**Bank Marketing (with social/economic context)**

**Content:**

This dataset is based on "Bank Marketing" UCI. The data is enriched by the addition of five new social and economic features/attributes (national wide indicators from a ~10M population country).

**Format:**

- age (numeric)
- job : type of job (categorical)
- marital : marital status (categorical)
- education (categorical)
- default: has credit in default? (categorical)
- housing: has housing loan? (categorical)
- loan: has personal loan? (categorical)
- contact: contact communication type (categorical)
- month: last contact month of year (categorical)
- day_of_week: last contact day of the week (categorical)
- 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.
- campaign: number of contacts performed during this campaign and for this client (numeric)
- 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)
- 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)
- y - has the client subscribed a term deposit? (binary)

**Task:**

**Tools Recommended-** R, Python.

1. Predict if the client will subscribe bank Term deposit.
2. Predict if the client will subscribe bank Term deposit by imputation of missing values.