**Week-3: PROBLEM IDENTIFICATION ASSIGNMENTS**

*Scenario based learning*

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**Question:**

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.

**APPROACH:**

1. Our goal is to predict the last date of employees well ahead in advance and call-to-action will be deploying new resources to continue to allocated work without delay in the project to the customer. Our AI systems should manage this data, predict the resignation of employees (probably with the HR data) and signal the respective departments for them to arrange for Knowledge transfer to the new people identified for the project.
2. **1st Stage:** Input/requirement deals with the ‘last dates of people who have resigned’🡪 Hence Time Series is applicable.

**2nd Stage:** Input/requirements are clear and hence this will be ‘Supervised learning’ within Time Series analysis

**3rd Stage:** Regression, as it should compute how many more days are left for the AI systems to define call-to-action (calculation of numerical value)

1. **Name of this project:** Advanced prediction of employee resignation data to resolve the resource management issues
2. **Dummy Dataset as below:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.no | Employee no/name | Status | Last date of the employee (as per HR records) | Label (Balance days wrt to the notice period as of 10th Oct) | Call to Action |
| 1 | ABC | Resigned | 20th Oct | 10 days | Assign proxy |
| 2 | DEF | Resigned |  |  | No action needed |
| 3 | GHI | N/A | 10th Nov | 40 days | Assign proxy |
| 4 | JKL | Resigned | 15th Nov | 45 days | Assign proxy |
| 5 | MNO | N/A |  |  | No action needed |
| 6 | …… | ---- | ----- | ------ | ------- |