

HR Analytics – Acme Corp. Employee Attrition Report

Project for Codveda Internship Level 2 (Intermediate) – SQL for Business Analytics

1. Business Scenario / Problem

Acme Corp, a multinational firm, has been facing a growing employee turnover challenge. High attrition increases recruitment and training costs, disrupts productivity, and lowers employee morale. The HR department seeks a data-driven analysis to understand the drivers of attrition and guide strategies to retain top talent.

2. Objectives

- Use SQL to analyze employee data stored in a database.
 - Identify key factors that influence attrition.
 - Provide insights and recommendations to reduce turnover.
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3. Tools & Dataset

- Tools Used: SQL Server Management Studio (SSMS) for querying and analysis.
 - Dataset: IBM HR Analytics Employee Attrition Dataset (CSV format) sourced from Kaggle.
 - Records: 1,470 employees with variables such as Age, Department, Job Role, Monthly Income, Distance From Home, OverTime, Job Satisfaction, etc.
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4. Business Questions & Insights

1. Overall Attrition Rate → 16.12% of employees left (237 out of 1,470).
 2. Attrition by Department → Sales (20.6%) and HR (19.1%) face the highest attrition.
 3. Attrition by Salary Band → Low salary band has 28.6% attrition vs ~11% for high salary.
 4. Attrition by Overtime → Overtime workers: 30.5% attrition vs 10.4% for non-overtime.
 5. Attrition by Job Role → Sales Representatives suffer the highest attrition (39.8%).
 6. Attrition by Age Group → Employees under 30: 27.9% attrition, the highest of all groups.
 7. Attrition by Job Satisfaction → Low satisfaction: 22.8% attrition vs 11.3% for very high satisfaction.
 8. Attrition by Distance From Home → Long commutes (21+ km): 22% attrition vs 13.8% for short commutes.
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5. Key Insights

- Compensation is a strong driver → employees in lower salary bands are leaving at much higher rates.
 - Work-life balance issues (excessive overtime) significantly increase turnover.
 - Younger employees are most likely to leave, suggesting career growth and pay are key motivators.
 - Sales roles (especially Sales Representatives) and technical staff (Lab Technicians) are the most vulnerable job groups.
 - Commute distance correlates with attrition — long-distance commuters are more likely to resign.
 - Job satisfaction is directly tied to retention: satisfied employees are less likely to leave.
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6. Recommendations

- Review salary structures, especially for lower-paid employees.
 - Limit mandatory overtime and promote work-life balance.
 - Develop career development & mentorship programs targeting younger staff.
 - Prioritize retention strategies for Sales & Technical roles.
 - Consider remote work or relocation support for employees with long commutes.
 - Enhance employee engagement and recognition programs to boost satisfaction.
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7. Conclusion

The analysis reveals that attrition at Acme Corp is driven by compensation, overtime, age, job role, job satisfaction, and commute distance.

By addressing these factors with targeted HR policies and employee engagement strategies, Acme Corp can significantly reduce turnover, retain top talent, and foster a more stable and productive workforce.