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?

1. Find out the 3 -Stage of Problem Identification
2. Name the project
3. Create the dummy Dataset  
     
   I can achieve this in **machine learning models** by **supervised** learning **Regression** method.

**Problem Identification:**   
The goal is to predict possible resignations to mitigate delays.

Identify data sources related to employees, such as job satisfaction, performance metrics, absenteeism, personal information and exit interviews. Analyze which factors are closely linked to resignations.  
Based on the data, develop a machine learning model to predict the likelihood of an employee resigning and evaluate its accuracy. Use this prediction to improve resource planning.

**Name of the project:**Work life predictor

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Emp\_id | Age | Gender | Job\_statisfaction | Performance\_rating | Salary | Work\_load\_level | Recent\_promotion | Hasleft |
| 1001 | 29 | M | 3 | 4 | 40,000 | 2 | 0 | 1 |
| 1002 | 30 | F | 4 | 3 | 50,000 | 4 | 1 | 0 |
| 1003 | 24 | M | 2 | 3 | 25,000 | 5 | 1 | 0 |
| 1004 | 34 | F | 5 | 5 | 80,000 | 1 | 0 | 0 |
| 1005 | 45 | M | 3 | 2 | 90,000 | 3 | 0 | 1 |

**Dummy Dataset**

**Call to action:**

1. To create retention plans,such as offering targeted incentives, promotions or work-life balance improvements for employees identified as at risk of resigning.  
   2. Set up alerts that notify management when an employee shows signs of possible resignation, allowing the company to take immediate action like new hires or train existing employee.