

## Content

Input variables:

- 1 - age (numeric)
  - 2 - job : type of job (categorical: 'admin.', 'blue-collar', 'entrepreneur', 'housemaid', 'management', 'retired', 'self-employed', 'services', 'student', 'technician', 'unemployed', 'unknown')
  - 3 - marital : marital status (categorical: 'divorced', 'married', 'single', 'unknown'; note: 'divorced' means divorced or widowed)
  - 4 - education (categorical: 'basic.4y', 'basic.6y', 'basic.9y', 'high.school', 'illiterate', 'professional.course', 'university.degree', 'unknown')
  - 5 - default: has credit in default? (categorical: 'no', 'yes', 'unknown')
  - 6 - housing: has housing loan? (categorical: 'no', 'yes', 'unknown')
  - 7 - loan: has personal loan? (categorical: 'no', 'yes', 'unknown')
- related with the last contact of the current campaign:
- 8 - contact: contact communication type (categorical: 'cellular', 'telephone')
  - 9 - month: last contact month of year (categorical: 'jan', 'feb', 'mar', ..., 'nov', 'dec')
  - 10 - dayofweek: last contact day of the week (categorical: 'mon', 'tue', 'wed', 'thu', 'fri')
  - 11 - duration: last contact duration, in seconds (numeric). 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.

## other attributes:

- 12 - campaign: number of contacts performed during this campaign and for this client (numeric, includes last contact)
- 13 - 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)
- 14 - previous: number of contacts performed before this campaign and for this client (numeric)
- 15 - poutcome: outcome of the previous marketing campaign (categorical: 'failure', 'nonexistent', 'success')

## social and economic context attributes

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

Output variable (desired target):

- 21 - term\_deposit - has the client subscribed a term deposit? (binary: 'yes', 'no')