

Background

A bank can offer two types of cards:

- a. Charge card: The balance is required to be paid in full each month
- b. Lending card: Lending cards allow the customer to pay the balance over a period of time subject to interest being charged

An individual can apply for any one of the two types of card on offer. In order to extend the card to the individuals, banks must first underwrite the applicant. Underwriting is the process by which the lender decides whether an applicant is creditworthy and should receive a credit line. Along with the data present in application forms, banks also has access to the consumer bureau. Bureau is an agency that aggregates consumer borrowing and payment information for the purpose of assessing credit-worthiness of an individual and setting a limit on the cumulative credit that can be extended to an individual by lenders.

The dataset has the customer application and bureau data with the default tagging i.e., if a customer has missed cumulative of 3 payments across all open trades, his default indicator is 1 else 0. Data consists of independent variables at the time T0 and the actual performance of the individual (Default/ Non Default) after 12 months i.e., at time T12. Banco's expectation from you is to predict if an applicant will go default in next 12 months from the time of application submission.

Problem Statement

Create a list of applications in the order in which bank should process them. With an objective to maintain healthy financials, banks would like to process least risky applications first. Against each application, you also have to provide your prediction of default i.e. 1 or 0, where 1 indicates a default and 0 indicates no default.

Assume:

- A resident of the city can submit only a single application form
- None of the applications submitted are fraudulent
- State any other assumptions in your final submission