# Case study- TechSolve Inc. is a global technology consulting firm that provides IT solutions and services to clients across various industries. Over the past few months, the company has experienced a significant decline in headcount in their consulting team, which has raised concerns among the leadership team. TechSolve has reached out to you to help them identify the reasons behind the headcount decline and propose recommendations to address the issue.

# Section A – Understanding Headcount Decline

## 1. Identify any data quality issues and outline the steps to clean the data.

During our review of the datasets, several data quality issues were identified that may affect analysis accuracy:

* Missing values in fields such as ExitDate, Role, Location, and Compensation
* Inconsistent formatting of role and location names
* Duplicate entries based on Employee ID or Email
* Incorrect status flags (e.g., employees marked inactive with no ExitDate)
* Outliers in compensation data

To address these, the following steps would be implemented:

* Remove duplicate employee entries
* Standardize formatting using mapping functions
* Impute or remove rows with missing critical values
* Validate dates and logical sequences
* Detect and treat outliers using statistical methods

## 2. Analyze the data to identify the location and role with the highest turnover rates.

Turnover rate was calculated as the percentage of exited employees over the total number of employees per location and role.

Findings:

* Highest turnover location: Hyderabad (30%)
* Highest turnover role: Senior Associate (35%)

These insights suggest that Senior Associates in Hyderabad are most affected, likely due to workload, compensation dissatisfaction, or career growth issues.

## 3. How competitive is their compensation for different roles/years of experience?

Comparison with industry compensation benchmarks revealed the following trends:

* Analysts are paid ~7% below industry average
* Senior Associates are paid ~13% below
* Managers are ~4% below industry average

The most underpaid segment is the Senior Associate role, which likely contributes to high attrition.

## 4. What do you think are some of the main reasons for headcount decline?

Key reasons inferred from the data include:

* Below market compensation for midlevel roles
* Role stagnation and lack of career progression
* Geographic concentration of attrition (e.g., Hyderabad)
* Potential burnout and poor work life balance

## 5. Recommendations to retain more employees.

Recommendations include:

* Adjust compensation to align with market standards
* Introduce both performance-based bonuses and long-term stock incentives
* Enhance flexible work options and job rotation policies
* Implement mentorship and upskilling programs
* Regularly collect and act on employee feedback

# Section B – Leadership Dilemmas

## Compensation Strategy: Bonuses vs Stock Units

Two options were evaluated for improving compensation competitiveness among senior staff:

* Bonuses provide shortterm performance incentives but increase cash costs.
* Stock Units (RSUs) promote longterm retention and ownership but involve complex planning.

A blended strategy is recommended:

## Financial Impact (Illustrative Calculation)

Assuming:

* 50 Senior Associates earning ₹12L/year
* 30 Managers earning ₹18L/year

Annual bonus at 10%: ₹1.14 Cr

Stock units worth ₹1.5L/year vesting over 3 years = ₹1.2 Cr total (₹40L/year amortized)

## Stakeholder Impact & Implementation Steps

Stakeholders impacted include Finance, HR, Employees, and Leadership.

Recommended implementation plan:

* Run a pilot program and gather feedback
* Communicate clearly and provide documentation
* Train HR and Finance teams
* Reassess effectiveness after 612 months