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? We will use Supervised Machine Learning, especially a binary classification model, to solve this. The model will learn from past employee data where it's already known whether each person resigned or not. Based on this, it will predict which employees are likely to resign in the future.

B) Find out the 3 -Stage of Problem Identification

**Domain Selection :** Machine Learning as we are predicting the total number of upcoming might be resigned in future.

**Learning Model:** Supervised - Classification as the target(Resigned or not) variables is known

C) Name the project : **Attrition Prediction**

D) Create the dummy Dataset.

**Resigned (Targeted Variable) :** Yes /No

**Job Satisfaction, Work Life Balance, Last Rating:** 1 (Low) to 5 (High)

| Emp No | Male | Age | Role | Total Experience | Job Satisfaction | Work Life Balance | Last Rating | Last Promotion | Monthly Income | Year at company | Resigned |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 202889 | Male | 40 | Technical Lead | 17 | 3 | 3 | 3 | 2020 | 100000 | 17 | Yes |
| 206263 | Thangalakshmi | 40 | Technical Lead | 15 | 5 | 5 | 4 | 2022 | 120000 | 15 | No |
| 568909 | Karthik | 25 | Developer | 3 | 3 | 5 | 3 | 2022 | 40000 | 1 | Yes |
| 67546 | Krishnaveni | 38 | Technical Lead | 5 | 5 | 5 | 3 | 2022 | 130000 | 3 | Yes |