

Variable Name	Description
<i>target variable:</i>	
y	has the client subscribed a term deposit? (binary: ‘yes’, ‘no’)
<i>bank client data:</i>	
age	age at the contact date
job	type of job, e.g. ‘admin.’, ‘blue-collar’, ‘entrepreneur’, ‘self-employed’, ‘services’, ‘student’, ‘technician’, ‘unemployed’
marital	marital status, incl. ‘divorced’, ‘married’, ‘single’ (note: ‘divorced’ means divorced or widowed)
education	education level, e.g. ‘basic.4y’, ‘basic.6y’, ‘basic.9y’, ‘high.school’, ‘illiterate’, ‘professional.course’, ‘university.degree’
default	has credit in default?
housing	has housing loan?
loan	has personal loan?
<i>related with the last contact of the current campaign:</i>	
contact	contact communication type (‘cellular’, ‘telephone’)
month	last contact month of year, e.g. ‘jan’, ‘feb’
day_of_week	last contact day of the week, e.g. ‘mon’, ‘tue’
duration	last contact duration, in seconds. Important note: this attribute highly affects the output target (e.g., if duration=0 then y=“no”). Yet, the duration is not known before a call is performed. Also, after the end of the call y is obviously known. Thus, this input should only be included for benchmark purposes and should be discarded if the intention is to have a realistic predictive model.
<i>other attributes:</i>	
campaign	number of contacts performed during this campaign and for this client
pdays	number of days that passed by after the client was last contacted from a previous campaign
previous	number of contacts performed before this campaign and for this client
poutcome	outcome of the previous marketing campaign, incl. ‘failure’, ‘nonexistent’, ‘success’
<i>social and economic context attributes:</i>	
emp.var.rate	employment variation rate – quarterly indicator
cons.price.idx	consumer price index – monthly indicator
cons.conf.idx	consumer confidence index – monthly indicator
euribor3m	euribor (Euro Interbank Offered Rate) 3 month rate – daily indicator
nr.employed	number of employees – quarterly indicator

Table 2: Variable description of bank marketing dataset