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# ASSIGNMENT-2

## DATA ANALYTICS WITH IBM COGNOS

**Upload the dataset to Cognos Analytics:**

The screenshot shows the IBM Cognos Analytics interface. At the top, there's a navigation bar with 'IBM Cognos Analytics' and a search bar indicating '6 items open'. Below the navigation bar, the 'Home' tab is selected. A prominent feature is a large 'Upload data' button with the text 'Upload data with the Assistant'. To the right of this button are three blue speech bubble icons with ellipses. Below the main area, there are two sections: one for creating content from existing data and another for viewing all content.

Get started   Watch video   Product tour

Create content from existing data

Locate data sources in the Content view, and create content based on these sources.

View all content

The screenshot shows the 'Data module' section of the IBM Cognos Analytics interface. On the left, there's a sidebar with a tree view of 'Navigation paths' and a specific item 'HRDataset\_v14.csv' which is highlighted with a blue selection bar. The main area displays a 'Grid' of data with columns: Row Id, Employee\_Name, EmpID, MarriedID, MaritalStatusID, GenderID, and Em. The grid contains 200 rows of employee data. At the bottom of the grid, there are several small icons representing different data types like salary, term, position, state, and zip.

Row Id	Employee_Name	EmpID	MarriedID	MaritalStatusID	GenderID	Em
100	James, Elizabeth	10120	0	0	0	0
187	Medeiros, Jennifer	10068	0	0	0	1
188	Miller, Brannon	10116	0	0	1	1
189	Miller, Ned	10298	0	0	1	5
190	Monkfish, Erasmus	10213	1	1	1	1
191	Monroe, Peter	10288	1	1	1	1
192	Monterro, Luisa	10025	0	0	0	1
193	Moran, Patrick	10223	0	0	1	3
194	Morway, Tanya	10151	1	1	0	1
195	Motlagh, Dawn	10254	0	2	0	1
196	Moumanil, Maliki	10120	0	3	1	1
197	Myers, Michael	10216	0	0	1	1
198	Navathe, Kurt	10079	0	0	1	1
199	Ndzi, Colombui	10215	0	0	1	5
200	Ndzi, Horia	10185	1	1	1	5

## prepare the data:

IBM Cognos Analytics

2nd assign

Data module

Search

- abc MaritalDesc
- abc CitizenDesc
- abc HispanicLatino
- abc RaceDesc
- DateofHire
- DateofTermination
- TermReason
- EmploymentStatus
- Department
- ManagerName
- # ManagerID
- RecruitmentSource
- PerformanceScore
- EngagementSurvey
- # EmpSatisfaction
- SpecialProjectsCount
- LastPerfor...view\_Date
- DaysLateLast30
- Absences

DateofHire	DateofTermination	EmploymentStatus	Department	ManagerName
2012-04-02	2010-11-11	Partially terminated	Production	Kelley Spirea
2015-03-30	Null	Partially terminated	Production	Michael Albert
2012-08-16	Null	Partially terminated	Production	Janet King
2011-08-15	2014-09-04	Partially terminated	Production	Brannon Miller
2011-11-07	Null	Partially terminated	Production	David Stanley
2012-02-15	Null	Partially terminated	IT/IS	Jennifer Zamora
2013-05-13	Null	Partially terminated	Production	Kissy Sullivan
2012-01-09	Null	Partially terminated	Production	Kelley Spirea
2015-02-16	Null	N/A-Still Employed	Active	IT/IS
2013-04-01	Null	N/A-Still Employed	Active	Production
2013-05-13	Null	N/A-Still Employed	Active	Production
2013-07-08	Null	N/A-Still Employed	Active	Production
2017-02-10	Null	N/A-Still Employed	Active	IT/IS
2011-09-26	2014-04-04	return to school	Voluntarily Terminated	Production
2013-04-01	2016-05-25	more money	Voluntarily Terminated	Production

## Dashboard:

Edit

Selected sources / 2nd assign

Analytics

Filters

Fields

Properties

Selected sources / 2nd assign

Search

- Position
- State
- Zip
- DOB
- Sex
- MaritalDesc
- CitizenDesc
- HispanicLatino
- RaceDesc
- DateofHire
- DateofTermination
- TermReason
- EmploymentStatus
- Department

### Human Resources

21.5M

104

129

3.18K

Salary

Term

DaysLateLast30

Absences

Department

salary by department

late days by absent

Dashboard properties

Canvas

Layout positioning

Relative

Page zoom (Absolute layout only)

Default zoom value

100%

Page size

Preset

Screen 16:9

Fit page

Width

1280 px

Height

720 px

Grid

Show grid

Edit

Selected sources / 2nd assign

Analytics

Filters

Fields

Properties

Selected sources / 2nd assign

Search

- Position
- State
- Zip
- DOB
- Sex
- MaritalDesc
- CitizenDesc
- HispanicLatino
- RaceDesc
- DateofHire
- DateofTermination
- TermReason

dept wise salary

Salary by Department

DateofHire

State

Salary by Absences

Salary by Sex

salary by special project count

Salary by Position colored by State

Dashboard properties

Canvas

Layout positioning

Relative

Page zoom (Absolute layout only)

Default zoom value

100%

Page size

Preset

Screen 16:9

Fit page

Width

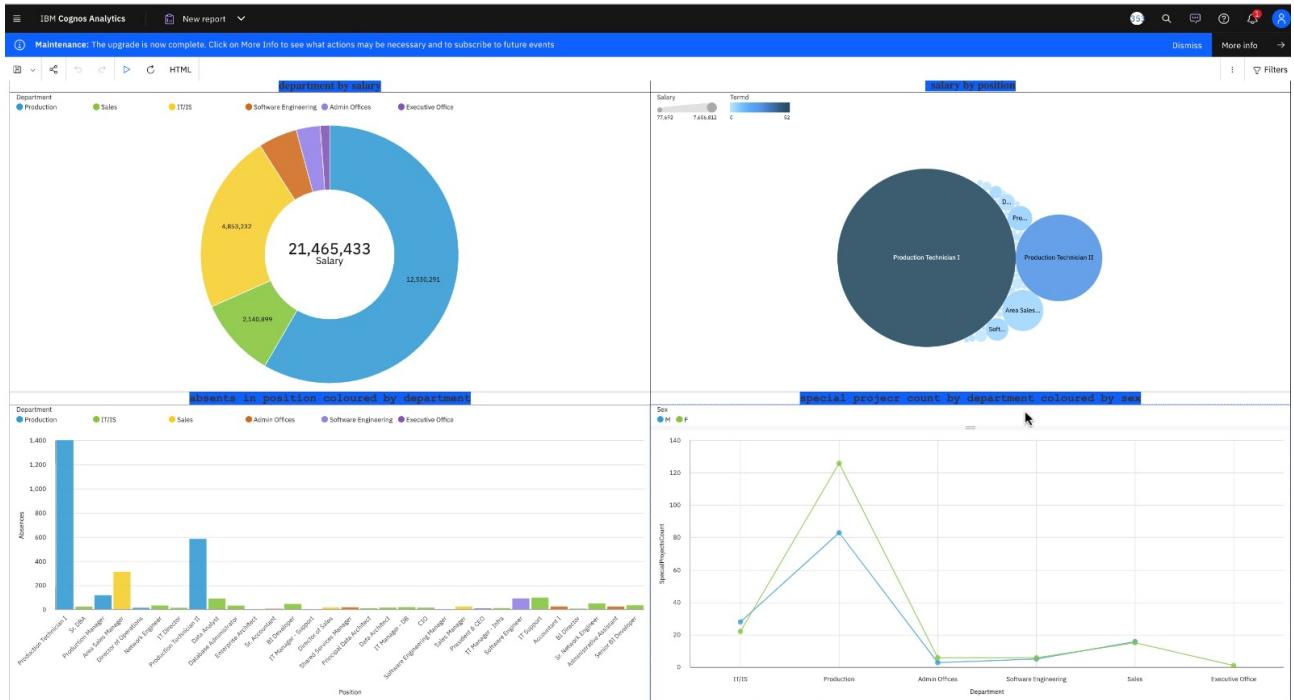
1280 px

Height

720 px

Grid

## Report:



## Story:

The Story editor interface includes:

- Library:** A grid of visualization types: Heat map, Legacy map, List, Network, Point, Scatter, Stacked column, Table, Word cloud; Hierachy bubble, Line, Map, Packed bubble, Radar, Spiral, Summary, Tree map; KPI, Line and column, Marimekko, Pie, Radial, Stacked bar, Sunburst, Waterfall.
- Preview Area:** Shows a preview of the story's layout with five scenes, each containing a visualization. A message says "Press esc to exit full screen".
- Properties Panel:** Includes sections for Story properties (Scenes, Story type: Guided journey), Layout (grid options), and advanced settings (Show all scenes at the start, Show all scenes at the end, Canvas, Color and theme, Advanced).
- Scene Builder:** Shows the current scene structure with numbered steps (0, 1, 2, 3) and navigation controls (Prev scene, Next scene, 6 scenes, 0:00.0).

IBM Cognos Analytics | assign story

Analytics Filters Fields Properties

Heat map Hierarchy bubble KPI

Legacy map Line Line and column

List Map Marimekko

Network Packed bubble Pie

Point Radar Radial

Scatter Spiral Stacked bar

Stacked column Summary Sunburst

Table Tree map Waterfall

Mixed chart

The diagram illustrates the Human Resource Management (HRM) process. At the center is the 'HRM Human Resource Management' logo. Arrows point from various components to it: 'Strategic objectives' (with a bar chart icon), 'Employee' (with a person carrying a briefcase), 'Training' (with two people), 'Recruitment' (with a handshake), 'Rewarding' (with a trophy), 'Success' (with a target icon), and 'Business Value' (with a bar chart icon). Below the main logo is the 'HR HelpBoard' logo.

Story properties

- Scenes
  - Story type: Guided journey
- Layout
  - Show all scenes at the start:
  - Show all scenes at the end:
- Canvas
- Color and theme
- Advanced

Prev scene ⏪ Next scene Scene 1 of 6 0:03.4 0:05.0

IBM Cognos Analytics | assign story

Analytics Filters Fields Properties

Heat map Hierarchy bubble KPI

Legacy map Line Line and column

List Map Marimekko

Network Packed bubble Pie

Point Radar Radial

Scatter Spiral Stacked bar

Stacked column Summary Sunburst

Table Tree map Waterfall

Mixed chart

The chart displays 'Salary by DaysLateLast30 colored by Department'. The Y-axis represents 'Salary (\$/m)' ranging from 0 to 20,000,000. The X-axis represents 'DaysLateLast30' ranging from 0 to 6. The chart shows several colored areas representing different departments. A note on the left states: 'this is a area chart' and 'from this chart we can observe that software engineering have highest salary'.

Story properties

- Scenes
  - Story type: Guided journey
- Layout
  - Show all scenes at the start:
  - Show all scenes at the end:
- Canvas
- Color and theme
- Advanced

Prev scene ⏪ Next scene Scene 2 of 6 0:00.0 0:05.0

IBM Cognos Analytics assign story

**Analytics** **Filters** **Fields** **Properties**

**Story properties**

- Scenes**
- Story type: Guided journey
- Layout:

  - Column
  - Row
  - Grid
  - Card
  - Card (with navigation)

- Show all scenes at the start:
- Show all scenes at the end:
- Canvas
- Color and theme
- Advanced

**Toolbars:** Edit, Undo, Redo, Copy, Paste, Find, Replace, Properties, Analytics, Filters, Fields, Properties.

**Legend:** Heat map, Hierarchy bubble, KPI, Legacy map, Line, Line and column, List, Map, Marimekko, Network, Packed bubble, Pie, Point, Radar, Radial, Scatter, Spiral, Stacked bar, Stacked column, Summary, Sunburst, Table, Tree map, Waterfall.

**Content:** A guided journey scene titled "column graph" showing a bar chart titled "Salary by RecruitmentSource". The Y-axis is "Salary (Sum)" from 0 to 5,000,000. The X-axis is "RecruitmentSource" with categories: CareerBuilder, Diversity Job Fair, Employee Referral, Google Search, Indeed, LinkedIn, Online Web app..., Other, Website. The chart shows that Indeed and LinkedIn have the highest salaries.

**Navigation:** Prev scene, Next scene, Scene 3 of 6, 0:00.0, 0:05.0, Settings.

IBM Cognos Analytics assign story

**Analytics** **Filters** **Fields** **Properties**

**Story properties**

- Scenes**
- Story type: Guided journey
- Layout:

  - Column
  - Row
  - Grid
  - Card
  - Card (with navigation)

- Show all scenes at the start:
- Show all scenes at the end:
- Canvas
- Color and theme
- Advanced

**Toolbars:** Edit, Undo, Redo, Copy, Paste, Find, Replace, Properties, Analytics, Filters, Fields, Properties.

**Legend:** Heat map, Hierarchy bubble, KPI, Legacy map, Line, Line and column, List, Map, Marimekko, Network, Packed bubble, Pie, Point, Radar, Radial, Scatter, Spiral, Stacked bar, Stacked column, Summary, Sunburst, Table, Tree map, Waterfall.

**Content:** A guided journey scene titled "line and column graph" showing a dual-axis chart titled "Termd and DaysLateLast30 by RecruitmentSource". The left Y-axis is "DaysLateLast30" (0-40) and the right Y-axis is "Termd (Sum)" (0-40). The X-axis is "RecruitmentSource" with categories: CareerBuilder, Diversity Job Fair, Employee Referral, Google Search, Indeed, LinkedIn, Online Web app..., Other, Website. The chart shows that Google Search has the highest termd and LinkedIn has the highest days late.

**Navigation:** Prev scene, Next scene, Scene 4 of 6, 0:00.0, 0:05.0, Settings.

The screenshot shows the IBM Cognos Analytics interface. On the left, there's a sidebar with various visualization icons categorized into sections like Heat map, Legacy map, List, Network, Point, Scatter, Stacked column, Table, Hierarchy bubble, Line, Map, Packed bubble, Radar, Spiral, Summary, Tree map, KPI, Line and column, Marimekko, Pie, Radial, Stacked bar, Sunburst, and Waterfall. The main area displays a pie chart titled "EngagementSurvey by Department". The chart has three visible segments: one large maroon segment labeled "863.08", one teal segment labeled "207.7", and one small red segment. A callout box with the text "this is a pie chart" and "this indicates that prouction has highest engagement survey" is overlaid on the chart. Below the chart is a horizontal timeline with numbered markers (3, 4, 5, 6) and a central circular node. To the right, a "Story properties" panel is open, showing sections for Scenes, Story type (set to Guided journey), Layout (with five grid options), and various checkboxes for "Show all scenes at the start" and "Show all scenes at the end" (both checked). Other collapsed sections include Canvas, Color and theme, and Advanced.

IBM Cognos Analytics | assign story

Analytics Filters Fields Properties

Heat map Hierarchy bubble KPI

Legacy map Line Line and column

List Map Marimekko

Network Packed bubble Pie

Point Radar Radial

Scatter Spiral Stacked bar

Stacked column Summary Sunburst

Table Tree map Waterfall

Prev scene < > Next scene Scene 6 of 6 0:00.0 0:05.0

stacked column

- this is a stacked column graph
- this indicates that the person with highest performance score have more special project

SpecialProjectsCount by PerformanceScore colored by Sex

Sex  
F M

PerformanceScore	Sex	SpecialProjectsCount
Exceeds	F	1
Fully Meets	M	2
Needs Improvement	F	1
PIP	M	1

Show all scenes at the start

Show all scenes at the end

Canvas

Color and theme

Advanced

Story properties

Scenes

Story type Guided journey

Layout

All scenes

Scene 1

Scene 2

Scene 3

Scene 4

Scene 5

Scene 6

Scene 7