**Problem Statement:**

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

**Solution:**

1. Collect input data’s like “Age, Gender, Tenure, Job roll, Performance rating, Job satisfaction, Absenteeism, Engagement score, etc..” and output data’s Resigned or not
2. Stage-1: Machine Learning Since most of the data’s are numeric

Stage-2: Supervised learning, if we have above inputs & outputs

Stage-3: Classification (Since we are going to classify whether employee will resign or not)

1. Employee Resignation Prediction

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **INPUT** | | | | | | | | | **OUTPUT** |
| Employee ID | Age | Gender | Tenure | Job roll | Performance rating | Job satisfaction | Absenteeism | Engagement score | Resigned |
| 7022037 | 34 | Male | 8 | Engineer | 9 | 4 | Low | 9 | Yes |
| 7022038 | 42 | Male | 8 | Officer | 6 | 6 | Low | 6 | No |
| 7022039 | 46 | Female | 4 | Jr. Officer | 5 | 8 | High | 4 | No |
| 7022040 | 40 | Male | 3 | Jr. Officer | 7 | 9 | Low | 7 | Yes |
| 7022041 | 43 | Female | 2 | Officer | 3 | 5 | High | 2 | No |