

TAKENMIND GLOBAL DATA ANALYTICS INTERNSHIP

EMPLOYEE ATTRITION CASE
PROOF-OF-CONCEPT

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OBJECTIVE

- Providing a data-driven solution to the company on the following questions:
 1. What type of employees are leaving?
 2. To determine which employees are prone to leave next.

METHODOLOGY



To understand the dataset provided to us: This will help us determine which of the variables are of importance pertaining to our problem statement.



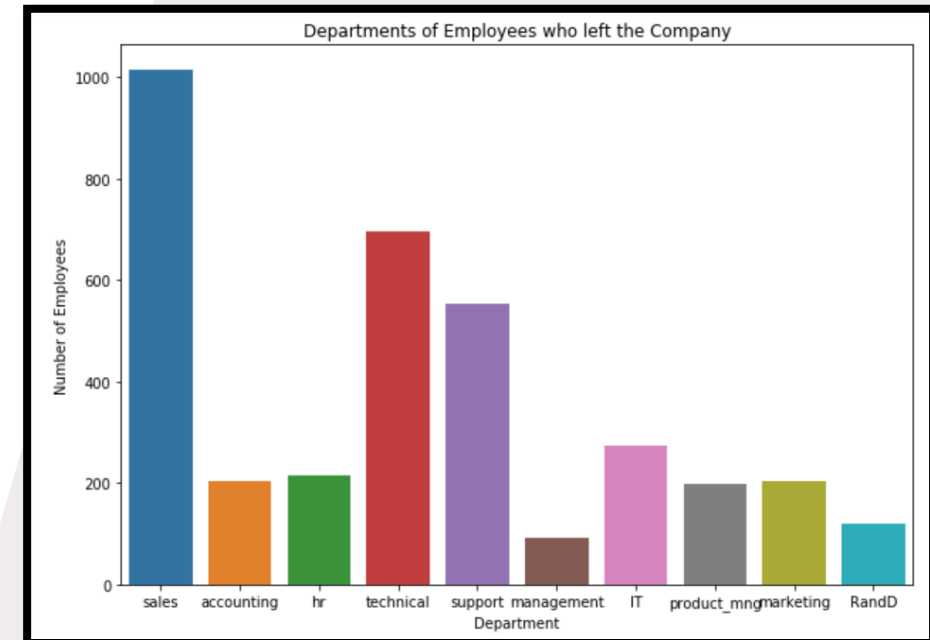
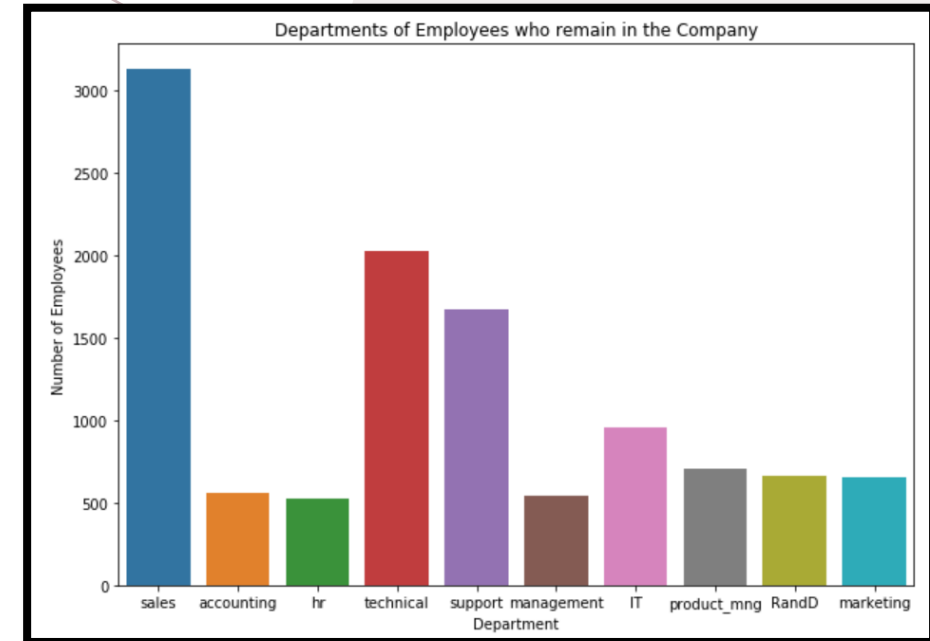
Data Analysis: This is done using univariate and multivariate analysis.



Suggestions and Insights to the company.

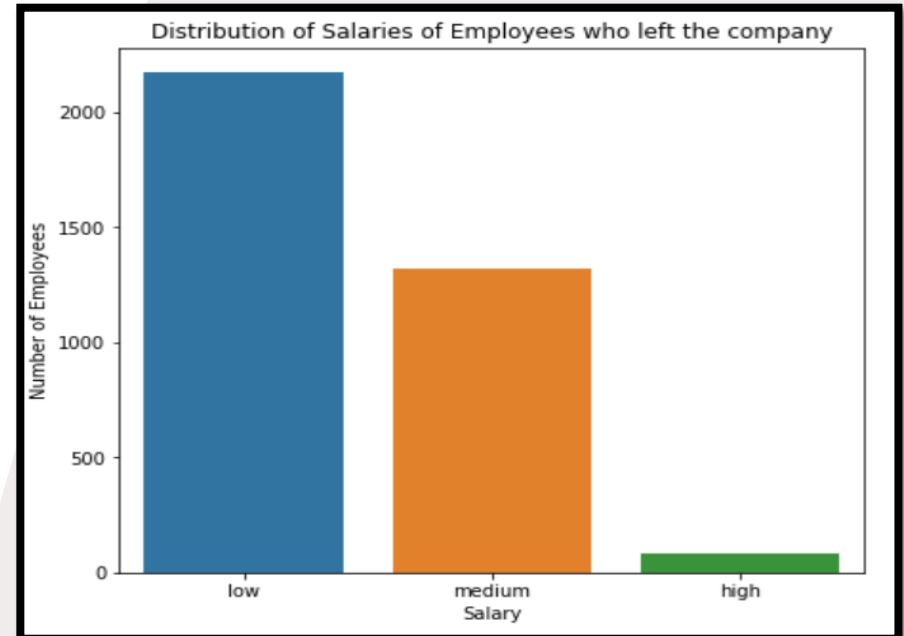
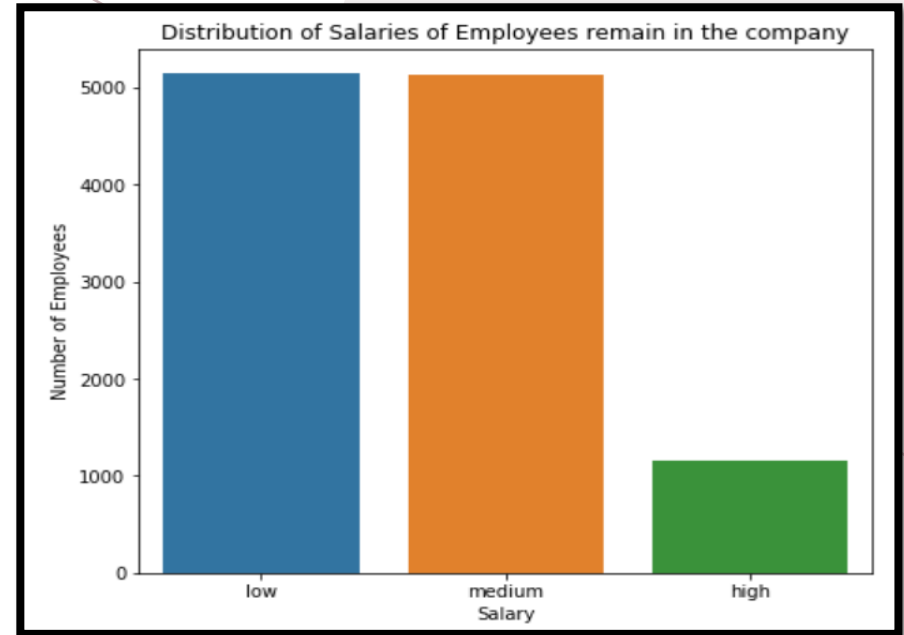
DEPARTMENT & ATTRITION

- The highest number of attrition is in Sales department followed by Technical and Support departments.
- The lowest number of attrition is observed in the Management department.
- However, from here, we can further extend the analysis to the percentage of attrition in each department.



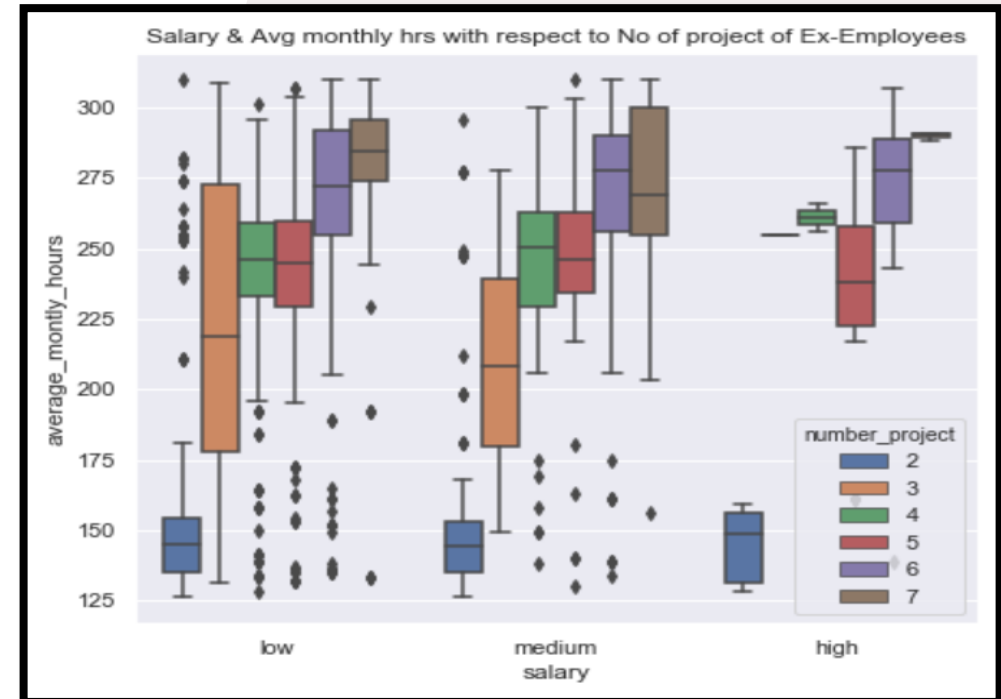
SALARY & ATTRITION

- The proportion of high salaried employees leaving the company is much lesser compared to low and medium salaried employee.
- This is an important aspect as salary plays as the decision-maker for whether or not the employees stay in the company or not.



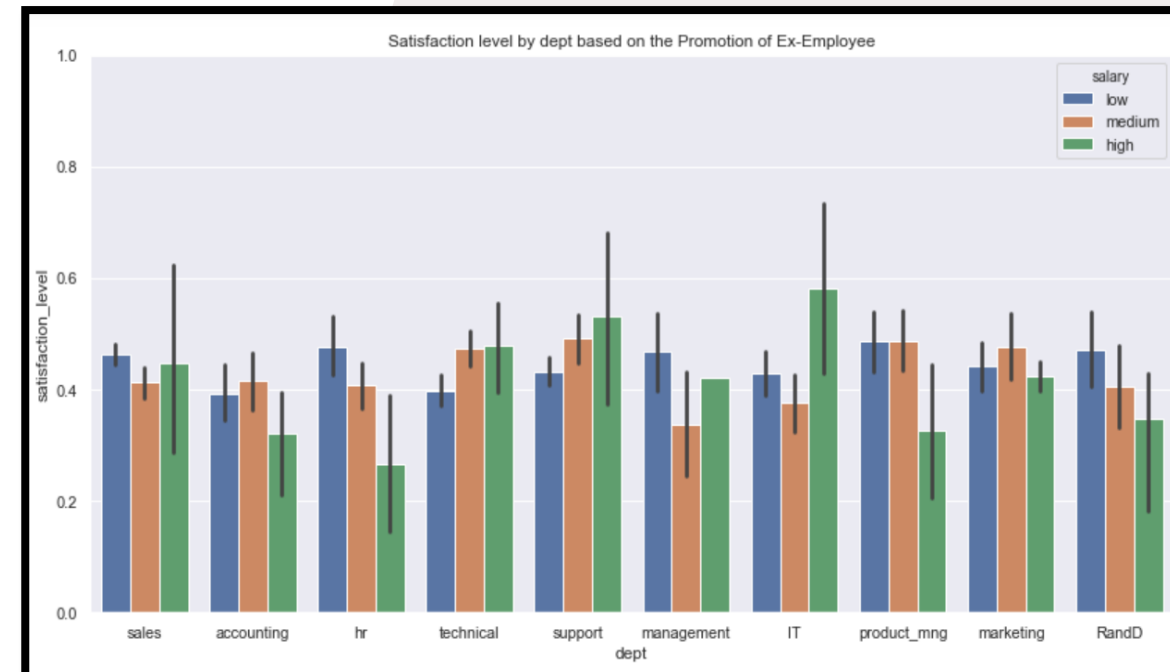
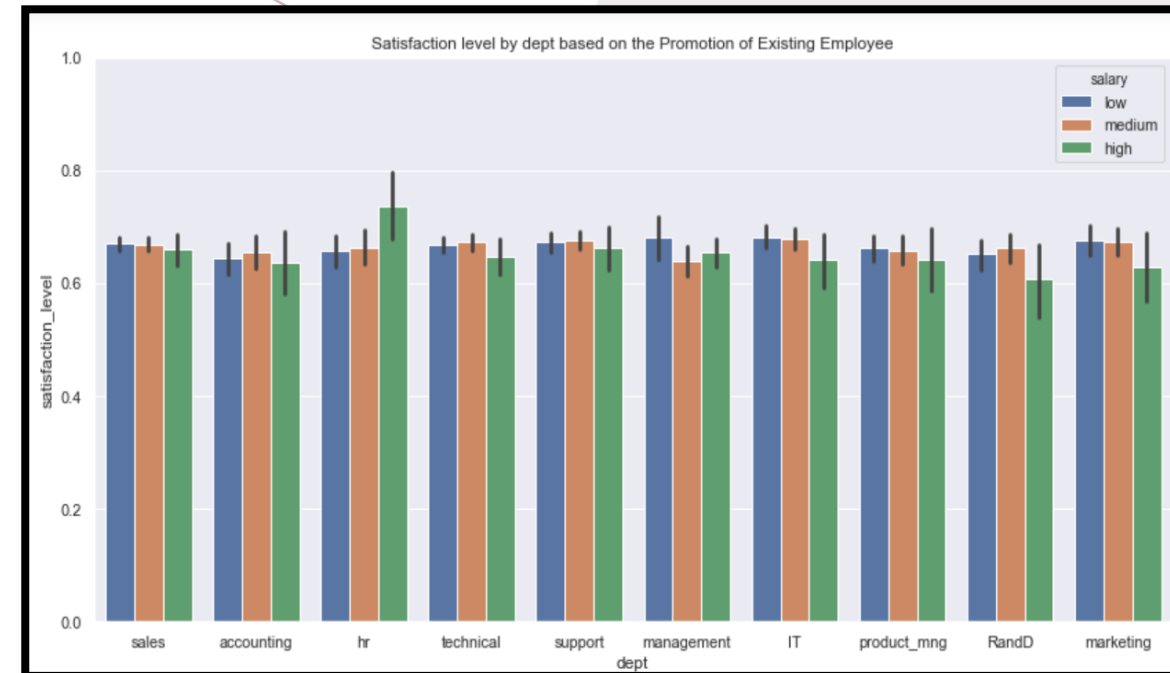
SALARY, AVERAGE MONTHLY HOURS & NUMBER OF PROJECTS

- If the average monthly hours for the ex-employees working on 2 projects is between 130 and 160, they tend to leave; for 3 projects it is 175 to 270 hours; for 7 projects it is 255 to 290 hours.
- Therefore the higher the number of hours and the number of projects allocated, higher are the chance of the employees to leave the company.



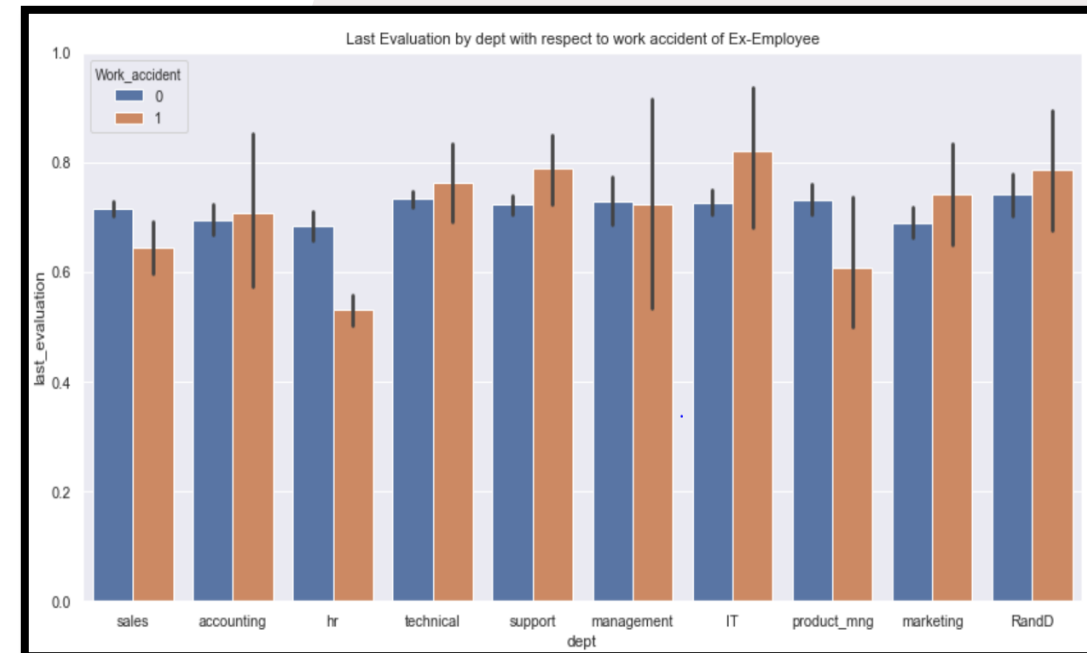
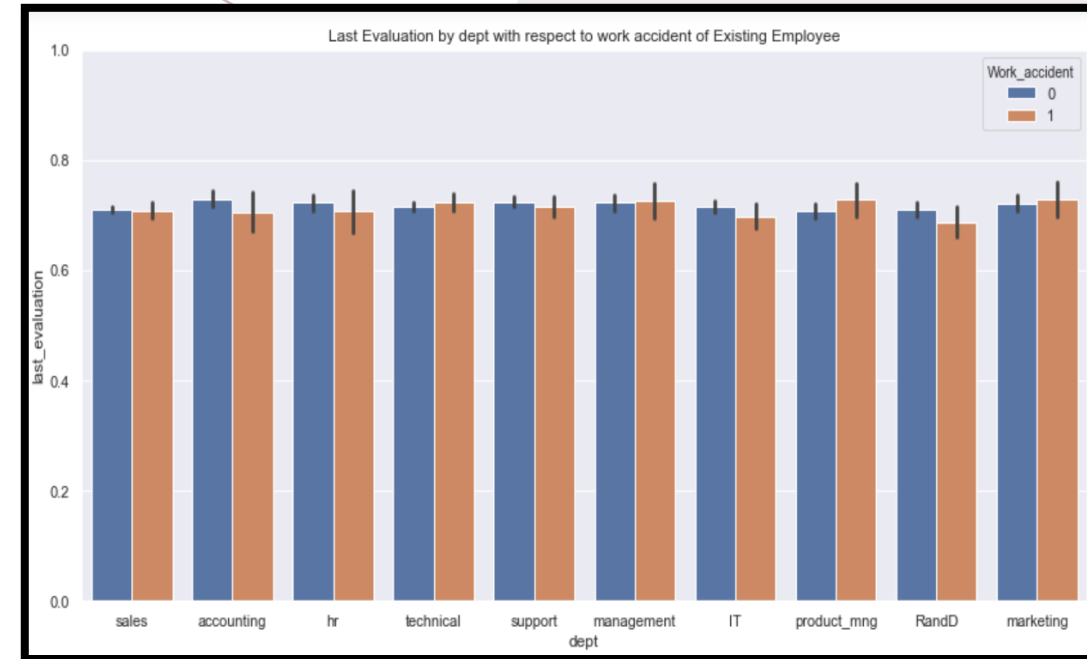
SATISFACTION LEVEL, DEPARTMENT & SALARY

- It is interesting to observe that highest salaried have the highest satisfaction in the HR department and highest salaried have the lowest satisfaction level in the same department.
- Highest salaried IT department with satisfaction level less than 0.6 are more prone to leave the company.
- Amongst the medium salaried with less than 0.4 satisfaction level are more prone to leave.
- So it is observed that the cut-off for the satisfaction level is therefore 0.6, above which the employees are less likely to leave the company.



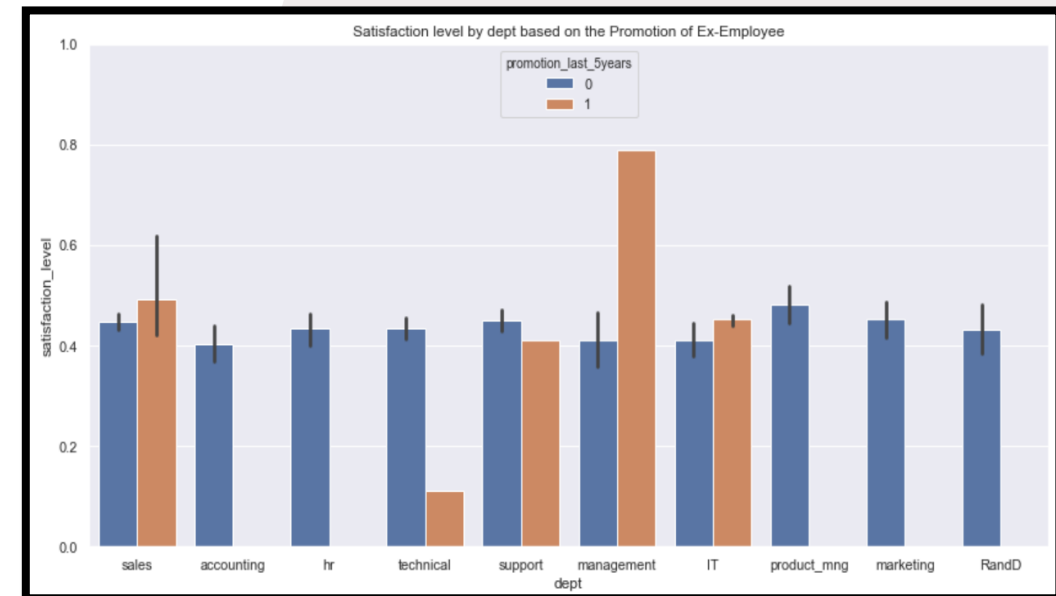
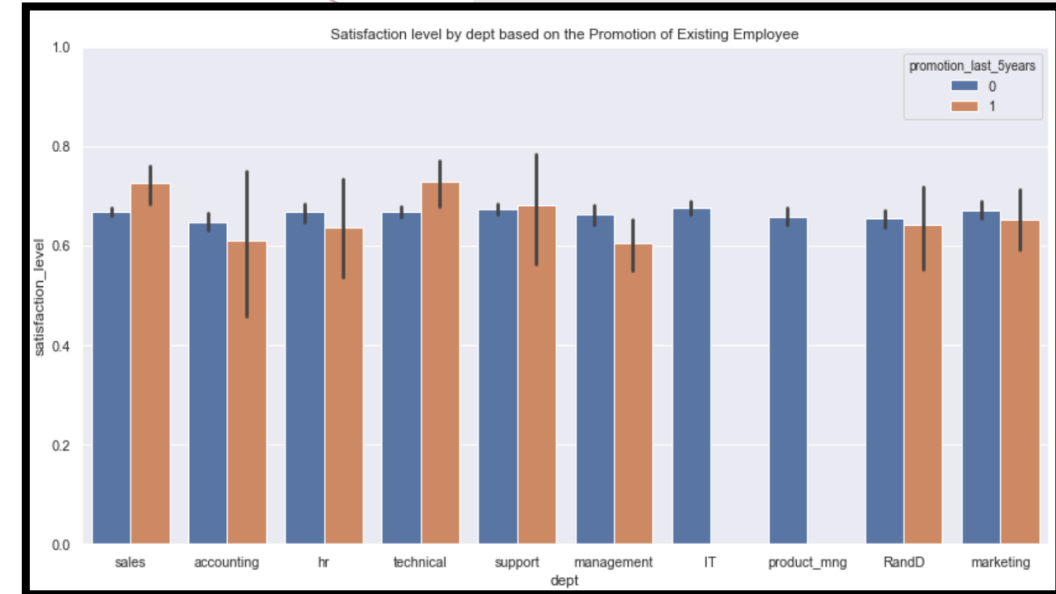
LAST EVALUATION, DEPARTMENT & WORK ACCIDENT

- Of the employees who left the company, the HR department has the least last evaluation with work accident.
- The IT department with work accident and highest last evaluation are more prone to leave their jobs.
- Therefore, with last evaluation ranging between 0.5 to 0.85, the employees are more prone to leave the company vis-à-vis the last evaluation ranging between 0.6 and 0.8



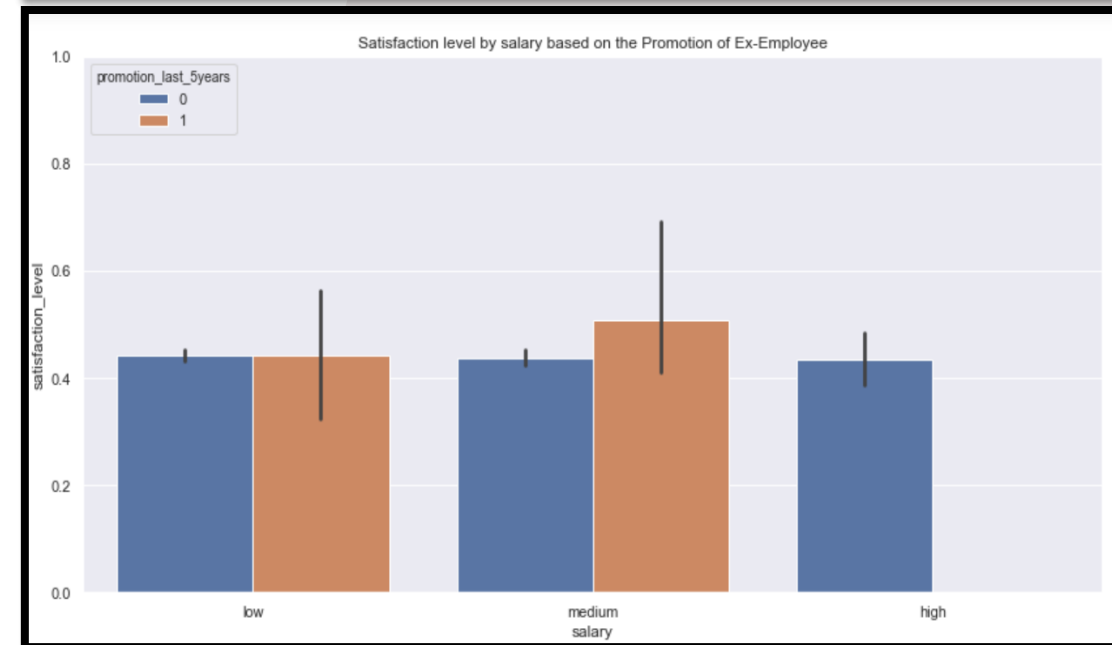
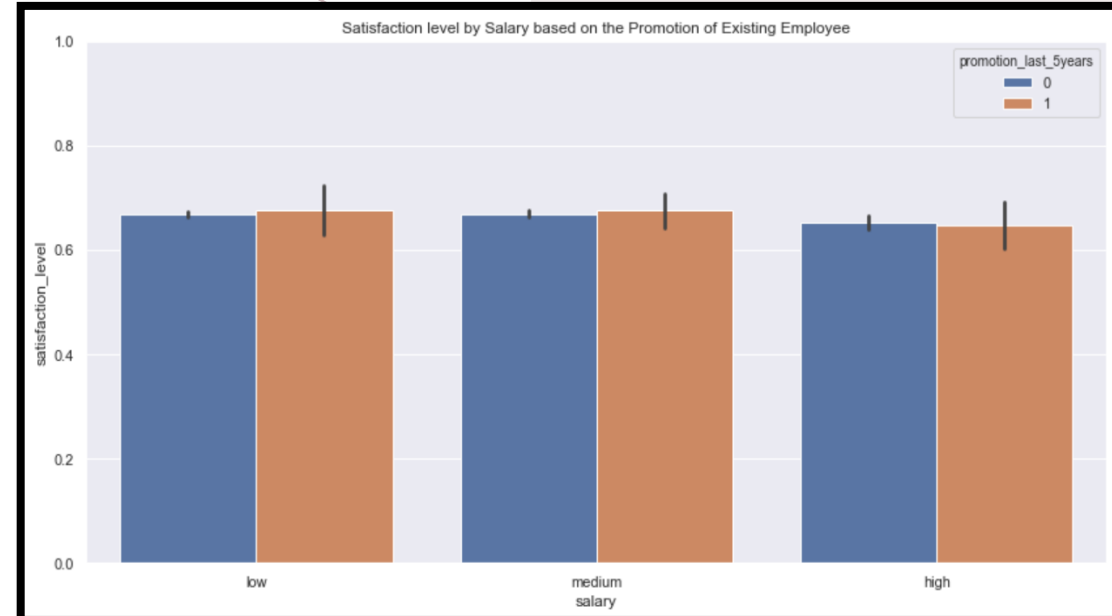
SATISFACTION LEVEL, DEPARTMENT & PROMOTION IN LAST FIVE YEARS

- With no promotion in the last five years, employees from almost all the departments are prone to leave the company.
- It is however very interesting that Management department with around 0.8 satisfaction level and employees being promoted in the last five years are also prone to leave the company.
- Therefore with low satisfaction level and no promotion in the last five years suggests that the employees are more likely to leave the company.



SATISFACTION LEVEL, SALARY & PROMOTION IN LAST FIVE YEARS

- With satisfaction level above 0.6 for all the salary ranges with or without promotion in last 5 years, the employees are less likely to leave the company.
- With satisfaction level around 0.4 for all the salary ranges without promotion in last 5 years, the employees are more likely to leave the job.
- Hence satisfaction level, salary range and promotion in the last five years plays an important decisional role in determining whether or not the employee will leave the job or not.



FACTORS CONTRIBUTING TO ATTRITION

- The main factors which are driving the employees out of the company are:
 1. Satisfaction level
 2. Time spent at the company
 3. Average monthly hours
 4. Number of projects
 5. Last evaluation

The employees with lowest satisfaction level, least number of projects and poor last evaluation are more prone to leave the company.

INSIGHTS TO THE COMPANY

1. Since we saw that satisfaction level plays a major role in attrition, it is very essential for the company to maintain high level of satisfaction amongst its employees.

This can be done through multiple ways: Offering promotion at least once every 2 years in this dynamic market situation, increase in salary of the employees and conducting few employee boosting activities which will make them more loyal and dedicated towards the company.

2. An increase in the number of projects allocated to each employees can also help reduce the attrition rates.
3. The company also needs to improve its last evaluation rates, if this is poor, the employees are prone to leave the company and reducing this will build a more loyal workforce.
4. Also if the average number of monthly hours spent by the employees are high, they should be compensated well for the same, this will also be one of the boosting factors for the employees considering the monetary aspect, which may in turn lead to them leaving the company.

