Hope Artificial Intelligence

Scenario Based Learning

A company works with number of employees, all the works are dependents on the employees. Even if one of the employees resign the job immediately then assigned work will be not finished at the time, so delivery of the project to the clients will be delayed. Company planned to make solution for this, they want to know which employee may resign next. If they know previously, they can arrange alternative to avoid such problem. As an AI Engineer you must give Solution to this.

1. How will you achieve this in AI?
2. Find out the 3 -Stage of Problem Identification
3. Name the project
4. Create the dummy Dataset.

**Achieving the Goal**

Predict employee resignation based on historical data.

**Data Collection**

* + Employee demographics (age, tenure, role, etc.)
  + Performance ratings
  + Job satisfaction scores
  + Employee feedback scores
  + Over time hours
  + Days since last promotion
  + Attendance records
  + Reason for past resignations

**Prediction** - to identify employees who are at high risk of resigning

**Call to action** – Preemptive measures

**3 -Stage of Problem Identification**

**Stage 1 –** Domain selection – Machine Learning – numerical dataset

**Stage 2** – Supervised Learning – clear requirements, both input and output present

**Stage 3** – Supervised Classification Learning – categorical values – Output 🡪 will resign or will not resign

**Project Name – Employee Resignation Risk Predictor**

**Data set**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Emp ID** | **Age** | **Tenure** | **Job Satisfaction** | **Performance rating** | **Monthly income** | **Feedback**  **rating** | **Over time** | **Attrition**  **(will resign or not)** |
| 1 | 25 | 1 | 3 | 4 | 50000 | 5 | Yes | No |
| 2 | 30 | 3 | 4 | 3 | 70000 | 2 | No | Yes |
| 3 | 28 | 2 | 2 | 5 | 55000 | 4 | Yes | No |
| 4 | 35 | 5 | 5 | 2 | 60000 | 1 | No | Yes |
| 5 | 45 | 10 | 3 | 3 | 100000 | 5 | Yes | No |
| 6 | 29 | 3 | 4 | 4 | 52000 | 2 | No | Yes |
| 7 | 33 | 4 | 5 | 3 | 71000 | 4 | Yes | No |