HR CASE STUDY

SUBMISSION

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XYZ Company faces a high employee attrition rate of 15% , affecting company's reputation, operations and training logistics

Current State

- The management team of XYZ company observes that annually the company is facing 15% employee attrition rate across different departments and hierarchy

- The team wants to understand the key factors driving attrition rate and design a framework to predict the probability of attrition

Question:
What are the key factors that lead to high employee attrition rate?

Desired Future State

- Management team is able to identify the key factors leading to high attrition rate and make changes to workplace accordingly
- Management team is able to identify the employees having high probability to churn and take necessary actions to retain them

Questions

Why do Employees leave the company?
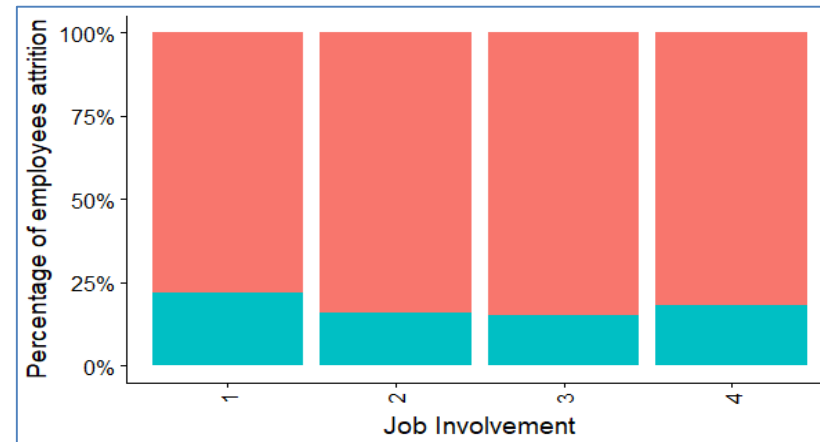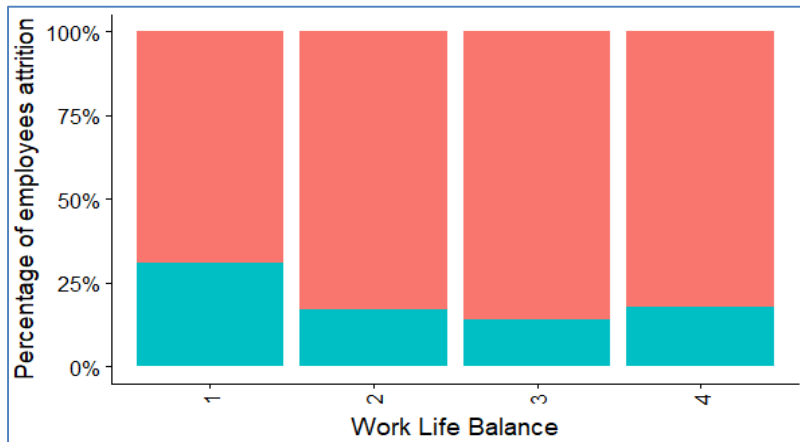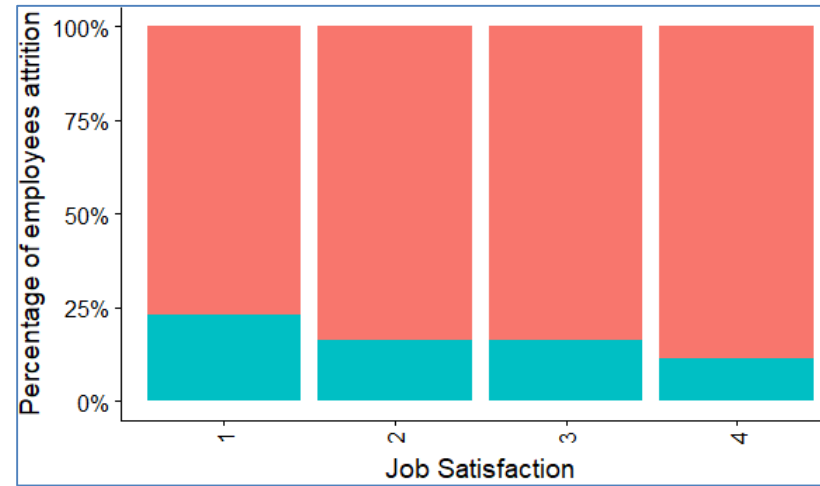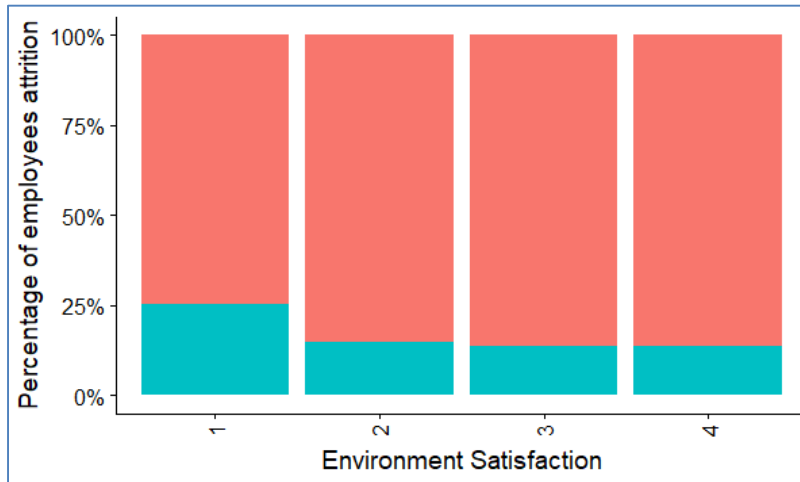What are the key factors driving Employees to leave the company?

Findings

- Percentage of Employees attrition with Job-Satisfaction, Environment Satisfaction, Work-Life balance and Job-Involvement
- Survey concludes that Employees who are Travelling Frequently and are from HR department have high attrition rate
- Survey concludes that Employees who are doing overtime are more likely to leave the company
- Survey concludes that Recently joined employees and employees who worked for fewer number of years under the same manager tend to leave the company

Recommendations

- Employees with low-medium Environment satisfaction tend to leave the company. Corrective measures to be taken to improve workplace satisfaction
- Employees who are in business travel frequently tend to leave the company. Facilitating better and infrequent travel could help in reducing attrition
- Experienced employees who are not promoted tend to leave the company. Giving them incentives and better roles in the company would help in reducing attrition
- Employees working overtime tend to leave the company. Ensuring strict in-time out-time policy would ensure employees are not working overtime

Percentage of Employees attrition with Job-Satisfaction, Environment Satisfaction, Work-Life balance and Job-Involvement
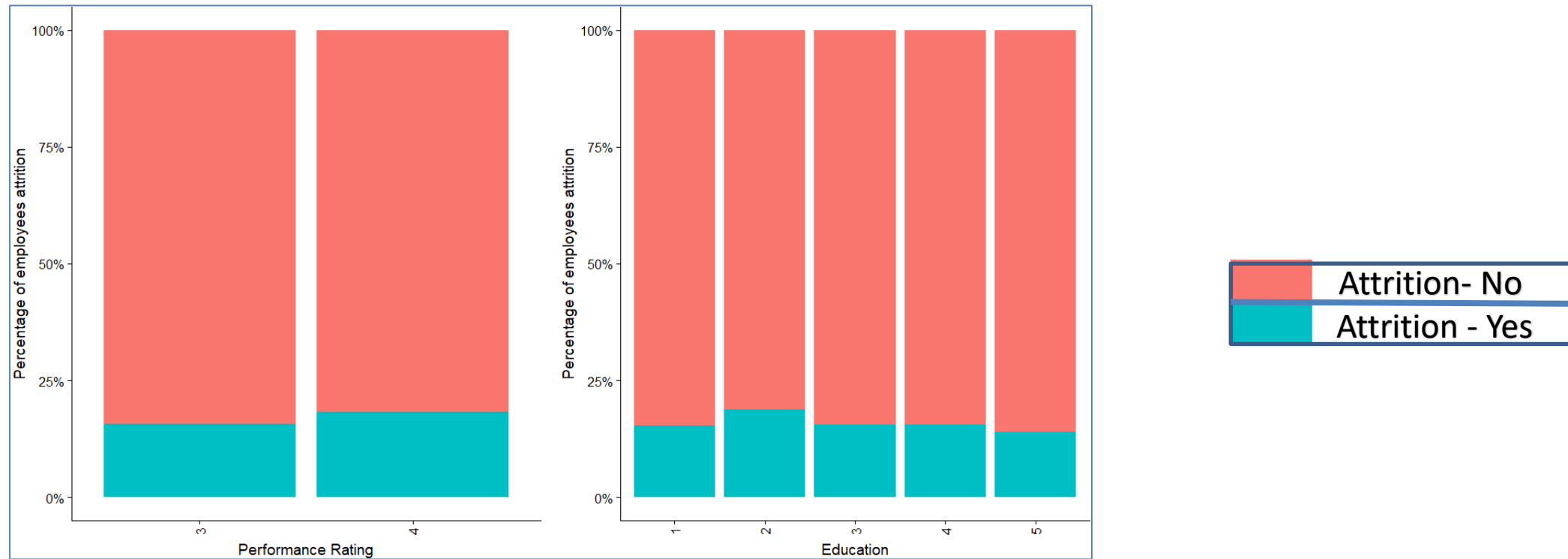

Attrition- No

Attrition - Yes

Findings:

*- Survey concludes that employees with low Job-Satisfaction, Environment Satisfaction, Work-Life balance and Job-Involvement tend to leave the company
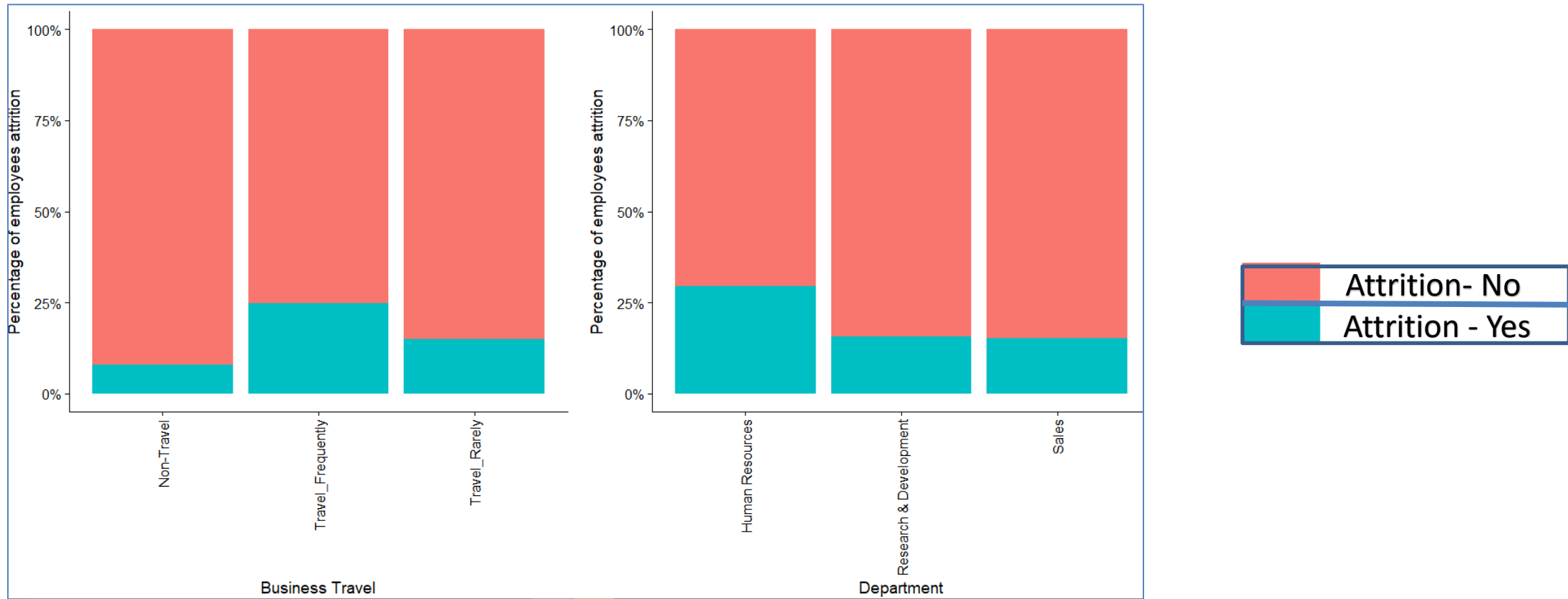
Percentage of Employee attrition with Business Travel and Department

Findings:
*- Survey concludes that Employees who are Travelling Frequently and are from HR department have high attrition rate

Percentage of Employees attrition with Performance rating and education

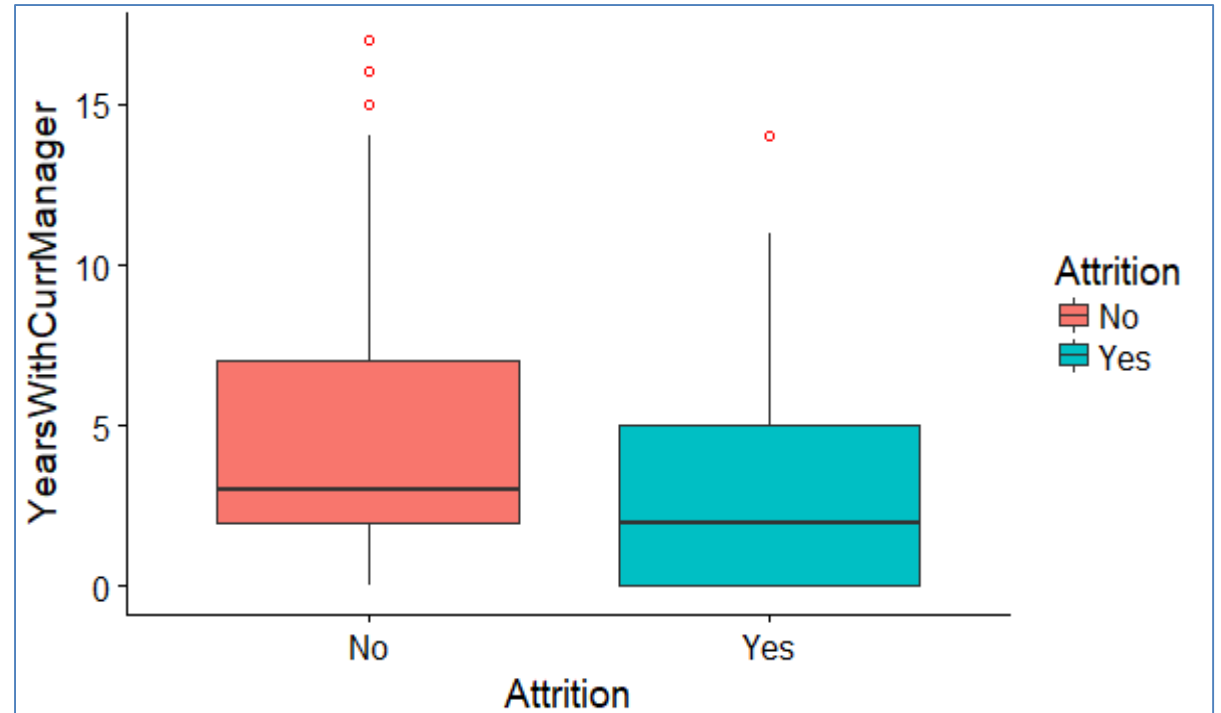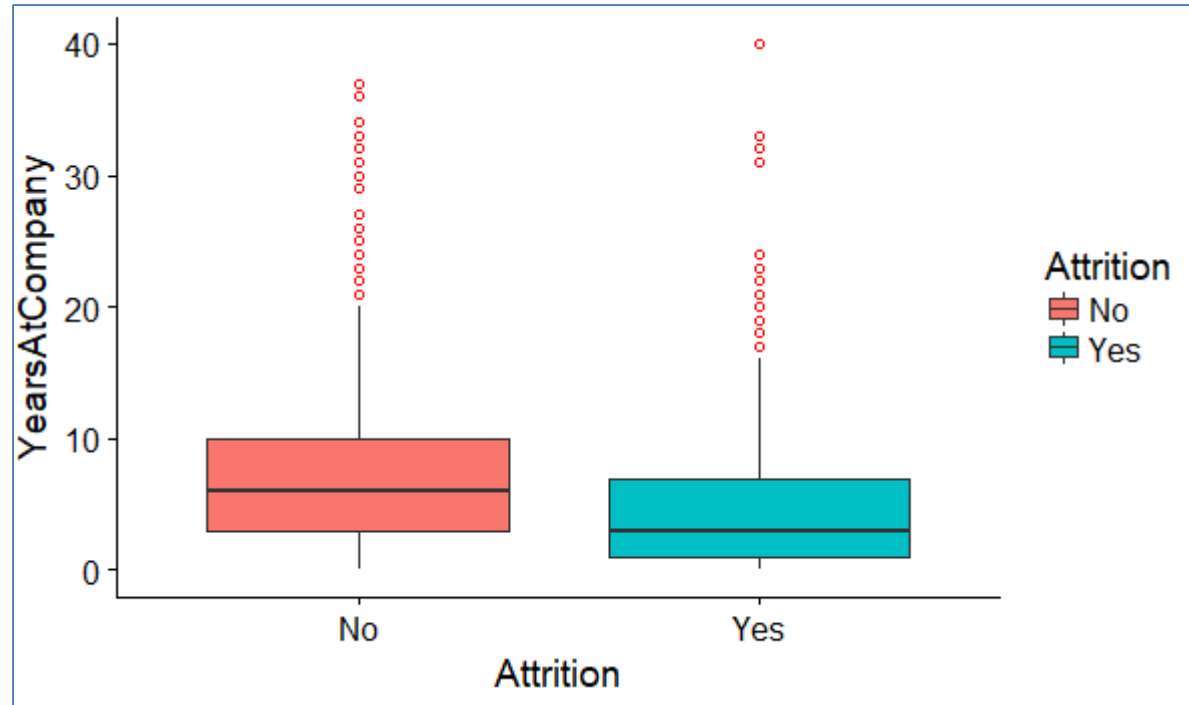**Findings:**

*- Survey concludes that Employees who have education level as College and higher performance rating have high attrition rate
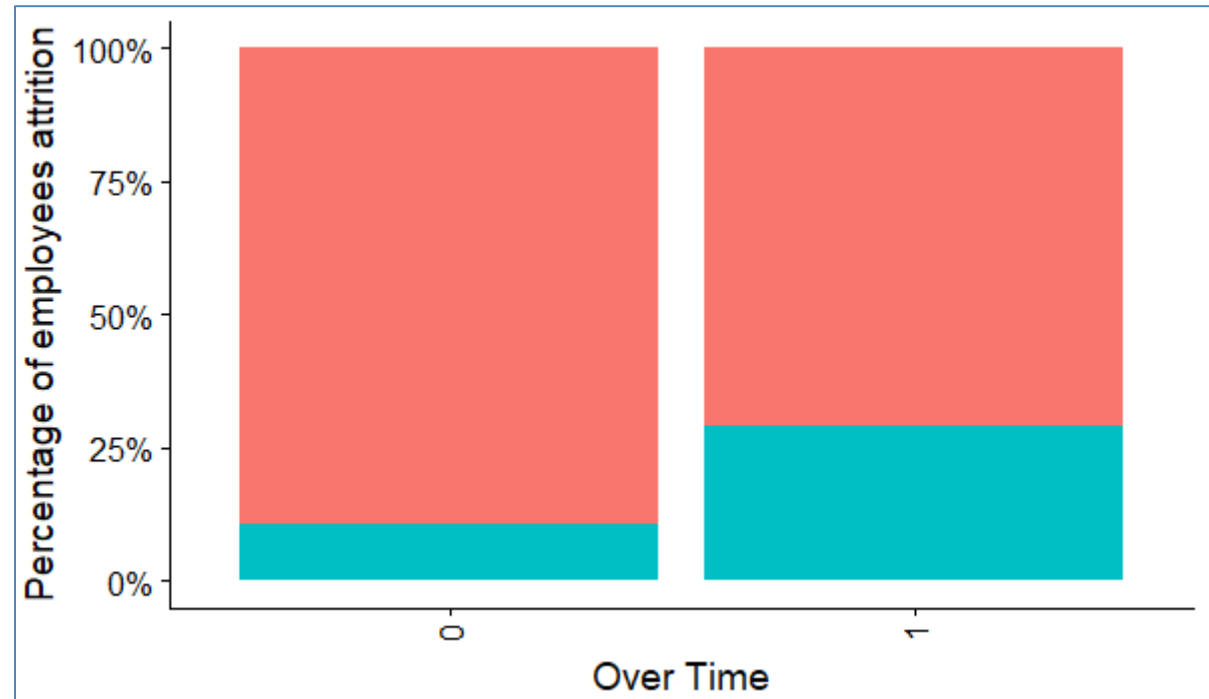
Percentage of Employees attrition with Over Time

Findings:

*- Survey concludes that Employees who are doing overTime are more likely to leave the company

Percentage of Employees attrition with Years at company and Years with Current manager

Findings:
*- Survey concludes that Recently joined employees and employees who worked for fewer number of years under the same manager tend to leave the company

Below are some significant factors affecting Attrition identified after multiple iterations of model building:

Less Age of employee
Less Number of companies employee has worked before joining this organisation
Less Total number of years the employee has worked so far
Higher Number of years since last promotion
Less Number of years under current manager
High Overtime done by employee
Low Work Environment Satisfaction Level
Low Job Satisfaction Level
Low Work life balance level
Frequent Business Travel
Marital status as Single
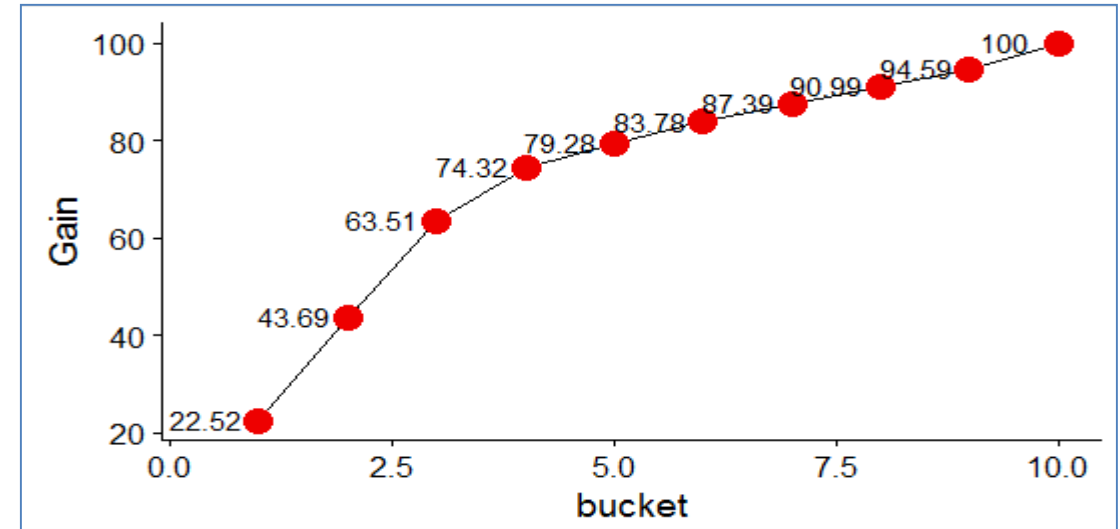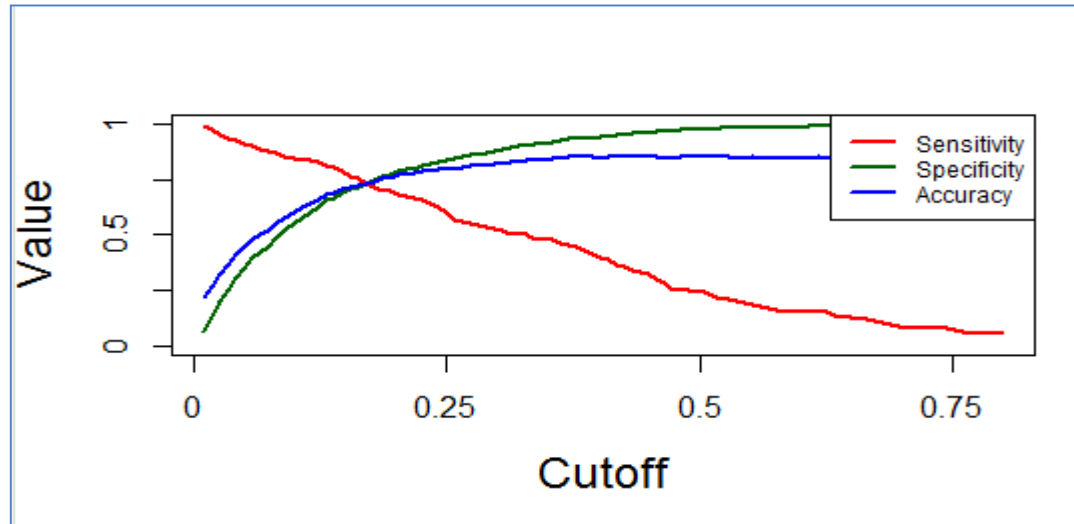
Accuracy	73%
Sensitivity	73%
Specificity	73%
Gain	74% (at end of 4th decile)
Lift	2.12 (at end of 3rd decile)
KS statistic	46%

Understanding business problem
- Understand Business Objective
- Understand the constraints

Data understanding
- Explore different datasets and identify entity relationship

Data cleaning and preparation
- Perform basic EDA
- Understand data anomalies and treat them accordingly

Analysis
- Attrition Analysis on different factors

Model Generation Phase
- Develop a model with significant factors
- Test Model for performance metrics