

# Project presentation

Presented by Anjali

# HR EMPLOYEE ATTRITION ANALYSIS

# PROBLEM STATEMENT

Employee attrition poses significant challenges to organizations, leading to increased recruitment costs, loss of organizational knowledge, and potential disruptions in service delivery. The goal is to understand the factors contributing to employee turnover and Interactive reports highlight usage patterns to identify employees at risk of leaving.

# OBJECTIVE

- **Analysis Historical Data:** Examine historical employee data to identify patterns and correlations between various factors (e.g., job role, satisfaction levels, performance ratings) and employee attrition.
- **Identify Key Drivers:** Determine the most influential factors contributing to employee attrition.
- **Provide Recommendations:** Offer actionable insights and strategies to HR management for reducing attrition rates and improving employee retention.

# **GUIDED STEP OF POWER BI**

**IMPORT DATA**

**DATA CLEANING**

**VISUALIZE  
ATTRITION RATE**

**ANALYZE  
ATTRITION BY  
DEPARTMENT**

**ANALYZE KEY  
FACTORS**

**CREATE AN  
INTERACTIVE  
DASHBOARD**

## **Step 1: Importing Data into Power BI**

- 1. Open Power BI Desktop.**
- 2. Import the dataset:**
  - Go to Home > Get Data > Text/CSV.**
  - Navigate to your file and open it.**

## **Step 2: Data Cleaning and Preparation**

### **1. Open Power Query Editor:**

- Go to Home > Transform Data.

### **2. Data Cleaning:**

- Remove unnecessary columns: Identify and remove columns that are not needed for the analysis.
- Handle missing values: Replace or remove missing values appropriately.
- Convert data types: Ensure that columns have appropriate data types (e.g., numeric, date, text).

### **3. Data Transformation:**

- Create new calculated columns if needed (e.g., tenure in months).
- Normalize categorical variables if necessary.

## Step 3: Exploratory Data Analysis (EDA)

### 1. Visualize Basic Statistics:

- Create visualizations to understand the distribution of key variables like age, job role, satisfaction levels, etc.
- Use histograms, bar charts, and box plots to explore these distributions.

### 2. Attrition Analysis:

- Create a bar chart to show the overall attrition rate.
- Use pie charts or bar charts to show attrition rates across different categories (e.g., departments, job roles).

### 3. Correlation Analysis:

- Use scatter plots and correlation matrices to identify relationships between numerical variables (e.g., job satisfaction vs. attrition).

## **Step 4: Detailed Analysis**

### **1. Identify Key Factors Influencing Attrition:**

- Create visualizations to explore how different factors (e.g., job satisfaction, performance rating, overtime) affect attrition.
- Use slicers to interactively filter and explore the data.

## **Step 5: Creating Dashboards**

### **1. Design the Dashboard:**

- Create multiple pages or tabs to cover different aspects of the analysis.
- Include key visualizations like attrition rates, key factors, department-wise analysis, etc.

### **2. Interactive Elements:**

- Add slicers and filters to make the dashboard interactive.
- Use drill-through and tooltips to provide detailed insights on specific data points.

## **Step 6: Interpretation and Recommendations**

### **1. Interpret Findings:**

- **Summarize the key findings from your visualizations.**
- **Highlight the most important factors contributing to employee attrition.**

### **2. Provide Recommendations:**

- **Based on findings, provide actionable recommendations for reducing attrition.**
- **Example: "Improve job satisfaction and work-life balance, particularly in departments with high attrition rates."**

# CONCLUSION

Using Power BI, I can effectively analyze the HR attrition data and uncover insights into the factors driving employee turnover. By creating interactive and visually appealing dashboards, I can present findings and recommendations to stakeholders, helping them make data-driven decisions to reduce attrition and improve employee retention.

**Thank you  
very much!**