

# Objective

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The objective of this project is to analyze employee data to provide valuable insights into various aspects such as job satisfaction, departmental distribution, gender representation, and educational background. This dashboard aims to assist in understanding workforce dynamics, identifying trends, and making data-driven decisions to improve employee management and satisfaction.

# Steps Followed

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## 1. Data Gathering

- **Sources:** The data was sourced from internal employee records.
- **Data Import:** Imported raw data into Tableau for visualization and analysis.

## 2. Data Cleaning

- **Error Removal:** Identified and removed any discrepancies and errors in the data entries.
- **Standardization:** Standardized categorical data such as department names, gender, and education fields for consistency.
- **Date Formatting:** Ensured all date fields were in a consistent format to facilitate time-series analysis.

## 3. Data Processing

- **Calculated Fields:** Created calculated fields for key metrics such as average job satisfaction per department, gender distribution, and educational background distribution.
- **Data Aggregation:** Aggregated data by department, gender, and education field to enable comprehensive analysis.
- **Filtering:** Applied filters to isolate specific datasets like job satisfaction, department-wise analysis, and gender distribution.

## 4. Data Analysis

- **Visual Representations:** Developed a range of visualizations including bar charts, pie charts, heatmaps, and tables to represent various metrics.

## Employee Data Analytics Dashboard in Tableau

- **Key Metrics:** Focused on key metrics such as job satisfaction scores, gender distribution, department size, and educational background.

### Key Questions of the Dashboard

- What is the overall job satisfaction level among employees?
- How is the gender distribution across different departments?
- What are the predominant educational fields among employees?
- Which departments have the highest and lowest job satisfaction scores?
- How is the employee distribution across different departments?

### Insights and Visualizations

1. **Total Employees:** The organization has grown significantly, currently employing 1470 individuals, indicating substantial growth and scale.
2. **Attrition Analysis:** A total of 237 employees left the organization. Among them, 150 were male, and 87 were female, indicating a higher attrition rate among males.
3. **Departmental Attrition:** The Research and Development Department experienced the highest attrition rate at 56.12%, suggesting potential areas for improvement in employee retention strategies in this department.
4. **Education Field Impact:** Employees in the life sciences field had the highest attrition rate, emphasizing the need to address retention challenges in this specific area.
5. **Job Role Affected:** The sales role had the highest attrition rate, indicating a need for focused retention efforts in this department to reduce turnover.
6. **Education wise Attrition:** The attrition rate of High School is 18.24% which is maximum among the other education.
7. **Attrition Rate by Gender for Different Age Group:** The attrition count among the age group of 25-34 years 112 which is maximum among the other age groups.

### Learned About

- **Tableau Features:** Utilized various Tableau features such as calculated fields, bar charts, pie charts, heat maps, and tables to create interactive and informative

## Employee Data Analytics Dashboard in Tableau

visualizations.

- **Employee Analysis:** Gained insights into employee demographics, job satisfaction, and departmental distributions.
- **Data Presentation:** Developed skills in presenting complex employee data in a comprehensive and visually appealing manner.

### Key Insights Summary

- **Job Satisfaction Trends:** Identified departments with higher and lower job satisfaction scores, providing a basis for targeted interventions.
- **Gender Representation:** Analyzed gender distribution across departments to ensure diversity and inclusion.
- **Educational Backgrounds:** Highlighted the predominant educational fields, aiding in recruitment and training strategies.
- **Departmental Focus:** Provided an overview of department sizes, helping in resource allocation and management.

### Project Output:

