Smartinternz externship

Data Analytics with IBM cognos Analytics

Assignment 2

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DATASET MODIFICATIONS

For the given dataset, before beginning with the visualizations, I have modified the table by deleting some attributes and modifying the others. Given below are the details for the same :

1. Deletion
Several attributes like Department ID, Performance ID, etc have been removed in order to reduce redundancy since there were pre-existing text attributes with detailed explanation for the respective attributes.

2. Modification
Certain attributes like the HispanicLatino attribute has been cleaned in order to avoid confusion between the same entries entered in different cases (upper and lower). Below is the link to this data module:

https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2FAssignment%2B2%2FHR%2BData%2BModule
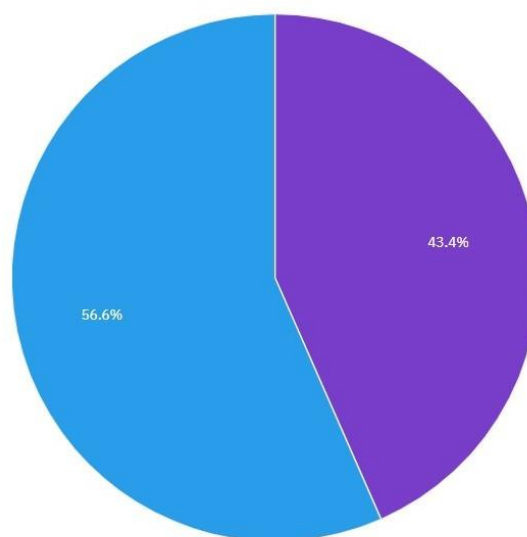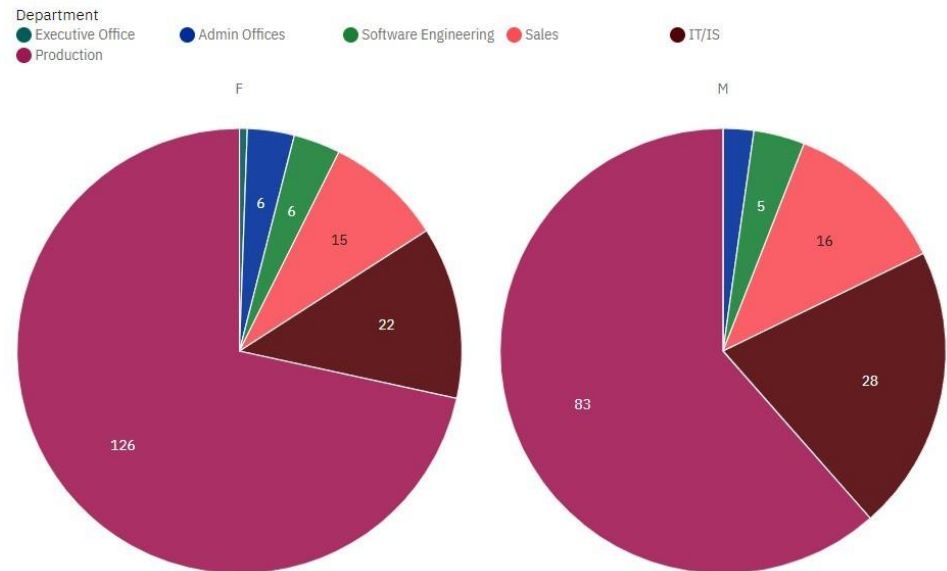
VISUALIZATIONS

1. Gender Ratio
Segments - Sex
Size - Sex

2. Gender Distribution in Different Departments

Segments - Deparment
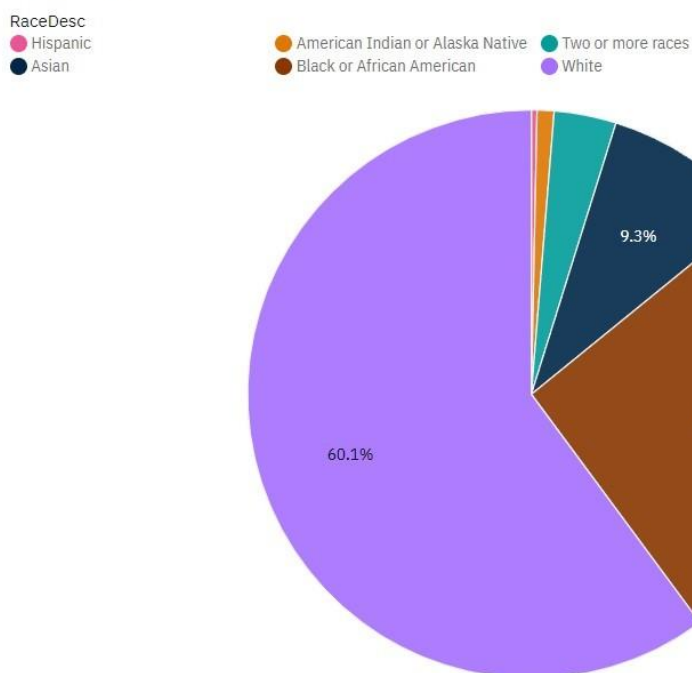Size - Deparment
Repeat (column) - Sex

Department by Department

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

F

M

3. Racial Distribution

Segments - RaceDesc
Size - RaceDesc

RaceDesc by RaceDesc

RaceDesc
- Hispanic
- American Indian or Alaska Native
- Two or more races
- Asian
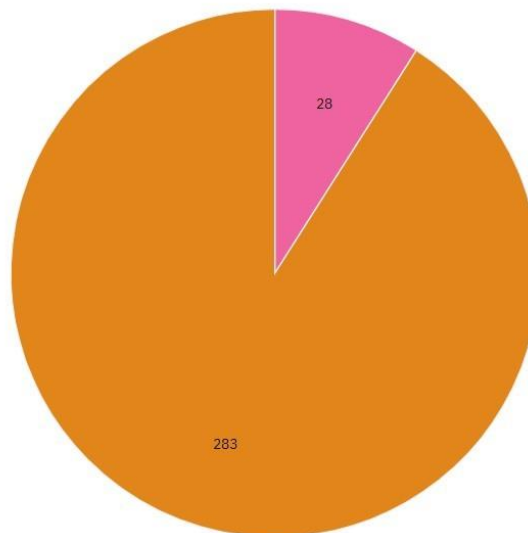- Black or African American
- White

4. Hispanic Latino ratio

Segments - HispanicLatino
Size - HispanicLatino

HispanicLatino by HispanicLatino

HispanicLatino
● YES ● NO

5. Salary dependent on Special Project Count per Department

x axis - Salary
y axis - SpecialProjectsCount
Color - Department

Salary by SpecialProjectsCount colored by Department

Department
● Admin Offices ● Executive Office ● IT/IS ● Production ● Sales
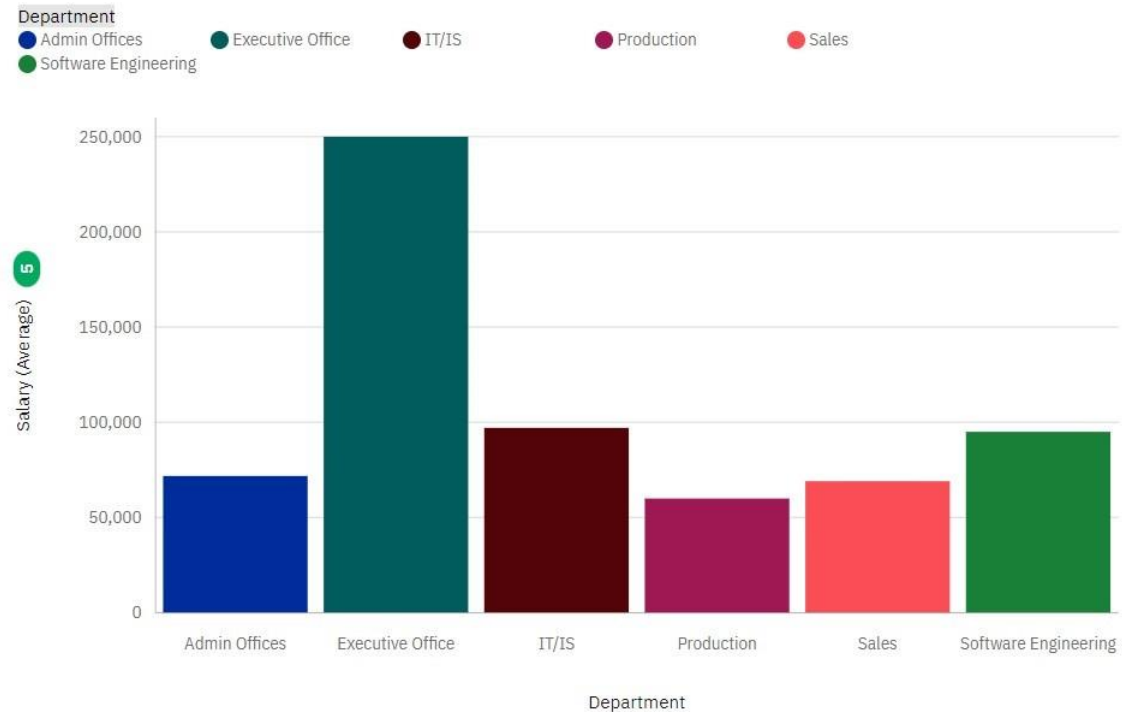● Software Engineering

6. Department - wise Salary Distribution

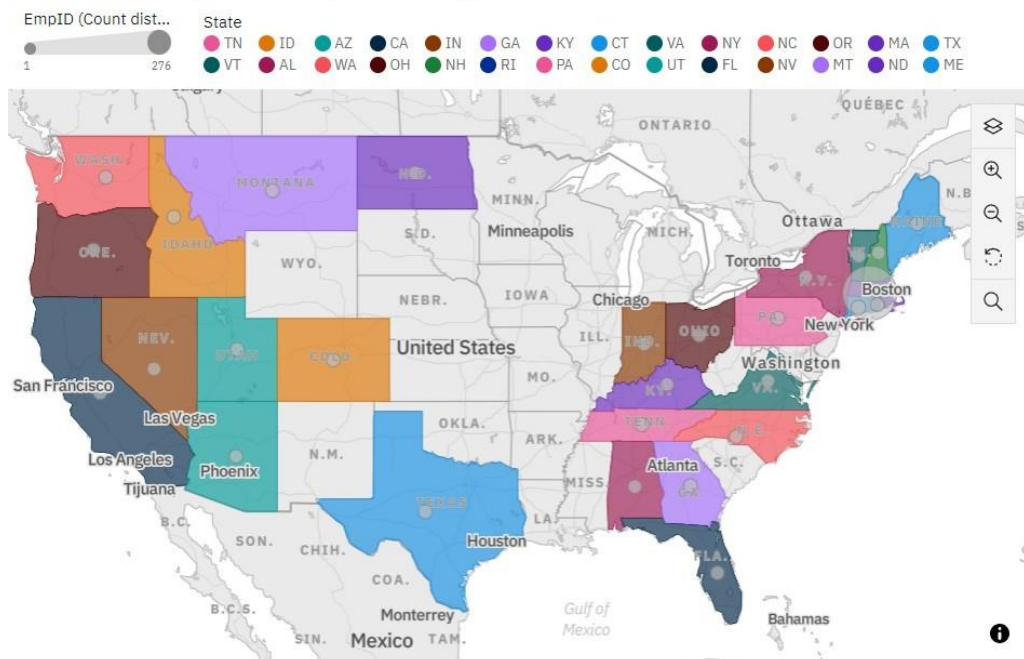Length - Salary
Color - Department

Salary, Department

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

7. State - wise distribution of Employees

Locations - State
Color - State

State for State regions and EmpID for State points

EmpID (Count dist...)
1   276

State
- ● TN ● ID ● AZ ● CA ● IN ● GA ● KY ● CT ● VA ● NY ● NC ● OR ● MA ● TX
- ● VT ● AL ● WA ● OH ● NH ● RI ● PA ● CO ● UT ● FL ● NV ● MT ● ND ● ME
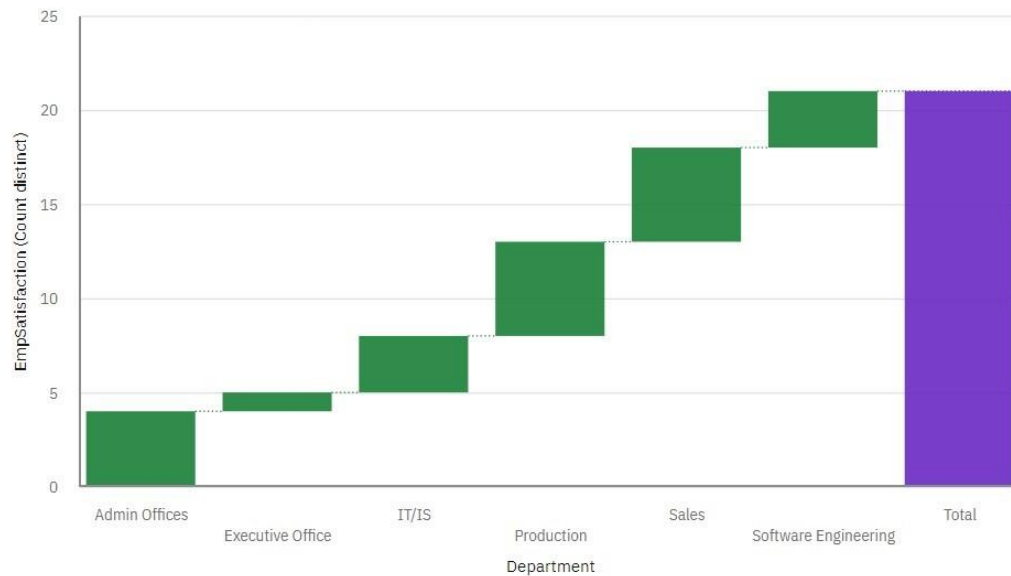
8. *Employee satisfaction rate for employees in each Department*

x axis - Department
y axis - EmpSatisfaction

EmpSatisfaction for Department

Column values
● Increase ● Decrease ● Total

9. *Salary differentiated by Performance score for each department keeping the engagement survey in mind*

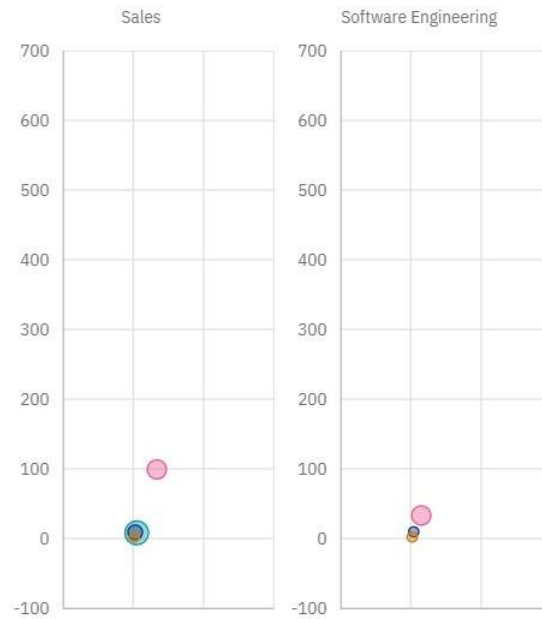Size - EmpSatisfaction , Repeat (column) - Department
x axis - Salary
y axis - EngagementSurvery
Color - PerformanceScore

Salary by EngagementSurvey colored by PerformanceScore and sized by EmpSatisfaction

EmpSatisfaction (...
1   4

PerformanceScore
● Exceeds   ● Fully Meets   ● Needs Improvement   ● PIP

Sales | Software Engineering

10. Performance of all Mangers according to their Performance Scores

x axis - ManagerName

y axis - PerformanceScore

PerformanceScore by ManagerName

11. Termination Reasons

Words - TermReason

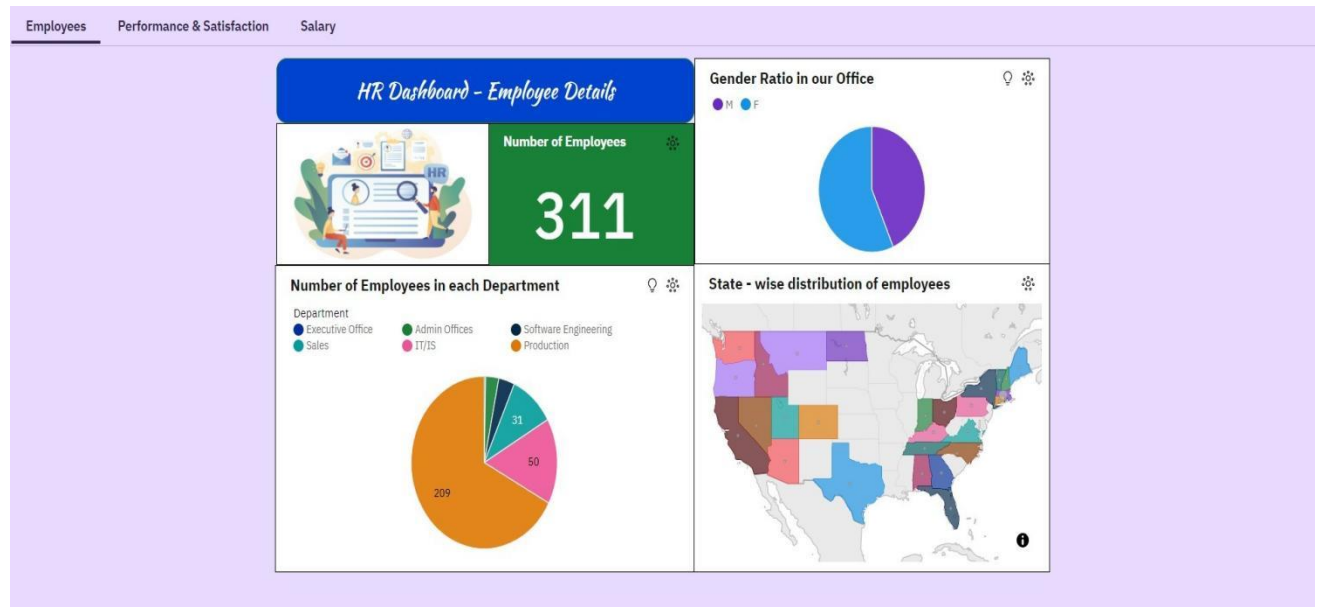Size - TermReason

**TermReason sized by TermReason**

TermReason (Cou...

1   207

N/A-STILLEMPLOYED

MORE MONEY
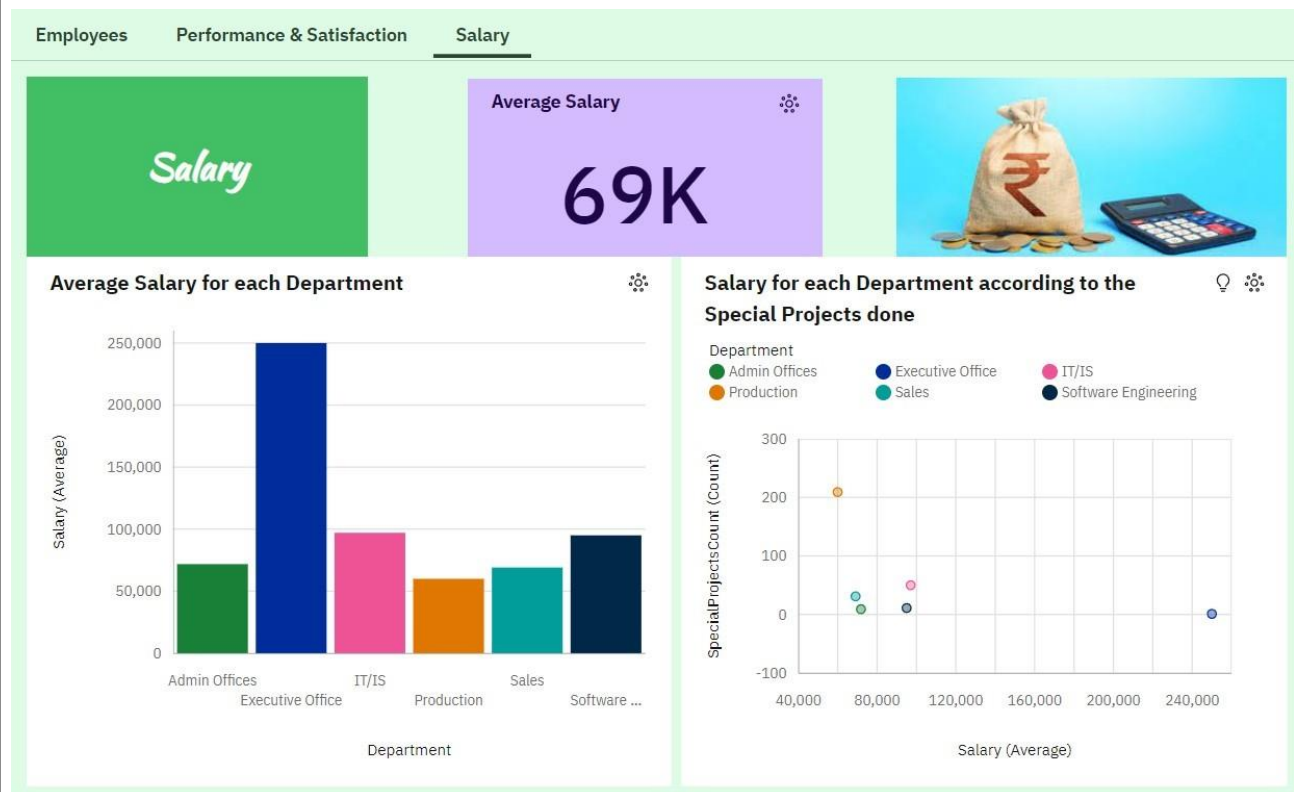CAREER CHANGE
ANOTHER POSITION
UNHAPPY

DASHBOARD

1. General Employee Details - Employee count, sexual and racial distribution, state - wise distribution
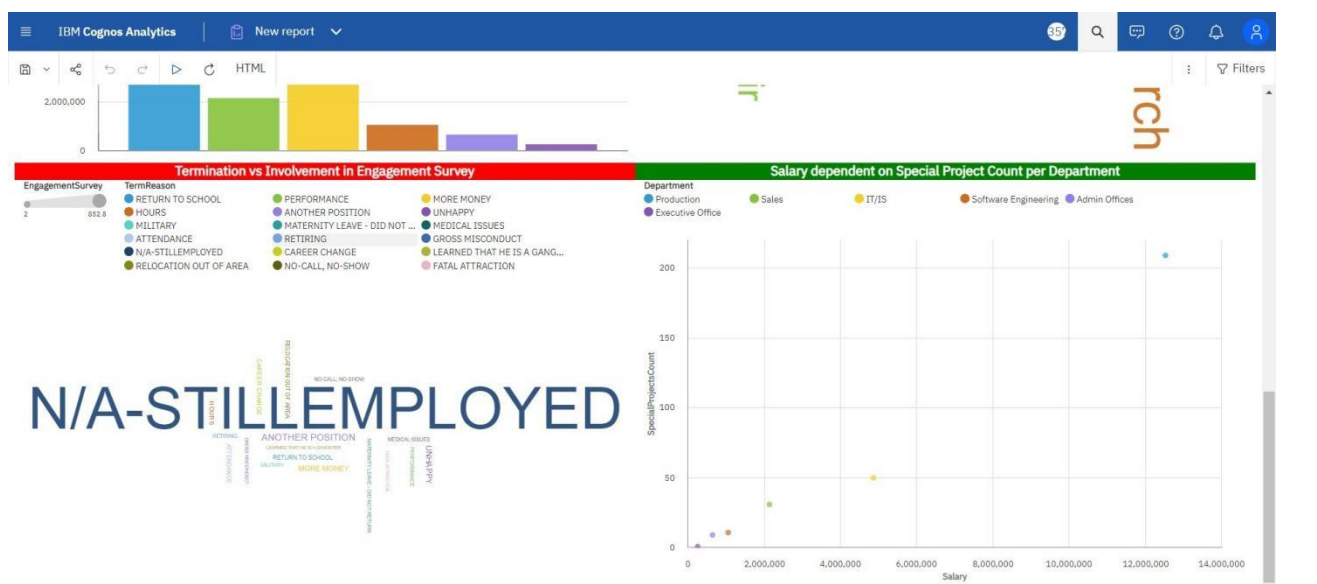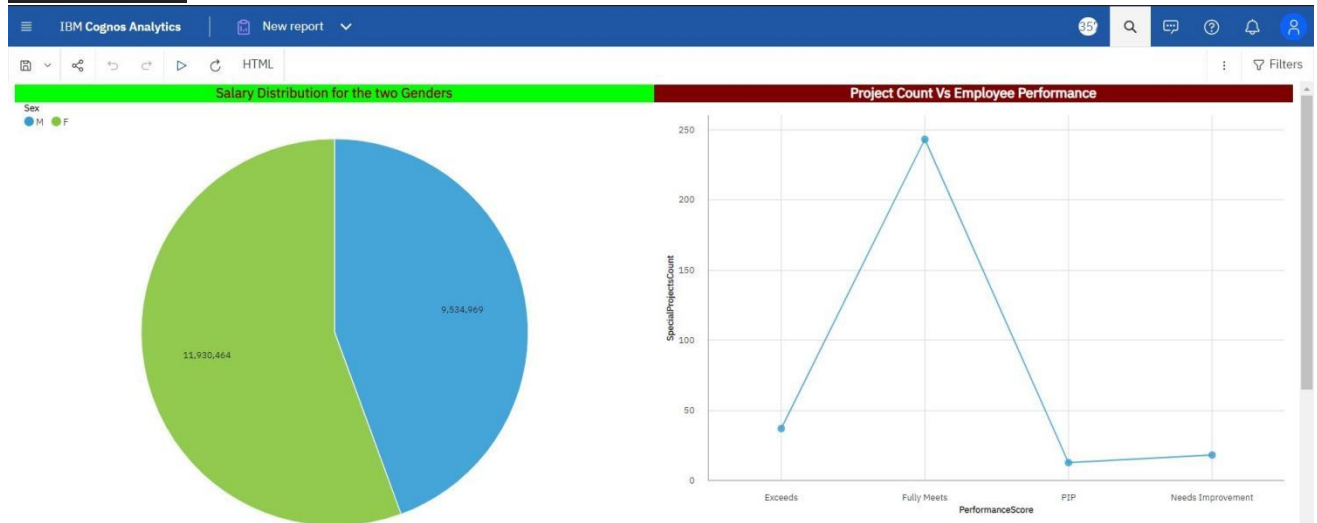

2. Employee Performance and Satisfaction - Special Projects count, Performance Score, Average Survey count, Employee Satisfaction in each Department
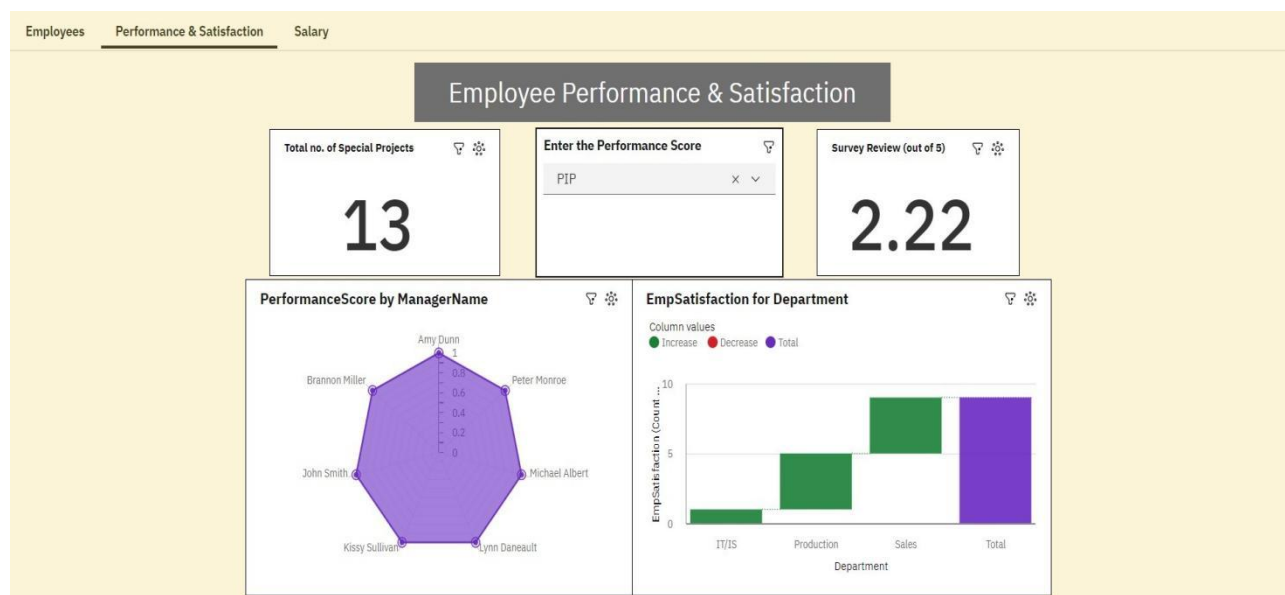
3. *Salary Distribution* - Average Salary, Department wise average salary, effect of special projects on salary
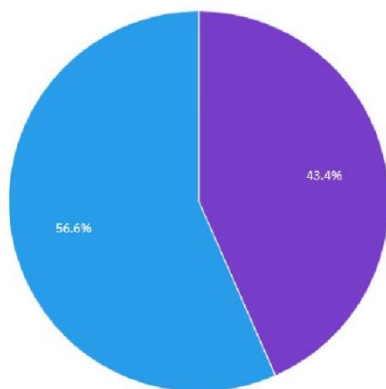
REPORT

Salary Distribution for the two Genders

Sex: M, F

9,534,969
11,930,464

Project Count Vs Employee Performance

SpecialProjectsCount vs PerformanceScore (Exceeds, Fully Meets, PIP, Needs Improvement)

Deparment - wise Salary Distribution

Department: Production, Sales, IT/IS, Software Engineering, Admin Offices, Executive Office

Salary Level of employees Recruited from different sources

Salary: 92,505 – 6,568,130

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

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

Termination vs Involvement in Engagement Survey

EngagementSurvey: 2 – 852.8

TermReason: RETURN TO SCHOOL, PERFORMANCE, MORE MONEY, HOURS, ANOTHER POSITION, UNHAPPY, MILITARY, MATERNITY LEAVE - DID NOT ..., MEDICAL ISSUES, ATTENDANCE, RETIRING, GROSS MISCONDUCT, N/A-STILLEMPLOYED, CAREER CHANGE, LEARNED THAT HE IS A GANG..., RELOCATION OUT OF AREA, NO-CALL, NO-SHOW, FATAL ATTRACTION

N/A-STILLEMPLOYED

Salary dependent on Special Project Count per Department

Department: Production, Sales, IT/IS, Software Engineering, Admin Offices, Executive Office

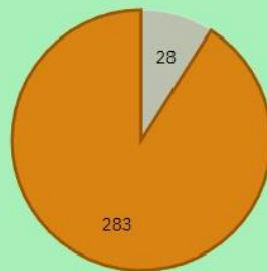SpecialProjectsCount vs Salary

STORY

United by the Racial Differences

Our company has people from various backgrounds, yet the harmony remains intact
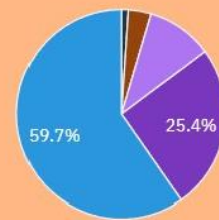

Hispanic Latino Ratio

HispanicLatino
- YES
- NO

28

283

Racial Distribution

RaceDesc
- American Indian or Alaska Native
- Two or more races
- Asian

59.7%

25.4%

# Salary Distribution & Factors Affecting Salary of Employees

- The visualization on the left depicts the average salary of employees working in each department.
- The visualization on the right depicts how special projects in each department affect the average salaries in the departments.

Salary, Department
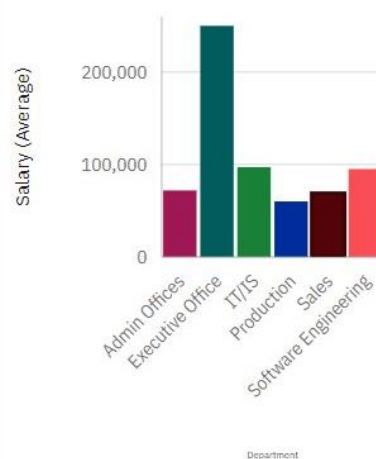
Salary (Average)

200,000

100,000

0

Admin Offices
Executive Office
IT/IS
Production
Sales
Software Engineering

Department

Salary by SpecialProjectsCount colored by Department

Department
- Admin Offices
- Executive Office
- IT/IS

50,000 100,000 150,000 200,000 250,000 300,000
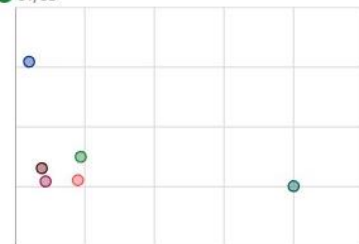
Salary on Basis of Performance Score for each Department

Salary by EngagementSurvey colored by PerformanceScore and sized by EmpSatisfaction

EmpSatisfaction (...

1   4

PerformanceScore
● Exceeds   ● Fully Meets   ● Needs Improvement   ● PIP

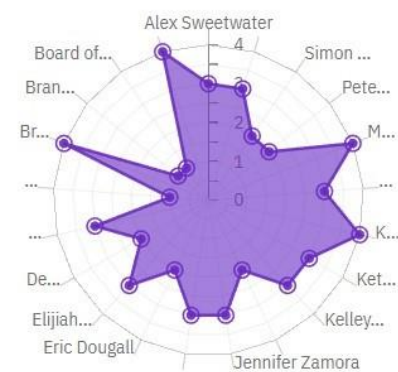Admin Offices   Executive Office   IT/IS   Production
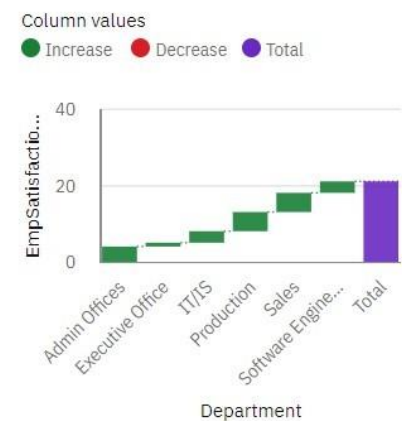
(scrollable graph)

Employee Performance & Satisfaction

- The visualization on the left focuses on the performances on all the managers in the company.
- The visualization on the right gives us an idea of how satisfied the employees are, from different departments.

PerformanceScore by ManagerName

Alex Sweetwater
Board of...   Simon ...
Bran...   Pete...
Br...   M...
...   ...
...   K...
De...   Ket...
Elijiah...   Kelley...
Eric Dougall   Jennifer Zamora

4
3
2
1
0

EmpSatisfaction for Department

Column values
● Increase   ● Decrease   ● Total

40

20

0

EmpSatisfactio...

Admin Offices
Executive Office
IT/IS
Production
Sales
Software Engine...
Total

Department

Termination of Employees

On selecting the reasons for termination from the filter dropdown, we can assess the count of people terminated from our organization for the selected reason. This can help in accessing the different reasons for termination and also check if there is anything that the organization can do in order to reduce certain

Termination Reason

MORE MONEY   ×   ⌄

Number of Employees Terminated

1