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. The data of all the employees should be collected which includes their job roles, tenure of working, performance scores,work hours, notice period,history of their previous jobs.
2. Analyse if there are reasons like work overload,frequent job changing people,team politics for people to resign the job.
3. Based on this criteria, prepare a model which classifies which employees would resign early.notice periods, work stressed people,frequent job changers can be used in the dataset to identify .
4. This can be evaluated by checking with few employees who resign.
5. This model can be deployed for continuous monitoring.

B) **Find out the 3 -Stage of Problem Identification**
1. Natural Language Processing(Since input is text)
2. Semi-Supervised(Requirement is clear but output is not present)
3. Classification(categorised based on yes/no)

C) **Name the project**
Employee leaving prediction system.

D) **Create the dummy Dataset.**

Emp.ID	Age	Tenure (month)	Role	Monthly hours	Performance score	Recent promotion	Last increase	Resign (Output)
01	25	12	developer	160	4.5	yes	6 months	no
02	30	24	analyst	145	4.0	yes	8 months	no
03	35	36	network	125	4.0	no	8months	no
04	28	40	manager	200	3.5	no	12 months	yes
05	45	42	Team lead	190	3	no	12 months	yes