**Input variables:**

**# bank client data:**

1 - custAge (numeric) : Age of the customer.

2 - profession : 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 - schooling (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 - day\_of\_week: last contact day of the week (categorical: 'mon','tue','wed','thu','fri')

**# other attributes:**

11 - campaign: number of contacts performed during this campaign and for this client (numeric, includes last contact)

12 - 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)

13 - previous: number of contacts performed before this campaign and for this client (numeric)

14 - poutcome: outcome of the previous marketing campaign (categorical: 'failure','nonexistent','success')

**# social and economic context attributes**

15 - emp.var.rate: employment variation rate - quarterly indicator (numeric)

16 - cons.price.idx: consumer price index - monthly indicator (numeric)

17 - cons.conf.idx: consumer confidence index - monthly indicator (numeric)

18 - euribor3m: euribor 3 month rate - daily indicator (numeric)

19 - nr.employed: number of employees - quarterly indicator (numeric)

20 – pmonths - number of months that passed by after the client was last contacted from a previous campaign (numeric; 999 means client was not previously contacted)

21 – pastEmail – number of months that passed by after the client was last contacted from a previous campaign (numeric, 0 means the client was not previously contacted throught email.)

**Output variable (desired target):**

22 - y - has the client subscribed a term deposit? (binary: 'yes','no')