Background & Context

Employee Promotion means the ascension of an employee to higher ranks, this aspect of the job is what drives employees the most.

The ultimate reward for dedication and loyalty towards an organization and HR team plays an important role in handling all these promotion tasks based on ratings and other attributes available.

The HR team in JMD company stored data of promotion cycle last year, which consists of details of all the employees in the company working last year and also

if they got promoted or not, but every time this process gets delayed due to so many details available for each employee - it gets difficult to compare and decide.

So this time HR team wants to utilize the stored data to make a model, that will predict if a person is eligible for promotion or not.

You as a data scientist at JMD company, need to come up with a model that will help the HR team to predict if a person is eligible for promotion or not.

Objective

1. Explore and visualize the dataset.
2. Build a classification model to predict if the customer has a higher probability of getting a promotion
3. Optimize the model using appropriate techniques
4. Generate a set of insights and recommendations that will help the company

Data Dictionary:

- employee_id: Unique ID for the employee
- department: Department of employee
- region: Region of employment (unordered)
- education: Education Level
- gender: Gender of Employee
- recruitment_channel: Channel of recruitment for employee
- no_ of_ trainings: no of other trainings completed in the previous year on soft skills, technical skills, etc.
- age: Age of Employee
- previous_ year_ rating: Employee Rating for the previous year

- length_ of_ service: Length of service in years
- awards_ won: if awards won during the previous year then 1 else 0
- avg_ training_ score: Average score in current training evaluations
- is_promoted: (Target) Recommended for promotion

Best Practices for Notebook :

- The notebook should be well-documented, with inline comments explaining the functionality of code and markdown cells containing comments on the observations and insights.
- The notebook should be run from start to finish sequentially before submission.
- It is preferable to remove all warnings and errors before submission.

Submission Guidelines :

1. The submission should be: well commented Jupyter notebook [format - .HTML, .ipynb]
2. Any assignment found copied/ plagiarized with other groups will not be graded and awarded zero marks
3. Please ensure timely submission as any submission post-deadline will not be accepted for evaluation
4. Submission will not be evaluated if,
    1. it is submitted post-deadline, or,
    2. more than 2 files are submitted

Happy Learning!!