

## ✓ Problem Statement: Employee Attrition Analysis

You have been given an employee dataset from **InsightTech Solutions**, a mid-sized organization experiencing notable levels of employee turnover. The dataset contains details about employee demographics, departmental distribution, education levels, job roles, marital status, and job satisfaction ratings.

Your task is to analyze this dataset to uncover key insights related to **attrition patterns**, **high-risk employee groups**, and **organizational workforce trends**.

Create an **interactive Attrition Analytics Dashboard** and answer the following key business questions to help the company reduce employee turnover and strengthen HR decision-making:

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### 1. Workforce Overview:

Determine the total number of employees, total attrition count, number of active employees, and the overall attrition rate.

### 2. Employee Demographics:

Analyze how employees are distributed by **gender** and identify which gender group shows higher attrition.

### 3. Attrition by Age Group:

Examine which age groups (Under 25, 25–34, 35–44, 45–54, Over 55) experience the highest attrition.

### 4. Attrition by Education Level:

Identify which education levels have the highest number of employees leaving.

### 5. Attrition by Job Role:

Analyze attrition across various job roles such as Laboratory Technician, Sales Executive, Research Scientist, Sales Representative, and others to determine which roles are most affected.

### 6. Department-Level Attrition:

Evaluate the attrition distribution across key departments such as HR, R&D, and Sales.

### 7. Attrition by Marital Status:

Understand how attrition varies among employees who are Single, Married, or Divorced.

### 8. Job Satisfaction Indicator:

Review the average job satisfaction rating to assess overall employee morale and engagement.

### 9. Workforce Age Analysis:

Determine the average age of the workforce to understand the company's age demographics.

### 10. Interactive Filters:

Enable dynamic analysis using **Education** and **Department** filters to compare and explore how different employee groups contribute to attrition.