# Portugal bank marketing campaigns results

## Quick description

It is a dataset that describing Portugal bank marketing campaigns results. Conducted campaigns were based mostly on direct phone calls, offering bank client to place a term deposit. If after all marking efforts client had agreed to place deposit - target variable marked 'yes', otherwise 'no'.

## Descriptions of data (columns)

1. age
2. job : type of job
3. marital : marital status
4. education
5. default: has credit in default?
6. housing: has housing loan?
7. loan: has personal loan?
8. contact: contact communication type
9. month: last contact month of year
10. day\_of\_week: last contact day of the week
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.
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")
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)
21. y - has the client subscribed a term deposit? (binary: "yes","no")