HR Analytics - EDA Report

Objective

To analyze the HR dataset and identify patterns behind employee attrition.

Dataset Summary

- Rows: 1470
- Columns: 35 (after encoding)
- Target variable: Attrition (Yes/No)
- Missing values: None
- Duplicate rows: Removed

Key Visual Insights

1. Attrition Count

- Majority of employees stayed (No).
- About ~16% left the company.

2. Attrition by Job Satisfaction

- Employees with *lower job satisfaction (1-2)* are more likely to leave.

3. Age Distribution

- Higher attrition among *younger employees (20–30)*.
- Older employees tend to stay.

4. Monthly Income vs Attrition

- Median salary is lower for employees who left.

5. Attrition by Department

- Highest attrition in *Sales* and *Research & Development*.

6. Correlation Heatmap

- JobSatisfaction, MonthlyIncome, and YearsAtCompany have *mild inverse correlations* with attrition.

7. Years at Company

- Employees with *less than 3 years* experience show high attrition rates.

Summary

- *Low salary + low satisfaction + less experience = more attrition*
- Focus on retention policies for:
    - Entry-level roles
    - Sales & R&D departments
    - Younger employees

Report generated using Seaborn, Matplotlib, and Pandas in Jupyter.s