Problem Statement:

Given a set of attributes for an Individual, determine if a credit line should be extended to them

Q4: Tradeoff Que:

- How can we make sure that our model can detect real defaulters and there are less false positives? This is important as we can lose out on an opportunity to finance more individuals and earn interest on it. **(10 Points)**

  Since data is imbalanced, by making the data balance we can try to avoid false positives. For evaluation metrics, we should be focusing on the macro average F1-score as we do not want to make false positive prediction and at the same time we want to detect the defaulters.

- Since NPA (non-performing asset) is a real problem in this industry, it's important we play safe and shouldn't disburse loans to anyone. **(10 Points)**

  Below are the most features and their importance while making the prediction. So these variables can be helpful in identifying the customers who are more likely to pay the loan amount completely.

Actionable Insights & Recommendations

- 80% of the customers have paid the loan fully.
- 20% of the customers are the defaulters.
- The organization can the trained model to make prediction for whether a person will likely to pay the loan amount or he will be a defaulter.
- Model achieves the 96% f1-score for the positive class (Fully Paid).
- Model achievs the 80% f1-score for the negative class (Charged off).

Rest are answered in the notebook.
Thanks