

Bank Telemarketing Outcome Prediction

Predict if the client will subscribe a term deposit after a bank telemarketing campaign.

File descriptions

- bank_mkt_train.csv - the training set

Input variables

Bank client data:

- client_id (numeric)
- age (numeric)
- job : type of job (categorical: 'admin.', 'blue-collar', 'entrepreneur', 'housemaid', 'management', 'retired', 'self-employed', 'services', 'student', 'technician', 'unemployed', 'unknown')
- marital : marital status (categorical: 'divorced', 'married', 'single', 'unknown'; note: 'divorced' means divorced or widowed)
- education (categorical: 'basic.4y', 'basic.6y', 'basic.9y', 'high.school', 'illiterate', 'professional.course', 'university.degree', 'unknown')
- default: has credit in default? (categorical: 'no', 'yes', 'unknown')
- housing: has housing loan? (categorical: 'no', 'yes', 'unknown')
- loan: has personal loan? (categorical: 'no', 'yes', 'unknown')

Related with the last contact of the current campaign:

- contact: contact communication type (categorical: 'cellular', 'telephone')
- month: last contact month of year (categorical: 'jan', 'feb', 'mar', ..., 'nov', 'dec')
- day_of_week: last contact day of the week (categorical: 'mon', 'tue', 'wed', 'thu', 'fri')

Other attributes:

- campaign: number of contacts performed during this campaign and for this client (numeric, includes last contact)
- pdays: number of days that passed by after the client was last contacted from a previous campaign (numeric; 999 means client was not previously contacted)
- previous: number of contacts performed before this campaign and for this client (numeric)
- poutcome: outcome of the previous marketing campaign (categorical: 'failure', 'nonexistent', 'success')

Social and economic context attributes:

- emp.var.rate: employment variation rate - quarterly indicator (numeric)
- cons.price.idx: consumer price index - monthly indicator (numeric)
- cons.conf.idx: consumer confidence index - monthly indicator (numeric)
- euribor3m: euribor 3 month rate - daily indicator (numeric)
- nr.employed: number of employees - quarterly indicator (numeric)

Target variable

- subscribe: did the customer subscribe? (binary: 1='yes', 0='no')