

# Employee Satisfaction

Project by Oki Samila Rici

# Mind Map Employee Satisfaction

Use Case Summary

Business Understanding

Data Understanding

Data Preparation

Data Cleansing

Exploratory Data Analysis

Conclusion

# Employee Satisfaction

## Use Case Summary

### Objective Statement:

- Get an insight about what is the effect of salary on the employee
- Get an insight into which department has the lowest salary
- Get an insight into what department most leave the company
- Get an insight about how satisfaction employees who left the company

### Analytisc Technique:

- Descriptive Analysis
- Graph Analysis

# Employee Satisfaction

## Expected Outcome:

- Know what is the effect of salary on the employee
- Know the name of a low-paying company department
- Know what department most leave the company
- Know how satisfaction employees who left the company

## Business Understanding

- This dataset contains a company that records various employee parameters (example : salary, satisfaction level, etc).
- This case contains some business questions based on the data:
  - What is the effect of salary on the employee?
  - Which department has the lowest salary?
  - What department most leave the company?
  - How satisfaction employees who left the company?

# Employee Satisfaction

## Data Understanding

- Source data by Kaggle
- Data Dictionary:
  - statisfaction\_level: satisfaction level at the job of an employee
  - last\_evaluation: rating between 0 to 1 received by an employee at this last evaluation
  - number\_project: number of projects an employee involved
  - average\_monthly\_hours: average number of hours in a month, spent by an employee at the company
  - time\_spend\_company: number of years spent in the company
  - Work\_accident : 0 = no accident during employee stay, 1 = accident during employee stay
  - left : 0 = indicates employee stay in the company, 1 = indicates employee left the company
  - promotion\_last\_5year: number of promotions in his stay
  - Department: department an employee belongs to
  - salary: salary in USD

# Employee Satisfaction

## Data Preparation

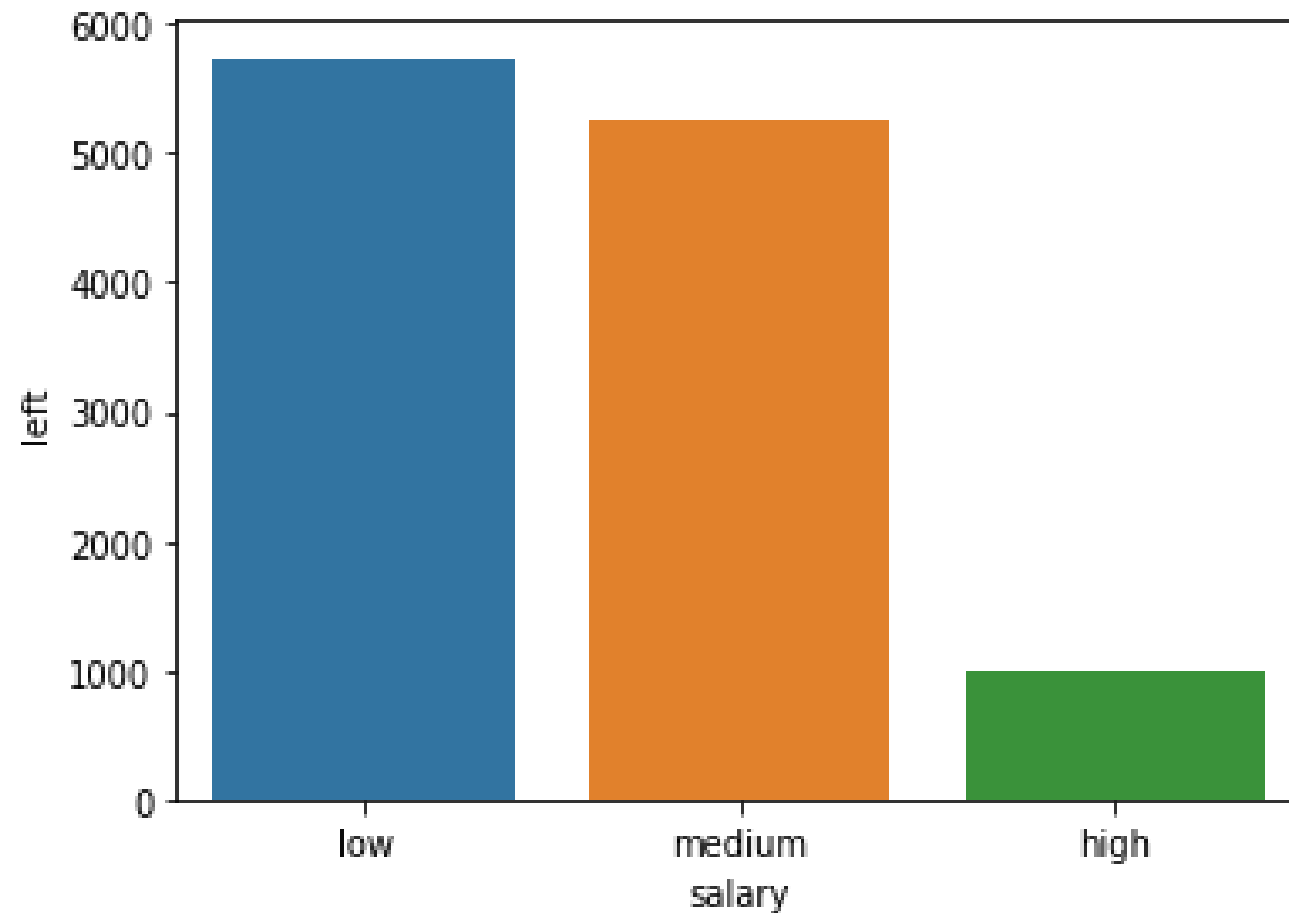
- Packages : Pandas, Numpy, Seaborn, Matplotlib
- Use HR comma sep dataset
  - All columns, except sales and salary columns are numeric.
  - Work\_accident, left, and promotion\_last\_5years are binary (0,1).
  - The name of the sales column will be changed to Department.

## Data Cleansing

- The dataset has no missing values, and the data type names are all correct.
- The dataset contains 3008 duplicated data points that must be removed.

# Employee Satisfaction

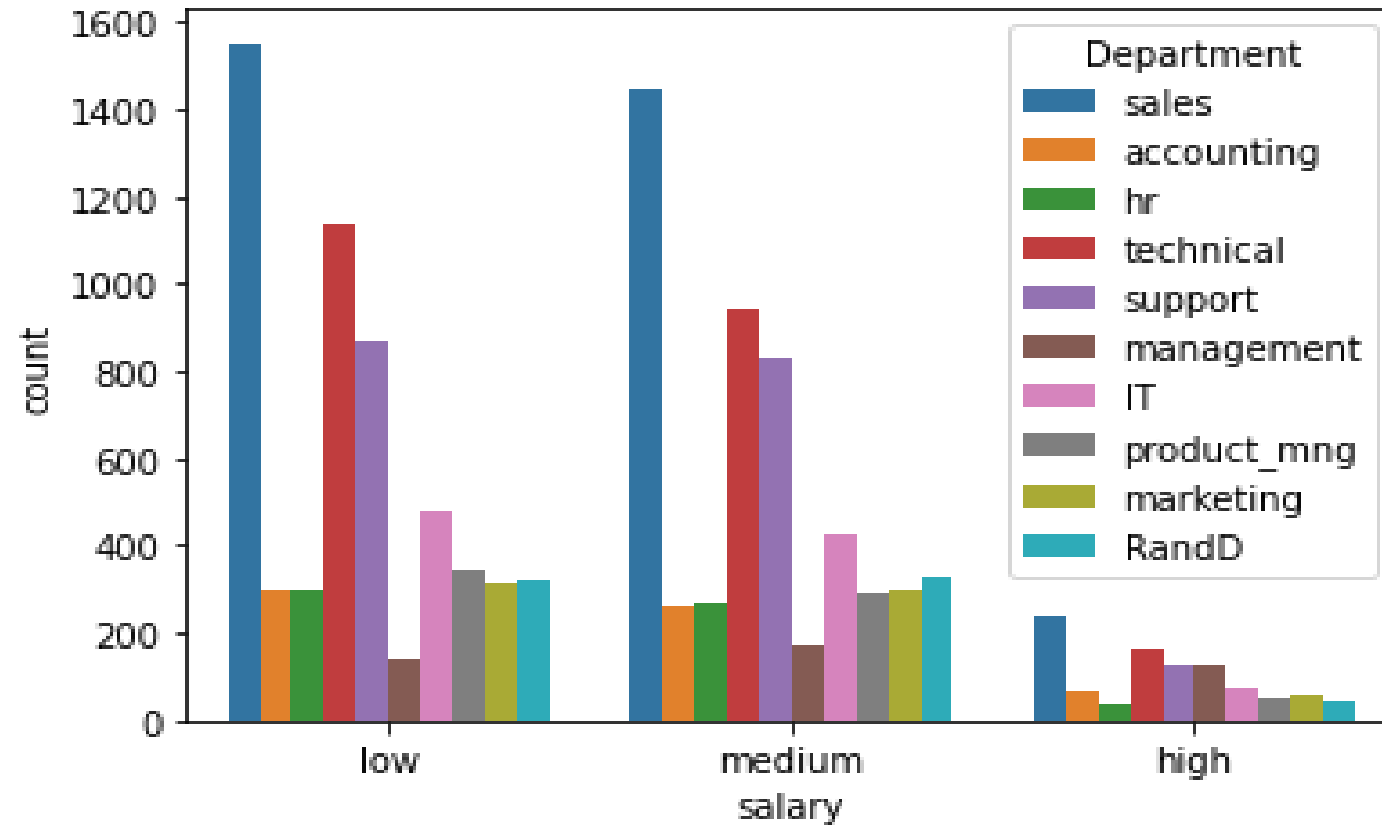
## Exploratory Data Analysis



What is the effect of salary on the employee?

Many employees leave the company because their salary is low and medium

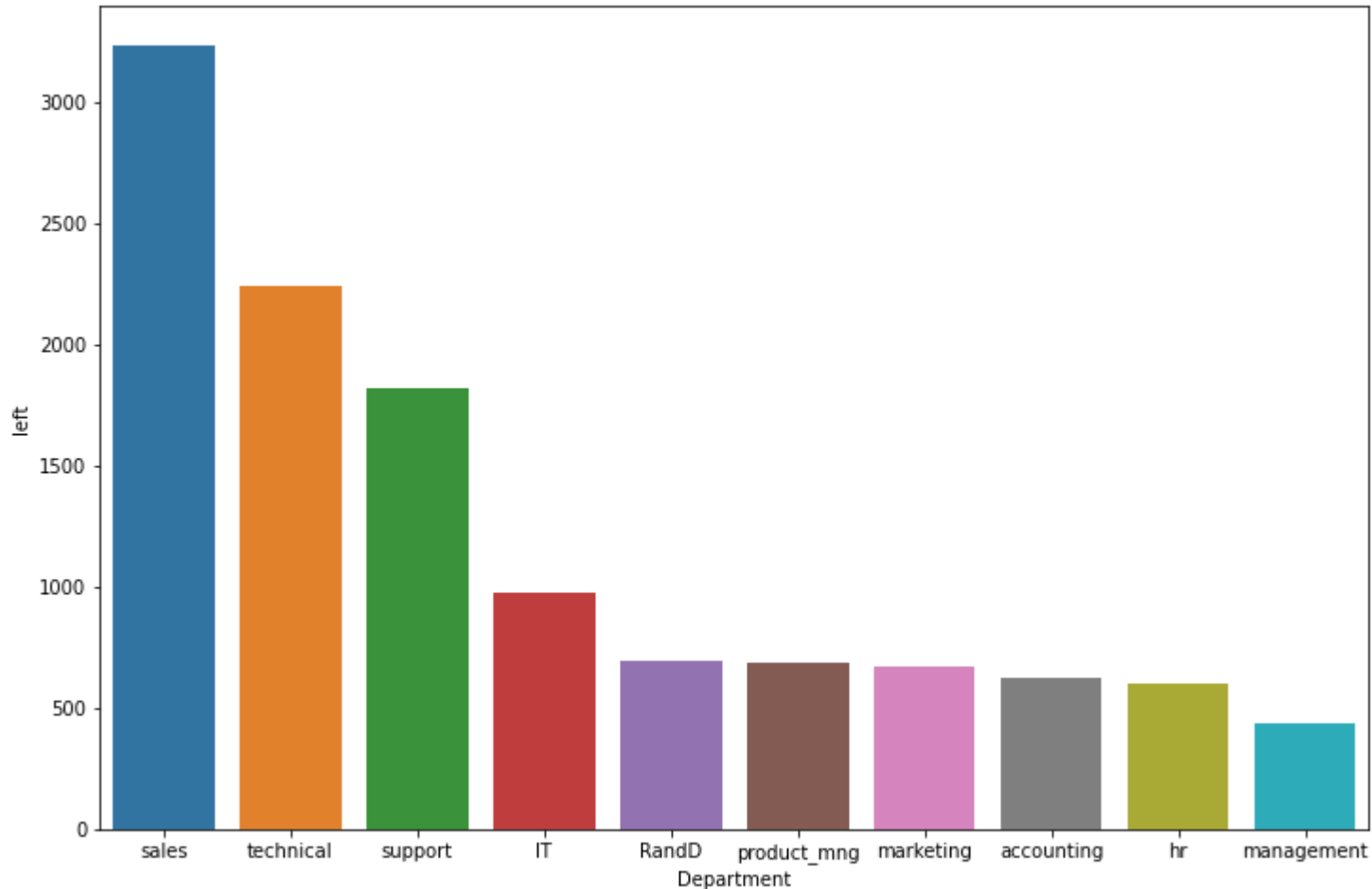
# Employee Satisfaction



Which department has the lowest salary?  
sales, technical and support departments  
have low and medium salary



# Employee Satisfaction



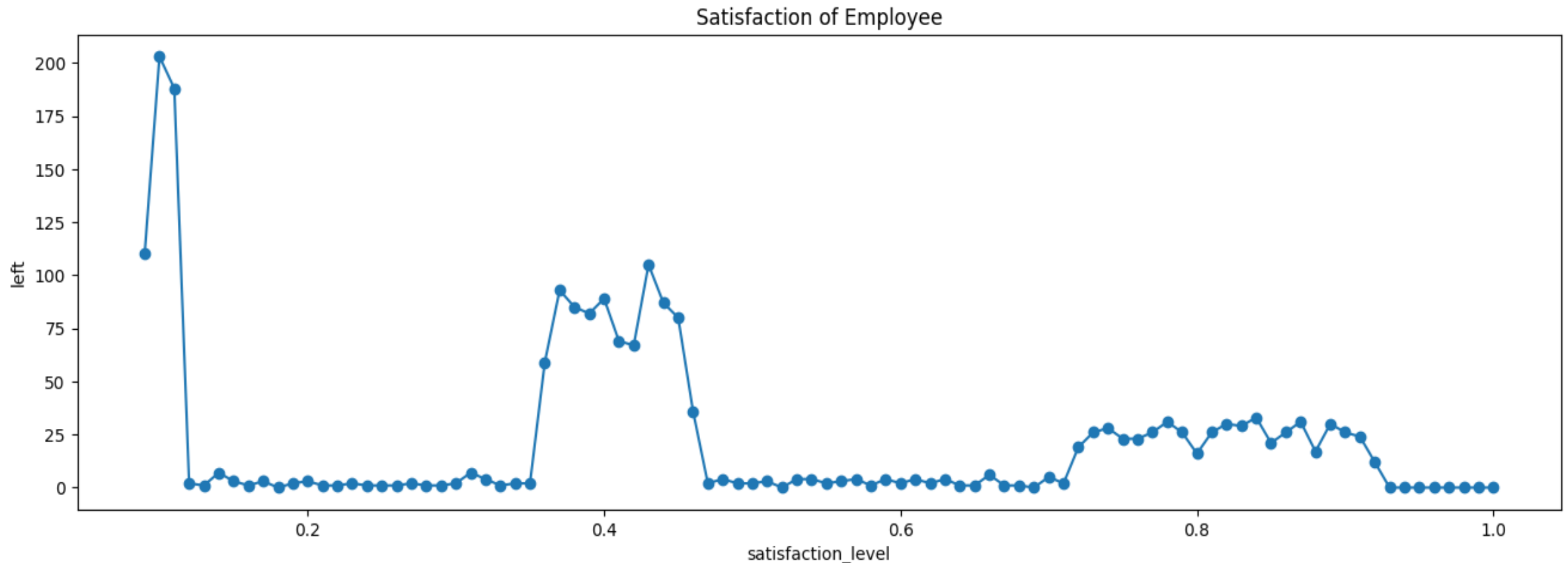
What department most leave the company?

The sales department has the most employees who leave the company, followed by the technical and support departments

# Employee Satisfaction

How satisfaction employees who left the company?

The highest number of employees leaving a company with a low satisfaction rate is below 20%



# Employee Satisfaction

## Conclusion

- In the dataset, fewer employees are leaving the company, which is 1991 employees and 10000 employees remain in the company.
- The analysis focuses on employees leaving the company, with salaries having a significant impact on the number of employees leaving the company. Employees who are paid more in the low and medium ranges are more likely to leave the company.
- The lowest and medium salaries were found in the sales, technical, and support departments.
- The highest number of employees who left the company came from sales departments of 3239 employees, technical departments of 2244 employees, and support departments of 1821 employees.
- Employees who leave the company have an average satisfaction rate of less than 50% and the highest number with the lowest satisfaction level is less than 20%.