

Smartinternz Externship

Data Analytics with IBM Cognos Analytics



TITLE: The Cognos HR Scorecard

Assignment 2

Name: Shreya Shamej

Email ID : shreya.21bce8432@vitapstudent.ac.in

Registration Number : 21BCE8432

AIM: Measuring Success in Talent Management

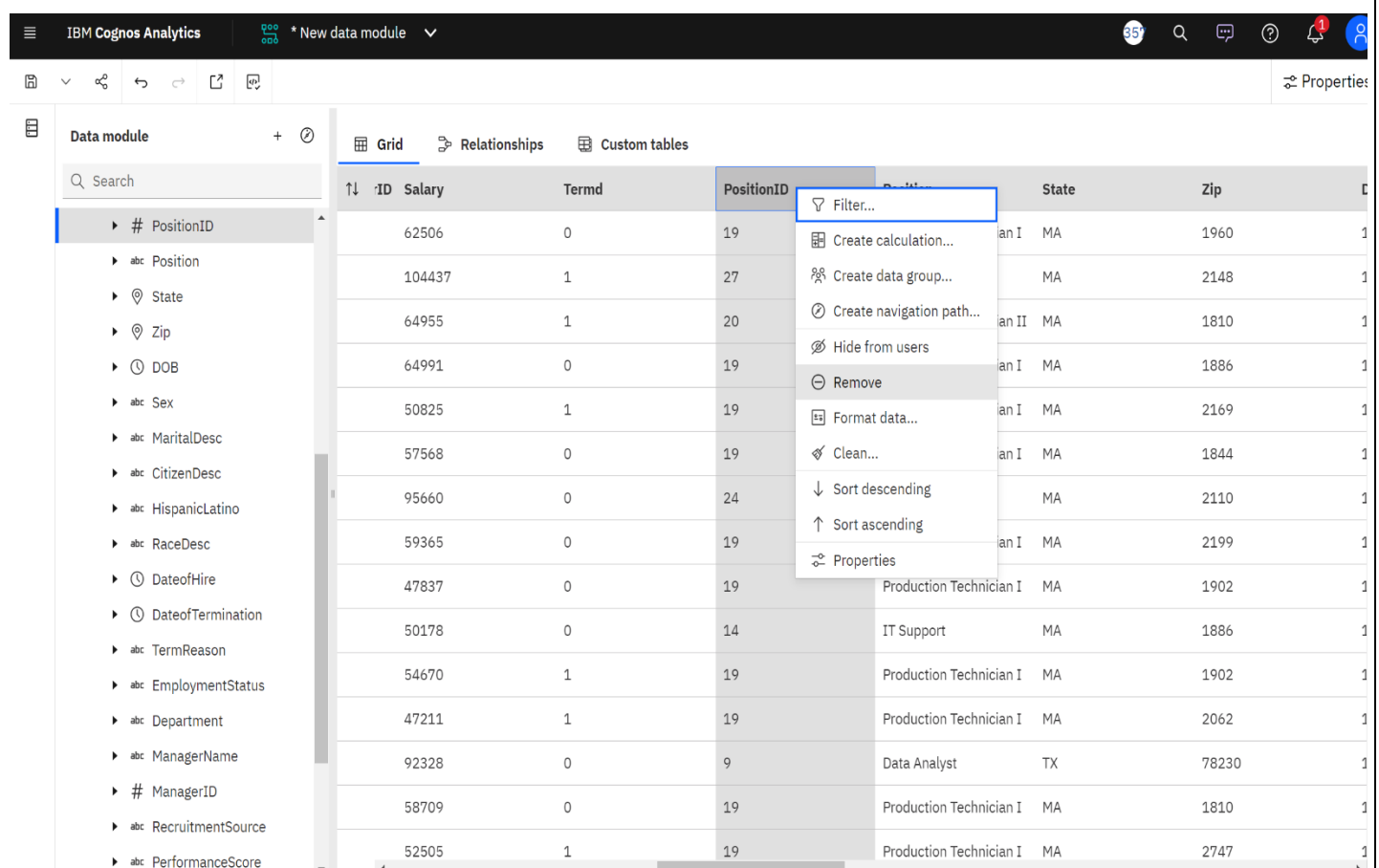
Challenge:- Upload the dataset to Cognos Analytics, prepare the data, explore and Create Interactive Dashboard, Report and Story.

For the given dataset, the following changes have been made in order to remove noisy and unwanted data. Some attributes appear to be potentially unnecessary due to their similarity or redundancy.

MaritalStatusID and MaritalDesc: These two attributes seem to represent the same information, marital status, in different ways. Thus for this project we will be removing MaritalStatusID.

RaceDesc: This attribute is unnecessary. It's not entirely clear what it represents or if it's needed for the analysis.

PositionID: If the Position attribute already contains the text name/title of the person's position, PositionID might be redundant .

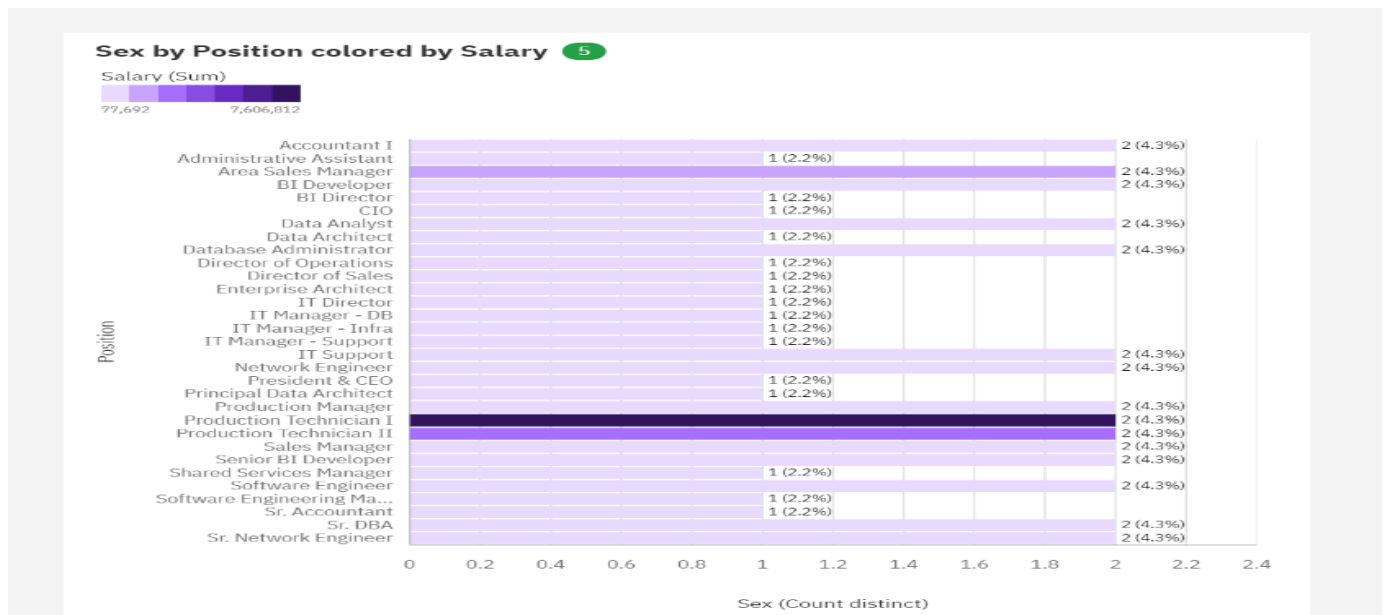


The screenshot shows the IBM Cognos Analytics interface. On the left, a 'Data module' pane lists various attributes: # PositionID, abc Position, State, Zip, DOB, Sex, MaritalDesc, CitizenDesc, HispanicLatino, RaceDesc, DateofHire, DateofTermination, TermReason, EmploymentStatus, Department, ManagerName, # ManagerID, RecruitmentSource, and PerformanceScore. The main area displays a data grid with columns: ID, Salary, Termd, PositionID, Position, State, and Zip. A context menu is open over the PositionID column, showing options: Filter..., Create calculation..., Create data group..., Create navigation path..., Hide from users, Remove, Format data..., Clean..., Sort descending, Sort ascending, and Properties. The data rows show employee records with their respective IDs, salaries, termination dates, and positions.

ID	Salary	Termd	PositionID	Position	State	Zip
62506		0	19	Production Technician I	MA	1960
104437		1	27	Production Technician I	MA	2148
64955		1	20	Production Technician II	MA	1810
64991		0	19	Production Technician I	MA	1886
50825		1	19	Production Technician I	MA	2169
57568		0	19	Production Technician I	MA	1844
95660		0	24	Production Technician I	MA	2110
59365		0	19	Production Technician I	MA	2199
47837		0	19	Production Technician I	MA	1902
50178		0	14	IT Support	MA	1886
54670		1	19	Production Technician I	MA	1902
47211		1	19	Production Technician I	MA	2062
92328		0	9	Data Analyst	TX	78230
58709		0	19	Production Technician I	MA	1810
52505		1	19	Production Technician I	MA	2747

Exploring the dataset and visualizing .

1. Sex by Position colored by Salary

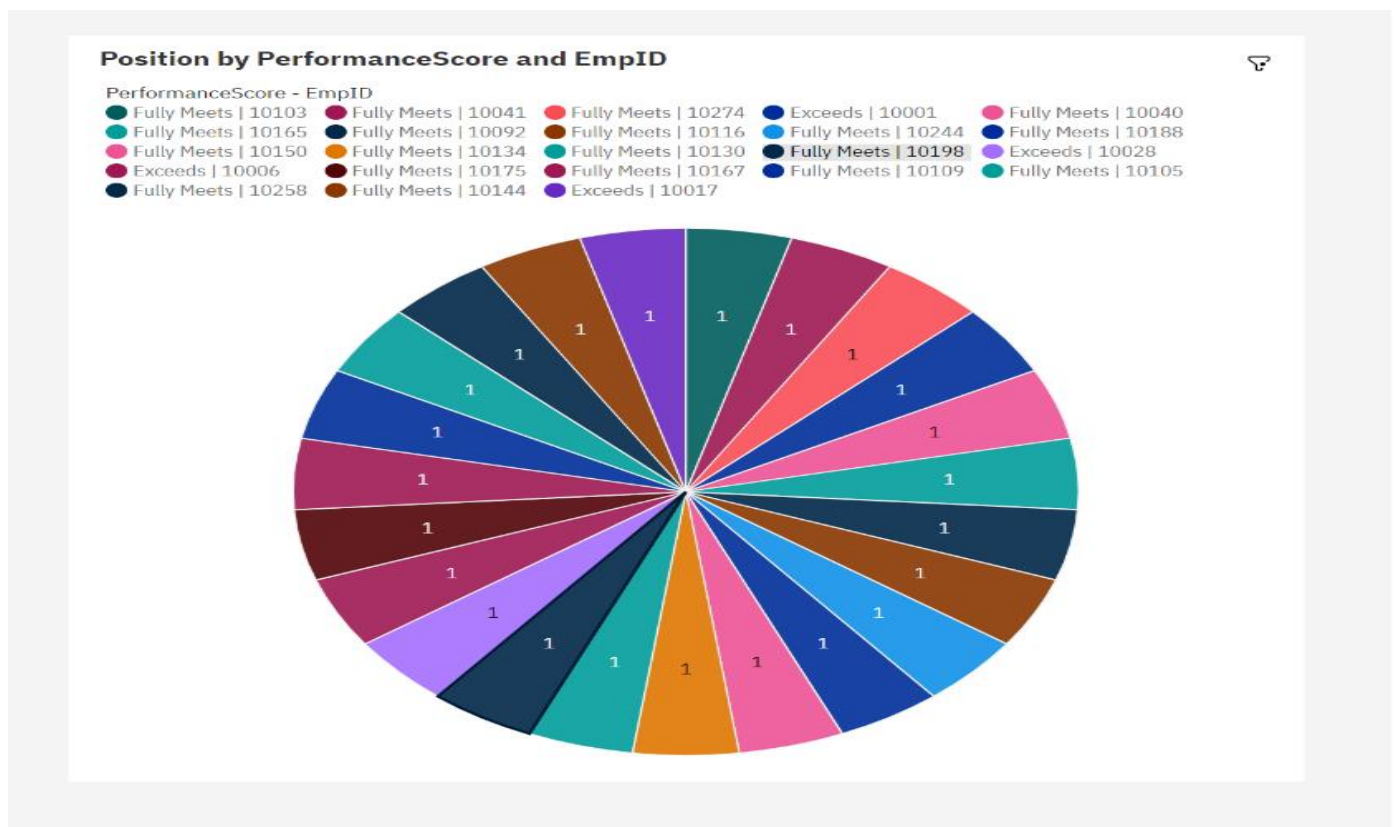


The overall number of results for **Sex** is 311.

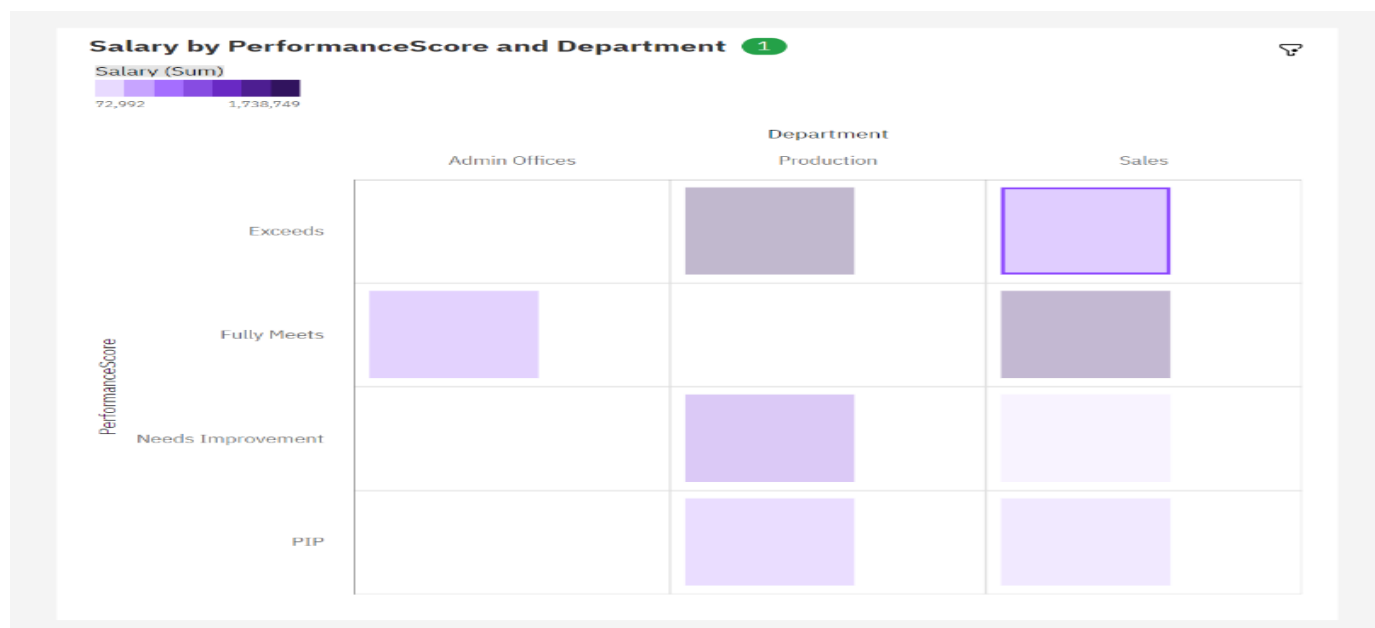
Production Technician I is the most frequently occurring category of **Position** with a count of 137 items with **Sex** values (44.1 % of the total).

2.Position by Performance score and Emp ID

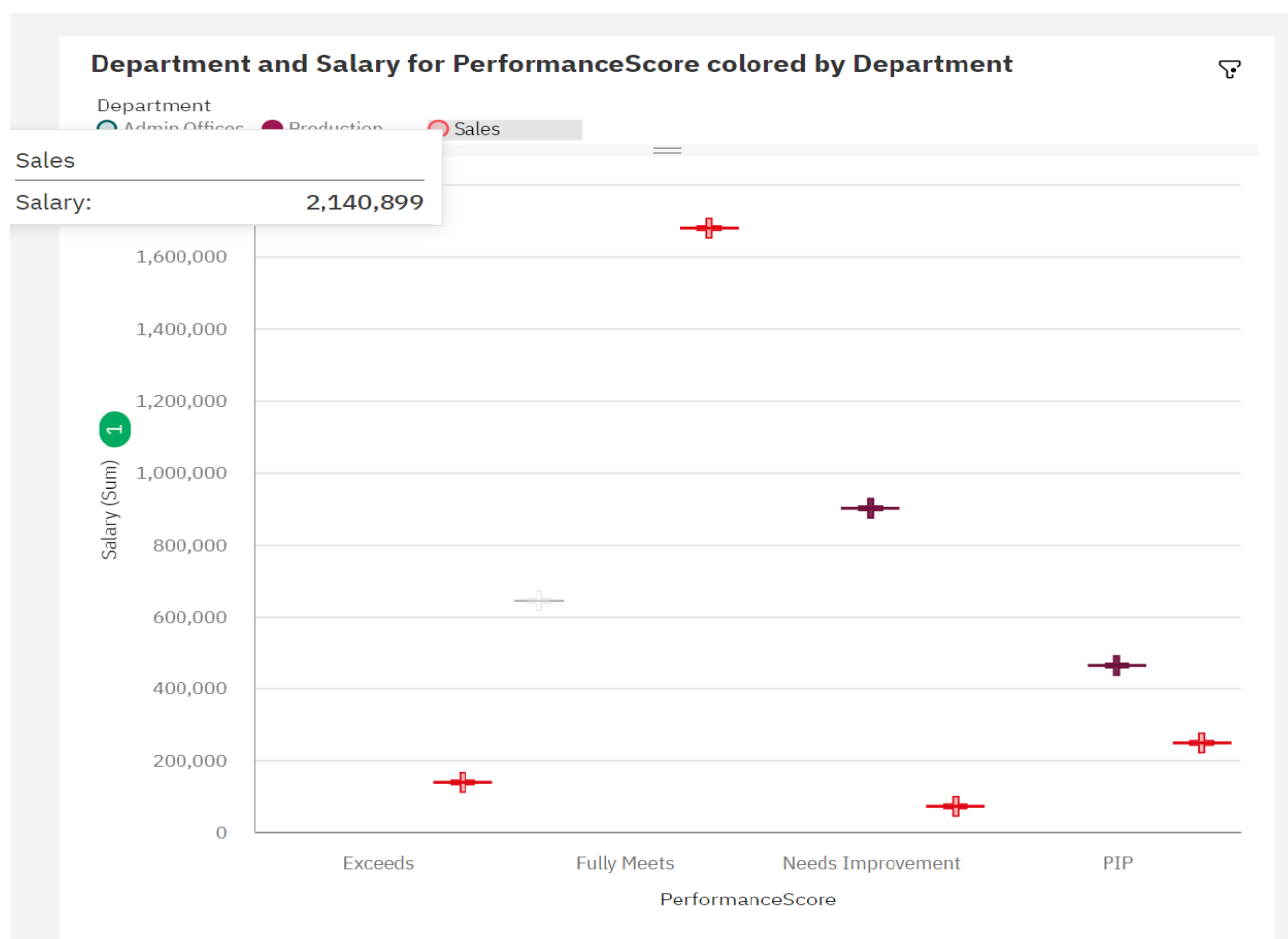
The total number of results for Position, across all Performance Score - EmpID, is 23.



3.Salary by Performance Score and Department.



4.Department and Salary for Performance Score colored by Department



5. Salary by DOB colored by Department

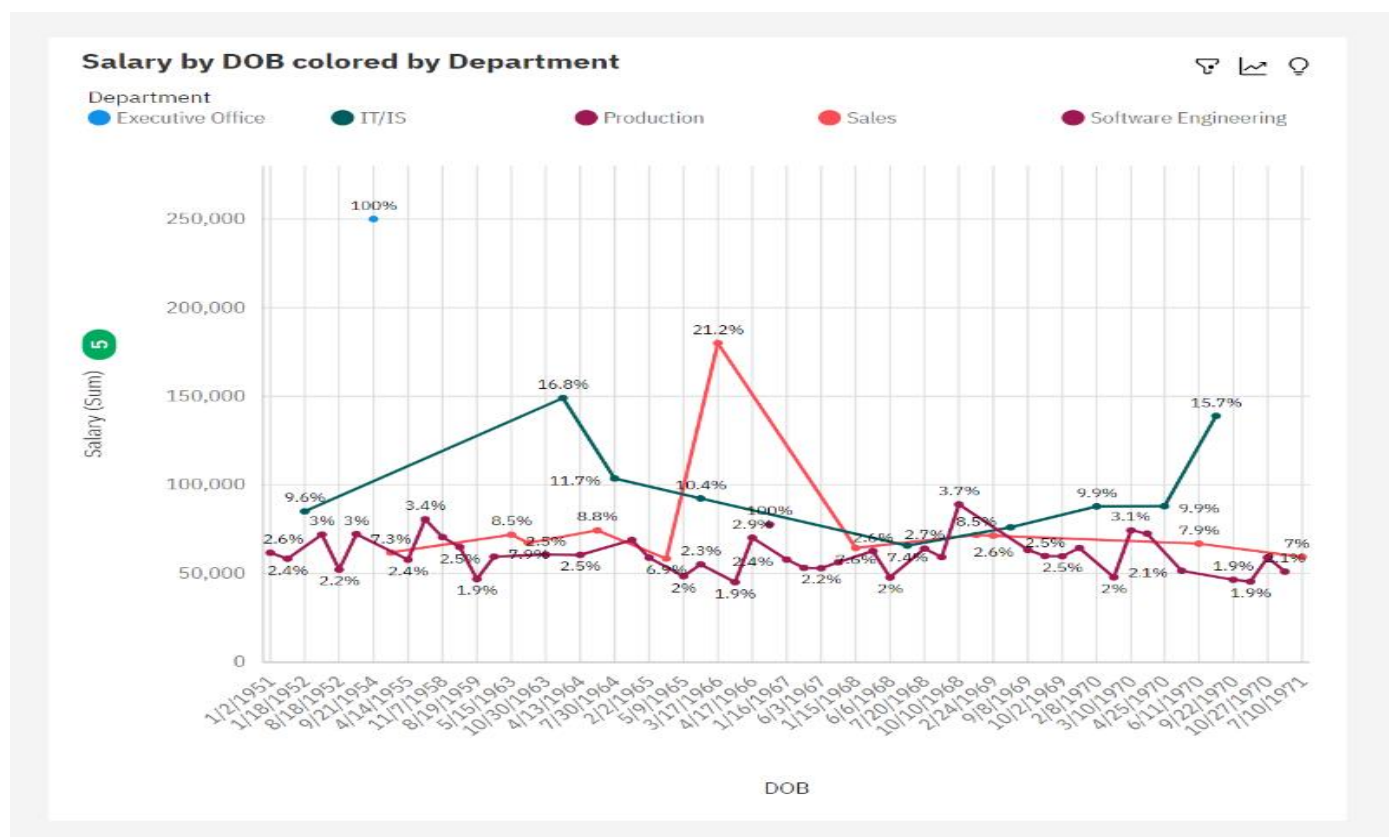
Salary is unusually high when Department is Production.

Over all values of DOB and Department, the sum of Salary is nearly 4.5 million.

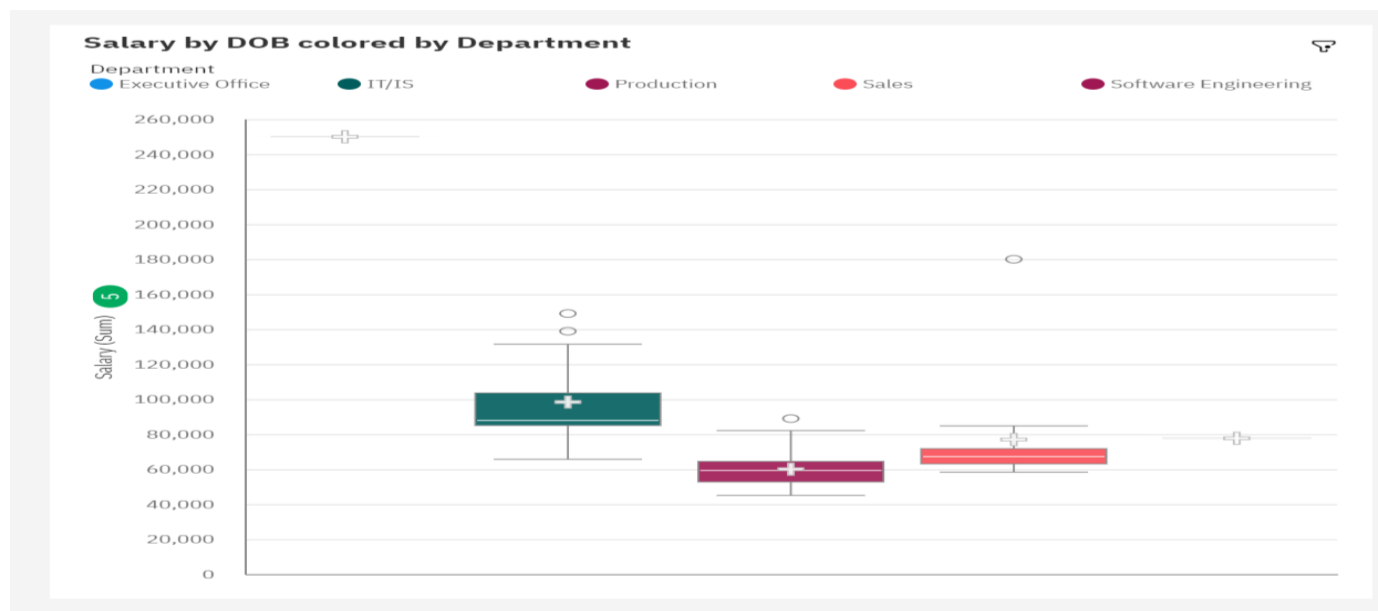
The summed values of Salary range from over 45 thousand to 250 thousand.

For Salary, the most significant value of DOB is 1954-09-21, whose respective Salary values add up to 250 thousand, or 5.6 % of the total.

For Salary, the most significant value of Department is Production, whose respective Salary values add up to over 2.4 million, or 53.8 % of the total.



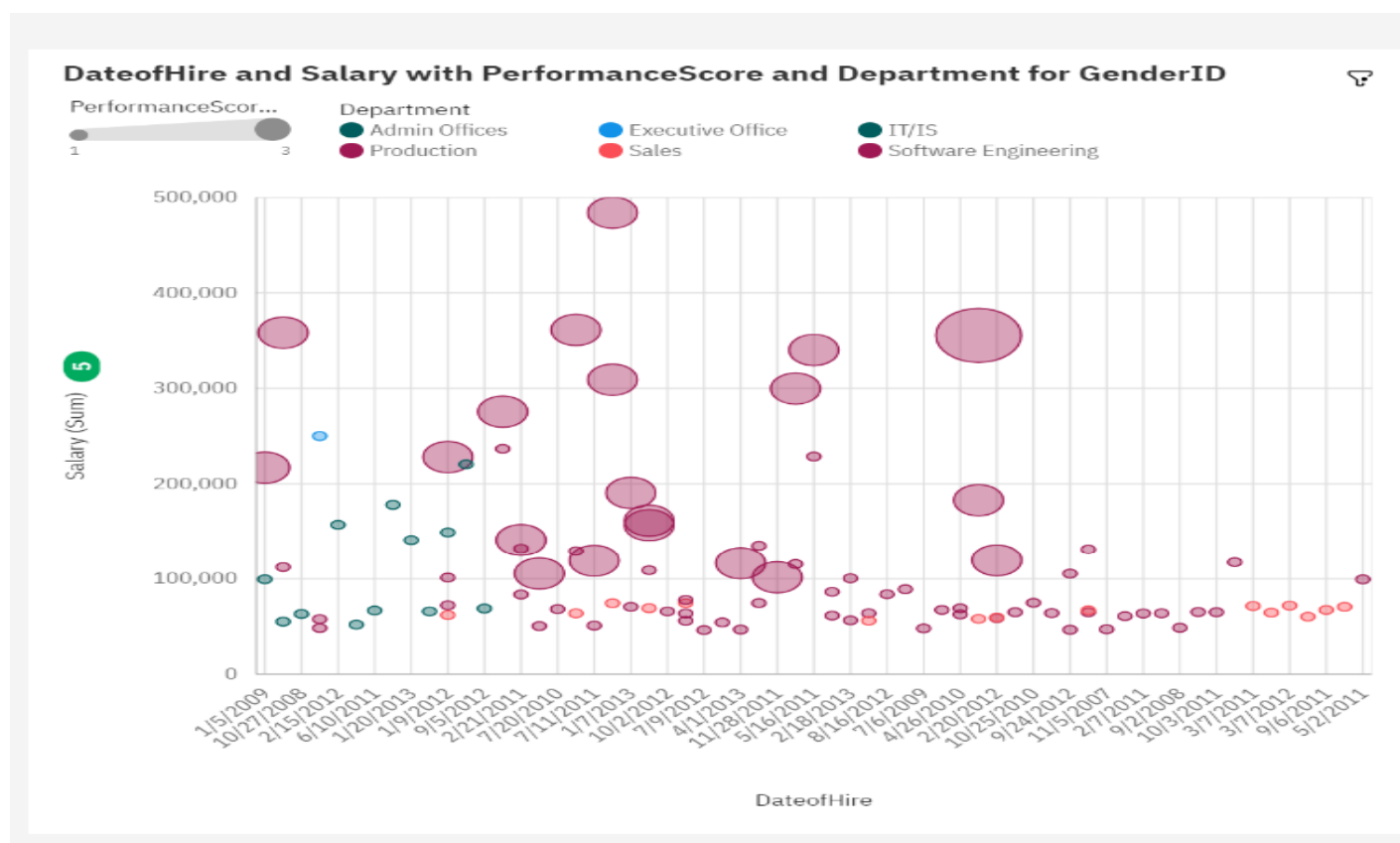
6. Salary by DOB colored by Department



7. DateofHire and Salary with PerformanceScore and Department for GenderID

Across all values of DateofHire and Department, the sum of Salary is over eleven million.

The summed values of Salary range from over 46 thousand to almost 484 thousand. For Salary, the most significant value of Department is Production, whose respective Salary values add up to nearly 8.3 million, or 72 % of the total. For Salary, the most significant value of DateofHire is 2011-01-10, whose respective Salary values add up to over 867 thousand, or 7.6 % of the total.

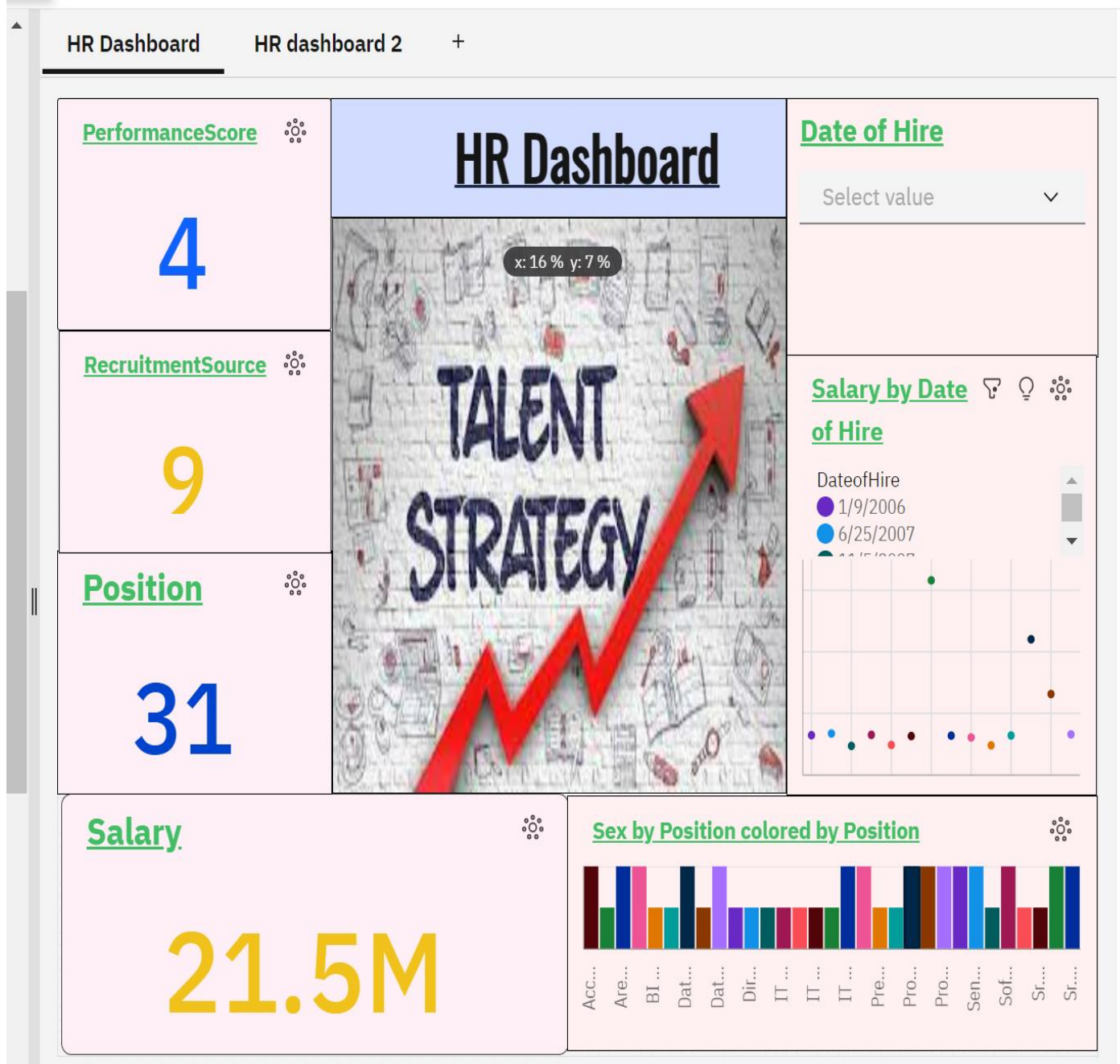


Creating a Dashboard On HR Scorecard.

From the created dashboard, we can derive the following insights:

On January 5, 2009, employees with the DateofHire had the highest Salary, exceeding 316 thousand dollars. Among them, employees with Manager ID 2 contributed the most, with a combined salary of nearly 171 thousand dollars.

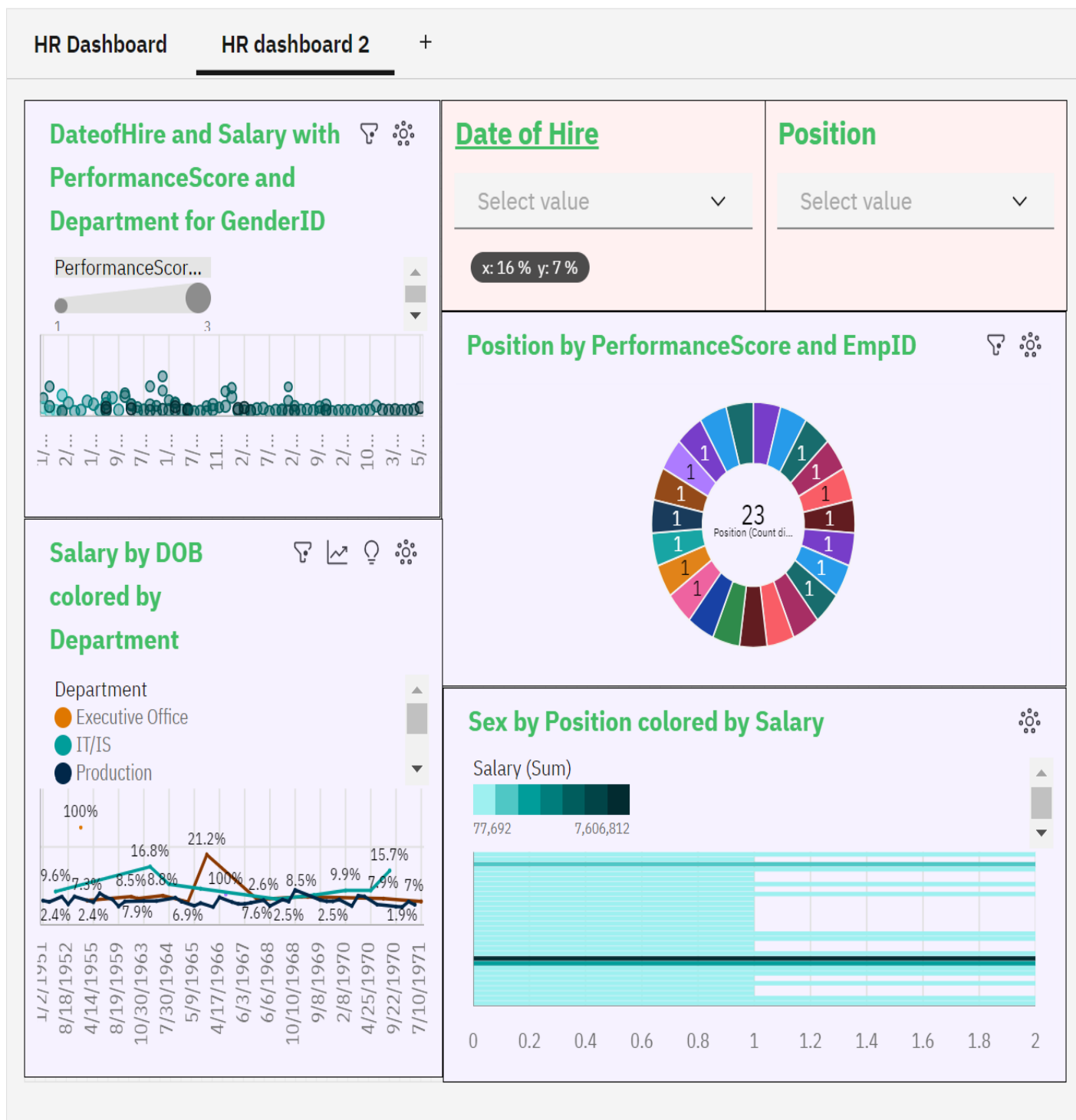
Regarding Salary, the DateofHire with the most significant impact is January 5, 2009, with cumulative Salary values exceeding 316 thousand dollars, representing approximately 23.9% of the total



Creating a dashboard based on visualizations obtained from the dataset.

When considering all DateofHire values, the total sum of Salary amounts to over 1.3 million dollars.

The aggregated Salary values vary, ranging from over 47 thousand dollars to over 316 thousand dollars.



Creating a Report

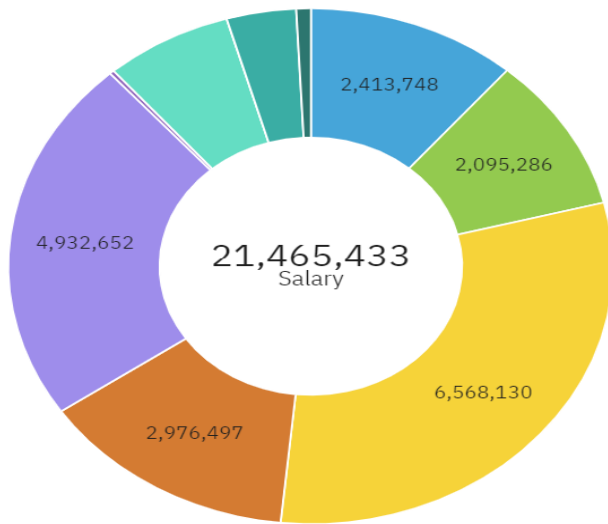
Report > Pages > Page1



SALARY ACCORDING TO RECRUITMENTSOURCE

RecruitmentSource

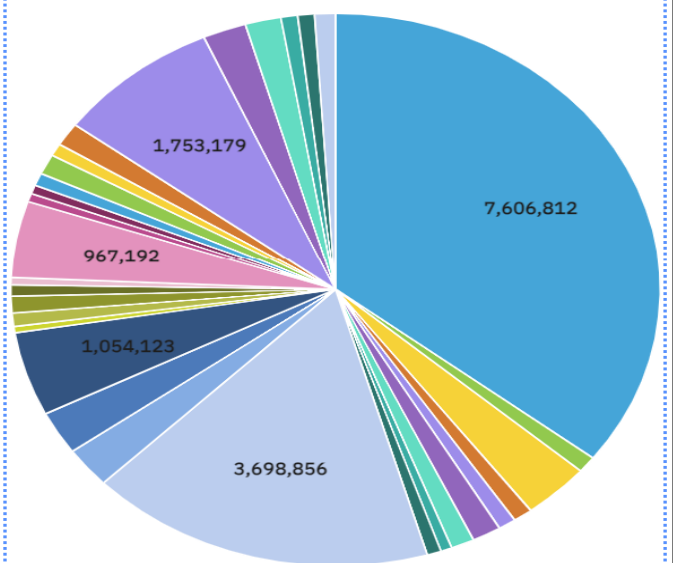
- Employee Referral
- Indeed
- LinkedIn
- CareerBuilder
- Other
- Diversity Job Fair
- Google Search
- On-line Web application
- Website



POSITION ACCORDING TO GENDER

Position

- Production Technician I
- Sr. DBA
- Data Analyst
- Sr. Accountant
- Accountant I
- Network Engineer
- President & CEO
- Principal Data Architect



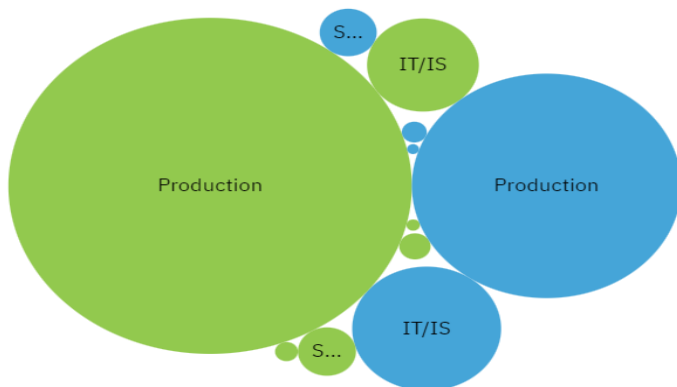
SALARY ACCORDING TO GENDER

Salary

220,569 7,512,173

Sex

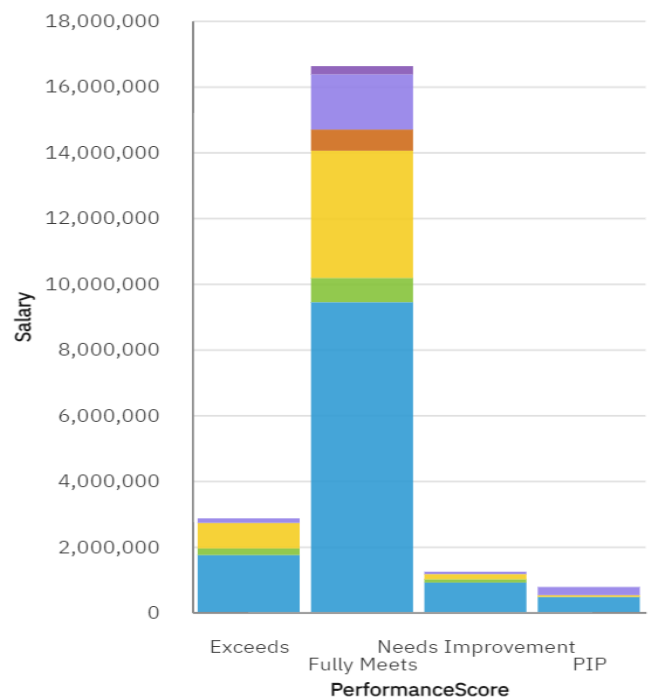
- M
- F



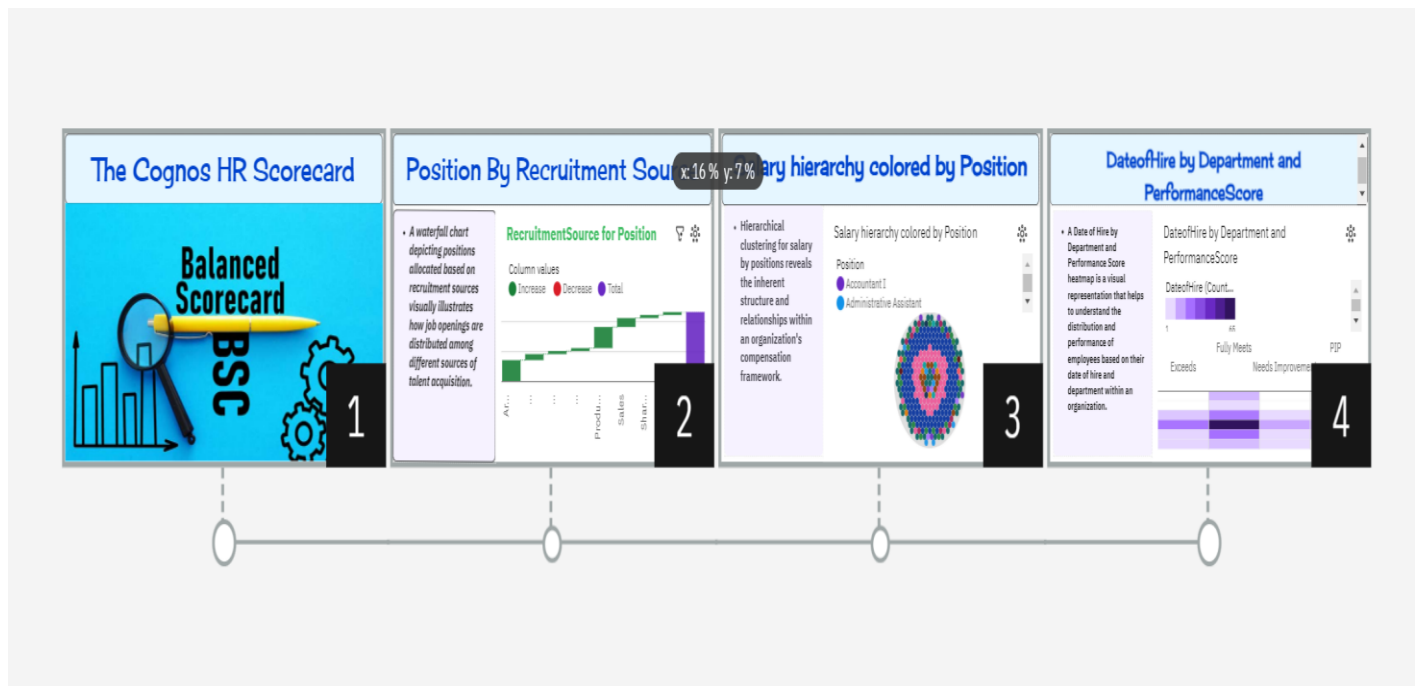
SALARY BY PERFORMANCE SCORE COLORED BY DEPARTMENT

Department

- Production
- IT/IS
- Sales
- Software Engineering
- Admin Offices
- Executive Office



Creating a Story



Salary hierarchy colored by Position

- Hierarchical clustering for salary by positions reveals the inherent structure and relationships within an organization's compensation framework.

Salary hierarchy colored by Position

Position
● Accountant
● Administrative Assistant

x: 16 % y: 7 %



DateofHire by Department and PerformanceScore

- A Date of Hire by Department and Performance Score heatmap is a visual representation that helps to understand the distribution and performance of employees based on their date of hire and department within an organization.

DateofHire by Department and PerformanceScore

DateofHire (Count...

