

## 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. Machine learning
2. Supervised learning
3. Classification method

#### **C) Name the project**

Employee Resign predictor

**D) Create the dummy data set**

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