

# PowerBI HR Analytics Project

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# Problem Statement

## Context:

Human Resources departments often face challenges such as high turnover rates, lack of diversity, and inefficiencies in workforce planning.

## Problem:

Identifying and addressing these challenges through data-driven insights can lead to improved HR processes and overall organizational performance.

## Objective:

Utilize HR data to uncover actionable insights that can inform strategic HR initiatives and decision-making.



# Scope of Analysis

**This project focuses on enhancing HR practices through a detailed analysis of HR data. It examines employee demographics, departmental distribution, and tenure patterns to gauge retention. Additionally, it explores hiring and termination trends over the past decade and evaluates termination rates by gender, age, and department. The final deliverables will include a PowerBI dashboard featuring key insights and strategic recommendations, while individual employee details are excluded for privacy.**



# Data Collection and Analysis

## Data Source:

The HR dataset includes fields such as hire date, term date, department, gender, age, location, and job title.

## Data Cleaning:

Addressed missing values and corrected data types to ensure data accuracy.

## Analysis Tools:

Used SQL for data extraction and PowerBI for data visualization and dashboard creation.




# Dashboard with KPIs

## Key Performance Indicators (KPIs):

- **Total Headcount:** Current number of active employees.
- **Headcount by Gender:** Breakdown of employees by gender.
- **Total New Hires in the Last Year:** Number of employees hired in the past year.
- **Total Terminations in the Last Year:** Number of employees who left in the past year.
- **Average Tenure:** Average length of employment in years.
- **Average Age:** Mean age of the workforce.

## Visualizations:

**Charts:** Used bar charts, pie charts, and line charts to effectively display the KPIs.



# Insights Strategy

## Insights:

- **Diversity and Inclusion:**
  - Noticed gender imbalances in certain departments, suggesting a need for diversity initiatives.
- **Turnover Analysis:**
  - High turnover rates in specific job titles and departments indicate areas where retention strategies should be focused.
- **Tenure Insights:**
  - Identified departments with lower average tenure, suggesting potential issues with job satisfaction or career development opportunities.



# Strategy

## **Diversity Initiatives:**

- Implement targeted hiring practices to enhance gender diversity.

## **Retention Strategies:**

- Develop and promote employee engagement programs and career development plans.

## **Workforce Planning:**

- Use insights to anticipate future workforce needs and address potential skill gaps through training and development programs.



# Conclusion

## Summary:

- The HR data analysis provided critical insights into employee demographics, tenure, hiring and termination trends, and termination rates by various demographics.

## Next Steps:

- Implement diversity initiatives, retention strategies, and workforce planning based on the insights gained from the analysis.

