



INFOSYS SPRINGBOARD  
DATA VISUALIZATION

# STRATEGIC HR ANALYTICS DASHBOARD

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# Agenda

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# Introduction

- The dashboard offers a detailed analysis of key HR metrics, enabling better understanding of workforce dynamics.
- It simplifies complex data into actionable insights for improving employee satisfaction and performance.



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# Our Aim

To analyze HR metrics for improving employee satisfaction and retention.

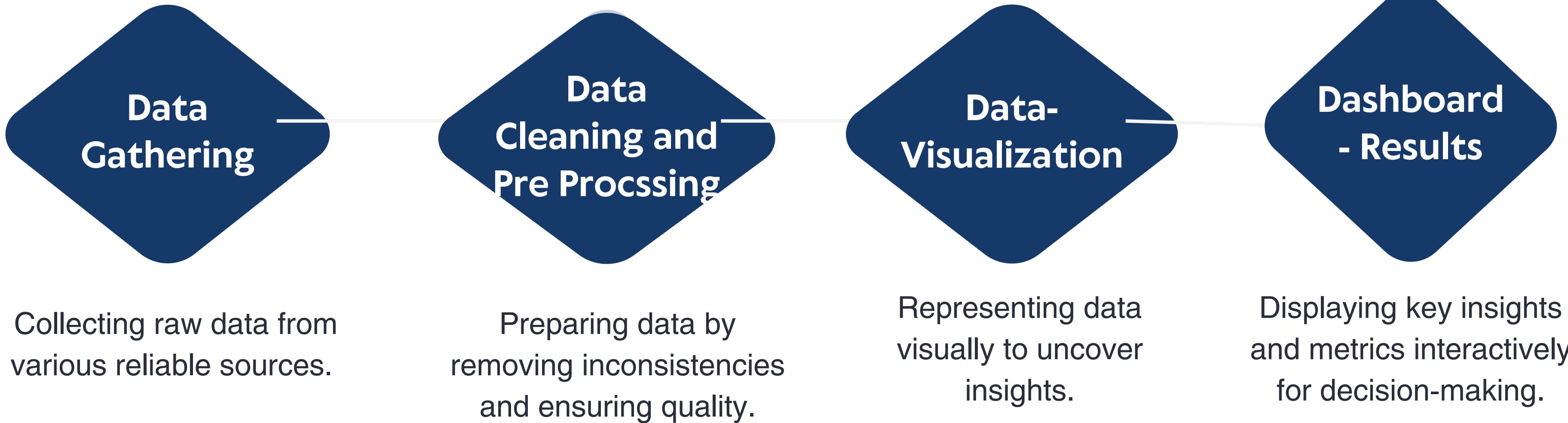
## Aim

To clean, preprocess, and structure HR data for accurate and meaningful analysis.

## Visualize

To visualize HR metrics and derive actionable insights through data interpretation.

# Work-Flow



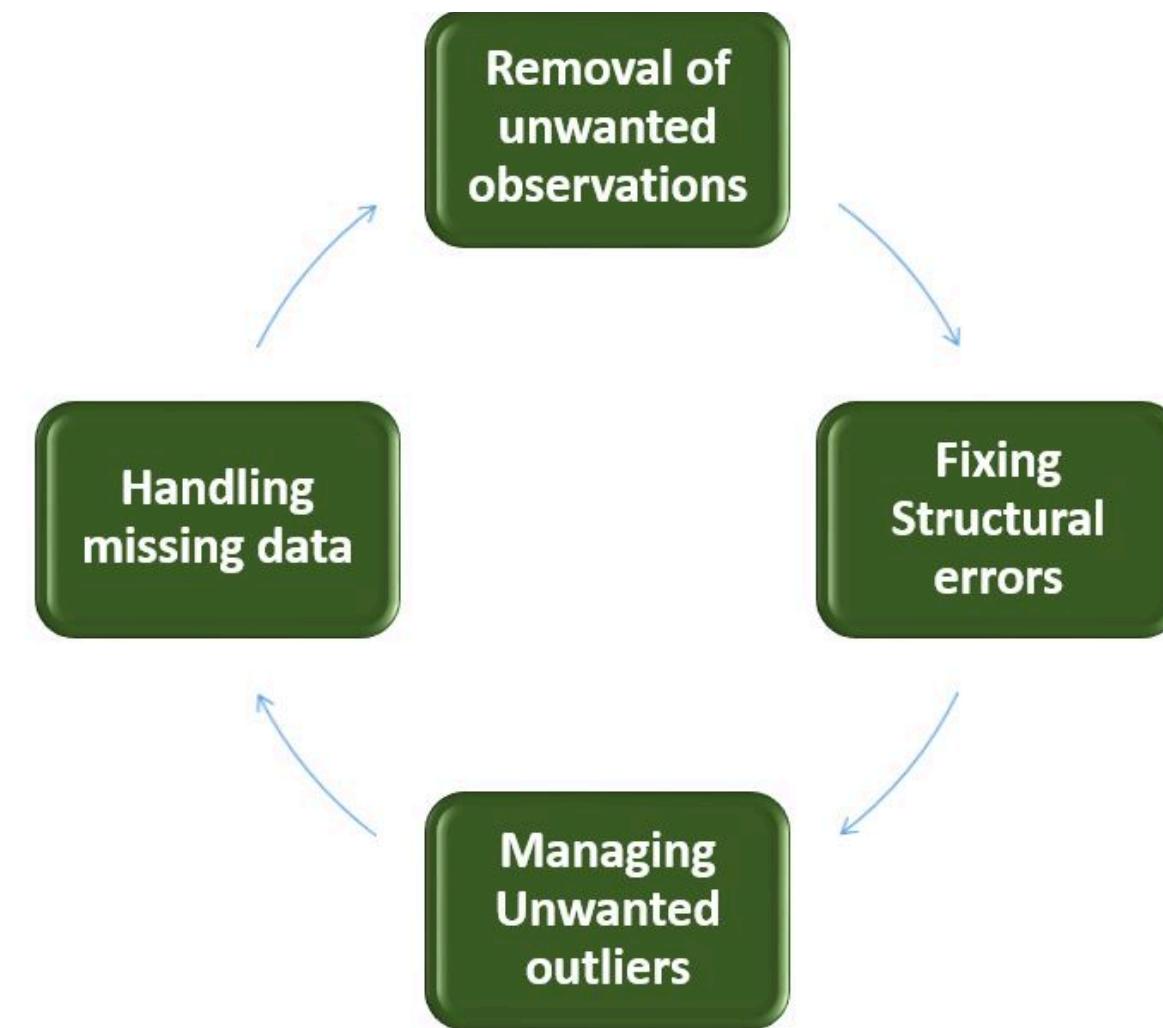
# Dataset Description

what's in the dataset ?

## About the Dataset

- Dataset Name: HR Employee Attrition
- Total Records: 1470 rows, 35 columns
- Key Features: Demographics: Age, Gender, Marital Status
- Job Details: Department, Job Role, Job Level
- Performance Metrics: Attrition, Monthly Income, Years at Company
- Purpose: Analyze factors influencing employee attrition.
- This dataset was sourced from Kaggle

# Dataset Cleaning



- Removed Total Working Hours and Over 18 columns.
- Reason: Both columns had constant values, offering no significant contribution to the analysis.
- The dataset was already clean and pre-processed, with minimal outliers detected.

# Data Pre-Processing

Getting the data ready for analysis. With DAX functions.

Data preprocessing ensures data quality, consistency, and relevance for accurate analysis and model performance.

## **Weighted Scoring:**

Overall\_Score = (WorkLifeBalance \* 0.4) + (EnvironmentSatisfaction \* 0.4) + (Overtime \* 0.2)

## **Ratio Analysis:**

Salary-Experience Ratio = MonthlyIncome / TotalWorkingYears

## **Classification:**

Age Group = SWITCH(TRUE(), Age < 30, "Young", Age ≥ 30, "Middle Aged", ...)

## **Attrition Prediction:**

Attrition Likelihood = (DistanceFromHome / 10 \* 0.3) + ...

## **Flexibility Index:**

Flexibility Index = WorkLifeBalance \* 0.7 - Overtime \* 0.3

# Data Pre-Processing

Getting the data ready for analysis. With DAX functions.

- ◆ **VariablePay:** Calculates the difference between MonthlyRate and MonthlyIncome.

- ◆ **Overall\_Score:** Weighted score combining WorkLifeBalance, EnvironmentSatisfaction, and Overtime impact.

- ◆ **Age Group:** Categorizes employees into age groups like Young, Middle-Aged, Old, and Oldest.

- ◆ **Total Compensation:** Sums MonthlyIncome and a bonus based on StockOptionLevel..

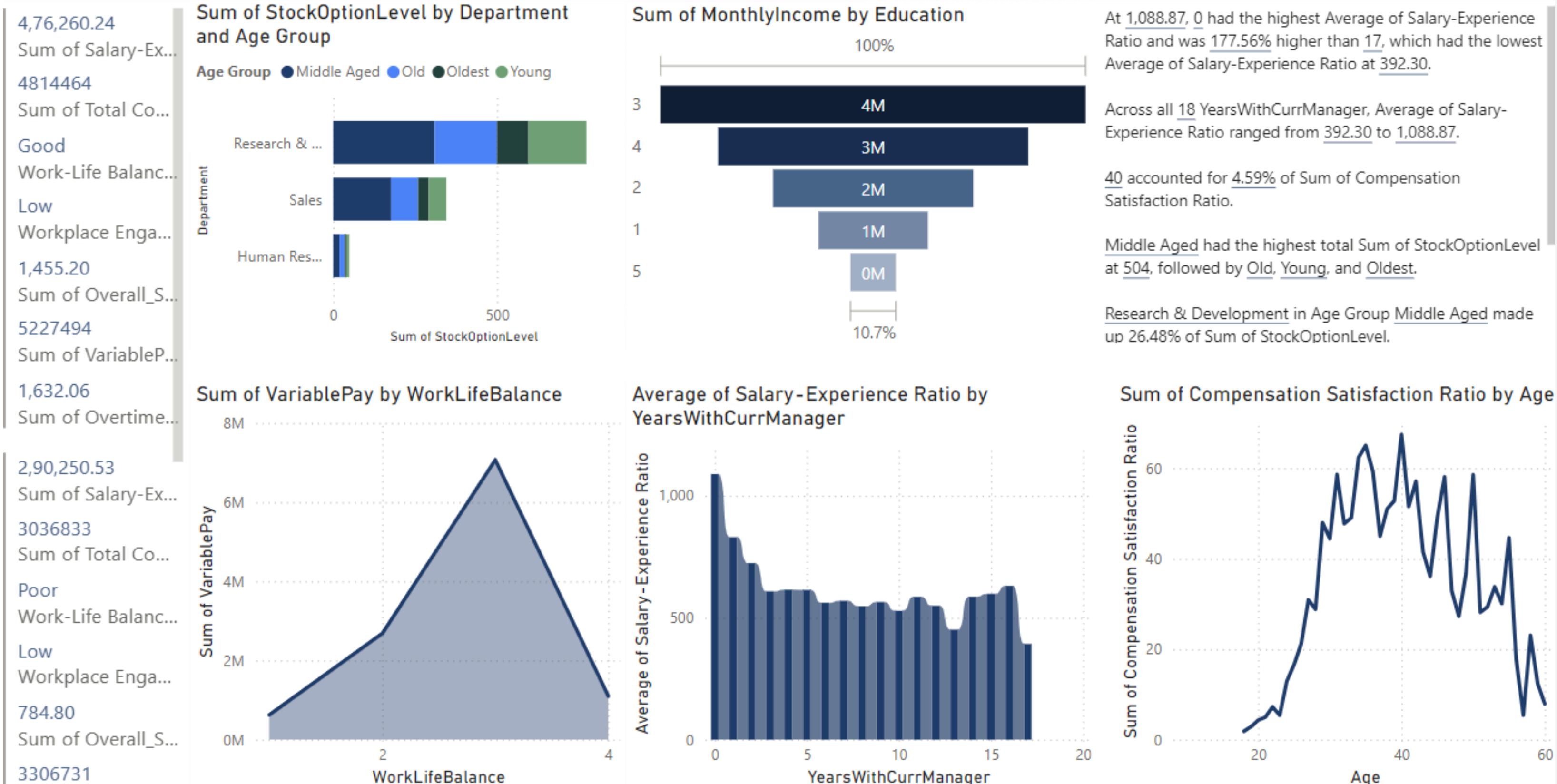
# Data Pre-Processing

Getting the data ready for analysis. With DAX functions.

- ◆ **Work-Life Balance Flag:** Flags WorkLifeBalance as "Good" if  $\geq 3$ , otherwise "Poor."
- ◆ **Workplace Engagement:** Classifies engagement as "High" or "Low" based on satisfaction levels.
- ◆ **Attrition Likelihood Score:** Predicts attrition likelihood based on distance, work-life balance, overtime, and job satisfaction.
- ◆ **Compensation Class:** Categorizes employees' compensation as Low, Moderate, Average, or High.

# Data Visualization

## HR ANALYTICS DASHBOARD



# Data Visualization

**Key influencers**

Top segments

What influences Overall\_Score to  ?

When... ...the average of Overall\_Score increases by

Workplace Engagement is High → 0.64

Work-Life Balance Flag is Good → 0.56

Sum of WorkLifeBalance goes up 0.71 → 0.26

HR-employee-attrition (2) department  
 HR-employee-attrition (2) year with curr manager

**Workplace Enga...**

Low

Sum of Total Competencies by Work-Life Balance Flag, Workplace Engagement

✓  Good  
✓  Poor

Average of EnvironmentSatisfaction by Department

● Increase ● Decrease ● Total

Sum of Attrition Likelihood Score by Department

Department

Department	Score	Percentage
Research & Development	0.08K (4.2%)	
Sales	0.56K (30.12%)	
Human Resources	1.22K (65.68%)	
Total		

# Data Visualization

**Chat with me!**

Ask me a question... Ask ➤ ...

Describe Total Compensation by Age Group for Good.

 Overall, the Total Compensation breakdown by Age Group for Good in descending order is Middle Aged (2.91 million), Old (2.43 million), Oldest (1.33 million) and Young (1.01 million).

# Results & Analysis

- Stock Options: R&D employees, especially middle-aged, lead stock contributions (26.48%).
  - Income Trends: Higher education levels increase income, peaking at Level 5.
  - Work-Life Balance: Better balance boosts pay, poor balance lowers it.
  - Compensation Satisfaction: Mid-aged employees are more satisfied than younger ones.
  - Attrition Risk: R&D faces highest attrition, with Sales and HR moderate.
  - Engagement & Performance: High engagement improves scores (+0.64) and satisfaction.
  - Environment Satisfaction: Sales leads satisfaction; R&D scores lowest.
  - Manager Tenure: R&D has longer manager tenures, while Sales and HR are shorter
- Chatbot: Provides real-time data on stock options, income, work-life balance, attrition, engagement, and satisfaction.

# Conclusion

The visualizations highlight key HR metrics, such as stock option levels, variable pay trends, salary-experience ratios, and workplace balance impacts. Insights reveal age and departmental variations, the influence of work-life balance on satisfaction, and attrition risks. These findings enable targeted strategies to enhance employee satisfaction, optimize engagement, and reduce attrition across departments.