

11. Problem Identification Assignments

A) How will you achieve this in AI?

The company wants to know which employee may resign next month.

1. Collect employee data (salary, overtime, leave, performance, satisfaction).
2. Check past records to see who resigned.
3. Train a Machine Learning model using this data.
4. Every month, the system will give a risk score for each employee.
5. HR can take action early (talk to employee, reduce workload, prepare backup).

B) 3 Stages of Problem Identification

1. **Define the problem :** Predict which employee may resign next month.
2. **Find causes :** Low salary / High overtime / Low satisfaction (feed back) / Poor manager rating / Leave
3. **Define output :** Yes / No (Will resign next month?)

Domain Selection

Machine Learning - Supervised learning - classification

C) Project Name

Employee Resignation Prediction System

D) Dummy Dataset

Emp ID	Age	Dept	Salary	Over Time Hrs	Leave Days	Satisfaction (Employee Feedback)	Performance (manager Feedback)	Will Resign Next Month (output)
E01	28	IT	4000	25	4	2	3	Yes
E02	35	HR	7000	5	1	4	4	No
E03	30	Sales	5000	20	3	3	3	Yes
E04	40	Finance	9000	8	0	5	5	No