

Problem statement:

The customers data with lot of features and their payments monthly installments are given(m1 to m12) for one year. So monthly wise loan performance is given. '0' means the customer paid the installment, '1' means not paid the installment. Based on the following below features and m1 to m12, our target is to predict the next month (m13) whether the customers will pay or not. Make a machine learning classification model on target (0 or 1). The main metric you need to take here is F1 Score. Come with a best model with high F1 score. Prepare your approach how you followed for reaching the problem statement

Follow the steps for making the good model.**Task-1**

Data pre processing
Exploratory data analysis and visualizations
write what you understand from the data
Do feature engineering
Divide the dataset into train and test
Select a best model from so many.
Apply on train data and test it on test data.
Try to select best features and best parameters for the model and improve your score.
Keep originality of your code.

Task-2

Prepare your presentation based on your approach towards the model.
How bankers are beneficial from your model.
Segment the customers if possible.

Data contains the training data with details on loan as described

Variable Description

loan_id :Unique loan ID

source :Loan origination channel

financial_institution: Name of the bank

interest_rate: Loan interest rate

unpaid_principal_bal: Loan unpaid principal balance

loan_term: Loan term (in days)

origination_date: Loan origination date (YYYY-MM-DD)

first_payment_date: First instalment payment date

loan_to_value: Loan to value ratio

number_of_borrowers: Number of borrowers

debt_to_income_ratio: Debt-to-income ratio

borrower_credit_score: Borrower credit score

loan_purpose: Loan purpose

insurance_percent: Loan Amount percent covered by insurance

co-borrower_credit_score: Co-borrower credit score insurance_type 0 - Premium paid by borrower, 1 - Premium paid by Lender

m1 to m12: Month-wise loan performance (delinquency in months)

m13 : target, loan delinquency status (0 = non deliquent, 1 = deliquent)