**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.

**Perspective 1:**

1. How will you achieve this in AI?

We have to ask the client about the employee satisfaction survey with the company. Once we get the survey as input, we can proceed further.

1. Find out the 3 -Stage of Problem Identification

We are going to use an employee satisfaction survey as input; it’s text. And the requirement is also very clear. Then, the output is categorized as satisfied or unsatisfied. As per this assumption, below will be the 3-stage process of problem identification.

1. Stage 1 – Domain selection is NLP
2. Stage 2 – Supervised Learning
3. Stage 3 - Classification
4. Name the project

Employee’s satisfactory survey to predict resignation

D) Create the dummy Dataset

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl.no | Name | Survey Information | Satisfactory Level | Resignation |
| 1. | Ramya | Great work culture Leave policy | Satisfied | Will not Resign |
| 2. | Priya | Less work load, good co-worker, environment, salary package other benefits | Satisfied | Will not Resign |
| 3. | Raja | Work-life balance, We are not able to find a balance between work and life. | Unsatisfied | Resign |
| 4. | Ruby | Worst experience I've ever had in my entire 3 years of work experience. | Unsatisfied | Resign |
| 5. | Aarav | Shift time is the biggest issue due to which you will not be able to maintain your secondary work. | Unsatisfied | Resign |

**Perspective 2:**

1. How will you achieve this in AI?

The client may have the details of people who are serving notice period with multiple teams in the company. Get those information as Input.

1. Find out the 3 -Stage of Problem Identification

We are going to use a resignation status as input. And the requirement for input and output is also very clear. Then, the output is categorized as serving the notice period and working with us. As per this assumption, below will be the 3-stage process of problem identification.

1. Stage 1 – Domain selection is NLP

2. Stage 2 – Supervised Learning

3. Stage 3 - Classification

1. Name the project

Resignation Status

D) Create the dummy Dataset.

Quality Team:

|  |  |  |
| --- | --- | --- |
| Sl.no | Name | Resignation Status |
| 1. | Ramya | Working with us |
| 2. | Priya | Working with us |
| 3. | Raja | Serving Notice Period |
| 4. | Ruby | Serving Notice Period |
| 5. | Aarav | Working with us |

Delivery Team:

|  |  |  |
| --- | --- | --- |
| Sl.no | Name | Resignation Status |
| 1. | Ram | Working with us |
| 2. | Prem | Working with us |
| 3. | Ragav | Serving Notice Period |
| 4. | Ruban | Serving Notice Period |
| 5. | Aarthy | Working with us |

Perspective 3:

1. How will you achieve this in AI?

The client may have the details of employee with multiple teams in the company. Get those information as Input.

1. Find out the 3 -Stage of Problem Identification

We are going to use employee details as input. And the requirement for input and output is also very clear. Then, the output is categorized clearly. As per this assumption, below will be the 3-stage process of problem identification.

1. Stage 1 – Domain selection is Machine Learning

2. Stage 2 – Supervised Learning

3. Stage 3 - Classification

1. Name the project

Resignation Status

D) Create the dummy Dataset.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Emp No | Age | Gender | MaritalStatus | EducationField | JobRole | Dep | MonthlyRate | JobSatisfaction | PercentSalaryHike | OverTime | YearsInCurrentRole | Resignation Status |
| 1 | 41 | Female | Single | Life Sciences | Sales Executive | Sales | 19479 | 4 | 11 | Yes | 4 | Yes |
| 2 | 49 | Male | Married | Life Sciences | Research Scientist | R&D | 24907 | 2 | 23 | No | 7 | No |
| 4 | 37 | Male | Single | Other | Laboratory Technician | R&D | 2396 | 3 | 15 | Yes | 0 | Yes |
| 12 | 38 | Male | Single | Life Sciences | Manufacturing Director | R&D | 8787 | 3 | 21 | No | 7 | No |
| 13 | 36 | Male | Married | Medical | Healthcare Representative | R&D | 16577 | 3 | 13 | No | 7 | No |
| 14 | 35 | Male | Married | Medical | Laboratory Technician | R&D | 16479 | 2 | 13 | No | 4 | No |
| 15 | 29 | Female | Single | Life Sciences | Laboratory Technician | R&D | 12682 | 3 | 12 | Yes | 5 | No |
| 19 | 28 | Male | Single | Life Sciences | Laboratory Technician | R&D | 12947 | 3 | 14 | Yes | 2 | Yes |
| 27 | 36 | Male | Single | Life Sciences | Sales Representative | Sales | 6986 | 1 | 23 | No | 3 | Yes |
| 31 | 34 | Male | Single | Medical | Research Scientist | R&D | 17102 | 1 | 11 | No | 2 | Yes |