

CREDIT CLASSIFICATION PROBLEM

C&T Bank wants to identify and understand their customers better to determine the appropriate credit amount to be offered based on multiple factors. The C&T bank possesses a vast dataset containing customer information and other relevant parameters. The C&T bank aims to develop a robust model that can accurately group customer based on their creditworthiness.

This will enable the bank to make informed decisions about the credit amount to be extended to each customer group, which can help mitigate risk, ensure responsible lending practices, and optimize loan portfolio management. Additionally, the model can assist the bank in identifying potential high-value customers, tailoring credit offers based on risk profiles, and complying with regulatory requirements.

You have been given a percept of this dataset and the problem at hand is to create a reliable model that can effectively categorize customers into three groups based on various factors, enabling the bank to make data-driven decisions for credit lending and risk management.

The data given is of credit records of individuals with certain attributes. Please go through following to understand the variables involved:

- a. sno: unique identification key
- b. acc_info: Categorized details of existing accounts of the individuals. The balance of money in account provided is stated by this variable
- c. duration_month: Duration in months for which the credit is existing
- d. credit_history: This categorical variable signifies the credit history of the individual who has taken the loan
- e. purpose: This variable signifies why the loan was taken
- f. savings_acc: This variable signifies details of the amount present in savings account of the individual:
- g. employ<mark>ment_st: Cate</mark>gorical variable that signifies the employment status of everyone who has been alloted loans
- h. poi: This numerical variable signifies what percentage of disposable income is spent on loan interest amount.
- i. perso<mark>nal_status:</mark> This categorical variable signifies the personal status of the individual
- j. guarant<mark>ors: Categori</mark>cal variable which signifies if any other individual is involved with an individual loan case
- k. resident_since: Numerical variable that signifies for how many years the applicant has been a resident
- l. property_type: This qualitative variable defines the property holding information of the individual
- m. age: Numerical variable that signifies age in number of years
- n. installment_type: This variable signifies other installment types taken



- o. housing_type: This is a categorical variable that signifies which type of housing does a applicant have.
- p. credits_no: Numerical variable for number of credits taken by the person
- q. job_type: Signifies the employment status of the person
- r. liables: Signifies number of persons dependent on the applicant
- s. telephone: Signifies if the individual has a telephone or no
- t. foreigner: Signifies if the individual is a foreigner or not (considering the country of residence of the bank)

ALL THE BEST!!





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