there we have to select our HR dataset\_datamodule and create the Dashboard:

## Dashboards Created form the HR Dataset:





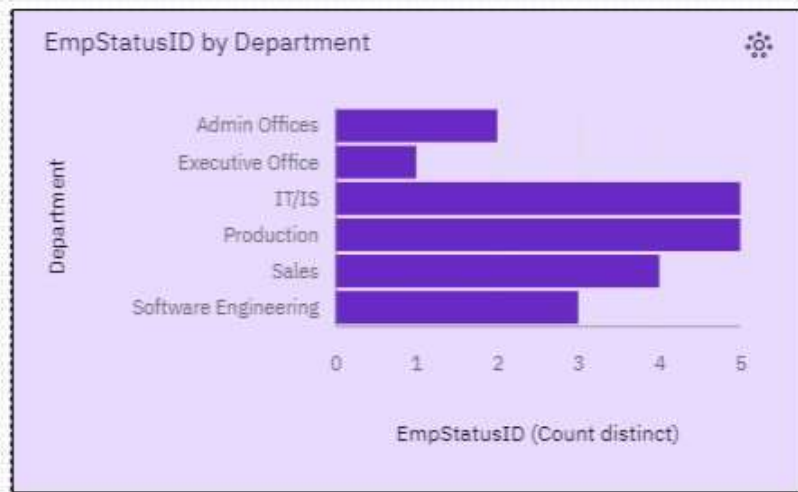


## Stories Created form the HR Dataset:



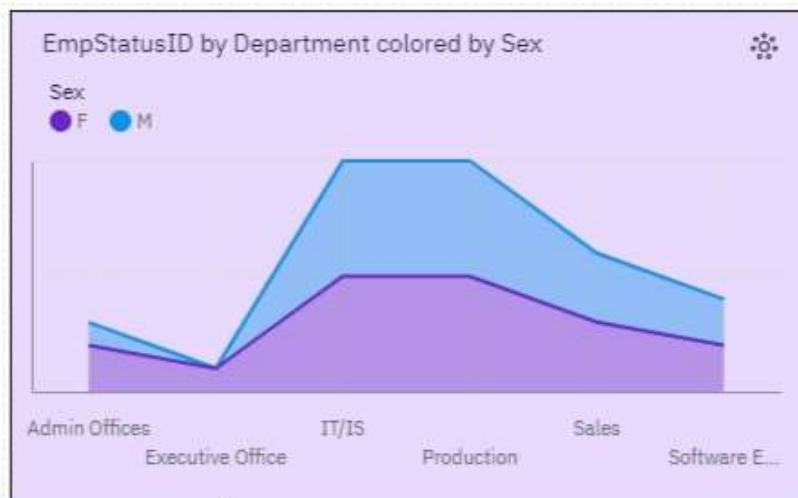
## Bar chart for the module

- Department and EmpId



## Area Plot for the module

- Department
- Gender
- Emp Status



## Column Chart for the module

- Department
- Emp ID
- Manager ID

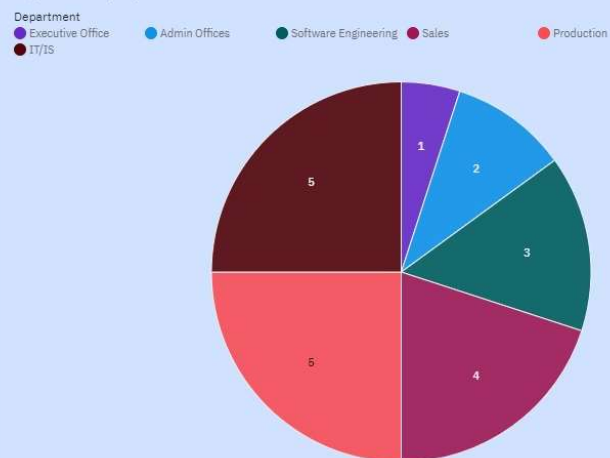
Department by ManagerID colored by Sex



## Pie Chart for the Module

- Department
- Emp Id
- Manager

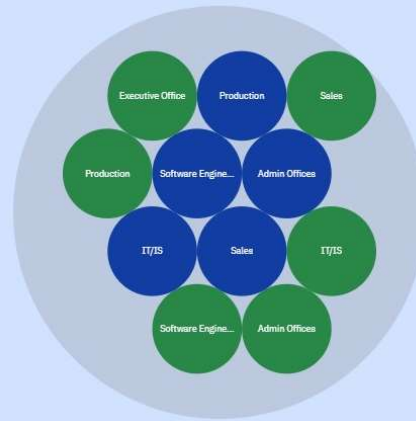
EmpStatusID by Department



# Hierarchy Bubble for the data model

- Department
- Gender
- State

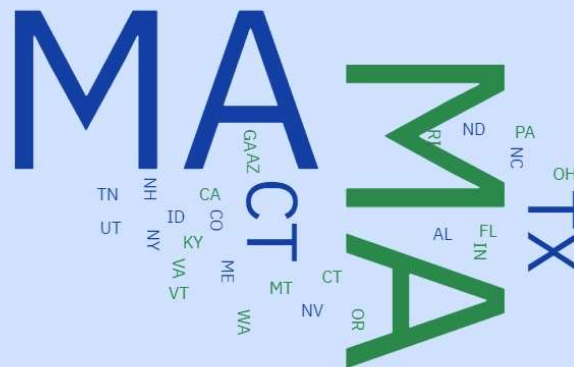
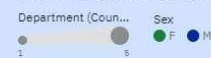
Department hierarchy colored by Sex and sized by GenderID



# Word Cloud for the Module

- Department
- States
- Sex
- Salary

State colored by Sex sized by Department



THANK YOU

Rajesh Balasingi

21BCE9602

