Question:

**A company works with a number of employees, all the workers are dependent on the company. 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
They want to know which employee may resign next. If they know previously, they can arrange
alternative to avoid such problems. 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.

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Problem Statement:

- Issue: How can we solve a problem where any employee leaves

- Impact: work wouldn't finish on time, and there would be a delay in project delivery.

Name of the Project: Employee Requirement
Problem identification: Project delivery will get delayed due to not knowing about the employee's resignation

Solution:

- Solution:
    - Declining productivity
    - Frequent leave of absence
    - Resignation Trends based on past employees and industry
    - Who has given the Notice period
    - Who is close to retirement age

How to achieve this in AI:

- ML - data collection on employees
- Supervised: (historical data)
- NLP: Email exchange, etc.
- Make predictions based on the solution section

ML & NLP > supervised > categorical
Call to Action: Arrange for replacement and training

Employee Retention AI analysis							
Employee ID	Name	Department	Tenure (Years)	Job Satisfaction (1-10)	Absenteeism Rate (%)	Resignation Notice Given?	Predicted Resignation Risk
101	Alice	HR	5	8	2	Yes	High
102	Bob	IT	2	4	12	No	Medium
103	Charlie	Finance	6	9	1	Yes	High
104	Diana	Marketing	3	6	8	No	Medium
105	Edward	Sales	8	7	3	Yes	High
106	Fiona	Operations	2	5	11	No	Medium
107	George	Legal	9	8	2	Yes	High
108	Hannah	IT	3	4	15	No	Medium
109	Ian	HR	7	7	4	Yes	High
110	Jenny	Finance	1	3	16	No	Medium
111	Kevin	Marketing	4	5	10	Yes	High
112	Laura	Sales	5	6	7	No	Medium
113	Mike	Operations	10	9	1	Yes	High
114	Nancy	Legal	2	5	9	No	Medium
115	Oliver	IT	6	8	3	Yes	High
116	Patricia	HR	1	2	18	No	Medium
117	Quentin	Finance	7	7	5	Yes	High
118	Rachel	Marketing	3	4	13	No	Medium
119	Samuel	Sales	8	7	2	Yes	High
120	Tina	Operations	4	6	10	No	Medium