

# **Employee Promotion Prediction Proposal**

## **1) About the project**

- **Context**

Develop a predictive classifier to predict employee's promotion on the target variable **is\_promoted** (1 - 0).

- **Content**

This is the HR datasets, every year around 5% of its employees have promoted in the company, so we have the check employee is promoted or not?

## **2) About the Dataset**

- **Dataset Source:**

Kaggle website and here is the link:

<https://www.kaggle.com/datasets/shivan118/hranalysis?select=train.csv>

- **Dataset Overview:**

The dataset consists of (54808) Rows and (14) Columns of Numerical and Categorical Features.

The dataset condition can be described as follow:

- Imbalanced
- Missing Values
- Outliers
- Categorical Features

- **Dataset Features**

- **employee\_id**: ID of the employee.
- **department**: The department which the employee belongs.
- **region**: The region where employee works.
- **education**: Educational degree employee has.
- **recruitment\_channel**: The way by which employee joined the company.
- **no\_of\_trainings**: Number of trainings employee attended in the company.
- **age**: Age of the employee in years.
- **previous\_year\_rating**: A scale from (1 – 5) for the whole previous year rating.
- **length\_of\_service**: total number of years for the employee in the company.
- **KPIs\_met>80%**: Whether the employee achieved the KPIs or not.
- **Awards\_won?**: Whether the employee has won any awards or not.
- **avg\_training\_score**: Average score the for all trainings of the employee.
- **is\_promoted**: Whether the employee is promoted or not (1 – 0)

### 3) Analysis Questions ?

1. Which department has the highest number of promoted employees ?
2. Which region has the highest number of promoted employees ?
3. Relationship between educational degree and chance of being promoted ?
4. Which gender has earned more promotions ?
5. Whether the number of trainings and KPIs affect getting promoted ?
6. Which recruitment channel has the highest number of promoted employees ?
7. How number of awards obtained affects getting a promotion ?