

Scenario Based Learning

1. 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.

Answer:

A) We're going to make prediction using AI whether an employee will resign or not.

- Collect employee data.
- Label whether each employee stayed or resigned in the past.

- Use this data to **train a classification model**
- The model learns the pattern.
- Use the model to predict for current employees

B) Stage_1 = Domain Selection → *Machine learning*, since it is based on purely number.

Stage_2 = Learning selection → *Supervised Learning* since input and output are clearly defined. Moreover, requirement is also clear.

Stage_3 = supervised learning → Classification since whether an employee will resign or not.

C) Project_name = "Employee_Resignation_Predictor"

D)

EmpID	Age	Experience_Years	Workload_HoursPerWeek	Resigned
101	25	2	40	no
102	28	4	45	no
103	35	8	60	yes
104	30	5	50	no
105	40	12	65	yes
106	22	1	38	no
107	38	10	55	yes
108	27	3	48	no
109	33	7	52	yes
110	29	4	44	no

