ML Project - Viva

Build a machine learning (ML) model to predict customer default.

BUSINESS OBJECTIVES:

The application of scoring models in today's business environment covers a wide range of objectives. The original task of estimating the risk of default has been augmented by credit scoring models to include other aspects of credit risk management: at the pre-application stage (identification of potential applicants), at the application stage (identification of acceptable applicants), and at the performance stage (identification of possible behavior of current customers). Scoring models with different objectives have been developed. They can be generalized into four categories as listed below.

Bank would like to develop an ML model to stop the bad loans (stop default) in future. Help bank to develop best model.

Expectations –

1. Do data cleaning if needed.
2. Perform EDA to understand factors those have impact on target variable.
3. Build any **3 ML** models -
    a. Train model on train data.
    b. Test model on both train data and test data.
    c. For evaluation use accuracy score for each model.
    d. Compare all models and select the best model.
    e. Use all applicable evaluation matrix and graphs on final model.
4. Explain you finding.

Note – Comments and heading for each code is required. Interpretation for each graph and results is required. Without code comments and result interpretation you will get 0 score.

DATA AVAILABLE:

- Bankloans.csv

The data contains the credit details about credit borrowers:

Data Description:

age - Age of Customer

ed - Eductation level of customer

employ: Tenure with current employer (in years)

address: Number of years in same address

income: Customer Income

debtinc: Debt to income ratio

creddebt: Credit to Debt ratio

othdebt: Other debts

default: Customer defaulted in the past (1= defaulted, 0=Never defaulted)