

POLIMI GRADUATE
SCHOOL OF **MANAGEMENT**

INFRAMODULO 1 - MACHINE LEARNING

CLASSIFICATION WITH ORANGE

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THE PROBLEM: BANK TELEMARKETING¹

Attribute		Type	Description/Values
Personal	age	num	Age of the potential client
	job	cat	admin., blue- collar, entrepreneur, housemaid, ... , unknown
	marital_status	cat	divorced, married, single, unknown
	education	cat	basic.4y, basic.6y, basic.9y, high.school, ... , unknown
Bank	default	cat	The client has credit in default: no,yes,unknown
	housing loan	cat	The client has a housing loan contract: no,yes,unknown
	loan	cat	The client has a personal loan: no,yes,unknown
Campain	contact	cat	Communication type: cellular,telephone
	month	cat	Last month contacted: jan, feb ,..., dec
	day_of_week	cat	Last contact day : mon, tue,..., fri
	duration	num	Last contact duration (in seconds)
	campaign	num	Number of contacts performed during this campaign
	pdays	num	Number of days that passed by after last contact
	previous poutcome	cat	Number of contacts performed before this campaign Outcome of the prev. marketing campaign: failure,nonexistent,success
Economical	emp.var.rate	num	Employment variation rate in the last quarter
	cons.price.idx	num	Consumer price index in the last month
	cons.conf.idx	num	Monthly consumer confidence index
	euribor3m	num	Dayly Euro Interbank Offered Rate
	nr.employed	num	Number of employed citizens in the last quarter (thousands)
Target	success	target	O: no, 1: yes

¹ A data-driven approach to predict the success of bank telemarketing. S. Moroa, P. Cortez, P. Rita. Decision Support Systems, 62:22-31, 2014.

THANK YOU