**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.

1. **A) How will you achieve this in AI?**

1. Collecting the data like Employee details (Employee Id, Name, Designation), Attendance Data, Employee Performance Data, Reporting Manager feedback, Employee feedback.

2. Then do the data pre-processing. Here the input data will be the text format, so the only possible is to choose the “**Natural Language Processing”** and here we know the input data and output data is very clear and it is comes under **Supervised Learning** and the output data type is like positive/negative, so it follows the **Classification** type.

3. Then do the behavioural analysis and sentimental analysis in the dataset and find out the negative one from the dataset by using the AI Model. Finally, the predicted possible employees to resign will be displayed by the created AI Model.

1. **B) Find out the 3 -Stage of Problem Identification.**
2. 1. Data Collection and Pre-Processing.
3. 2. Feature Selection and Model Creation.
4. 3. Validation or Evaluation and Deployment.
5. **C) Name the project:** Resignation prediction.
6. **D) Create the dummy Dataset.**

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| **Emp Id** | **Name** | **Designation** | **Attendance** | **Performance Data** | **Employee feedback** | **Reporting Manager feedback** |
| 1 | Ram | RO | good | 50% | good | average performer |
| 2 | Ajith | RO | good | 85% | good | good performer |
| 3 | Arun | SO | average | 60% | average | average performer |
| 4 | Ravi | SO | good | 80% | good | good performer |
| 5 | Mani | AM | good | 90% | good | good performer |
| 6 | Kavin | AM | average | 65% | good | average performer |
| 7 | Martin | DM | bad | 25% | average | bad performer |
| 8 | Josepj | SM | good | 55% | good | average performer |
| 9 | Vijay | SM | bad | 30% | bad | bad performer |
| 10 | Latha | DM | good | 75% | average | good performer |