HR Analytics Report

1. Introduction

The HR Analytics dataset provides insights into employee demographics, job satisfaction, attrition, and performance indicators. This report explores patterns, identifies key trends, and understands factors influencing employee retention, work-life balance, and salary distribution.

2. Dataset Overview

- Total Records: 1480 employees
- Total Columns: 38
- Missing Values: 'YearsWithCurrManager' has 57 missing values
- Data Types: 12 categorical columns, 25 numerical columns
- Primary Objective: Analyze employee attrition, salary trends, job satisfaction, and career progression.

3. Key Insights & Exploratory Analysis

Attrition Analysis

- Attrition Rate: 16.1% of employees have left the company.
- Higher attrition in employees with lower salary and work-life balance ratings.
- Departments with highest attrition: Sales and Research & Development.
- Overtime is a major factor—employees working overtime have a higher attrition rate.

Salary Trends

- Entry-level employees earn significantly less than mid-level and senior employees.
- Job Level 5 (Highest Level) earns nearly 5x more than Job Level 1.
- Employees with backgrounds in Life Sciences and Engineering earn more than those in HR and Marketing.

Work-Life Balance & Job Satisfaction

- Employees with low work-life balance ratings (1-2) are more likely to leave.
- Job Satisfaction and Attrition Correlation: Lower satisfaction ratings correspond to higher attrition.

4. Feature Importance for Attrition Prediction

- Monthly Income (Higher salary = Lower attrition)
- Overtime (Employees working overtime leave more often)
- Work-Life Balance (Poor balance = Higher attrition)
- Years at Company (Employees who stay longer are less likely to leave)

5. Conclusion & Recommendations

- Improving work-life balance and reducing overtime can help retain employees.
- Salary adjustments and job level improvements should be considered for employees at higher risk of leaving.
- More frequent promotions and career development programs can reduce attrition in mid-career employees.

Final Recommendations

- Implement flexible working hours to improve work-life balance.
- Provide career growth opportunities and regular salary adjustments.
- Focus on employee satisfaction surveys to understand pain points.
- Monitor departments with high attrition and address root causes.