**SCENARIO BASED LEARNING**

**QUESTION:**

 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?

B) Find out the 3 -Stage of Problem Identification

C) Name the project

D) Create the dummy Dataset.

**ANSWERS:**

1. **How will you achieve this in AI?**

Will follow the below steps to identify which employee would resign next.

1. Document the employee feedback on Satisfaction with the hike, Satisfaction with the work given, Satisfaction with the learning, Satisfaction in his work life balance, Satisfaction with team/company members and support.
2. Data collected would be in text format, mostly sentiments of the employee
3. Hence we would use NLP (Natural language processing) to identify it sentiment if the employee satisfaction is positive towards the company or negative.
4. Type of learning used will be Supervised since, out of 5 if min 3 of the employee satisfaction is negative then he is likely to resign soon, if not the employee would continue with the same company.
5. Here the output would be a categorical data. “Likely to resign”, “Would continue” hence classification of the data is done.
6. Hence based on the output from the prediction the company can pre plan replacements employee whose prediction is “ Likely to resign”. This will be the call to action.
7. **Find out the 3 stages of problem identification.**
8. Domain selection:
   1. Since input data set would be collected from feedback, survery, documentation. It is a text data. Hence **NLP (Natural Language Processing)**  is to be used.
9. Learning Selection:
   1. We already know the pattern of when the employee would resign or likely to resign from the past data. Hence we know the input and the output. So it is **Supervised Learning**
10. Output identification:
    1. Output is expected in the format “Likely to resign” / “Would continue” / The output is categorical data. Hence **Classification** is done.
11. **Name the project**

Employee Resignation Prediction

1. **Create the dummy Dataset**

