HR Analytics Dash Board

Problem Statement

Employee attrition is a critical concern for organizations as it directly impacts workforce stability, operational efficiency, and financial performance. High attrition rates may indicate underlying issues such as low job satisfaction, inadequate compensation, or lack of career growth opportunities. Understanding the factors that contribute to employee attrition can help organizations implement strategic interventions to retain talent. This project aims to analyse employee attrition using historical HR data and visualize key insights through a dashboard. The goal is to help HR teams make data-driven decisions to enhance employee retention and reduce turnover costs.

Solution Approach:

1. **Data Exploration & Preprocessing:**

   o Loaded the HR Analytics dataset, checked for missing values, and handled inconsistencies.

- Conducted exploratory data analysis (EDA) to understand attrition trends across demographics, departments, and job roles.
- Created derived features to enhance insights, such as tenure buckets and performance ratings.

2. **Feature Selection & Analysis:**

- Identified key factors influencing attrition, such as salary, job role, work-life balance, job satisfaction, and promotions.
- Used correlation analysis and statistical tests to determine significant contributors to attrition.
- Segmented employees based on performance, experience, and department for deeper insights.

3. **Dashboard Development:**

- Designed an interactive and user-friendly dashboard in Power BI with real-time filtering capabilities.
- Included visualizations such as:
    - **Attrition rate trends:** Yearly and department-wise breakdown.
    - **Key factor analysis:** Relationship between salary, job satisfaction, and attrition.
    - **Comparative insights:** High vs. low attrition departments.
    - **Predictive analysis:** Attrition likelihood based on historical data trends.
- Implemented slicers to allow HR teams to customize the analysis for specific groups.

4. **Insights & Recommendations:**

- **Work-life balance impact:** Identified that employees with poor work-life balance are more likely to leave.
- **Salary & compensation:** Found that lower salary ranges had a higher attrition rate compared to competitive pay grades.
- **Career growth opportunities:** Employees with fewer promotions or training opportunities showed higher attrition.
- **Actionable strategies:** Suggested measures such as competitive compensation benchmarking, enhanced career development programs, and improved workplace flexibility to retain employees.