

Hope Artificial Intelligence

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?
- B) Find out the 3 -Stage of Problem Identification
- C) Name the project
- D) Create the dummy Dataset.

A) How will you achieve this in AI?

To predict employee resignations, we can build a **machine learning-based predictive model**. Here's how:

Data Collection: Gather data on employees, including features like:

1. age, gender, marital status
2. Employment history (job title, years of service, salary history)
3. Work performance (performance scores, promotions, training sessions)
4. Work environment (job satisfaction)
5. Exit data (whether the employee has resigned and when)

B) Find out the 3- stage of problem identification

1. Problem definition
2. Root cause analysis
3. Solution exploration

C) Name the project

Employee Resign predictor

D) Create the dummy data set

Employee ID	Gender	Age	Job Role	Department	Year at company	Performance score	Monthly income	Resign
5230	Female	20	Data Analyst	IT	2	3	10000	1
5231	Male	30	Data Scientist	IT	5	6	15000	0
5232	Female	25	Data Analyst	IT	4	8	15000	0
5233	Male	36	Manager	IT	7	7	30000	0
5234	Female	28	Developer	IT	3	5	20000	0
5235	Male	30	Engineer	IT	1	4	12000	1