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.

A) How will you achieve this in AI?

B) Find out the 3 -Stage of Problem Identification

C) Name the project

D) Create the dummy Dataset.

**AI SOLUTION FOR THE PROBLEM STATEMENT:**

Employee datasets from the HR department can be used to predict the employees who may resign or not, which can help the company to arrange an alternative like providing promotions or pay hikes for those employees to retain them successfully

Employees may resign from the company based on several factors as given below,

1. Promotion is not offered as per experience
2. Performance bonus is offered low as per current year performance
3. When the workload is higher compared to other employees in the same role

Here based on the factors on which the employee resign the **call to action** will be executed accordingly

1. Promotion is not offered as per experience – Offer promotion to particular employee to retain them in the company
2. Performance bonus is offered low as per current year performance- Offer them better hike in next quarter to retain them
3. Workload is high compared to other employees- Reduce the workload and share it across the team which may ease the employee to retain them.

**3-Stage of Problem Identification:**

Stage 1- Domain Selection – Machine learning

As the input given (HR Dataset) might be a number, we can choose the Machine learning Domain

Stage 2- Learning – Supervised Learning

As the requirement is clear, i.e. to take measures before preventing the employee from resigning, we can choose Supervised Learning

Stage 3- Classification:

AI will predict whether the employee will resign or not, so the problem is the Classification type.

**Project Name: Improve Employee Retention Rate Using AI**

**Dummy Dataset**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Employee\_id** | **Age** | **Role** | **Salary** | **Promotion offered** | **Hike rate** | **Hours Worked overtime** | **Resigned or not resigned** |
| 123456 | 43 | Manager | 100000 | No | 8% | 2 | Resigned |
| 123457 | 42 | Manager | 60000 | Yes | 4% | 2 | Resigned |
| 123458 | 41 | Manager | 70000 | No | 10% | 20 | Resigned |
| 123459 | 38 | Manager | 80000 | Yes | 8% | 2 | Not resigned |
| 123458 | 26 | Test analyst | 60000 | No | 10% | 2 | Resigned |
| 123459 | 28 | Test Analyst | 80000 | Yes | 8% | 2 | Not resigned |
| 123460 | 27 | Test Analyst | 60000 | yes | 4% | 4 | Resigned |
| 123461 | 24 | Test analyst | 40000 | Yes | 6% | 20 | Resigned |
| 123462 | 23 | Test Engineer | 50000 | Yes | 6% | 20 | Resigned |
| 123463 | 25 | Test Engineer | 60000 | yes | 10% | 4 | Not resigned |