

HR Attrition Analysis Report

Using Python, Excel & Tableau | Based on IBM HR Dataset

Project Overview

The project analyzes employee attrition patterns, focusing on business travel frequency and job roles with high attrition rates. Tools used: Python, Excel for data cleaning, Tableau for visualization.

Dataset Description

Source: IBM HR dataset

Size: 1,470 records, 35 features

Key Columns: Attrition, JobRole, BusinessTravel, MonthlyIncome

Data Cleaning & Preparation

Removed irrelevant columns like EmployeeNumber, Over18, etc.

Converted text columns to categorical types for efficient processing.

No missing values detected.

Key Insights

Top 3 High-Attrition Roles: Sales Rep, Lab Tech, HR

Business Travel: Frequent travelers show higher attrition rates.

Income: Lower income correlates with higher attrition, especially in high-travel roles.

Business Implications

Review travel policies for high-travel roles.

Focus on retention strategies for Sales, Lab Tech, and HR.

Enhance employee engagement for low-income, frequent travelers.

Conclusion & Recommendations

Address compensation and satisfaction issues.

Implement targeted retention strategies for at-risk employees.

Use insights for future HR policies.