Question: Bank Marketing Analysis

Attached is a txt file containing some real data that relates to a marketing campaign run by a bank. The aim of the marketing campaign was to get customers to subscribe to a bank term deposit product. Whether they did this or not is variable 'y' in the data set.

The bank in question is considering how to optimise this campaign in future.

What would your recommendations to the marketing manager be?

Variable description

The variables are as follows:

Input variables: 1 - age (numeric) 2 - job : type of job (categorical: 'admin.','unknown','unemployed','management','housemaid','entrepreneur','student', 'blue-collar','self-employed','retired','technician','services') 3 - marital : marital status (categorical: 'married','divorced','single'; note: 'divorced' means divorced or widowed) 4 - education (categorical: 'unknown','secondary','primary','tertiary') 5 - default: has credit in default? (binary: 'yes','no') 6 - balance: average yearly balance, in euros (numeric) 7 - housing: has housing loan? (binary: 'yes','no') 8 - loan: has personal loan? (binary: 'yes','no') ### related with the last contact of the current campaign: 9 - contact: contact communication type (categorical: 'unknown','telephone','cellular') 10 - day: last contact day of the month (numeric) 11 - month: last contact month of year (categorical: 'jan', 'feb', 'mar', ..., 'nov', 'dec') 12 - duration: last contact duration, in seconds (numeric) #### other attributes: 13 - campaign: number of contacts performed during this campaign and for this client (numeric, includes last contact) 14 - pdays: number of days that passed by after the client was last contacted from a previous campaign (numeric, -1 means client was not previously contacted) 15 - previous: number of contacts performed before this campaign and for this client (numeric) 16 - poutcome: outcome of the previous marketing campaign (categorical: 'unknown','other','failure','success')

Output variable (desired target): 17 - y - has the client subscribed a term deposit? (binary: 'yes','no')