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.

**Solution:**

**Problem statement** – All employees of a company are assigned with project tasks, which makes the project completely dependent on employees. When an employee resigns, it becomes difficult for the project team to complete the schedule as planned. Company planned to make solution for this, they want to know which employee may resign next, so that they can arrange alternative to avoid such problem.

**Solution Analysis:**

1. What is to be predicted – Which employee would resign next and the last working date (LWD) based on the company policy of notice period?
2. How to predict outgoing employees? –

**Option 1 - Through email**, employees would inform their manager and HR. So, emails can be monitored to check if it contains the word resign/resignation.

**Option 2** – If the company has an **employee portal**, he/she will initiate resignation through that. So, this data can be considered.

1. Stages Identification:

* Stage 1 – Natural Language Processing
* Stage 2 – Supervised Learning
* Stage 3 – Classification method –
  + Resignation mail / General mail in case of option 1
  + Pull data from employee portal under resignation module in case of option 2

**Name of the Project:** - Employee Attrition Prediction System

**Dummy Dataset:**

**Generate data from Emails**

|  |  |  |  |
| --- | --- | --- | --- |
| **Employee Email id** | **Is Resignation Mail?** | **Email Date** | **LWD – 1 month notice period** |
| deepa@xyz.com | Yes | 01-Oct-24 | 31-Oct-24 |
| [raja@xyz.com](mailto:raja@xyz.com) | No |  |  |
| peter@xyz.com | Yes | 03-Oct-24 | 02-Nov-24 |
| [rani@xyz.com](mailto:rani@xyz.com) | No |  |  |
| [kannan@xyz.com](mailto:kannan@xyz.com) | Yes | 10-Oct-24 | 11-Nov-24 |

**Generate data from Employee portal**

|  |  |  |
| --- | --- | --- |
| **Employee Email id** | **Resignation Date** | **LWD – 1 month notice period** |
| deepa@xyz.com | 01-Oct-24 | 31-Oct-24 |
| peter@xyz.com | 03-Oct-24 | 02-Nov-24 |
| [kannan@xyz.com](mailto:kannan@xyz.com) | 10-Oct-24 | 11-Nov-24 |