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.

A) How will you achieve this in AI?

1, Collect historical employee data (HR, performance, attendance, salary, Quality score etc.)

2, Train a **classification model** to predict the probability of resignation

3, Use the prediction to identify employees likely to resign.

4, Management can take **preventive actions** (backup resources, retention plans, cross training…etc)

B) Find out the 3 -Stage of Problem Identification

Machine Learning → Supervised Learning → Classification model

C) Name the project

Employee Exit Risk Prediction

D) Create the dummy Dataset.

Employee_ID	Age	Experience_Years	Monthly_Salary	Avg_Work_Hours	Absenteeism_Days	Performance_Rating	Quality%
1	26	2	30000	10	4	4	94%
2	32	8	60000	9	1	4	96%
3	29	5	45000	9	4	4	97%
4	42	15	80000	7	0	5	99%
5	27	3	35000	7	8	3	89%