HR Analytics Dashboard

(Employee Attrition Analysis)

Requirement Statement

Project Objective

To design and develop an interactive **HR Analytics Dashboard** in Power BI that helps the HR department understand the **reasons behind employee attrition**, analyze workforce patterns, and make data-driven decisions to reduce attrition and improve employee retention.

Scope of Work

1. Data Preparation (Power Query – Data Cleaning & Transformation)

- **Check and validate data types** for consistency across all fields.
- **Standardize categorical values** (e.g., handling variations like extra spaces, inconsistent text formats).
- **Remove redundant columns** containing only null values or irrelevant data.
- **Eliminate duplicate records** to ensure data accuracy.
- **Create a new calculated column** for attrition status:
  - If Attrition = "Yes" → assign value **1**
  - If Attrition = "No" → assign value **0**

2. DAX Calculations & Measures

- Create a measure to calculate **Attrition Rate (%)** using the formula:
  Attrition Rate (%) = (Total Attrition Count / Total Employee Count)

  And convert into Percentage %.

3. Dashboard Visualizations

Page 1: Attrition Overview

- **KPI Cards**:
  - Total Employees
  - Total Attrition
  - Attrition Rate (%)
  - Average Salary
  - Average Tenure

- **Charts & Graphs**:
  - **Gender-wise Attrition** → Bar/Donut chart showing attrition share between Male & Female.
  - **Attrition by Salary Slab** → Bar chart comparing attrition across salary ranges.
  - **Attrition by Age Group** → Column chart for age-wise attrition distribution.
  - **Attrition by Tenure** → Line/Histogram showing employee stay duration, with filter pane to highlight majority attrition years.

- **Slicers for Data Filtering**:
    - Department
    - Education Level

Page 2: Job Role & Satisfaction Analysis

- **Matrix Table:** Job Role vs. Job Satisfaction Score (restricted to employees who left).
- **Attrition by Job Role**: comparing attrition count by job role.
- **Department-wise Filter**: To analyze attrition within specific departments.
- **Navigation Button**: Add button on both pages to toggle between **Page 1 (Overview)** and **Page 2 (Job Role & Satisfaction Analysis)**.

Expected Outcomes / Project Learnings

1. **Identify key factors** driving employee attrition.
2. **Improve the hiring process** by analyzing patterns in employee exits.
3. Enhance **employee experience** through data-backed insights.
4. Increase **workforce productivity** by addressing pain points.
5. Build **employee trust** through proactive retention strategies.